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Organizational Citizenship Behavior and its Causes: Does Personality Make a Difference?

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Abstract:

Advances in research have shown that organizational commitment and job satisfaction have a positive effect on organizational citizenship behavior, and turnover intentions are negatively affected by citizenship behavior. However, this research raises the question that those findings could be available regardless of employees' personality type. To resolve the question, we divided a sample of 214 respondents into four groups according to personality profile (I type, E type, D type, & R type), and conducted multiple regression analyses. The results imply that the causal relationships are consistent with the findings of recent studies when the sample is not divided, but the relationships have various different forms when regression analyses are performed on each group of personality trait profiles.

Keywords: *Organizational citizenship behavior, Organizational commitment, Job satisfaction, Turnover intention, Personality, Personality profile, Personality group, "Big five" model, Cluster analysis*

1. Introduction

Organizational citizenship behavior represents the positive behavior of employees' "extra" performance. Organ (1988) first defined this concept as positive behavior having three features: it is discretionary, un-rewarded and, as an aggregate of behaviors, it improves the organization's effectiveness. The core values of the concept exist when these behaviors are triggered by one's discretionary intention, and the behavior is positive to the organization's competitiveness. These core values were enough to attract the interests of researchers and managers because they could be used to increase the abilities of organization without a large investment. This was a big issue for companies increasing competitive strength in industry.

After this concept was established academically, many researchers employed it as a research theme because it captured the special performances of employees; previous researchers did not explain it precisely but were aware of its existence. In the mainstream of those studies was one about the causal factors of this behavior—its antecedents and outcomes. Many factors in the field of organizational behavior were regarded as variables that had special relations with organizational citizenship behavior, and some representative variables of this field were also involved. Organizational commitment and job satisfaction were classic variables in the field of organizational behavior and were the subject of many studies analyzing relations between them and citizenship behavior (e.g., Puffer, 1987; Organ & Konovsky, 1989; Williams & Anderson, 1991; Moorman, Niehoff & Organ, 1993). In comparison with research on antecedents, the outcomes of citizenship behavior were investigated a little later (e.g., Karambaya, 1990; Podsakoff & MacKenzie, 1994; Koh, Steers, & Terborg, 1995), because this behavior proved its worth by accumulation in vertical and cross-sectional studies; without these, it is difficult for researchers to identify outcomes with only fragmentary knowledge.

On the other hand, researchers had studied turnover and the intentions behind it, because when employees leave their organizations, costs are incurred and the burden is borne by the organization (Staw, 1984). Understandably, many studies have focused on the relationship between organizational citizenship behavior and turnover (Chen, Hui, & Sego, 1998; Coyne & Ong, 2007; Sharoni, Tziner, Fein, Shultz, Shaul, & Zilberman, 2012), although intentions are generally used as a substitute because they are the most powerful predictor of behavior (Ajzen, 1991).

The recent studies have identified that commitment and satisfaction have a positive effect on organizational citizenship behavior and turnover has a negative relation with it. However, these findings still leave room for discussion. Organ (1994) argued about the relationship between citizenship behavior and personality and found that the profile of personality dimensions could be a predictor of citizenship behavior. Many other studies have also examined the significance of employees' personality traits on citizenship behavior (e.g., Bettencourt, Gwinner, & Meuter, 2001; Van Emmerik & Euwema, 2006; Illies, Fulmer, Spitzmuller, & Johnson, 2009; Bourdage, Lee, Lee, & Shin, 2012; Lai, Lam, & Chow, 2014; Shaffer, Li, & Bagger, 2015).

Based on the latest research, we raised the question of whether there is a causal relationship between organizational citizenship behavior and the three classic factors (commitment, satisfaction, and turnover) that could be equally applied to all types of employee personality traits. To address this question, we divided the sample into several groups, each having a different personality profile and performed a regression analyses to assess the relationships.

2. Relationship of the Three Classical Variables and Organizational Citizenship Behavior

2.1. *Organizational Commitment and Citizenship Behavior*

In studies of the relationship between citizenship behavior and other factors, the variables that have been considered most frequently are organizational commitment and job satisfaction. Organizational commitment can be referred to as the employee's attitude to an organization beyond basic loyalty; the employee who has this attitude is willing to contribute to his or her organization's well-being. Moreover, this commitment connotes three factors. First, it implies a strong belief in and acceptance of the organization's goals and values, and second, it is related to considerable effort on behalf of the organization. Finally, organizational commitment includes a strong desire to maintain membership in the organization (Mowday, Steer, & Porter, 1979).

For a long time, many researchers have found a positive causal relationship between commitment and citizenship behavior (e.g., O'Reilly & Chatman, 1986; Moorman, Niehoff, & Organ, 1993; Konovsky & Pugh, 1994; Coyle-Shapiro, Kessler, & Purcell, 2004; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). Recently, researchers have focused on the relationship using a more advanced framework. Lavelle and colleagues found that organizational commitment influenced citizenship behavior separately when the same citizenship behavior was divided into two dimensions: OCB-I (organizational citizenship behavior towards individual(s)) and OCB-O (organizational citizenship behavior towards an organization). They argued that an employee's commitment to their colleagues only has an effect on OCB-I, and commitment to organization is only related to OCB-O (Lavelle, Brockner, Konovsky, Price, Henley, Taneja, & Vinekar, 2009). Chênevert, Vandenberghe, and Tremblay (2014) investigated the sources of affective commitment and its effect on citizenship behavior. The results showed that affective commitment has a positive relationship with citizenship behavior through being supported by perceived organizational support and coworker support.

However, Williams and Anderson (1991) examined the effect of commitment on citizenship behavior when job satisfaction was also inserted into the model. They found that commitment does not have a significant relationship with citizenship behavior because commitment and satisfaction overlapped with each other conceptually. Schappe (1998) established a research model that was used to analyze whether job satisfaction, commitment, and perceptions of procedural justice predict citizenship behavior. Consequentially, only commitment accounted for citizenship behavior, and satisfaction was not a predictor of the dependent variable. These studies imply that citizenship behavior is affected by either commitment or satisfaction. In terms of these results, we expect, in this research, that the antecedent of citizenship behavior could be changed by the individual's characteristics such that it could be identified through comparing the results of the analyses according to different personality traits.

