

# School Innovation in Predicting principals' Citizenship Behavior Based on Big-Five Personality

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## Abstract:

This research was aimed at finding out information about the relationship between big-five personality with school principals' citizenship behavior (performance). A non-causal survey used by involving 54 elementary school principals in Jakarta. For measuring big-five personality and principals' citizenship behavior (PCB), two instrument developed with each respectively of its reliability was 0.826 for personality and 0.94 for PCB. Its agreement among rater for PCB was 0.63. Regression and correlation analysis by applying partial correlation used for this research. The findings showed that there was a positive and significant correlation found between personality with PCB (0.59) and when all fourth-order correlation computed, emotional stability as one of big-five personality factors, proved it was high and significant variance contribution provided for PCB (0.455). It was followed respectively by other factors such as openness, agreeableness, extraversion and finally by conscientiousness. Therefore, emotional stability found to be the most vital factor in predicting school principals' citizenship behavior, theoretically consisted of three sub-dimensions including helpful, courtesy, sportsmanship. These dimensions were supposed to be closely related to emotional stability factor, could be implied that when school principals to be evaluated its performance, through performance appraisal or evaluation, for the purpose of school innovation, those big-five personality factors could not be neglected.

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## Introduction

Most of the country put educational sector as one of the vital program in their development programs. It is because of human capital orientation which human resource judged being a factor in achieving national development goals. Besides, economic, social, culture, political and environmental aspects are important sectors as well, directed to be

stabilized. At the era of industrial revolution 4.0, human being will try to improve his capability to adapt toward any technological equipment surround him or her for survive. Otherwise, he left behind and influenced by stupidity for the entire of their life.

Therefore, when discuss about education, school at all level and specialization have the most important role in triggering all of human

capability to cope with any changes due to technological and source of information development, for instance computers and gadgets. Schools have the function of balancing human cognitive, mental or psychological aspects, including human beliefs, and human aesthetics aspect to be happier as well.

It is inevitable process that whatever it has been set of school planning, therefore, the role of school leadership is not underestimate. In this case, school principals play an important role as school leaders which could be determined by ability, intelligence, and of course personality (Putrawan, 2018).<sup>1</sup> How school principals behave and how they manage school as either an organization or an institution, will be reflected on their performance. It isn't merely influenced by their ability to lead, but also affected by their behavior (Putrawan, 2011).<sup>2</sup> School principals behavior as school leaders would be also determined by government regulation in term of code of conduct (Putrawan, 2010).<sup>3</sup>

This school principals behavior will reflect their performance, which closely defined as value of a set of principals behavior that consisted of two main dimensions, organizational (civic, voice, and boosterism) and interpersonal (help, courtesy, and sportsmanship). Those dimensions provide dimensionality of reflective performance which called "citizenship behavior (Colquitt, et.al., 2019).<sup>4</sup>

Considering the assumption that school success will be determined by school principals' performance or citizenship behavior (PCB), therefore, it is urgent to study about "how big-five personality factors could predict school principals CB. This study needs badly to be conducted, since PCB was measured, somehow, by neglecting several important factors, presumably contribute toward school principals' citizenship behavior, especially in principals performance evaluation or appraisal.

### Literature Reviews

According to Robbins, et.al. (2007),<sup>5</sup> personality can be defined as a human characteristic due to his interaction which is relatively stabil and composed of 5 factors

derived from a million of human characteristics, consciencetiousness, agreeableness, extraversion, emotional stability, and openness. This is a trait which make individual differences, in organization or in society.

In daily life, this personality would influence how human being to behave or to act as his reponse toward the environment. Therefore, human behavior would be determined by each factor of big-five personality model, which affect human behavior (Colquitt, et.al., 2019).<sup>4</sup> In addition to this, McShane & Glinow (2018)<sup>6</sup> described personality as a psychological process by involving emotion, thought, and behavior.

McShane & Glinow (2018)<sup>6</sup> gave a name for this personality as five-factor model (FFM) which meant that those five characteristic could reflect human characters and traits. Before discussed about the relationship between personality and performance, in this case Citizenship Behavior (CB), it is useful if this concept should be defined first. Citizenship behavior (CB which is part of job performance, difined as prositive behavior that contribute to the acchievment of organnizational gols (Colquit, et.at., 2019).<sup>4</sup>

Theoretically, Robbins & Judge (2019)<sup>7</sup> mentioned that "Organizational Citizenship Behavior is avounteer activities carried out employees and reflect their performance. It is indicated by allmost positive behavior of human being in trying the accomplishment of organizational goals, efficiently and effectively. Most of common positive behavior observe that support the implementation of organizational programs such as courtesy, help, and sportmanship would be reflected by performance/CB (Woods, et.al., 2013).<sup>8</sup> Woods, et.al. (2013)<sup>8</sup> also stated that some of CB dimensions are also almost similar to what factors strongly supported by personality, so it could be said that both variable is theoretically closely related.

