

Prediction Models on Work Engagement among Public School Teachers: A Hierarchical Regression Analysis

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ABSTRACT

The study anchors on the proposition that organizational justice be practiced first by the organization for employees to develop positive organizational citizenship behavior that promotes organizational commitment, resulting in full work engagement in. This takes into account the aggregate weights of all the indicators of the independent variables. This study used quantitative, non-experimental research using multiple linear hierarchical regression to determine three prediction models on the work engagement of public-school teachers. Model 1 consisted of the indicators of organizational justice; Model 2, the indicators of organizational justice combined with the indicators of organizational citizenship behavior; and Model 3, the combined effects of the indicators of organizational justice and organizational citizenship behavior as well as the indicators of organizational commitment. Results showed high levels of organizational justice, organizational citizenship behavior, organizational commitment, and work engagement among public school teachers. Model 1 showed that work engagement was a function of procedural and informative justice. Model 2 revealed that informative justice, altruism, and civic organizational citizenship behavior were determinants of work engagement among teachers, and Model 3 confirmed that distributive justice, altruism, civic, affective, continuance, and moral obligation dimension predicted work engagement of public-school teachers. Since R^2 increased from Model 1 to Model 3, the best prediction model is Model 3. This new model proposes a combination of indicators from the three variables to increase work engagement among employees.

Keywords: Organizational justice; organizational citizenship behavior; organizational commitment; work engagement; public school teachers; Philippine.

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1. INTRODUCTION

Several studies have been conducted to analyze the individual and collective antecedents and consequences of work engagement. The study of de Oliveira and da Costa Rocha (2017) investigated whether there is a significant correlation between work engagement and turnover intention of employees, and the findings showed a direct positive relationship between the two. In fact, 47 antecedents were identified by Wollard and Shuck (2011) at the individual and organizational levels.

Moreover, work engagement showed a significant mediating effect on the relationship between job and personal resources and job performance as well as on the relationship between job and personal resources and turnover intention (Kim, Han and Park, 2019). In the academic world, teacher performance is considered a consequence of work engagement (Kim, Kolb and Park, 2013). Similarly, Shuck, Reio Jr and Rocco (2011) examined the interrelationships of several

outcomes and variables, namely: job fit, affective commitment, psychological climate, discretionary effort, intention to turnover, and employee engagement of diverse respondents from service companies, technology, healthcare, retail, banking, nonprofit, and hospitality industries using hierarchical regression. Findings showed significant relationships among these variables.

Research findings showed links between organizational citizenship behavior and work engagement in different work settings across cultures. In India, a study revealed a direct correlation between organizational citizenship behavior and work engagement among employees in travel agencies located in Bangalore (George and Joseph, 2015). Similarly, in Egypt, employees from a cement industry also exhibited a direct positive correlation between the two variables (Zedan Abd-Allah, 2016). The same positive direct link between these variables has been found in Indonesia and Thailand (Ariani, 2013; Rurkkhum, 2010).

Moreover, some studies have likewise linked employee engagement with several antecedents as well as consequences. It was found out that Jordanian frontline bank employees who have high normative and affective commitment also have high job and organizational engagement (Albdour and Altarawne, 2014). In Ghana, employees likewise exhibited a significant relationship between work engagement and organizational commitment. The same study also showed that employees in the private organizations had significantly higher levels of job engagement and organizational commitment than employees in the public sectors. However, Ortiz, Lao and Qin (2013), found out that although their study revealed that job engagement had no significant positive association with continuance commitment, it had a positive association with normative commitment.

In a related study, Dewi, Yuliansyah, Sarmpaet and Gamayuni (2022) found out that along with the remuneration system, which had no effect on lecturer performance at state universities, organizational commitment did not strengthen the relationship between remuneration system and performance. It did, however have a potential moderating effect on the relationship between remuneration and performance. The latter is affected by one's engagement while at work.

Researchers have also found links between work engagement and organizational justice. Responses from several insurance companies in India resulted in a significant impact of organizational justice on work engagement partially mediated by trust (Sharma and Yadav, 2018). Another study claimed that increased level of organizational justice also increased significantly the work engagement of health care personnel working in public hospitals in Turkey. Further, procedural justice was the domain that best influenced work engagement followed by distributive and interactional justice, respectively (Özer, Uğurluoğlu and Saygili, 2017).