2.2. *Job Satisfaction and Organizational Citizenship Behavior*

Job satisfaction has received considerable attention and has been used in many studies of organization management as an independent or dependent variable for a long time. Moreover, of the many other variables in the organizational behavior field, job satisfaction has been one of the concepts most deeply related to organizational citizenship behavior from satisfaction-performance theory. During the twentieth century, satisfaction-performance theory was an influential issue among researchers in organizational behavior. At the end of the dispute, the controversy over organizational citizenship behavior was borne out by several studies of Organ and colleagues, who demonstrated that organizational citizenship behavior represents a new type of employee performance different from old performance characteristics such as productivity (Organ, 1977; Bateman & Organ, 1983; Smith, Organ, & Near, 1983; Organ, 1988). According to the social exchange theory explaining the motivation underlying citizenship behavior, employees who are satisfied by their organizations have a desire to reciprocate with positive and active attitudes towards the organization. Those positive attitudes are expressed as extra behavior such as helping others, maintaining organization rules or resources, and participating actively in meetings; these characteristics can be described as organizational citizenship behaviors. Because of this theoretical background, researchers have usually studied job satisfaction as an antecedent of citizenship behavior in the early studies (Organ & Konovsky, 1989; Farh, Podsakoff, & Organ, 1990; Williams & Anderson, 1991; Moorman, 1993; Organ & Ryan, 1995) where it was consistently argued that satisfaction is significant to predicting citizenship behavior.

Bateman and Organ (1983) firstly examined the relationship of the two variables using university employees; the results showed that satisfaction has a positive relationship with citizenship behavior. In the same year, Smith, Organ, and Near (1983) found that the satisfaction of employee predicts altruism, which is one dimension of citizenship behavior, and found that another dimension, conscientiousness, does not have a relationship with the behavior. Organ and Ryan (1995) reviewed 28 prior studies of relationships between satisfaction and citizenship behavior, and found that there is an average correlation of 0.24 between the two variables. More recently, Judge, Thoresen, Bono, and Patton (2001) reported that meta-analysis found the population correlation coefficient to be 0.30 between the variables. Although those studies used job satisfaction as one construct, other research divided this concept into some of its dimensions. Job satisfaction could be separated into two dimensions—affective and cognitive—and Organ and Konovsky (1989) found that the cognitive dimension has more predictive power than other dimensions. Moreover, Williams and Anderson (1991) showed that the cognitive variable is more significantly related to citizenship behavior than affectivity. Although some researchers consider satisfaction as an aggregate of the dimensions, others who have studied this concept comprehensively view it as indivisible.

Almost all studies have argued consistently that the comprehensive variable of satisfaction has a positive relationship to citizenship behavior.

Since these studies were undertaken, it is not surprising that the positive relationship between job satisfaction and organizational citizenship behavior has been well received by researchers in the field. The relationship has been intuitively plausible and is supported by empirical evidence. These days, there are very few studies doubting the relationship of those variables, but in this study, we assume that even such a matter-of-course idea could appear differently when the analysis is performed in a divided sample group according to different personality traits.

2.3. *Organizational Citizenship Behavior and Turnover Intention*

As behavioral intention is consistently related to behavioral expressions (Fishbein & Ajzen, 1974), turnover intention is generally considered as the only antecedent predicting actual turnover. Although turnover and its intention have been the most significant variables that measure classical performance, the relationship between citizenship behavior and turnover intention is not supported by many studies compared to the relationship between commitment and satisfaction. Chen, Hui, and Segó (1998) reported that organizational citizenship behavior has a negative effect on actual turnover, and turnover intention is positively related to actual turnover. Sharoni, Tziner, Fein, Shultz, Shaul, and Zilberman (2012) examined the relationship of the two variables with other contextual factors, and argued that citizenship behavior has a negative effect on turnover intention when contextual factors are inserted in the research model. Moreover, there have been some studies that found a negative relationship between citizenship behavior and turnover or its intention (Van Scotter, 2000; Aryee, & Chay, 2001; Dalal, 2005; Coyne, & Ong, 2007). Even though the quantity of studies on the relationship of citizenship behavior and turnover or its intention is not abundant, there are some key factors that suggest that citizenship behavior is a good predictor of turnover. First, citizenship behavior is a generalized concept across different jobs and organizations, and second, this variable represents various behaviours in an employee's work life (Chen, Hui, & Segó, 1998). Based on the theoretical background, we would expect to find that organizational citizenship behavior has a positive relationship to commitment and satisfaction, and has a negative relationship with turnover intention when the analyses is performed with a raw sample that is not divided into groups of personality traits.

- Hypothesis 1. Commitment and satisfaction have a positive effect on organizational citizenship behavior, and turnover intention is negatively affected by organizational citizenship behavior in the absence of personality classification.

2.4. *Different Causal Relationships According to the "Big Five" Personality Trait Profiles*

We assumed that commitment and satisfaction have a positive relationship with citizenship behavior but turnover intention had a negative relationship with behavior, when the analysis used the complete sample undivided into different personality groups. However, the main purpose of this research was to identify the differences between groups of personality traits, thus we classified the sample according to personality profiles using "big five" model. This model has good effectiveness in identifying and classifying personality traits. In addition, the big five model is one of the most widely used models of personality (Major, Turner and Fletcher, 2006), with five dimensions of human personality including extraversion, agreeableness, openness to experience, conscientiousness, and neuroticism. Extraversion is the opposite of introversion, and the person who is highly extroverted is more active, sociable, outgoing, and challenging than the introvert. Agreeableness is somewhat similar to extraversion, and involves getting along well with others (Organ, 1994). Openness to experience, which is generally referred to simply as openness, also has some similar aspects as extraversion, and it involves being curious, imaginative, and innovative. The three dimensions: extraversion, agreeableness, and openness have similarities in common. Therefore, if we divide the sample, it is likely that these three dimensions together constitute one criterion. Of the other two dimensions, conscientiousness represents an aspect of human personality that is honest, law-abiding, and faithful. This dimension shares a context with its namesake, organizational citizenship behavior. Neuroticism expresses aspects of personality such as anger, gloom, and sadness. This final dimension is the sole representative of the negative emotions, and is referred to as "emotional instability" by researchers.

Reviewing the literature, we found many studies about the relationships between the big five personality traits and organizational citizenship behavior. For examples, Organ (1994) reported that profiles of personality traits are significant predictors of citizenship behaviour. Van Emmerik and Euwema (2007) found that conscientiousness has a positive effect on citizenship behaviors towards students, and openness influenced citizenship behaviors in the organization positively; in examining the relationship between personality and citizenship behaviour, the study identified the moderating effect of leader effectiveness. More recently, Ilies, Fulmer, Spitzmuller, and Johnson (2009) and Shaffer, Li, and Bagger (2015) reported that conscientiousness and agreeableness have positive effects on citizenship behavior.

