

The Influence of Personality and Grit on The Organizational Citizenship Behavior and Examining the Mediating Roles of Job Involvement:

Survey on lecturers at higher education of the ministry of industry in Indonesia

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Abstract—This study investigates whether personality and grit affect the Organizational Citizenship Behavior and if so, whether the effect is mediated by job involvement or not. Using a sample of 132 lecturers of Higher Education of The Ministry of Industry in Indonesia in 2018, this research revealed that personality and grit are positively related to the organizational citizenship behavior. This study proves that there is relationship between personality and grit with organizational citizenship behavior, and this relationship is partially mediated by job involvement. These empirical findings reinforce previous researches about the relationship between personality and organizational citizenship behavior. As the extension of the theoretical concepts constructed in this study, it also proved that the relationship between grit and organizational citizenship behavior is also partially mediated by job involvement. Finally, this finding offers the empirical evidence about the importance of job involvement on the relationship between personality and grit to organizational citizenship behavior. It indicates that the presence of personality and grit do not automatically increase the level of organizational citizenship behavior of lecturers, if there is no job involvement inside. This research recommends the strategy to increase the level of organizational citizenship behavior by optimizing the job involvement of lecturers.

Keywords—organizational citizenship behavior; job involvement; lecturers of higher education

I. INTRODUCTION

The main issue about "link and match" between labor markets and universities in many countries is the problem associated with the lack of responsiveness of universities to the needs of the labor market. It is the main reason why a large number of highly educated people remain unemployed [1-3]. It is due to not only because there is no existence of the link and match between the labor market and college as a supplier of these candidates, but also it comes from in optimal conditions of the internal management of university. Many colleges prioritize internal perspectives in their management and they have not effectively managed the opportunities and challenges of the labor market.

One interesting problem in higher education is the issue about the extra-role behavior. Although the higher education law in many countries clearly regulates the lecturer's performance, but its only evaluates the in-role behavior not the extra-role behavior. The concept of extra-role behavior is reflected in what is called the Organizational Citizenship Behavior (OCB). Schnake defined OCB as "functional, extra-role, pro-social behavior, directed at individuals, group and organization" [4]. While Organ defined Organizational Citizenship Behavior as anything that employees choose to do, spontaneously and of their own accord, which often lies outside of their specified contractual obligations. This behavior tends to see a lecturer as a social being, as a member of an organization, rather than as an individual selfish individual. This extra-role behavior is needed by institution, to facilitate the process of teaching, research and community service [5].

The main debate in achieving the target of OCB is the difficulty of optimizing the dimensions of OCB, especially among lecturers. There is no reward or punishment for lecturers who do not apply the OCB dimensions in the institution, although these OCB dimensions contribute to creating effectiveness and efficiency in the institution. There are some important things that become determinant of OCB achievement, such as personality and grit. The aspect of personality is a component of behavior that characterizes different identities between one person and another, so that it can reflect differences in extra-role behavior of lecturers. McKenna argued that the personality contains the physical, mental, moral and social qualities of the individual [6]. Personality refers to a dynamic and integrated dynamic, physical, mental, moral and social quality manifested in a unique and stable way of thinking, feeling and acting that characterizes one's response to the life situation, reflected in consciousness, extraversion, agreeableness, emotional stability, and openness to experience. Some empirical studies such as Neuman & Kickul, Singh & Singh, Organ and Ryan, Barrick, Parks & Mount have analyzed the relationship between personality and OCB, but these studies not focus for the case of lecturer in the university [7-10].

Zhou revealed that one of the non-cognitive aspects that also have a positive influence on the outcome of a person's job is grit [11]. Lecturers who have a "gritty" character, with the characteristics of persistence and high resistance in facing all challenges, will be able to encourage extra-role in the work. Duckworth, Peterson, Matthews, & Kelly introduced the concept of grit as a consistency of interest and perseverance of effort [12]. In relation to several studies that still debate the position and differences between grit and personality [13,14], this study attempts to extend the personality variables used in the model, by placing the grit as the OCB determinant in the model.