However, Kamboj and Sarmah (2018) emphasized a dearth of literature and studies on identifying the antecedents and consequences of work engagement in the educational milieu. In this context, this study on prediction models of work engagement in the academic setting was conceptualized to determine what factors influence work engagement of public elementary school teachers. The results may thus expand the literature and provide a database for researchers focusing on this topic in the academe.

The main thrust of this study was to determine prediction models on work engagement among public school teachers. The following were the specific objectives: to describe the level of

organizational justice in terms of: procedural, distributive, interpersonal, and informative justice; to ascertain the level of organizational citizenship behavior in terms of: civic, altruism, and conscientious behavior; to define the level of organizational commitment in terms of: affective, continuance, indebted obligation dimension, and moral imperative dimension; and to describe the level of work engagement among public school teachers in terms of vigor, dedication, and absorption.

2. THEORETICAL FRAMEWORK

The study is anchored on the Social Exchange Theory of George Homans (1950) that the social behavior of the individual in the organization is the outcome of an exchange process between the employee and the organization. This theory suggested that people in the organization usually evaluate the risks versus the benefits. If the risks are higher than the benefits, employees tend to terminate the relationship. Further, a positive relationship between the employees and the organization exists when the benefits outweigh the threats. In this study, the higher the employee commitment (Trofimov, Bondar, Trofimova, Miliutina and Riabchych, 2017), organizational citizenship behavior (Pouramini and Fayyazi, 2015), and organizational justice (Pan, Chen, Hao, and Bi, 2018) the higher their level of work engagement.

This research is likewise anchored on the Expectancy Theory, which contends that there is a higher probability that a specific action produces a specific result (Vroom, 1964). The higher the effort expended, the higher the expected performance which is the outcome of the effort through higher work engagement (De Simone, 2015; Parijat and Bagga, 2014). The favorable outcomes expected by the employees' high organizational behavior and favorable work attitudes are manifested vis-à-vis their high levels of organizational citizenship behavior, organizational commitment and work engagement.

The concept of work engagement was first introduced by Kahn (1990), where he stated that people, to effectively perform their roles in the organization, should be able to express themselves cognitively, emotionally, and physically by bringing their personal selves while performing their work roles (Kuok and Taormina, 2017). Later, Maslach and Leiter (1997) introduced work engagement as the opposite of burnout using the Maslach Burnout Inventory (MBI) developed by Maslach and Jackson (1981). Finally, in 2002, Schaufeli, Salanova, González-Romá and Bakker introduced a new measurement of work engagement in terms of vigor, dedication, and absorption which later on was called the Utrecht Work Engagement Scale (Jaros, 2007).

3. CONCEPTUAL FRAMEWORK

This research study has three independent variables, namely: organizational citizenship behavior, organizational justice, and organizational commitment with work engagement as the dependent variable. Organizational citizenship behavior has three indicators: altruism, civic, and conscientious (Argentero, Cortese, and Ferretti, 2008). On the other hand, organizational justice has four indicators: procedural, distributive, interpersonal, and informative justice (Colquitt, 2001) while organizational commitment used the revised commitment scale items of Meyer and Allen's model of organizational commitment with four indicators: affective, continuance, indebted obligation dimension, and moral imperative dimension (Jaros, 2007). Work engagement as the dependent variable was adapted from the Utrecht Work Engagement

Scale with three indicators, namely: vigor, dedication, and absorption (Schaufeli & Bakker, 2003).

This study is a quantitative, non-experimental research using multiple linear hierarchical regression. It involves the factors at each hierarchical level that affect a certain outcome