It should be wise when Colquit, et.al. (2019)<sup>4</sup> model appeared to have some positive dimensions as a result of human interaction at a given organization or other environment like school. At school culture or climate, principals would act differently due to affected by their

personal factors. It is unclear yet, which factors from big-five factors has the most valuable influence on school principals CB/performance (Hoy & Miskel, 2013).<sup>14</sup> There was still lack of information scientifically supported this hypothetical statement which stated that principals personality, in this case based on big-five personality model, holistically of one by one of each factor, has a positive relationship with school principals CB (PCB).

Nevertheless, some relevant research to this study is related to Felder, et.al. (2002)<sup>15</sup> used other type of personality in their research which found that personality, measured by using Myers-Briggs Type Inventory (MBTI), compared to big-five personality, has a relationship in predicting engineering students performance and attitudes. On the other research, Paunenon & Ashton (2013)<sup>16</sup> found that personality traits was a strong predictor to students academic performance. Those relevant studies supported also by work of Stajkovic, et.al. (2018)<sup>17</sup> by using self-efficacy as mediated variable between big-five personality and students academic performance. Based on this logical argument, it stated an hypothesis that there is positive relationship between personality with school principals performance/CB.

## Method

The objective of this research was aimed at finding out the information about whether principals personality could be a strong

predictor to school principals performance/CB (PCB) and which factor of five personality factors has strong contribution to PCB. Therefore, a non causal survey used in this research by correlational study which involved 54 elementary school principals in Jakarta as sample selected randomly with standard error of 1.03, interpreted as homogenous sample. Personality measured by developing instrument consisted of 68 items (reliability was 0.826) and it was 30 items (2 was not valid) for measuring CB was measured by 30 items (reliability 0.94). Its inter-rater reliability in measuring CB was 0.63. Data analyzed by regression, correlation and partial correlation (only its first-order correlation).

## Results and Discussion

Based on computation results, it found that the simple regression linear model was  $\hat{Y} = 44.08 + 0.28X$  ( $p < 0.001$ ) and this model was linear (see table 1 below). It meant that any score increase for personality one point, then it could be followed by the increasing of principals CB was 0.28 with a specific  $a + 44.08$  in linear model.

Correlation coefficient, then, calculated by "Pearson Product Moment" formula, found that a positive and very highly significant correlation occur between personality with school principals' CB was 0.59 ( $p < 0.001$ ). It could be interpreted that principals' CB could be predicted by personality.

**Table 1. ANOVA for  $\hat{Y} = 44.08 + 0.28X$**

Source of Variances	Degrees of freedom	Sum Square	Mean of Sum Square	$F_{cal}$	$F_{table}$		
					$\alpha = .05$	$\alpha = .01$	$\alpha = .001$
Total	54	688078					
Regression (a)	1	685013.41					
Regression (b/a)	1	1021.18	1021.18	25.99***	4.03	7.17	12.22
Residual	52	2043.41	39.30				
Within Group	35	1547.74	44.22	1.52 <sup>ns</sup>	2.14	2.96	

Error	17	495.67	29.16				
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\*\*\*  $p < 0.001$  ; ns: non significance (linier)

