



Leadership style and organizational citizenship behavior in the local public hospital of Indonesia: The impact of job satisfaction

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ABSTRACT

This study aims to explore the mediating role of job satisfaction in the influence of transformational leadership and transactional leadership on organizational citizenship behavior (OCB). A total of 110 respondents were involved in this study. In collecting data, researchers distributed questionnaires to nurses at the regional general hospital, Tulungagung, East Java, Indonesia. The collected data was then analyzed using the partial least squares (PLS) method. The research findings show that there is a significant relationship between transformational leadership and OCB, job satisfaction and OCB. However, not as we expected, transactional leadership did not show a significant improvement on nurses' OCB. Furthermore, both transformational leadership and transactional leadership are able to act as strong predictors of job satisfaction. Finally, as we hypothesized that job satisfaction may mediate the effect of transformational leadership and transactional leadership on OCB.

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Introduction

Employees are the driving force in running the organization. Employees as one of the resources in the organization have a crucial role in achieving the goals of organization or company. Maintaining and improving employee performance becomes a necessity for the organization. However, the facts reveal that employee performance is not the only measure of organizational success. There are other factors, such as how employees behave in the organization. Employee behavior that plays a vital role in achieving organizational success is the behavior of helping other employees' work which is done voluntarily without any formal organizational contract. This behavior is commonly known as OCB which stands for organizational citizenship behavior. Bateman & Organ (1983) and Smith et al. (1983); is the researcher who first introduced the term OCB. Organ (1988) defines OCB as individual behavior that is discretionary, namely behavior that is carried out without coercion (informal) and this behavior can contribute positively to organizational effectiveness. In addition, OCB is generally also known as extra-role behavior, which refers to a series of actions that are not included in the job description or are not related to the position and role of employees in the organization (Zhu, 2013).

Braun et al. (2013) revealed that OCB as a form of cooperation among employees can increase organizational effectiveness, by more effective finishing project, efficient use of budgets and higher quality work results. Hakim & Fernandes (2017) explain that when an employee's OCB value increases, it will be directly proportional to its greater influence on increasing personality, organizational commitment, and employee job satisfaction which will ultimately improve employee performance. OCB includes people who speak

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positively about their organization, help others, and go above and beyond their normal job expectations (Robbins & Judge, 2017). Given the importance of the contribution of OCB in the organization, leadership from managers or leaders in this context has a crucial role to create OCB among employees. In relation to OCB, Mi *et al.* (2019) revealed that the leader is a vital element to influence the creation of OCB among employees. This is in line with the empirical study of Dartey-Baah & Addo (2019) which revealed that leadership style can have a positive and significant effect on the sustainability of employees' OCB.

Although some of these empirical studies reveal that there is a positive and significant relationship between transformational and transactional leadership styles on employee OCB, other researchers have found different results. Arar & Nasra (2019) revealed that transformational and transactional leadership did not have a direct effect on employee OCB. Nanang *et al.* (2020); Idris *et al.* (2021) also stated that leaders with a transformational style did not have a significant direct relationship to OCB. To bridge the gap in the results of this study, this study adds a mediating variable, namely job satisfaction as an alternative to the relationship between transformational and transactional leadership styles on OCB. Job satisfaction is the level of pleasure felt by employees on a job which is the result of evaluating the characteristics of their work (Gibson *et al.*, 2012). Employees with high job satisfaction have positive feelings (pleasure) about their work, while employees with low job satisfaction have negative feelings (displeasure) in doing their jobs (Robbins & Judge, 2017).

Mickson & Anlesinya (2019) shows that employee job satisfaction in the Ghanaian Local Government is significantly influenced by transformational leadership and transactional leadership. Furthermore, the researcher reveals that transactional leadership behavior is a relatively better predictor of job satisfaction than transformational leadership. The strong connectivity between job satisfaction and OCB is revealed in an empirical study by Prasetyo & Hayuningrat (2017) which reveals that job satisfaction can actually support the creation of employee OCB in an organization. Job satisfaction is positively correlated with OCB, that employees who have satisfaction in doing their work are related to their tendency to engage in OCB (Idris *et al.*, 2021).