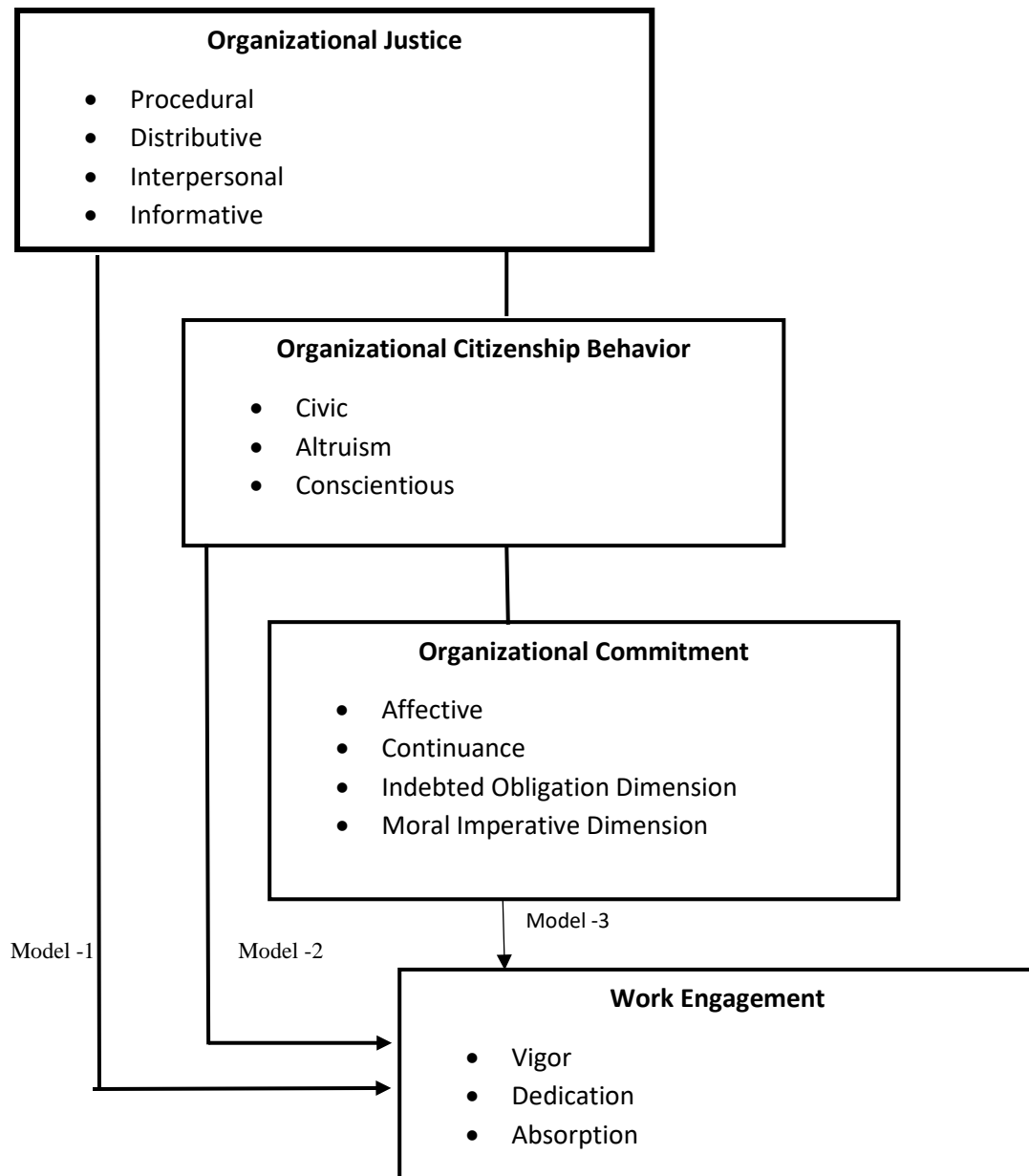


Figure 1. The Conceptual Framework of the Study
(Woltman, Feldstain, MacKay and Rocchi, 2012).

In this case, the author conceived in this framework that the first level is organizational justice, followed by organizational citizenship behavior, then organizational commitment that would result into work engagement of people in the organization.

Organizational justice is the perception of employees on the organization's fairness in terms of procedural, distributive, informational, and interpersonal which impacts on their positive and negative behaviors (Baldwin, 2006). Therefore, it is on this premise that fairness in the organization's policies and practices first be established to develop positive organizational behavior among employees. This contention was supported by Polat (2007), who stated that organizational justice is a predictor of organizational citizenship behavior, which in turn predicts organizational commitment among employees (Shanker, 2016).