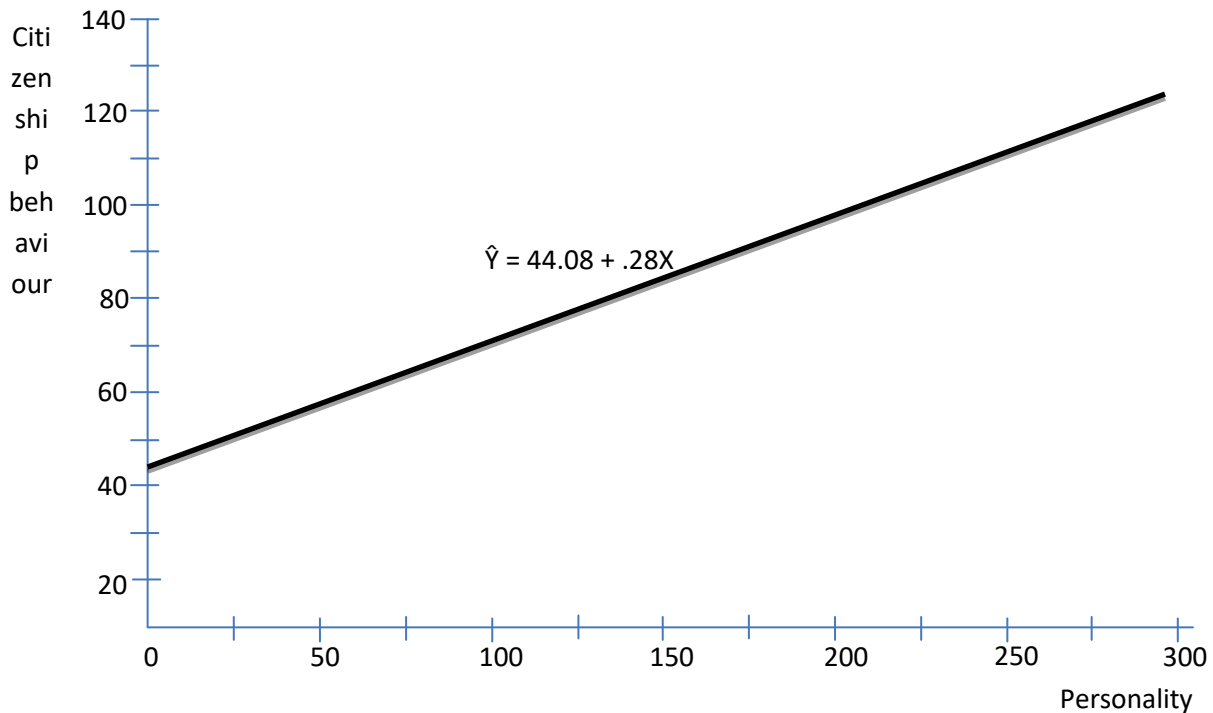


Figure 1. Diagram of Linearity for Regression  $\hat{Y} = 44.08 + 0.28X$

This result meant that the higher school principals citizenship behavior (CB) or performance, the more accurate of students' personality would be. It was 34.81% principals CB could be predicted by variation of their

personality. Since personality consists of five-factors, therefore, which of these factors would give a highest contribution to principals CB. This could be seen at below table 2-8.

**Table: 2. Zero-Order Correlation**

Big-Five Personality	Principals CB	$t_{cal}$	$t_{table}$		Contribution (%)
			$\alpha = .05$	$\alpha = .01$	
Emotional Stability ( $X_4$ )	0.59	4.17**	1.67	2.40	34.8
Openness to Experience ( $X_5$ )	0.46	3.77**	1.67	2.40	21.16
Agreeableness ( $X_2$ )	0.44	3.54**	1.67	2.40	19.36
Extraversion ( $X_3$ )	0.43	3.41**	1.67	2.40	18.49
Conscientiousness ( $X_1$ )	0.40	3.11**	1.67	2.40	16.00

**Table 3. First-Order Correlation Matrix**

Control Partial Correlation	X <sub>1</sub>		X <sub>2</sub>		X <sub>3</sub>		X <sub>4</sub>		X <sub>5</sub>		t <sub>table</sub>	
	R	t <sub>cal</sub>	r	t <sub>cal</sub>	r	t <sub>cal</sub>	R	t <sub>cal</sub>	r	t <sub>cal</sub>	$\alpha=.05$	$\alpha=.01$
r <sub>y1</sub>	-	-	.184	1.34 <sup>ns</sup>	.193	1.40 <sup>ns</sup>	.250	1.85*	.232	1.70*	1.68	2.42
r <sub>y2</sub>	.277	2.06*	-	-	.255	1.88*	.307	2.30*	.288	2.15*	1.68	2.42
r <sub>y3</sub>	.258	1.91*	.259	1.91*	-	-	.290	2.16	.271	2.01*	1.68	2.42
r <sub>y4</sub>	.406	3.17**	.423	3.33**	.350	2.67**	-	-	.455	3.65*	1.68	2.42
r <sub>y5</sub>	.344	2.62**	.373	2.87**	.275	2.04*	.414	3.25*	-	-	1.68	2.42

**Table 4. First-Order Correlation between X<sub>1</sub> and Y,**

Partial Correlation Coefficients	n	r	t <sub>cal</sub>	t <sub>table</sub>	
				$\alpha=.05$	$\alpha=.01$
r <sub>y1.2</sub>	54	0.184	1.34 <sup>ns</sup>	1.68	2.42
r <sub>y1.3</sub>	54	0.193	1.40 <sup>ns</sup>	1.68	2.42
r <sub>y1.4</sub>	54	0.250	1.85*	1.68	2.42
r <sub>y1.5</sub>	54	0.232	1.70*	1.68	2.42

\* p<0.05 ; ns = non-significant

**Table 5. First-Order Correlation between X<sub>2</sub> and Y,**

Partial Correlation Coefficients	n	r	t <sub>cal</sub>	t <sub>table</sub>	
				$\alpha=.05$	$\alpha=.01$
r <sub>y2.1</sub>	54	0.277	2.06*	1.68	2.42
r <sub>y2.3</sub>	54	0.255	1.88*	1.68	2.42
r <sub>y2.4</sub>	54	0.307	2.30*	1.68	2.42
r <sub>y2.5</sub>	54	0.288	2.15*	1.68	2.42