In achieving OCB targets, job involvement is another very important variable. Robbins, Judge & Hasham defined job involvement as the degree to which a person identifies with a job, actively participates in it, and considers performance important to self-worth [15]. Some empirical findings from previous research found a link between job involvement on OCB [16-19]. On the other hand, job involvement is also influenced by personalities [20,21], and also proposition between job involvement and grit [22]. Some empirical research is proposition for predicting job involvement as a mediating variable in the relationship between personality and grit to OCB.

This paper contributes in the analysis of the OCB determinants, by placing job involvement as a mediating variable. The position of job involvement as a mediating variable, becomes the novelty aspect of this study, theoretically. The concept of "grit", which is one of the psychological aspects, is placed as a new variable that becomes the determinant of organizational citizenship behavior. This is done as an effort to complete the personality dimensions that are considered insufficient for this case. The debate over the study of grit, whether as a dimension of personality or a new approach in the study of positive psychology, provides space for this research to elaborate the relationship between grit and OCB. Although in previous studies, the concept of grit is more popular applied to the case of students, this study predicts that grit is also an important element in the achievement of OCB among lecturers and become the determining factor of their job involvement. In terms of policy, the results of this research will contribute to develop the vocational higher education in Indonesia, because the Polytechnic of Ministry of Industry which becomes unit of analysis in this research, is a role model in development of vocational higher education in Indonesia.

II. METHOD

A. Data

The population of this study was the Lecturer at the Ministry of Industry of the Republic Indonesia in 2018. The total population of 475 active lecturers spread across 8 Polytechnic of the Ministry of Industry, and the samples in this study were 166 active lecturers. The sampling technique used was stratified random sampling and this primary data of this research was collected by using the questionnaire.

B. Variables and the Measures

Organizational Citizenship Behavior (OCB) is an endogenous variable in this research, and some exogenous variables in this model are personality and grit. Job involvement is an intervening variable in this research model. The following is a description of the variables and measurement dimensions:

- Organizational Citizenship Behavior (OCB) is the voluntary behavior that cannot be imposed and not officially awarded but able to contribute to the development of productivity and organizational effectiveness, as measured by indicators adopted from Podsakoff, Mackenzie, Moorman and Fetter, consist of: a) altruism (b) conscientiousness (c) civic virtue (d) courtesy and (e) sportsmanship [23].
- Personality is a way of thinking, a way of feeling and a different way of acting, which lasts a long time, and characterizes a person's response to a life situation. Reflective indicators for this variable consist of: Conscientiousness, Extraversion, Agreeableness, Emotional Stability, Openness to experience [24].
- Grit is a psychological variable based on a positive psychology group, which prioritizes the persistence as an indicator of long-term success. Duckworth, Peterson, Matthews & Kelly identified two main dimensions of grit, which included consistency of interest and perseverance of effort [12].
- Job Involvement can be interpreted as the degree to which people are known from their work, participate actively in it, and consider their achievements is really important for self-esteem. The reflective indicators for this variable consist of: participating in their work, showing that their work was the main thing and assuming that their work was important for self-esteem [15].

C. Hypothesis

Based on previous studies and propositions, the hypotheses in this study are:

H₁ = Personality is positively associated with OCB

H₂ = Grit is positively associated with OCB

H₃ = Job involvement is positively associated with OCB

H₄ = Job Involvement mediated the relationship between Personality and OCB

H₅ = Job Involvement mediated the relationship between Grit and OCB

D. Model

The analysis model used in this study is PLS Model with The Mediating Effect. This study will estimate the causality relationship between personality and grit to OCB with Job Involvement as single-mediator.