Although those findings are about the direct relationship of personality to citizenship behavior, we could infer the influence of different personality groups on the causal relationships of citizenship behavior. If personality traits are important determiners of citizenship behavior, the profiles of the factors could be deeply involved in the relationship between citizenship behavior and its antecedents or outcomes. For example, the literature argued that either there was a significant relationship between satisfaction and citizenship behavior that exceeded commitment (Williams & Anderson, 1991) or the reverse relationship (Schappe, 1998). If employees' personality profiles determine the shape of their behavior network, the different results could be explained by employees' personality types. In addition, the studies about the effects of citizenship behavior on turnover have also had various results that sometime appear as significant but sometimes do not. For example, although many researchers have argued that citizenship behavior has a negative relationship with turnover, Koys (2001) found that there is no significant relationship between two variables. If the

sample in those studies had a different proportion of employees' personality profiles, those differences could have influenced the results. Based on this inference, research hypothesis 2 is that the relationships among citizenship behavior and the three variables—commitment, satisfaction, and turnover—differ, according to the groups of personality profiles established.

- Hypothesis 2. The structural relationships of the three classic variables and organizational citizenship behavior differ according to personality trait groups.

3. Method

3.1. Respondents

Originally, 300 questionnaires were distributed to the employees of ten corporations in Korea. Those companies are all listed on the stock exchange and classified as major companies. We intentionally selected the geographical position of corporations located in various regions to eliminate distortion derived from regional bias. Of the 300 questionnaires distributed, only 242 were collected; 28 of these had missing data or untrustworthy responses so were eliminated. Thus, 214 questionnaires were used in the analysis for testing the hypotheses.

The respondents were composed of 116 males and 98 females with an age range from the 20s to the 50s; it included 79 individuals in their twenties, 116 in their thirties, 16 in their forties, and 3 in their fifties. The positions held most frequently were ordinary employees (127 respondents). Of the rest, 50 respondents were assistant managers, 22 were section chiefs, and 15 were department or deputy heads. Unlike position, tenure was evenly distributed: 49 respondents had under two years with the organization, 70 had from three to five years, 66 had from six to ten years, and 29 employees had more than 11 years' tenure.

3.2. Measures

- *Organizational commitment.* Mowday, Steer, and Porter (1979) used the 15 item- Organizational Commitment Questionnaire (OCQ) to measure the level of employees' focus on their organizations. In this paper, we employed this typical measuring device, but modified the items to fit the research context. The original 15 items were reduced to 6 items to enhance the completion rate and ensure each item was treated comprehensively by the respondents. The six items were selected according to their conceptual classification, grouped according to semantic similarity, and translated. When the measurement was modified, there was the risk that reliability was undermined, so the reliability test and confirmatory factor analysis (CFA) were conducted together. In the CFA, we found one item that did not meet the criterion of squared multiple correlations at more than 0.5; we eliminated the item and used only the other five items. These items showed a.893 Cronbach α value and adequate model fit of CFA (CMIN= 17.850[df= 5], RMR=.025, GFI=.971, CFI=.978).

Job satisfaction. This concept covers the status of positive affectivity that the employees have in their job. When measuring the employee's job satisfaction, researchers have two choices. One is considering satisfaction as the sum of dimensions so that measurements are divided into parts according to these dimensions; another option is to treat employee's satisfaction as a single concept. In this study, we adopt the latter strategy that measures the all-round job satisfaction of employees. The items of measurement are based on Hackman and Oldham's model (1974), which consists of five items including two reverse questions. The reliability of the measurement is verified through two pre-analyses (Cronbach α = .844, CMIN= 32.434[df= 5], RMR=.070, GFI=.946, CFI=.942).

Organizational citizenship behavior. Organ (1997) defined organizational citizenship behavior as "support [in] the social and psychological environment in which task performance takes place." This concept covers the part of non-task performance, which in typical organizational behavior has positive effects for the organization, colleagues, and even the employee. Since Organ (1988) suggested the measurement of this concept, which is composed of five dimensions: altruism, conscientiousness, courtesy, sportsmanship, and civic virtue, many researchers have devised modified or newly developed measures. Of these various measures, this study employed the measure of Podsakoff, MacKenzie, Moorman, and Fetter (1990). This originates from Organ's five dimensions, but was modified to enhance its validity according to the suggestions of Churchill (1979) and Schwab (1980). Although this measure was originally composed of 24 questions and 5 dimensions, we filtered out three items through CFA. Nevertheless, the measure had too many items to conduct the analysis because of the volume of variance. Therefore, we used an item-parceling method, which allocates the items into the different parcels randomly. This method has the advantage that the structure of the model is simplified and the problems of model estimation are less likely to arise; thus, the method is appropriate when the measure has a large number of items. We obtained the adequate model fit index through CFA with an item-parceling method (CMIN= 3.093[df= 5], RMR=.008, GFI=.994, CFI=.999) and Cronbach α calculated at.888 with all 21 items.

- *Turnover intention.* Mobley (1982) defined turnover as employees who receive economic reward from their organization by terminating membership in it. Generally, the employee's intention to leave represents real phenomenon, because the occurrence of turnover is influenced by many factors apart from the employee's intention or attitude. For example, when the corporation reduces its size by restructuring, employees are ousted regardless of their wishes. Moreover, intentions are one of the best predictors of behavior (Ajzen, 1991), so intentions to leave are used by many researchers. We employed the Mobley's questionnaire items (1982), and modified them for the research context. The measurements obtained were a.920 Cronbach's α and reasonable model fit (CMIN= 93.027[df= 14], RMR=.055, GFI=.892, CFI=.922).

- *Big five personality trait groups.* The measurement of the big five model was based on Costa and McCrae (1992) where the model has five dimensions: extraversion, conscientiousness, openness to experience, agreeableness, and neuroticism. Extraversion is about activeness, talkativeness, excitement, sociality, and headiness. Conscientiousness is about reliability, orderliness, aim to succeed,

and ambition. The third dimension is openness to experience, which is related to having certain qualities: estheticism, sensitivity, curiosity, and attentiveness to feelings (Major, Turner, & Fletcher, 2006). The fourth dimension of the big five is agreeableness, which reflects one's interpersonal orientation (Zhao and Seibert, 2006). This dimension involves the tendency to trust others and consideration of others' feeling and status. The final dimension is neuroticism consisting of negative nuances like gloom, anxiety, acuteness, and bashfulness. As a result of the analysis of reliability, all five dimensions have a permissible coefficient alpha (extraversion=.91, conscientiousness=.89, openness=.86, agreeableness=.87, neuroticism=.85).

➤ *Control variables.* Demographic variables, such as sex, age, and education were centrally used as control variables. In addition, we considered factors in the work place and added two more factors, namely: position and tenure. The five control variables were ascertained using the regression equation.

3.3. Analytic Strategy

Before comparing differences in personality groups, it is necessary, as a first step, to show that the relationship of organizational citizenship behavior and the other three variables are consistent with findings from previous literature; thus, three regression analyses, which examined the relationship of organizational commitment, job satisfaction, and turnover to organizational citizenship behaviour were performed. Hypothesis 1 was also examined.