In this study, researchers will conduct an empirical study on employees of non-profit oriented organizations engaged in health sector, namely nurses at the regional general hospital (RSUD) dr. Iskak Tulungagung, East Java, Indonesia. Nurses having OCB, are needed because according to Hutahayan *et al.* (2013) OCB is a voluntary action taken by employees where the action can make a positive contribution to the organization. Potter *et al.* (2013) argue that nurses make a very large contribution to the success of providing complete health services to clients. In addition, the consideration of choosing nurses as the focus of research compared to other professions, especially medical personnel (doctors), because nurses and doctors have job characteristics and values that tend to be different, nurses tend to have high concern for fellow nurses and have cross-functional jobs that allow to help their colleagues, while doctors focus more on the specialization of their profession so that doctors are not possible to help other doctors work (Rudland & Mires, 2005). Therefore, this study intends to explore the mediating role of job satisfaction in the influence of transformational leadership and transactional leadership on nurses' OCB in hospitals.

The following section of the current study covers both theoretical and empirical literature reviews. Participants and procedures as well as instrument measurements are explained in the research and methodology section. Furthermore, the study findings and hypothesis testing are presented in the findings and discussion sections. Finally, implications and recommendations for future researches are presented in the conclusion section.

Literature Review

Theoretical Background & Hypothesis Development

Transformational Leadership and OCB

Organizational citizenship behavior (OCB) is a social psychological theory that was first introduced by Organ and his colleagues (Smith *et al.*, 1983; Bateman & Organ, 1983). Organ (1988) defines OCB as individual behavior that is discretionary, namely behavior that is carried out without coercion (informal) and this behavior can contribute positively to organizational effectiveness. Furthermore, Robbins & Judge (2017) defines OCB as the behavior of people involved in the organization including behavior to help colleagues and do work outside of their responsibilities. With the behavior, they tend to speak positively about the organization. Podsakoff *et al.* (2000) revealed that OCB is a behavior carried out by employees outside the formal job description that is personal and is not an extra-role behavior.

Leadership is a factor is one of the key factors in instilling care among nurses. Transformational leadership as leadership that inspires, can encourage members not only to prioritize their personal interests but also organizations where the leadership model can have a profound and extraordinary impact on its members (Bass & Bass, 2008). Kim & Park (2019); Mi *et al.* (2019) revealed that transformational leadership can directly effectively improve employee OCB. Leaders with a transformational style can develop inspirational relationships with organizational members where in the process both leaders and members are transformed for the better. This transformation improves the behavior of the people involved and increases the morale of leaders and followers (Uhl-Bien *et al.*, 2014). Therefore, the researcher builds the following hypothesis:

H1: Transformational leadership has a significant and positive effect on OCB

Transformational Leadership and Job Satisfaction

The term job satisfaction was first popularized by Hoppock in 1935 and until now the study of job satisfaction is still a hot topic for discussion and research, considering that job satisfaction is a branch of knowledge in dynamic organizational behavior (Hoppock, 1935). Hoppock (1935) describes job satisfaction as a collection of psychological, physiological and environmental conditions that cause people to honestly say "I am satisfied with my job" (Munir & Rahman, 2016). Job satisfaction is the result of employees' perceptions of how well their jobs provide things that are considered important. It is generally recognized in the field of organizational behavior that job satisfaction is the most important and frequently studied employee attitude (Luthans, 2011).

Empirical studies explain that leaders with transformational models have a major role in increasing perceptions of job satisfaction (Mickson et al., 2020). Employees who have high job satisfaction tend to feel that their leaders care about them well (Dartey-Baah & Ampofo, 2016). Puni et al. (2018) also explains that job satisfaction increases when the leader gives them motivation and is always an inspiration for good behavior. Based on this explanation, the researcher developed the following hypothesis:

H2: Transformational leadership has a significant and positive effect on job satisfaction.