From the above contention, the study was conducted on the proposition that organizational justice be practiced first by the organization so that employees may develop positive organizational citizenship behavior that promotes organizational commitment, for them to be fully engaged in their job. This takes into account the aggregate weights of all the indicators of the independent variables. Model 1 consisted of the indicators of organizational justice, namely: procedural, distributive, interpersonal, and informative. Model 2 comprised the indicators of organizational justice combined with the indicators of organizational citizenship behavior, namely: civic, altruism, and conscientious. Finally, Model 3 showed the combined effects of the indicators of organizational justice and organizational citizenship behavior combined with the indicators of organizational commitment, namely: affective, continuance, indebted obligation dimension, and moral imperative dimension.

4. METHOD

The respondents of the study were 400 public elementary school teachers in the Philippines' Southern Mindanao Region, with 11 school divisions selected at random. The respondents' profile is shown below:

4.1 Population and Sampling

The respondents of this study were 400 public elementary school teachers of the different divisions in Region XI; the researcher has identified the number of schools in every division in the region (see Table 1). Simple random sampling was used to determine the number of schools per division that would participate. As shown in Table 1, the teachers of the different schools in the divisions in Region XI were the subjects for the study. Forty respondent schools were involved in the research with ten teachers for each school, totaling 400 teachers. This was the prescription of Changing Minds (2012) that a quota sample of 10 per subgroup is needed to avoid bias in sampling. The 40 schools involved in this study were taken from the nine divisions of Region XI through proportionate sampling with the number of schools per division as the reference point.

Davao City had the highest number of respondents with 90 (23%). Compostela Valley had 80 (20%), while Davao Oriental/Mati City had 70 respondents (18%). On the other hand, Davao del Sur had 60 respondents (14%), while Davao del Norte had 40 respondents (11%). Meanwhile, Panabo and Igacos each had the same number of respondents with 20(4%). Lastly, Digos and Tagum City had the smallest number of respondents with 10 (2%) each.

Table 1: Distribution of Respondents

Divisions of Reg. XI	No. of schools Per division	No. of respondent schools	Sample per school	Percent
Compostela Valley	60	8	10	20%
Davao del Norte	34	4	10	11%
Davao del Sur	42	6	10	14%
Davao Oriental/Mati City	55	7	10	18%
Davao City	70	9	10	23%
Digos City	6	1	10	2%
Panabo City	12	2	10	4%
Tagum City	7	1	10	2%
IGACOS	13	2	10	4%
TOTAL	299	40	400	100%

The survey instruments used were adapted questionnaires modified and contextualized to the Philippine basic education setting. Pilot testing was done to determine their Cronbach Alpha Coefficients for validity and reliability. Approval from the Ethics Board was obtained prior to the conduct of the study. The Cronbach Alpha Coefficients were as follows: Organizational Justice, 0.920; Organizational Citizenship Behavior, 0.880; Organizational Commitment, 0.891; and Work Engagement, 0.861, which are reliable according to Taber (2018). The final manuscript was tested for plagiarism using Turnitin Software with the final result of 5% similarity index. The levels of each variable were determined using the Range of Means below:

Range of Means	Descriptive Level	Interpretation
4.20 – 5.00	Very High	This means that the question items are manifested at all times.
3.40 – 4.19	High	This means that the question items are manifested most of the time.
2.60 – 3.39	Moderate	This means that the question items are manifested occasionally.
1.80 – 2.59	Low	This means that the question items are manifested in few instances.
1.00 – 1.79	Very Low	This means that the question items are never manifested at all.

5. RESULTS

5.1 Descriptive Statistics

In Table 2 is shown the overall mean level of organizational justice perceived by the respondents, with a mean rating of 4.13, or *high*, and a standard deviation of 0.412. This showed that the teachers perceived a high level of organizational justice practiced in public schools. This further indicated that public schools' procedures and policies are applied to a high degree of fairness among their constituents and this upholds moral and ethical standards, especially in relation to decisions about pay, rewards, evaluations, promotions, and assignments. Teachers are treated in public schools with respect and dignity. This is in accordance with Yean (2016), that justice refers to the management decisions and actions that are morally right based on ethical standards, religion, and laws.