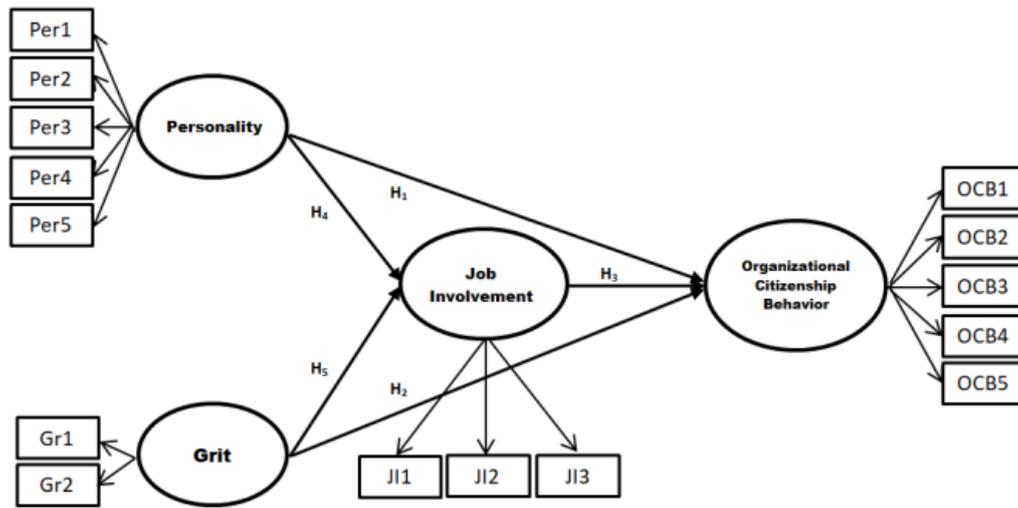


Fig. 1. Causality model of Structural Equation Modeling (SEM) with mediating effect.

III. RESULTS

A. Measurement Model Analysis

The measurement model is used to evaluate the relationship between indicators and constructs by assessing reliability and validity. Reliability will be measured by composite reliability and Cronbach alpha, and to assess convergent validity is used the value of loading factor and Average Variance Extracted (AVE). Furthermore, to measure discriminant validity can be used the square root of AVE and correlation between constructs. Table 1 shows the results of reliability evaluation with composite reliability and Cronbach's Alpha with values for each construct greater than 0.7, and AVE for all constructs is greater than 0.50. Fornell & Lacker required composite reliability and Cronbach's Alpha must be above 0.7 for reliability and AVE must have criteria above 0.5 [25].

Because of the large number of questions for each latent variable, the loading factor not displayed in this result. To get a fit model, some indicators in each construct that are smaller than 0.4 have been dropped from the model. Hair et al. suggested that in some cases if loading conditions above 0.70 cannot be achieved, especially for newly developed questionnaires, loading between 0.4-0.7 must still be considered [26]. Thus, this study retains some indicators by loading between 0.4-0.7. The impact of deletion of some indicators with loading below 0.4 can increase the value of Average Variance Extracted (AVE) and composite reliability above the threshold.

TABLE I. COMPOSITE RELIABILITY, CRONBACH'S ALPHA AND AVERAGE VARIANCE EXTRACTED (AVE)

Latent Variable	Composite Reliability	Cronbach's alpha	AVE
OCB	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

Furthermore, the evaluation of the measurement model with a reflective construct was also carried out by looking at output discriminant Validity. This value is analyzed by comparing the square root of AVE for each construct with the correlation between constructs in the model. A good category can be seen if the square root of AVE for each construct is greater than the correlation between constructs [25]. The output in table 2 shows that this criterion has been achieved. The values in the diagonal column and with parentheses are observed higher than the correlation between the latent variables in the same column, above or below it. For example, discriminant validity of Organizational Citizenship Behavior has been fulfilled because the square root of AVE values is 0.776, and its greater than 0.615, 0.516 and 0.493. It means there are no redundant or offending indicators.

TABLE II. DISCRIMINANT VALIDITY

Latent Variable	OCB	Job Involvement	Personality	Grit
OCB	(0.776)	0.615	0.516	0.493
Job Involvement	0.615	(0.721)	0.549	0.396
Personality	0.516	0.549	(0.727)	0.474
Grit	0.493	0.396	0.474	(0.849)

^a Diagonal element: square root of AVE; off-diagonal: correlation between constructs.

B. Structural Model Analysis

In testing structural models, a step-wise approach is carried out [27]. This testing phase includes, first, testing whether variable of personality and grit directly influence the Organizational Citizenship Behavior. Second, estimate PLS by entering job involvement as a mediating variable. A summary of the results of these two stages shown in table 3.