In the second step, the sample was divided into four groups of personality traits. A dendrogram was used to confirm the number of clusters and K-mean cluster analysis was conducted according to the results of the dendrogram. Although one form of statistical calculations is based on the pseudo-F or pseudo-T square value suggested by Calinski and Harabasz (1974) and Duda and Hart (1973), the number of clusters was intentionally selected because of the limited size of the sample and the effective expression of features of personality traits. After cluster analysis, the regression analyses conducted in the first step are also performed on each group of personality traits. Comparing the results of each regression analysis, we identify the differences of causality of organizational citizenship behavior with the other three classical variables according to personality traits. Hypothesis 2 is checked based on these results.

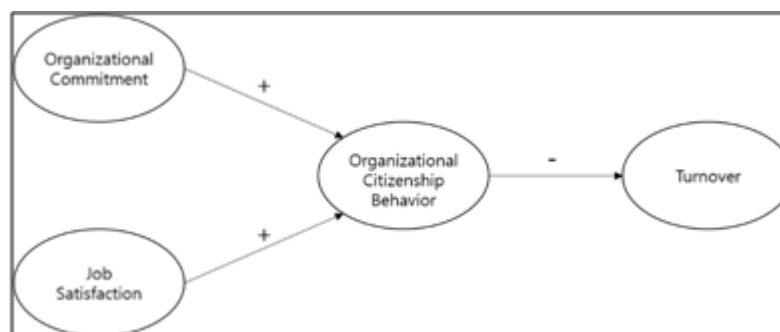


Figure 1: The relationships of OCB with classical three variables

Figure 1 illustrates the causality model of organizational citizenship behavior with the three classic variables. To obtain the appropriate results of the structure model, two regression analyses are carried out. One analysis involves organizational commitment and job satisfaction as explanatory variables so that the regression equation has two independent variables and control variables together. Another regression analysis is that organizational citizenship behavior is used as an independent variable that accounts for employee's turnover.

Concerning the current methods in social science, there is powerful way to analyze and interpret the network of variables more effectively—the structural equation model (SEM) and its statistical software. However, this research does not use this model because of the critical issue of sample size. Generally, to conduct the SEM digitally, it is necessary to have a minimum of 200 respondents (Jackson, 2003). For analyzing all groups of personality traits, we needed much larger sample sizes than this, specifically multiples of 200 by the number of groups. If we have four groups, then the sample size is 800 or more but we did not have that many respondents. Unlike structural equation modeling, regression analysis statistically needs only 30 respondents or more, which meant our sample size was sufficient. As there were 214 respondents, up to 7 groups could be covered in the analysis.

4. Results

4.1. Step 1

The test results in Table 1 reveal the effect of organizational commitment and job satisfaction to organizational citizenship behavior. Model 2 has two independent variables which show a more highly increased adjusted R square value than model 1, which consists only of control variables (adjusted $R^2 = .072 \rightarrow .292$). The term organizational commitment has a standardized regression coefficient of .322 and job satisfaction of .225, which means that the two variables are having a positive effect on organizational citizenship behavior. This result is consistent with the findings of previous studies. When independent variables have high correlations with each other, the problem of multicollinearity is likely to occur. Although organizational commitment and job satisfaction are in close relation to one another, variance inflation factors (VIF) are positioned in a safety range (1.313–2.629) such that the regression model is free from the multicollinearity problem.

Variable	Model 1		Model 2	
	β	t value	β	t value
Sex	.220**	2.589	.155*	2.075
Age	.168	1.592	.051	.542
Education	.204**	2.698	.180**	2.719
Tenure	-.012	-.144	-.055	-.749
Position	.130	1.312	.103	1.190
Organizational Commitment			.322***	4.225
Job Satisfaction			.225**	3.037
F	4.320***		13.546***	
Adjusted R ²	.072		.292	
ΔR^2	.094***		.221***	

Table 1: The analysis results of organizational commitment and job satisfaction to OCB
 N = 214, *p < .05, **p < .01, ***p < .001, dependent variable = OCB, two-tailed test.

To examine the causality of organizational citizenship behavior regardless of personality traits, we conducted one more regression analysis on the relationship between organizational citizenship behavior and turnover. Table 2 is the result of the regression analysis.

Variable	Model 1		Model 2	
	β	t value	β	t value
Sex	-.067	-.771	.020	.242
Age	-.156	-1.456	-.090	-.905
Education	-.037	-.480	.043	.595
Tenure	-.167*	-1.998	-.171*	-2.220
Position	.023	.227	.074	.790
Organizational Citizenship Behavior			-.392***	-6.010
F	2.832*		8.779***	
Adjusted R ²	.041		.180	
ΔR^2	.064*		.180***	

Table 2: The regression analysis result of OCB to turnover
 N = 214, *p < .05, **p < .01, ***p < .001, dependent variable = Turnover, two-tailed test.

The result implies that organizational citizenship behavior has a strongly negative effect on the turnover that could be known from the regression coefficient (β of OCB = $-.392, p < .001$). Like the previous regression model, this also shows appropriate values of variance inflation factor that range from 1.104 to 2.574.

Aggregating the above results of step 1, we can outline the causality of organizational citizenship behavior with the three variables as shown in Figure 2. As demonstrated by previous studies, employees ‘organizational commitment and job satisfaction are positively affecting their organizational citizenship behavior, and this behavior has a negative relationship with turnover. Based on the results, hypothesis 1 is supported.

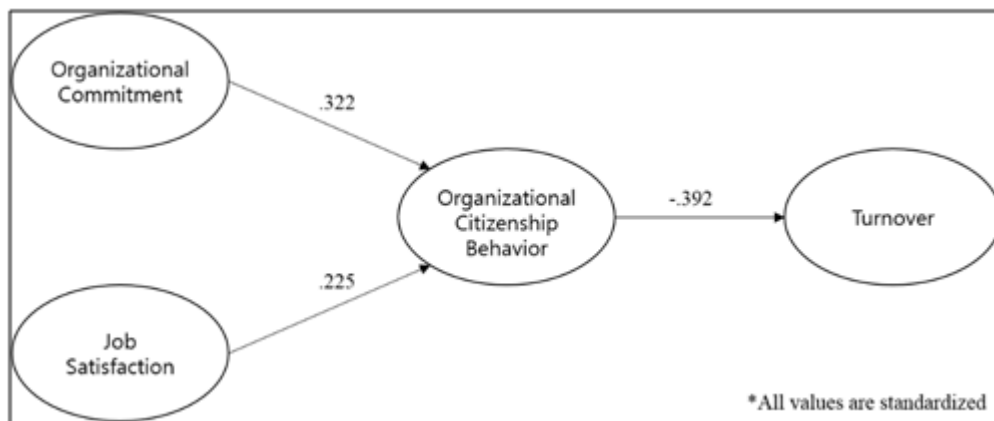


Figure 2: The relations of OCB and three classical variables regardless of personality traits

4.2. Step 2

The purpose of this study is to finding differences among various personality trait types, and these differences are to do with the causalities indicated inFigure2. To achieve the goal, we first divided the sample into groups according to personality profiles. The number of groups was intentionally selected by analyzing a dendrogram derived from the hierarchical cluster analysis using Ward’s method. In the analysis of the dendrogram, we focus on the even distribution of respondents and minimum number of respondents; each group should consist of at least 30 or more. Consequently, it was decided that the sample should be divided into four groups.