Table 2: Level of Organizational Justice

Items	SD	Mean	D.E.
Procedural Justice	0.515	3.94	High
Distributive Justice	0.612	4.14	High
Interpersonal Justice	0.549	4.31	Very High
Informative Justice	0.545	4.12	High
Overall	0.412	4.13	High

In Table 3 is revealed a high level of organizational citizenship behavior among public school teachers with a mean rating of 4.18 and a standard deviation of 0.387. This meant that teachers see themselves as having an attitude of helping other teachers who need assistance and who follow the department's policies especially in their duties and responsibilities as teachers without close supervision from their school heads, and perform non-mandatory behaviors without expecting rewards or recognitions. This concurs with Organ's declaration (1988), and reiterated by Kumar (2014), that employees with high organizational citizenship behavior have high extra-role activities outside their required duties and responsibilities that promote the effective functioning of the organization without expecting rewards.

Table 3: Level of Organizational Citizenship Behavior

Items	SD	Mean	D.E.
Altruism	0.477	4.27	Very High
Conscientiousness	0.479	4.05	High
Civic Virtue	0.457	4.22	Very High
Overall	0.387	4.18	High

The data in Table 4 showed that teachers have a high level of organizational commitment, with a mean of 4.08 and a standard deviation of 0.440. Findings in the table further showed that the

high level of organizational commitment among public school teachers indicated that teachers are loyal to their jobs as well as their organization. They are socially, emotionally, and economically attached to the Department of Education and cannot imagine themselves being separated from the organization. This is in accordance with the assertions of Mowday(1984) and corroborated by Robins (2005), and affirmed by Luz, de Paul and de Oliveira (2018). that the degree of support and loyalty of employees are correlated with a strong intention to remain in the organization.

Table 4: Level of Organizational Commitment

Items	SD	Mean	D.E.
Affective Commitment	0.512	4.14	High
Continuance Commitment	0.589	3.93	High
Indebted Obligation Dimension	0.586	4.02	High
Moral Imperative Dimension	0.520	4.21	Very High
Overall	0.440	4.08	High

As shown in Table 5, the mean level of teachers' work engagement is 4.17 or *high* with a standard deviation of 0.433. This signified that the high level of work engagement among teachers includes a high sense of pride in all the work they do and they feel very happy when they are working intensely and have difficulty in detaching themselves from the job they are engaged in. The results of the study affirm the contention of Kuok and Taormina (2017), that highly engaged individuals who have a willing attachment to whatever they do in the organization also have a high degree of enthusiasm, pride, and enjoyment in carrying out their tasks.

Table 5: Level of Work Engagement

Items	SD	Mean	D.E.
Vigor	0.513	4.09	High
Dedication	0.494	4.37	Very High
Absorption	0.531	4.05	High
Overall	0.433	4.17	High

5.2 Prediction Models

In Table 6 are shown the summary results for the three hierarchical models on work engagement among public school teachers. In Model 1 is shown the direct effect of the indicators of organizational justice on work engagement. Among the four indicators, only two showed a significant impact on work engagement. Procedural justice and informative justice both showed values of $p < 0.01$, while distributive and interpersonal justice got p-values of .409 and .072, respectively, greater than the .05 level of significance. The findings also indicate that the F value of 25.57 showed a significant influence of organizational justice on work engagement with $p < 0.01$ and $SEE = .403$. The R^2 value of .206 indicates that 20.6% of the variance of work engagement is attributed to organizational justice while the remaining 79.4%

is attributed to other factors not included in Model 1. The findings are in consonance with the results of the studies of Park, Song and Lim (2016); Sharma and Yadav (2018), and Özer, Uğurluoğlu, and Saygili (2017), who stated that an increase in organizational justice caused the increase of work engagement of employees. As to work engagement, the most significant impact was shown by procedural justice, followed by distributive and interactional justice.