Based on table 3. it was observed that the direct effects of Personality and Grit on Organizational Citizenship Behavior were 0.384 and 0.315. Each estimation coefficient is statistically significant (p value <0.01). Thus, the hypothesis H1: Personality is positively associated with Organizational Citizenship Behavior and the hypothesis H2: Grit is positively

associated with Organizational Citizenship Behavior, all are supported by the model.

To analyze the mediating effect of job involvement on the structural model, the next step of developing the model is to

examine the effect of job involvement as a mediating variable. Figure 2 shows the output of indirect effect model, while table 3 shows the calculation of the mediating effects of variable job involvement.

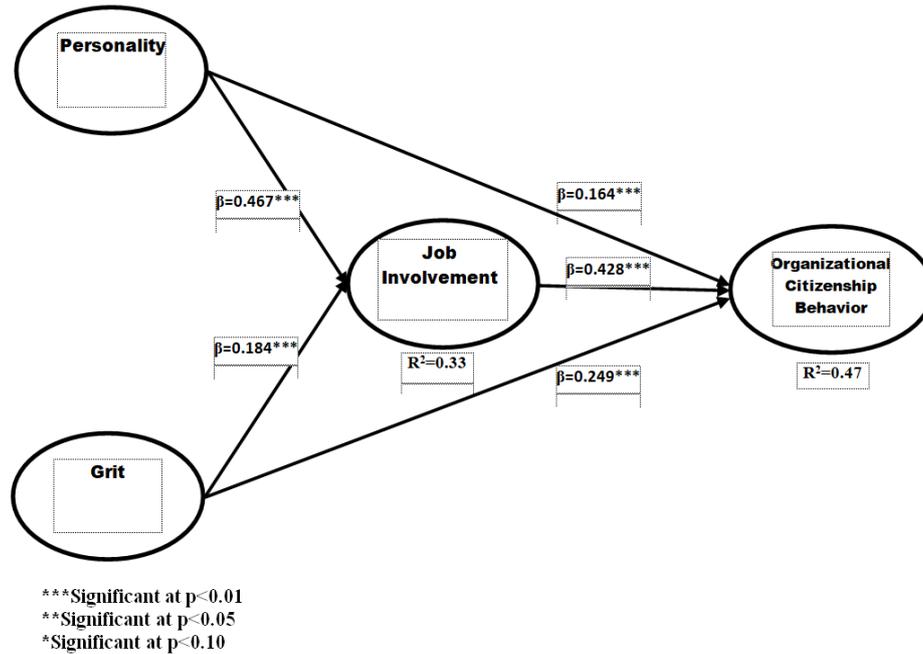


Fig. 2. Output of indirect effect model.

For the path, Personality to Organizational Citizenship Behavior through Job Involvement (Personality-Job Involvement-OCB), observed the positive influence of personality on Job involvement (coefficient = 0.467; $p < 0.01$) and Job Involvement also has a positive influence on Organizational Citizenship Behavior (coefficient = 0.428; $p < 0.01$). The direct relationship between Personality and Organizational Citizenship Behavior variables remains significant (coefficient = 0.164; $p < 0.01$). The coefficient of this direct relationship decreases from 0.384 to 0.164, which means job involvement only partially mediates the relationship between Personality and Organizational Citizenship Behavior.

Furthermore, for the path between Grit to Organizational Citizenship Behavior through Job Involvement (Grit - Job Involvement - OCB), observed the positive influence of Grit on Job involvement (coefficient = 0.184; $p < 0.01$) and also the positive influence of Job involvement on Organizational Citizenship Behavior (coefficient = 0.428; $p < 0.01$). The direct relationship between Grit and Organizational Citizenship Behavior was also observed to be significant (coefficient = 0.249; $p < 0.01$), although this value decreased from 0.315 when compared to the output in the direct effect model. Thus, it can be concluded that Job involvement also only partially mediates the relationship between Grit and Organizational Citizenship Behavior.

TABLE III. PLS RESULTS FOR DIRECT EFFECT AND THE MEDIATING EFFECT MODEL (PATH COEFFICIENTS, P VALUE AND R^2)

Direct Effect		
Variable	Path to	
	Job Involvement	OCB
Personality		0.384 ^{***}
Grit		0.315 ^{***}
R^2		0.330
The mediating effect of job involvement		
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

b. ***significant at $p < 0.01$, **significant at $p < 0.05$, *significant at $p < 0.10$.