Transactional Leadership on OCB

Transactional leadership is a leadership style that focuses its attention on interpersonal transactions between leaders and employees that involve exchange relationships. The exchange is based on an agreement on the classification of goals, work standards, work assignments, and awards (Yukl, 2013). A leader who uses a transactional leadership style helps his employees increase motivation to achieve the desired results in two ways, first, a leader recognizes what subordinates must do to achieve the planned results after that the leader clarifies the role of his subordinates then subordinates will feel confident in carrying out the work that requires his role. The second is the leader clarifies how meeting the needs of subordinates will be confused with assigning roles to achieve agreed outcomes (Avolio & Bass, 2002).

Transactional leadership encourages leaders to adjust their behavior to understand followers' expectations. Transactional leadership is a leadership model in which a leader tends to give direction to his subordinates, reward and punish their performance, and focuses on behavior to guide their followers to the goals set by clarifying roles and task demands (Maulizar et al., 2012). This kind of leadership has a major contribution in building positive behaviors, such as OCB among employees (Aboramadan & Dahleez, 2020); (Dartey-Baah & Addo, 2019). On this basis the researcher hypothesizes that:

H3: Transactional leadership has a significant and positive effect on OCB

Transactional Leadership and Job Satisfaction

Mickson & Anlesinya (2019) shows that employee job satisfaction in the Ghanaian Local Government is significantly influenced by transformational leadership and transactional leadership. Furthermore, the researcher reveals that transactional leadership behavior is a relatively better predictor of job satisfaction than transformational leadership. Islam et al. (2013) revealed similar findings that there is a positive and significant relationship between transactional leadership style and employee job satisfaction. Based on this explanation, the researcher builds the following hypothesis:

H4: Transactional leadership has a significant and positive effect on job satisfaction

Job Satisfaction and OCB

The relationship between job satisfaction and OCB has been investigated in a previous study by Prasetyo & Hayuningrat (2017) which revealed that job satisfaction conclusively supports the high frequency of OCB among employees. Job satisfaction is positively correlated with OCB, that employees who have satisfaction in doing their work are related to their tendency to be involved in OCB (Robbins & Judge, 2017). Gyekye & Haybatollahi (2015) findings also show similar results that job satisfaction is a direct and significant predictor of three dimensions of employee OCB, which consist of compliance, loyalty and employee participation. Based on this explanation, the researcher builds the following hypothesis:

H5: Job satisfaction has a significant and positive effect on OCB

Mediating role of Job Satisfaction

Job satisfaction can not only have a significant and positive direct effect on OCB but can also act as a mediating variable between the influence of transformational and transactional leadership styles on OCB. This is also in line with Asrunputri et al. (2020) which states that employee job satisfaction can mediate the relationship of leadership style which is the strongest predictor and has a large effect on OCB. Leaders play a big role in how high the job satisfaction of nurses is, and nurses who are satisfied with their work tend to involve themselves in positive activities, such as OCB (Idris et al., 2021). On the basis of the findings of previous studies, the researchers included the mediating variable job satisfaction as an alternative to bridge the differences in the results of previous studies which stated that the relationship between transformational and transactional leadership styles on OCB did not have a direct significant effect. Thus, the researcher builds the following hypothesis:

H6: Job satisfaction mediates the relationship between transformational leadership and OCB.

H7: Job satisfaction mediates the relationship between transactional leadership and OCB.