Based on the result of hierarchical cluster analysis, we performed a K-means cluster analysis by four. Table 3displays the calculation results of clustering and shows the cluster center and the number of respondents in each group.

Criterion	F	Clusters			
		Group 1 (n=48)	Group 2 (n=49)	Group 2 (n=57)	Group 3 (n=60)
Extraversion	85.60***	-.91	.93	.55	-.55
Conscientiousness	62.80***	.84	-1.12	.30	-.04
Openness to experience	49.11***	-.70	.90	.37	-.53
Agreeableness	46.28***	-.64	.96	.26	-.52
Neuroticism	78.79***	1.19	-.83	.15	-.41

Table 3: The result of clustering analysis of four groups
N = 214, *p < .05, **p < .01, ***p < .001

The number of respondents per group was from 48 to 60, which is adequate for undertaking regression analyses. Table 3 also shows F values derived from the analysis of variance (ANOVA) testing such that the variance among the centers of the groups is significantly high in comparison with the variance of each group. All F values had a reliable level of significance that allowed us to proceed to the next stages.

The four groups each have a personality profile. In group 1 extraversion, openness to experience and agreeableness are significantly lower than in the other groups, but the other two dimensions are relatively high. The three dimensions that are low share in common the traits of being outgoing, sociable, active, and challenging. In contrast, the two highest dimensions characterizing this group exude feelings such as being considerate, careful, introverted, and orderly. As group 1 is composed of respondents considered introverted, we name this group the “I” type (from the initial letter of “introvert”). Unlike the I type, group 2 is characterized by high extraversion, openness, and agreeableness, but conscientiousness and neuroticism are low. This shape counter poses the features of the I type and the respondents having these personality traits renamed type “E” from “extrovert.”

The other two groups also have characteristics that pairing with each other; one group’s dimensions are all moderately high and the other has low level of the five dimensions. As these groups, both show that the five dimensions are featured together, group 3 is labeled type “D” and group 4 is type “R,” where D refers to dominant traits and R to recessive. Figure 3graphically represents the four types of personality traits.

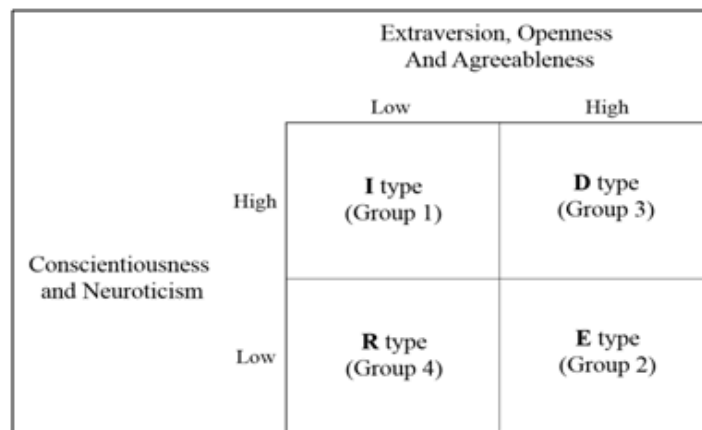


Figure 3: Classification of four type groups of big five personality traits

Once classified, we conduct the regression analysis four times to compare the structure of the model of organizational citizenship behavior with the three variables. First, the analyses are performed for group 1 (type I). The results are shown in Table 4, which presents the two regression analyses results together. One examines the effects of organizational commitment and job satisfaction on organizational citizenship behavior. Interestingly, type I does not show a significant regression coefficient for the three variables apart from the control variable—age. Although, commitment and satisfaction have positive coefficients (β of commitment =.271, β of satisfaction =.135), these are not significant. It should be noted that the problem of increasing standard error is derived from the decrease in the sample. However, when regression coefficients fall sharply, there is little change to the standard error; the t value of

the variable is more influenced by decreasing the coefficient value than increasing the standard error. Similarly, the relationship of organizational citizenship behavior and turnover also does not have a significant value ($\beta = -.136, p > .05$). These results mean that organizational citizenship behavior does not spring from organizational commitment and job satisfaction, and this behavior does not decrease turnover in the case of the type I personality group.

	Variable	Model 1		Model 2	
		β	t value	β	t value
Organizational Commitment & Job Satisfaction ↓ OCB	Sex	.332	1.577	.237	1.115
	Age	.178	.784	-.016	-.064
	Education	.332	1.830	.267	1.411
	Tenure	.189	1.161	.130	.745
	Position	.021	.099	-.003	-.016
	Commitment			.271	1.427
	Job Satisfaction			.135	.800
	F	1.687		1.787	
	Adjusted R ²	.068		.105	
ΔR^2	.167		.071		
OCB ↓ Turnover	Sex	.071	.370	.116	.587
	Age	-.496*	-2.395	-.472*	-2.260
	Education	.040	.238	.085	.492
	Tenure	-.292	-1.965	-.266	-1.763
	Position	.220	1.131	.233	1.144
	OCB			-.136	-.966
	F	3.711**		3.243*	
	Adjusted R ²	.224		.223	
	ΔR^2	.306**		.015	

Table 4: The results of regression analyses in type I group
 N = 214, *p < .05, **p < .01, ***p < .001, two-tailed test

The second analyses are on the type E group, characterized by active and outgoing personality traits; they show little difference from the type I group as indicated in Table 5. Almost all values are shared with the type I group, but the regression coefficient of organizational citizenship behavior for turnover is significant ($\beta = -.413, p < .01$). As in the type I case, no significant relationships were found in the other two relationships between commitment and satisfaction, and organizational citizenship behaviour. In model 2 of Table 5, the model fit indexes such as the F value and adjusted R square are reliably stable, which indicates support for the result that organizational citizenship behavior has an effect on decreasing employee turnover.