To calculate indirect effects in mediation analysis of the SEM-PLS model, Hair et al. recommended the Variance Accounted For (VAF) method [26]. Hair et al. recommended that VAF is above 80% as full mediation, VAF is between 20% -80% as partial mediation and for VAF less than 20% as no mediating effect [26]. Table 4 shows VAF calculations for the single mediator model in this research.

It is observed that VAF value for path of Per-JI-OCB is 0.342, which means Job Involvement is a partial mediator for the relationship between personality with Organizational Citizenship Behavior ($p < 0.01$). Also observed VAF is 0.201 for the path Gr-JI-OCB, which also means that Job Involvement mediates partially the Grit relationship with

Organizational Citizenship Behavior ($p < 0.01$). This finding shows that Job Involvement only mediates partially the Personality and grit relationship to Organizational Citizenship Behavior.

TABLE IV. THE INDIRECT, DIRECT AND TOTAL EFFECT OF PERSONALITY (PER) AND GRIT (GR) ON ORGANIZATIONAL CITIZENSHIP BEHAVIOR (OCB)

Path of Personality - Job Involvement – OCB	
Indirect Effect (Per-JI-OCB)	0.200
Direct Effect (Per-OCB)	0.384
Total Effect	0.584
VAF	0.342
Path of Grit - Job Involvement - OCB	
Indirect Effect (Gr- JI-OCB)	0.079
Direct Effect (Gr-OCB)	0.315
Total Effect	0.394
VAF	0.201

IV. DISCUSSION

Extra-role behavior or popular as OCB is needed in supporting organizational activities that cannot always be done formally. Various literature defines OCB as voluntary behavior that cannot be imposed and not officially awarded but is able to contribute to the development of productivity and organizational effectiveness. OCB is conceptualized as synonymous with the concept of contextual performance, defined as ‘performance that supports the social and psychological environment in which task performance takes place [28]. OCB is implemented in the aspects of altruism, conscientiousness, sportsmanship, courtesy, and civic virtue. LePine et al., explained that OCB is a behavior that benefits the organization and does not get an explicit award because the behavior carried out is not a job demand or not included in formal work at the workplace [29]. Based on the results, it can be concluded about the importance of personality, grit and job involvement in the variation of OCB achievements, as follows:

A. Personality and Organizational Citizenship Behavior

McKenna suggested that personality contains the physical, mental, moral and social qualities of individuals [6]. These qualities are dynamic and integrated, which can be observed by others in everyday life. According to Passer & Smith, personality is a way of thinking, a way of feeling and a different way of acting, which lasts a long time, and characterizes a person's response to a life situation [30]. Greenberg & Baron have concluded that there are five dimensions in personality, known as The Big Five Dimensions of Personality, which include: Conscientiousness, Extraversion, Agreeableness, Emotional stability and Openness to experience [24]. Daft defined: 1) Conscientiousness as the degree to which a person is responsible, dependable, persistent, and achievement oriented, 2) Extraversion includes a variety of specific traits such as talkative, energetic, assertive, and also includes the characteristic of dominance. 3) Agreeableness, as the degree to which a person is able to get along with others by being good-natured, cooperative, forgiving, compassionate,

understanding, and trusting. 4) Emotional Stability or sometimes called Neuroticism as the degree to which a person is well adjusted, calm, and secure. 5) Openness to experience, as the degree to which a person has a broad range of interests and is imaginative, creative, and willing to consider new ideas [31].

Previous studies provided significant findings regarding the relationship between personality and OCB. Organ and Ryan, in a meta-analysis, found very little empirical support for a personality disposition and OCB relationship [9]. Neuman & Kickul concluded that value for achievement, agreeableness, and conscientiousness predicted five types of organizational citizenship [7]. Singh & Singh indicated that conscientiousness and extraversion were found to be positively correlated with all the five dimensions of OCB [8]. Several other propositions have also tried to uncover the causal relationship between personality and OCB. Barrick, Parks, & Mount, has described emotional stability as key dispositional determinant of social behavior [10]. Elanain concluded the importance of personality aspects, especially the attitude of openness to experience, perseverance, and emotional stability towards the achievement of OCB [32]. Although not directly related to OCB, the literature study from Yahaya et al. revealed a causal relationship between personality and demographic factors in influencing work motivation, level of competitiveness and job satisfaction [33].