Research and Methodology

Participants and Procedures

This research is included in the category of explanatory research, which was carried out on nurses at RSUD dr. Iskak Tulungagung, East Java, Indonesia. The population in this study included all of the hospital's nurses, as many as 573. The sample calculated by the Slovin formula was obtained as many as 123 respondents with a critical value (e) of 8%. The following is the calculation of determining the number of samples:

$$n = \frac{N}{1 + N.(e)^2} \quad n = \frac{573}{1 + 573 \times (0.08)^2} \quad n = \frac{573}{1 + 573 \times 0.0064} \quad n = \frac{573}{4.667} \quad n = 122.7 = 123$$

A total of 123 questionnaires were distributed to nurses, only 110 questionnaires (89%) were returned and could be processed further. Data collection was carried out after the researcher had fulfilled the licensing procedure by the hospital. Researchers distributed online questionnaires via google foam to hospital nurses according to the calculated sample size. This research began in early November until the end of December 2021. After all the data was collected, the researchers conducted an analysis using the structural equation model based on partial least squares (PLS) method. PLS is a component or variance-based structural equation model and does not require a large number of samples in its analysis (Ghozali, 2014).

Measures

A five-point Liker scale, consisting of strongly agree (5), agree (4), neutral (3), disagree (2) and strongly disagree (1) was used as a measuring instrument for this research instrument. Transformational leadership is measured based on five indicators which include idealized influence, inspirational motivation, intellectual stimulation and individualized consideration (Podsakoff et al., 1990). Transactional leadership is measured by 3 indicators, namely contingent reward, active management by exception and passive management by exception (Maulizar et al., 2012). Furthermore, in measuring job satisfaction, the researcher uses five indicators developed by Handoko (2012), namely nature of work, salary, managerial support, promotion and co-worker support. Finally, the OCB measurement is based on five indicators developed by Organ (1988) namely altruism, courtesy, conscientiousness, sportsmanship and civic virtue.

Findings

Respondents Characteristics

Respondents in this study were nurses at RSUD dr. Iskak Tulungagung Regency with a tenure of more than one year and there are as many as 110 respondents. The description of the demographics of each classification of the characteristics of the respondents is presented in table 1.

Table 1: Characteristics of Respondents

Characteristics	Categories	Numbers	Percentage
Gender	Male	35	32%
	Female	75	68%
Age	≤ 25 years	8	7%
	26 - 30 years	34	31%
	31 - 35 years	20	18%
	36 - 40 years	24	22%
	> 40 years	24	22%
Education	Associate degree	51	46%
	Bachelor	17	16%
	Profesi	40	36%
	Master	2	2%
Length of work	1 - 5 years	40	36%
	6 - 10 years	22	20%
	11 - 15 years	17	16%
	> 15 years	31	28%
Job status	Permanent nurse	71	65%
	Temporary nurse	39	35%

Source: Primary Data Processed, (2022)

Measurement Model

Convergent Validity

Convergent validity can be seen by looking at the loading factor value. An instrument is said to meet the convergent validity test if it has a loading factor greater than 0.6. Convergent validity can also be known through the value of Average Variance Extracted (AVE). An instrument is said to be convergently valid, if the AVE value for each variable is greater than 0.5 (Chin, 1995 in Abdillah & Hartono, 2015). The results of the convergent validity test for all instruments in each are presented in Table 2 below:

Table 2: Results of Instrument Validity

Variable	Indicators	Items	Loading Factor	AVE	Information.
Transformational leadership (X1)	Idealized influence	X1.1	0.798	0.636	Valid
		X1.2	0.720		Valid
	Inspirational motivation	X1.3	0.823		Valid
		X1.4	0.884		Valid
	Intellectual stimulation	X1.5	0.768		Valid
		X1.6	0.812		Valid
	Individual considerations	X1.7	0.882		Valid
		X1.8	0.671		Valid
Transactional Leadership (X2)	Contingent Reward	X2.1	0.842	0.684	Valid
		X2.2	0.825		Valid
		X2.3	0.641		Valid
	Active Management by Exception	X2.4	0.836		Valid
		X2.5	0.873		Valid
		X2.6	0.781		Valid
	Passive Management By Exception	X2.7	0.884		Valid
		X2.8	0.905		Valid
Kepuasan Kerja (Z)	Nature of work	Z.1	0.884	0.622	Valid
		Z.2	0.652		Valid
	Salary	Z.3	0.749		Valid
		Z.4	0.766		Valid
	Managerial Support	Z.5	0.878		Valid
		Z.6	0.806		Valid
	Promotion	Z.7	0.866		Valid
		Z.8	0.739		Valid
	Coworker Support	Z.9	0.856		Valid
		Z.10	0.761		Valid
Organizational Citizenship Behavior (Y)	Altruism	Y.1	0.820	0.639	Valid
		Y.2	0.776		Valid
	Courtesy	Y.3	0.815		Valid
		Y.4	0.827		Valid
	Conscientiousness	Y.5	0.683		Valid
		Y.6	0.804		Valid
	Sportsmanship	Y.7	0.710		Valid
		Y.8	0.856		Valid
	Civic Virtue	Y.9	0.765		Valid
		Y.10	0.818		Valid

Source: Primary Data Processed, (2022)

Based on Table 2 above, the entire value of each item of the variables of transformational leadership, transactional leadership, job satisfaction, and OCB shows the loading factor value above 0.60 and AVE more than 0.5. Thus, it can be stated that all indicators in the observed variable of the study have met the validity requirement.

Discriminant Validity

The discriminant validity of the measurement model was measured based on the cross-loading value with the construct. If the correlation of the construct with each indicator (measurement subject) is greater than the size of the construct in the other blocks, then the latent construct is able to predict the indicator better than the other constructs. Thus, thus discriminant validity is met. The results of the discriminant validity test can be seen in Table 3 below:

Table 3: Results of Discriminant Validity (Cross Loading)

Items	Variable			
	X1	X2	Y	Z
X1.1	0.798	0.683	0.609	0.715
X1.2	0.720	0.578	0.585	0.420
X1.3	0.823	0.677	0.659	0.655
X1.4	0.884	0.683	0.688	0.619
X1.5	0.768	0.602	0.583	0.491
X1.6	0.812	0.540	0.705	0.609
X1.7	0.882	0.639	0.759	0.685
X1.8	0.671	0.605	0.456	0.503
X2.1	0.647	0.842	0.543	0.664
X2.2	0.623	0.825	0.573	0.532
X2.3	0.519	0.641	0.482	0.501
X2.4	0.661	0.836	0.596	0.520
X2.5	0.654	0.873	0.569	0.563
X2.6	0.578	0.781	0.480	0.597
X2.7	0.688	0.884	0.568	0.623
X2.8	0.773	0.905	0.724	0.680
Y.1	0.649	0.572	0.820	0.541
Y.10	0.714	0.562	0.818	0.540
Y.2	0.715	0.562	0.776	0.601
Y.3	0.701	0.568	0.815	0.733
Y.4	0.662	0.575	0.827	0.735
Y.5	0.381	0.377	0.683	0.382
Y.6	0.613	0.603	0.804	0.620
Y.7	0.476	0.483	0.710	0.477
Y.8	0.703	0.621	0.856	0.542
Y.9	0.561	0.468	0.765	0.539
Z.1	0.637	0.703	0.607	0.884
Z.10	0.462	0.534	0.345	0.761
Z.2	0.563	0.365	0.595	0.652
Z.3	0.691	0.544	0.683	0.749
Z.4	0.644	0.564	0.684	0.766
Z.5	0.589	0.647	0.557	0.878
Z.6	0.497	0.535	0.517	0.806
Z.7	0.676	0.656	0.593	0.866
Z.8	0.452	0.457	0.361	0.739
Z.9	0.618	0.607	0.520	0.856

Source: Primary Data Processed, (2022)

Based on the cross-loading value, it can be seen that all indicators that make up each variable (yellow values) have met the discriminant validity requirements because they have a higher loading factor value than the cross correlation in the other blocks. Thus, all indicators in each variable in this study are declared capable of measuring the latent variables that correspond to the indicators.