	Variable	Model 1		Model 2	
		β	t value	β	t value
Organizational Commitment & Job Satisfaction ↓ OCB	Sex	.228	1.535	.194	1.356
	Age	.193	.762	.043	.173
	Education	-.061	-.392	.045	.289
	Tenure	.177	1.031	.163	.975
	Position	.159	.667	.198	.866
	Commitment			.188	1.033
	Job Satisfaction			.202	1.148
	F	2.014		2.488*	
	Adjusted R ²	.096		.178	
ΔR^2	.190		.110*		
OCB ↓ Turnover	Sex	-.162	-1.035	-.068	-.455
	Age	-.072	-.269	.008	.030
	Education	.017	.103	-.008	-.054
	Tenure	-.223	-1.235	-.150	-.882
	Position	-.069	-.275	-.003	-.015
	OCB			-.413**	-2.754
	F	.924		2.353*	
	Adjusted R ²	.008		.126	
	ΔR^2	.097		.138**	

Table 5: The results of regression analyses in type E group
 N = 214, *p < .05, **p < .01, ***p < .001, two-tailed test

Unlike the results indicating that commitment and satisfaction are unrelated to organizational citizenship behavior in types I and E, the other two groups present more meaningful outcomes. The third group, personality type D, which has all the positive values of the big five personality traits, indicates that job satisfaction has a positive effect on organizational citizenship behavior ($\beta = .333, p < .05$) and that turnover is negatively affected by citizenship behavior ($\beta = -.380, p < .01$); however, as Table 6 shows, commitment still has no significant coefficient ($\beta = .110, p > .05$).

	Variable	Model 1		Model 2	
		β	t value	β	t value
Organizational Commitment & Job Satisfaction ↓ OCB	Sex	-.066	-.363	-.047	-.276
	Age	.512*	2.390	.489*	2.454
	Education	-.164	-.942	-.152	-.934
	Tenure	-.212	-1.093	-.318	-1.744
	Position	-.023	-.106	-.032	-.164
	Commitment			.110	.701
	Job Satisfaction			.333*	2.160
	F	1.839		3.041**	
	Adjusted R ²	.070		.203	
	ΔR^2	.153		.150**	
OCB ↓ Turnover	Sex	.226	1.204	.201	1.139
	Age	-.165	-.745	.030	.135
	Education	.352	1.959	.290	1.703
	Tenure	.148	.741	.068	.357
	Position	-.122	-.556	-.130	-.634
	OCB			-.380**	-2.794
	F	1.071		2.313*	
	Adjusted R ²	.006		.123	
	ΔR^2	.095		.122**	

Table 6: The results of regression analyses in type D group
N = 214, *p < .05, **p < .01, ***p < .001, two-tailed test

The last regression analyses are about the personality group of type R, which is composed of respondents who have all negative values for the five dimensions of the personality traits being examined. With respect to commitment and satisfaction, type R has results that contrast with those of type D as Table 7 shows. The organizational commitment of employees with the personality traits of type R has a positive effect on organizational citizenship behavior ($\beta = .304, p < .05$), but satisfaction does not significantly influence the dependent variable ($\beta = .165, p > .05$). The relationship of organizational citizenship behavior and turnover is similar to the results of type D and E (β of OCB = $-.292, p < .05$).

	Variable	Model 1		Model 2	
		β	t value	β	t value
Organizational Commitment & Job Satisfaction ↓ OCB	Sex	.257	1.333	.143	.788
	Age	-.226	-1.091	-.276	-1.428
	Education	.229	1.665	.175	1.319
	Tenure	.325	1.898	.175	1.059
	Position	.156	.841	.192	1.068
	Commitment			.304*	2.008
	Job Satisfaction			.165	1.097
	F	2.207		3.380**	
	Adjusted R ²	.093		.220	
	ΔR^2	.170		.143**	
OCB ↓ Turnover	Sex	-.131	-.699	-.056	-.307
	Age	.183	.903	.117	.593
	Education	-.268	-1.990	-.201	-1.511
	Tenure	-.479**	-2.865	-.384*	-2.310
	Position	.045	.249	.091	.516
	OCB			-.292*	-2.279
	F	2.820*		3.398**	
	Adjusted R ²	.134		.196	
	ΔR^2	.207*		.071*	

Table 7: The results of regression analyses in type R group
N = 214, *p < .05, **p < .01, ***p < .001, two-tailed test

During the four stages of the regression analyses, almost all of the values of VIF are maintained under 3.00 with a maximum of 3.607, which indicates the analyses are free from the problem of multicollinearity. To test hypothesis 2 explicitly, we compare the structure of the models of the four personality trait groups and, in addition, the original structure of the model derived from the complete sample that is not divided; these are presented together. As demonstrated in Figure 4, all of the four-structure models have their own causality between organizational citizenship behavior and other variables, and even the four groups are dissimilar from the integrated model. Based on these results, hypothesis 2 is supported. Moreover, some theoretical and substantive implications are attained by the significant differences shown in relation to the big five personality trait profiles.