This finding concludes that there is a direct influence between personality and OCB. This study also revealed that Job Involvement mediates partially the relationship between Personality to Organizational Citizenship Behavior. This finding reinforces previous findings and the proposition of the relationship between Personality and OCB [7,8,32] and some propositions about the existence of a relationship between personality and job involvement [20,21,34]. This finding also recommends the importance of controlling job involvement in efforts to improve OCB through enhancing the personality of lecturers.

B. Grit and Organizational Citizenship Behavior

One of the non-cognitive aspects that is relatively stable from the individual and to differentiate between himself and others is grit. Grit is a psychological variable based on a positive psychology group, which prioritizes the persistence as an indicator of long-term success. Culin, Tsukayama, & Duckworth defined grit as a tendency to pursue long-term goals [35]. Duckworth et al. identified two main dimensions of grit, which included consistency of interest and perseverance of effort [12].

The placement of grit in this model is based on the opinion of some researchers who have concluded that the indicators of "grit" have a similar tendency to personality indicators in the "five factor model" or personality measurement by "Hogan Personality Inventory". Rimfeld et al. and Ryne A. Sherman et al., concluded that the grit concept which contains the problem of consistency of interest and perseverance of effort, is very similar to personality dimensions in the "Five Factor Model" or personality measurement of "Hogan Personality Inventory", especially in

the aspect of conscientiousness [36,37]. This research model separates the grit's dimension from of personality, to avoid overlapping in the measurement of indicators. Grit is also predicted in affecting for academic achievement or career achievement, so there is a predicted relationship to OCB. People with higher grit levels tend to have better performance than those with lower grits [12].

This research empirically proves the relationship between Grit, Job Involvement and OCB which is not quantified in previous studies. In a theoretical perspective, this study contributes in elaborating the relationship between Grit and OCB which is mediated by Job Involvement. Previous studies only provided a proposition of the relationship between these variables [11,22,36,37]. This study contributes in increasing lecturer's OCB through Grit, by controlling the influence of Job Involvement.

C. Personality, Grit, Job Involvement and OCB

Placing the Job Involvement as a mediating variable in the causal model between Personality and Grit to OCB, aims to provide a more realistic relationship and strengthen the influence of antecedent variables on OCB. The placement of Job Involvement as mediator in a causal model is based on some previous empirical findings and some propositions about the existence of a relationship between personality and job involvement [20,21,34], grit and job involvement [22,36], as well as job involvement and OCB [17,18,38].

This study concludes that Job Involvement is a mediator in the causal relationship between Personality and Grit to OCB. In a theoretical perspective, this study contributes in elaborating the relationship between Grit and OCB which is mediated by Job Involvement. This finding reveals that Personality and Grit have a significant direct effect on OCB, but Job Involvement is also mediated partially the relationship between these two variables.

V. CONCLUSION

It can be concluded that there is a direct influence between Personality and Grit on OCB. It was found that Job Involvement partially mediated the relationship between the Personality and Grit to Organizational Citizenship Behavior. The findings of this research reinforce the previous findings or proposition about the relationship between personality and OCB [7,8,32] and previous studies about the relationship between personality and Job Involvement [20,21]. In contrast to previous studies that did not quantify the relationship between Grit, OCB and Job Involvement, and only provided a proposition of the relationship between these variables [11,22,36,37], this research empirically proves the relationship between Grit and OCB. In a theoretical perspective, this study contributes in elaborating the relationship between Grit and OCB which mediated by job involvement. This finding revealed that Grit has a significant direct effect on OCB, and Job Involvement mediated partially the relationship between the two variables. In a practical perspective, this study has tried to apply the concept of Grit which was initiated by Duckworth et al. especially for the cases of lecturers, the person who need the aspect of grit in

their work [12]. This study also contributes in increasing lecturer's OCB through Personality and Grit, by controlling the influence of Job Involvement.

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