Table 6: Summary Result on Hierarchical Models on Work Engagement

Indicators	Model 1				Model 2				Model 3			
	B	β	SE	p	B	β	SE	p	B	β	SE	p
<i>Procedural Justice</i>	.194	.223	.048	.000								
Distributive Justice	.033	.045	.040	.409								
Interpersonal Justice	.084	.102	.046	.072								
<i>Informative Justice</i>	.173	.209	.049	.000								
<i>Constant</i>	2.187		.201	.000								
Procedural Justice					.067	.077	.045	.136				
Distributive Justice					.018	.025	.037	.618				
Interpersonal Justice					-.003	-.003	.042	.948				
<i>Informative Justice</i>					.091	.110	.044	.040				
<i>Altruism</i>					.311	.329	.048	.000				
Conscientious					.022	.023	.048	.647				
<i>Civic</i>					.222	.225	.052	.000				
<i>Constant</i>					1.110		.208	.000				
Procedural Justice									-.017	-.019	.039	.668
<i>Distributive Justice</i>									.073	.100	.032	.025
Interpersonal Justice									-.042	-.052	.037	.253
Informative Justice									.052	.063	.039	.179
<i>Altruism</i>									.231	.245	.042	.000
Conscientious									.025	.027	.041	.540
<i>Civic</i>									.101	.102	.046	.031
<i>Affective</i>									.240	.273	.046	.000
<i>Continuance</i>									.085	.112	.036	.017
Indebted Obligation									.047	.062	.033	.150
<i>Moral Imperative</i>									.193	.222	.038	.000
<i>Constant</i>									.653		.186	.000
R²	.206				.378				.544			
ΔR²	.206				.172				.165			
SEE	.403				.358				.308			
F	25.57				36.24				35.15			
P-Value	.000				.000				.000			
Durbin-Watson	1.901											
Col. Diagnostics: T/VIF	Min _{Tol} =.577 Max _{Tol} =.668 Min _{VIF} =1.485 Max _{VIF} =1.732				Min _{Tol} =.558 Max _{Tol} =.640 Min _{VIF} =1.563 Max _{VIF} =1.796				Min _{Tol} =.432 Max _{Tol} =.647 Min _{VIF} =1.557 Max _{VIF} =2.316			

In Table 6 is further shown the Collinearity Diagnostics of Model 1 with the following results: Minimum and Maximum Tolerance, Min_{Tol}=.577, Max_{Tol}=.668; and Variance Inflation Factor (VIF), Min_{VIF}=1.485, Max_{VIF}=1.732. Tolerance values of not less than .1 and VIF values of not greater than 10 result to noncollinearity of the indicators. This meant that the indicators involved are independent of one another. A VIF of 10 or below is acceptable (Hair, Anderson, Tatham & Black,1995). Tolerance is associated with each independent variable and ranges from 0 to 1. Allison (1999) suggests a tolerance of below .40 is cause for concern and anything under .20 suggests serious multicollinearity in a model. Moreover, high tolerance (e.g. .84 means low multicollinearity while low tolerance (e.g. .19) means high (serious) multicollinearity (Weisburd and Britt, 2013).

When the indicators of organizational justice were combined with the indicators of organizational citizenship behavior in Model 2, only informative justice showed significant influence on work engagement, with $p=.040$, together with altruism and civic indicators of organizational citizenship behavior both with p values of less than $.01$, and an overall F value of 36.24 and $p<0.01$ and $SEE=.358$. The R^2 value of $.378$ means that 37.8% of the variance of work engagement is ascribed to the combined indicators of organizational justice and organizational citizenship behavior, while 62.2% is due to external factors not included in Model 2. It can be noted that the Standard Error of the Estimate (SEE) decreased from $.403$ in Model 1 to $.358$ in Model 2. Further, there is an increase in the R^2 value from $.206$ in Model 1 to $.378$ in Model 2 or as much as 17.2% . This indicated that an increase of 17.2% was attributed to the combined effect of organizational justice and organizational citizenship behavior on work engagement. Model 2 also exhibited the following collinearity diagnostics results: Tolerance, $Min_{Tol}=.558$, $Max_{Tol}=.640$; and Variance Inflation Factor (VIF), $Min_{VIF}=1.563$, $Max_{VIF}=1.796$. This revealed the noncollinearity of the combined variables of organizational justice and organizational citizenship behavior (Allison, 1999; Hair, et.al. (1995) and Weisburd, et. al., 2013). The findings of the study also showed that not only organizational justice had an impact on work engagement; likewise, organizational citizenship behavior can affect work engagement. The result corroborated the findings of Abd-Allah (2016), that indicators of organizational citizenship behavior had an impact on the work engagement of employees in the cement industry in Egypt.