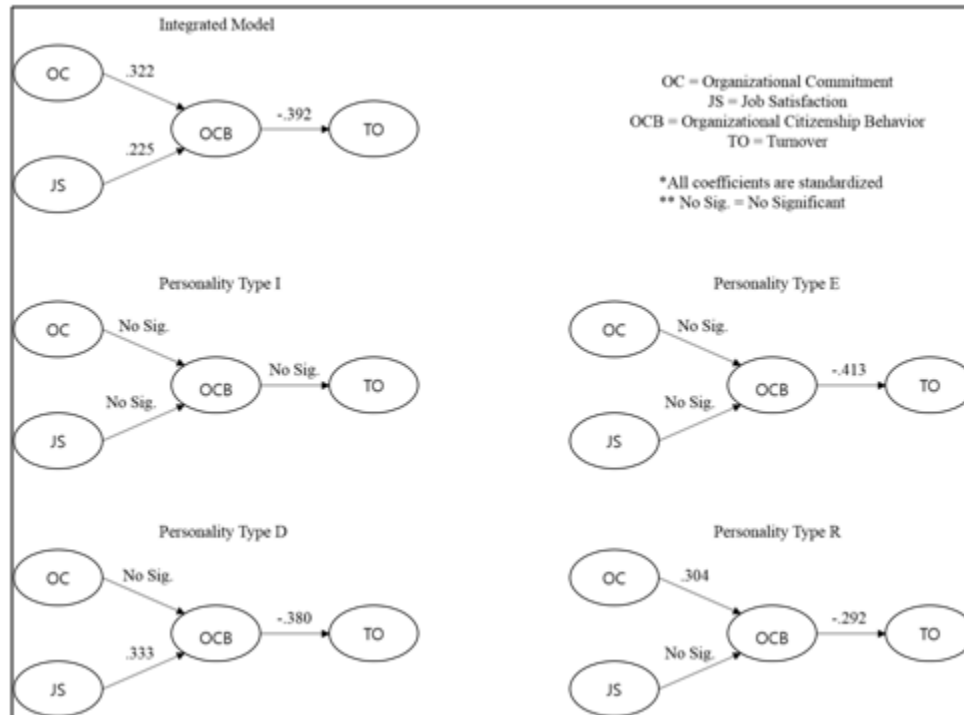


Figure 4: Comparison of structure models of four personality types

5. Conclusions

5.1. Theoretical Implications and Limitations

Organ (1994) argued that the profile or constellation of the personality traits is more suited for predicting organizational citizenship behavior than the one dimension of personality. His finding means that personalities become predictors that are more powerful when they are combined with each other. Based on this idea, we investigated the change in relationships between organizational citizenship behavior and three classic variables of organizational behavior—commitment, satisfaction, and turnover—according to different groups of personality traits. The complete sample was divided into four groups of personality profiles, and regression analyses were conducted on each of the groups. The results showed that the causal relationships between citizenship behavior and other three variables changed according to the personality profile type of different groups. The respondents were classified as one of four types of personality profile labeled I, E, D, and R type. The I-type group had high levels of conscientiousness and neuroticism, and low levels of extraversion, openness, and agreeableness. The E-type group showed the opposite characteristics of the I types' personality dimensions. The respondents who had all low-level dimensions were classified as R type, and those with high levels on all five dimensions constituted the D type. The results of the analyses showed that a negative relationship between citizenship behavior and turnover was significant in types E, D, and R, and the positive relationship of job satisfaction and citizenship behavior was only significant in the D-type group. Organizational commitment had a positive effect on the citizenship behavior in type R but there was no significant relationship in the other types of personality profile. However, in the analyses of the complete sample, all three relationships between citizenship behavior and commitment, satisfaction, and turnover intention were significant. Given the results, some theoretical implications are suggested. First, there is a need once again to identify the relationships that many researchers have believed to be true. Our results indicate that this need exists. For example, job satisfaction in particular has been considered as the most powerful predictor for some time, but we found that the positive relationship of satisfaction and citizenship behavior was only significant among employees of the type D personality group. These findings also apply to commitment and turnover. Therefore, doubts about the relationship between citizenship behavior and other variables arise, and there is a need for further research on these questions. Second, the cluster analysis could usefully be applied to other factors and relationships between other organizational behavior variables. In addition to personality, for example, the factors pertaining to job characteristics could also be classified into groups with some profiles, and relationships of the various factors could be tested on the different groups. This would contribute to understanding the network of variables in the organizational behavior field.

On the other hand, this research also has some limitations. First, we had too few respondents with whom to conduct the cluster analysis, because we performed the regression analyses on a divided sample. Although there is no problem statistically in doing so, a small sample size can raise risks concerning the variances of the sample. A future cluster analysis should be performed with a sufficiently large sample size. A second limitation concerns the determination of the number of cluster groups. In this research, we intentionally set the number through a dendrogram of the sample, but there are also appropriate statistical methods suggested by Calinski and Harabasz (1974), and Duda and Hart (1973). The methods are more arithmetical than intentional selection so those methods should be used if sample size is sufficient.

5.2. Practical Implications

The ultimate purpose of the analysis of management is to manage the organization's resources effectively. In that context, the results of this research give the message that it is important to treat employees individually according to their personality traits. If one employee has a personality profile of type I, he or she is more insensitive to organizational commitment, job satisfaction, or turnover intention than other types when they undertake citizenship behaviors. In contrast, other employees with personality type D who have high levels of all dimensions of the big five personality model are engaging in more citizenship behavior when they feel satisfaction from their jobs, and this will be linked to a reduction in turnover intentions. Managers could use these findings. For example, when the organization has a particular context where it is hard to increase employee's satisfaction or commitment, the managers could intentionally post employees who have personality type I to this context. By doing so, the organization could alleviate the damage caused by absence of satisfaction or commitment of employees. Moreover, as citizenship behavior of type R is more influenced by organizational commitment, and the behavior of type D is affected by job satisfaction, supervisors could improve the organization's efficiency through matching the environment of the organization to the personality traits of employees.

6. References

- i. Ajzen, I. 1991. The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50: 179-211.
- ii. Aryee, S., & Chay, Y. W. (2001). Workplace justice, citizenship behavior, and turnover intentions in a union context: Examining the mediating role of perceived union support and union instrumentality. *Journal of Applied Psychology*, 86(1): 154-160.
- iii. Bateman, T. S., & Organ, D. W. (1983). Job satisfaction and the good soldier: The relationship between affect and employee "citizenship." *Academy of Management Journal*, 26: 587-595.
- iv. Bettencourt, L. A., Gwinner, K. P., & Meuter, M. L. (2001). A comparison of attitude, personality, and knowledge predictors of service-oriented organizational citizenship behaviors. *Journal of Applied Psychology*, 86(1): 29-41.
- v. Bourdage, J. S., Lee, K., Lee, J. H., & Shin, K. H. (2012). Motives for organizational citizenship behavior: Personality correlates and coworker ratings of OCB. *Human Performance*, 25: 179-200.
- vi. Calinski, R. B., & Harabasz, J. (1974). A dendrite method for cluster analysis. *Communications in Statistics*, 3: 1-27.
- vii. Chen, X. P., Hui, C., & Segó, D. J. (1998). The role of organizational citizenship behavior in turnover: Conceptualization and preliminary tests of key hypotheses. *Journal of Applied Psychology*, 83(6): 922-931.
- viii. Chênevert, D., Vandenberghe, C., & Tremblay, M. (2014). Multiple sources of support, affective commitment, and citizenship behaviors: The moderating role of passive leadership. *Personnel Review*, 44(1): 69-90.
- ix. Churchill, G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research*, 16(1): 64-73.
- x. Costa, P. T., Jr., & McCrae, R. R. 1992. Revised NEO Personality Inventory (NEO-PI-R) and NEO Five Factor Inventory (NEO-FFI) Professional Manual. Odessa, FL: PAR
- xi. Coyle-Shapiro, J. A. M., Kessler, I. & Purcell, J. (2004). Exploring organizationally directed citizenship behavior: Reciprocity or 'it's my job?' *Journal of Management Studies*, 41: 85-106.
- xii. Coyne, L., & Ong, T. (2007). Organizational citizenship behaviour and turnover intention: A cross-cultural study. *International Journal of Human Resource Management*. 18(6): 1085-1097.
- xiii. Dalal, R. S. (2005). A meta-analysis of the relationship between organizational citizenship behavior and counterproductive work behavior. *Journal of Applied Psychology*, 90(6): 1241-1255.
- xiv. Duda, R. O., & Hart, P. E. (1973). *Pattern Classification and Scene Analysis*. New York: Wiley.
- xv. Farh, J. L., Podsakoff, P. M., & Organ, D. W. (1990). Accounting for organizational citizenship behavior: Leader fairness and task scope versus satisfaction. *Journal of Management*, 16(4): 705-721.
- xvi. Fishbein, M., & Ajzen, I. (1974). Attitudes toward objects as predictors of single and multiple behavioral criteria. *Psychological Review*, 81: 59-74.
- xvii. Hackman, J. R., & Oldham, G. R. (1980). *Work redesign*. Reading, MA: Addison-Wesley.
- xviii. Illies, R., Fulmer, I. S., Spitzmuller, M., & Johnson, M. D. (2009). Personality and citizenship behavior: The mediating role of job satisfaction. *Journal of Applied Psychology*, 94(4): 945-959.
- xix. Jackson, D. L. (2003). Revisiting sample size and number of parameter estimates: Some support for the N: q hypothesis. *Structural Equation Modeling*, 10: 128-141.
- xx. Judge, Thoresen, Bono, and Patton (2001). The job satisfaction-job performance relationship: A qualitative and quantitative review. *Psychological Bulletin*, 127(3): 376-407.
- xxi. Karambaya, R. (1990). Contexts for Organizational Citizenship Behavior: Do High Performing and Satisfying Units Have Better "Citizens"? Unpublished working paper, York University, Toronto, Ontario.
- xxii. Koh W. L., Steers, R. M., & Terborg, J. R. (1995). The effects of transformational leadership on teacher attitudes and student performance in Singapore. *Journal of Organizational Behavior*, 16(4): 319-333.
- xxiii. Koys, D. J. (2001). The effects of employee satisfaction, organizational citizenship behavior, and turnover on organizational