\* p<0.05

**Table 6. First-Order Correlation between X<sub>3</sub> and Y,**

Partial Correlation Coefficients	n	R	t <sub>cal</sub>	t <sub>table</sub>	
				$\alpha=.05$	$\alpha=.01$
r <sub>y3.1</sub>	54	0.258	1.91*	1.68	2.42
r <sub>y3.2</sub>	54	0.259	1.91*	1.68	2.42
r <sub>y3.4</sub>	54	0.290	2.16*	1.68	2.42
r <sub>y3.5</sub>	54	0.271	2.01*	1.68	2.42

\* p<0.05

**Table 7. First-Order Correlation between X<sub>4</sub> and Y,**

Partial Correlation Coefficients	n	R	t <sub>cal</sub>	t <sub>table</sub>	
				$\alpha=.05$	$\alpha=.01$
r <sub>y4.1</sub>	54	0.406	3.17**	1.68	2.42
r <sub>y4.2</sub>	54	0.423	3.33**	1.68	2.42
r <sub>y4.3</sub>	54	0.350	2.67**	1.68	2.42
r <sub>y4.5</sub>	54	0.455	3.65**	1.68	2.42

\*\* p <0.01

**Table 8. First-Order Correlation between X<sub>5</sub> and Y,**



Partial Correlation Coefficients	n	R	$t_{cal}$	$t_{table}$	
				$\alpha=.05$	$\alpha=.01$
$r_{y5.1}$	54	0.344	2.62**	1.68	2.42
$r_{y5.2}$	54	0.373	2.87**	1.68	2.42
$r_{y5.3}$	54	0.275	2.04*	1.68	2.42
$r_{y5.4}$	54	0.414	3.25**	1.68	2.42

\*  $p < 0.05$  ; \*\*  $p < 0.01$

Based on those tables above, it stated that emotional stability has the highest and highly significant correlation to principals CB (0.455, contribution around 20.7%) after all 4 the rest of personality factors has been controlled (conscientiousness, agreeableness, openness, and extraversion). It was followed by openness, agreeableness, extravert and then conscientiousness.

These results was supported by research conducted by Zafar (2014)<sup>9</sup> which found that neuroticism correlated negatively with CB, but only conscientiousness correlated positively and significantly with CB. Another study carried out by Peter Szabo, et.al. (2018)<sup>10</sup> found, by using other instrument compared to big-five personality such as psychopathy, machiavellianism, and narcissism, as predictor toward performance or citizenship behavior (CB), that psychopathy negatively as a predictor to performance compared to machiavellianism which positively correlated with performance/CB, the only narcissism was found unrelated to CB.

Tabak, et.al. (2009),<sup>11</sup> by using time-on-task as mediated factor between big-five personality (only using conscientiousness factor) and performance, found that it was significantly in-direct effect especially for higher levels of time-on-task. In addition, Mahlamaki, et.al. (2018)<sup>12</sup> produced their research findings by developing an equation model between personality, motivation, and performance which found that extraversion and conscientiousness linked to both learning orientation and performance orientation which mediated by motivational construct that affected only by emotional stability, agreeableness, and openness. Besides, Abdullah, et.al. (2013)<sup>13</sup> found also that extraversion, agreeableness, and conscientiousness affect significantly on employees organizational commitment (OC),

then this OC directly affect on employees' performance.

## Conclusion

Since school principals' citizenship behavior (PCB or performance is about how principals behave in leading or managing the school, it is logic that some factor related to human traits or characteristic could be involved in predicting school PCB. The relationship did confirmed by these findings in which emotional stability factor was found to be one of five factors highly contribute toward PCB followed respectively by openness, agreeableness, extraversion and finally by conscientiousness. This implies that big-five personality could predict school PCB meant that in trying to improve school principals to be more positive their behavior in term of their performance, so personality factor should be taken into consideration.

Its policy implication is directed to policy makers, suggested that in recruiting and selecting school principals candidates at any level of education, therefore, personality aspects could not be neglected. Moreover, interpersonal sub-dimensions of PCB, when identified in measuring and evaluating principals' performance (CB), such as helpful, courtesy, and sportsmanship, used as theoretical contribution based on these findings. Those big-five factors such as emotional stability, openness, agreeableness, extraversion, and conscientiousness, could be integrated into CB new dimensions, especially in conducting performance evaluation or appraisal as one of the school innovation required by school development program.

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**Conflict of Interest:** There is not conflict of interest regarding this research results.

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