Finally, when the indicators in Model 2 were combined with the indicators of organizational commitment, namely: affective, continuance, indebted obligation dimension, and moral imperative dimension, to comprise Model 3, findings showed that the six combined indicators showed significant influence on work engagement, namely: distributive justice, $p=.025$; altruism, $p=.000$; civic, $p=.031$; affective, $p=.000$ continuance, $p=.017$; and moral imperative dimension, $p=.000$ and, therefore, were significant predictors of work engagement. In Model 3. $F=35.15$, $p<0.01$ and SEE decreased further to $.308$. The R^2 value increased further by 16.5% or $.544$. This meant that 54.4% of the combined effects of all indicators of the three variables were attributed to the variance of work engagement. The findings were also supported by another study which confirmed that organizational commitment and work engagement were highly correlated with one another (Agyemang and Ofei, 2013; Albdour and Altarawneh, 2014; Khalid and Khalid, 2015; Ortiz, Lau and Qin, 2013). The collinearity diagnostics of Model 3 with the following values: Tolerance, $Min_{Tol}=.432$, $Max_{Tol}=.647$; and Variance Inflation Factor (VIF), $Min_{VIF}=1.557$, $Max_{VIF}=2.316$, showed noncollinearity of the combined indicators of the 3 independent variables, namely: organizational justice, organizational citizenship behavior, and organizational commitment (Allison, 1999; Hair, et.al., and Weisburd, et. al., 2013).

In Table 6 is also shown the overall Watson-Durbin value of 1.901 . Literature suggests that if the Durbin-Watson is close to 2 , it can be regarded as free of autocorrelation at 0.05 level of significance (Chen, 2016).

Three prediction models are yielded in Table 5:

Model 1:

$$Y = 2.187 + 1.94(Pr\ oJust) + 1.73(InfJust)$$

Mode 2:

$$Y = 1.110 + .091(InfJust) + .311(Altru) + .222(Civic)$$

Model 3:

$$Y = .653 + .073(\text{DistJust}) + .231(\text{Altru}) + .101(\text{Civic}) + .240(\text{Affect}) + .0859(\text{Contin}) + .193(\text{Moral})$$

Where: Y	Work Engagement
ProJust	Procedural Justice
InfJust	Informative Justice
Altru	Altruism
Civic	Civic
DistJust	Distributive Justice
Affect	Affective Commitment
Contin	Continuance Commitment
Moral	Moral Obligation Dimension

Summing up, the study was conducted anchored on the proposition that organizational justice be practiced first by the organization so that employees can develop positive organizational citizenship behavior that promotes organizational commitment, for them to be fully engaged in their job. This takes into account the aggregate weights of all the indicators of the independent variables. Model 1 consisted of the indicators of organizational justice. Model 2 comprised the indicators of organizational justice combined with the indicators of organizational citizenship behavior. Finally, Model 3 reflected the combined effects of the indicators of organizational justice and organizational citizenship behavior combined with the indicators of organizational commitment. The first model showed that work engagement was a function of procedural and informative justice. The second model revealed that informational justice, altruism, and civic organizational citizenship behavior were determinants of work engagement among teachers. Finally, Model 3 confirmed that distributive justice, altruism, civic, affective, continuance, and moral obligation dimension were the predictors of work engagement of public school teachers. Since R^2 increased from Model 1 to Model 3, therefore, among the three models, the best prediction model is Model 3.

6. IMPLICATIONS

This study proposes that to boost teachers' engagement, schools may establish first the culture of justice which is the contributing factor on the acquisition of the positive organizational behavior among them so that higher level of organizational commitment would ensue. To make it happen, the study recommends the adoption of Model 3 as the Best Model.

Public schools may develop a strategy to integrate the important factors identified in Model 3 in their school culture to boost the teachers' work engagement. This may be done by strengthening the schools' organizational fairness specifically on distributive justice, making teachers feel that the pay, rewards, evaluations, promotions, and assignments they received from the organization reflect the effort and performance they have rendered.

Similarly, school heads may implement other mechanisms to enhance the climate of helpfulness among members of the school community through mentoring new teachers and teamwork in realizing the school's vision, mission, and core values. Further, school leaders are encouraged to continue a regular information drive to ensure that teachers internalize and practice the policies, standards, and guidelines of the department, making teachers believe in giving an honest day's work for an honest day's pay.

Finally, to improve the teachers' organizational commitment, a plan may be developed to improve wellbeing and job satisfaction indices among teachers following the plan-do-check-act format as part of the Teachers' Development Program. These measures may improve turnover rate and teacher efficacy, thereby increasing the level of work engagement resulting to an increase in teacher productivity.

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