- effectiveness: A unit-level, longitudinal study. *Personnel Psychology*, 54: 101-114.
- xxiv. Konovsky & Pugh, 1994. Citizenship behavior and social exchange. *Academy of Management Journal*, 37: 656-669.
- xxv. Lai, L. Y. M., Lam, S. S. K., & Chow, C. W. C. (2014). What good soldiers are made of: The role of personality similarity. *Journal of Managerial Psychology*, 30(8): 1003-1018.
- xxvi. Lavelle, J. J., Brockner, J., Konovsky, M. A., Price, K. H., Henley, A. B., Taneja, A., & Vinekar, V. (2009). Commitment, procedural fairness, and organizational citizenship behavior: A multifoci analysis. *Journal of Organizational Behavior*, 30: 337-357.
- xxvii. Major, D. A., Turner, J. E., & Fletcher, T. D. 2006. Linking proactive personality and the big five to motivation to learn and development activity. *Journal of Applied Psychology*, 91(4): 927-935.
- xxviii. Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior*, 61: 20-52.
- xxix. Mobley, W. H. (1982). *Employee Turnover: Cause, Consequences, and Control*. Reading, MA: Addison-Wesley.
- xxx. Moorman, R. H. (1993). The influence of cognitive and affective based job-satisfaction measures on the relationship between satisfaction and organizational citizenship behavior. *Human Relations*, 46(6): 759-776.
- xxxi. Moorman, R. H., Niehoff, B. P., & Organ, D. W. (1993). Treating employees fairly and organizational citizenship behavior: Sorting the effects of job satisfaction, organizational commitment, and procedural justice. *Employee Responsibilities and Rights Journal*, 6: 209-225.
- xxxii. Mowday, R. T., Steer, R. M., & Porter, L. W. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior*, 14: 224-247.
- xxxiii. O'Reilly, C., & Chatman, J. (1986). Organizational commitment and psychological attachment: The effects of compliance, identification and internalization on prosocial behavior. *Journal of Applied Psychology*, 71: 492-499.
- xxxiv. Organ, D. W. (1997). Organizational citizenship behavior: It's construct clean-up time. *Human Performance*, 10(2): 85-97.
- xxxv. Organ, D. W. (1994). Personality and organizational citizenship behavior. *Journal of Management*, 20(2): 465-478.
- xxxvi. Organ, D. W. (1988). *Organizational Citizenship Behavior: The Good Soldier Syndrome*. Lexington, MA: Lexington Books.
- xxxvii. Organ, D. W. (1977). A reappraisal and reinterpretation of the satisfaction-causes-performance hypothesis. *Academy of Management Review*, 2: 46-53.
- xxxviii. Organ, D. W., & Konovsky, M. (1989). Cognitive versus affective determinants of organizational citizenship behavior. *Journal of Applied Psychology*, 74(1): 157-164.
- xxxix. Organ, D. W., Podsakoff, P. M., & MacKenzie, S. B. (2006). Organizational citizenship behavior: Its nature, antecedents, and consequences. Thousand Oaks, CA: Sage.
- xl. Organ, D. W., & Ryan, K. (1995). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behavior. *Personnel Psychology*, 48(4): 775-802.
- xli. Podsakoff, P. M., & MacKenzie, S. B. (1994). Organizational citizenship behaviors and sales unit effectiveness. *Journal of Marketing Research*, 31: 351-363.
- xlii. Podsakoff, P. M., MacKenzie, S. B., Moorman, R. H., & Fetter, R. (1990). Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behavior. *Leadership Quarterly*, 1: 107-142.
- xliii. Puffer, S. M. (1987). Prosocial behavior, noncompliant behavior, and work performance among commission salespeople. *Journal of Applied Psychology*, 72, 615-621.
- xliv. Schappe, S. P. (1998). The influence of job satisfaction, organizational commitment, and fairness perceptions on organizational citizenship behavior. *The Journal of Psychology*, 132(3): 277-290.
- xlv. Schwab, D. P. (1980). Construct validity in organizational behavior. In B., M Staw & L. L. Cummings (Eds.), *Research in organizational behavior* (Vol. 2, pp.3-43). Greenwich, CT: JAI Press.
- xlvi. Shaffer, J. A., Li, A., & Bagger, J. (2015). A moderated mediation model of personality, self-monitoring, and OCB. *Human Performance*, 28(2): 93-111.
- xlvii. Sharoni, G., Tziner, A., Fein, E. C., Shultz, T., Shaul, K., & Zilberman, L. (2012). Organizational citizenship behavior and turnover intentions: Do organizational culture and justice moderate their relationship? *Journal of Applied Social Psychology*, 42(S1): E267-E294.
- xlviii. Smith, C. A., Organ, D. W., & Near, J. P. (1983). Organizational citizenship behavior: Its nature and antecedents. *Journal of Applied Psychology*, 68(4), 653-663.
- xlix. Staw, B. M. (1984). Organizational behavior: A review and reformulation of the field's outcome variables. *Annual Review of Psychology*, 35(1), 627-666.
- l. Van Emmerik, I. J. H., & Euwema, M. C. (2007). Who is offering a helping hand? Associations between personality and OCBs, and the moderating role of team leader effectiveness. *Journal of Managerial Psychology*, 22, 530-548.
- li. Van Scotter, J. R. (2000). Relationships of task performance and contextual performance with turnover, job satisfaction, and affective commitment. *Human Resource Management Review*, 10(1): 79-95.
- lii. Williams, L. J., & Anderson, S. E. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management*, 17: 601-617.
- liii. Zhao, H., & Seibert, S. E. 2006. The big five personality dimensions and entrepreneurial status: A meta-analytical review. *Journal of Applied Psychology*, 91 (2): 259-271.