Reliability Results

Evaluation of the reliability of the PLS measurement model can use a composite reliability value of more than 0.7 and a Cronbach Alpha score of more than 0.6. The results of this evaluation of reliability are used to see that the indicators have consistency when used to measure a construct. Based on Table 4, it is explained that all variables consisting of transformational leadership, transactional leadership, job satisfaction and OCB have a composite reliability value of more than 0.7 and a Cronbach Alpha value of more than 0.6. Thus, it can be concluded that all indicators can be said to be reliable in measuring the latent variables in this study. The results of the composite reliability and Cronbach Alpha values are presented in Table 4 below:

Table 4: Results of Composite Reliability and Cronbach Alpha

Variable	Cronbach Alpha	Composite Reliability	Info.
Transformational leadership	0.917	0.933	Reliable
Transactional Leadership	0.932	0.945	Reliable
Job satisfaction	0.932	0.943	Reliable
Organizational Citizenship Behavior	0.936	0.946	Reliable

Source: Primary Data Processed, (2022).

Structural Model

Structural model analysis is used to test the goodness of fit model. Goodness of fit Model is utilized to determine the ability of endogenous variables to explain the diversity of exogenous variables. Goodness of fit Model in PLS analysis is done using Q2 (Q-square predictive relevance). For more details, the results of data processing related to the conformity test (Goodness of fit Model) can be seen in Table 5 below:

Table 5: Goodness of Fit Model

Variable	R ²
Job satisfaction (Z)	0.684
Organizational Citizenship Behavior (Y)	0.598
$Q^2 = 1 - (1 - R1^2) \times (1 - R2^2)$	
$Q^2 = 1 - (316) \times (402)$	
$Q^2 = 1 - 0.127$	
$Q^2 = 0.873$	

Source: Primary Data Processed, (2022)

Table 5 above illustrates that R2 of the job satisfaction variable has a value of 0.684. This shows that the variable job satisfaction can be explained by transformational leadership and transactional leadership by 68.4%. While the remaining percentage of 31.6% is the contribution of other variables that are not part of this study.

R2 of the OCB variable has a value of 0.598. This shows that the diversity of OCB variables can be explained by transformational leadership, transactional leadership, and job satisfaction with an accuracy of 59.8%. While the remaining percentage of 40.2% is the contribution of other variables that are not a concern in this study.

The Q-Square predictive relevance value of this study is 0.873. This value also means that the diversity of OCB variables can be explained by the overall model of 87.3% or in other words, the contribution of transformational leadership variables, transactional leadership, and job satisfaction to OCB has an accuracy of 87.3%, while the remaining 12.7% is the contribution of other variables that are not the focus of this study.

Hypothesis testing

Hypothesis Testing for Direct Effect

Hypothesis testing intends to test the causality relationship developed in the conceptual model, namely the effect of exogenous variables on endogenous variables. Hypothesis testing in this study uses the T-statistical value and significance value (p-value), where the assessment is that the T-statistical value must be greater than T-table (1.96) and p-value <0.05, then the hypothesis is stated received. The results of the hypothesis test obtained were based on the PLS bootstrapping method which was intended to minimize the problem of normality of research data. The results of hypothesis testing with PLS bootstrapping are presented in Table 6 as follows:

Table 6: The Results for Hypothesis Test in Direct Effect

Hypothesis	Influence	Coefficient	Std. Dev	T Statistics	P Values	Description
1	X1-> Y	0.519	0.115	4.505	0.000	Significant
2	X2 -> Y	0.073	0.118	0.622	0.534	Not Significant
3	X1-> Z	0.487	0.114	4.270	0.000	Significant
4	X2 -> Z	0.331	0.112	2.945	0.003	Significant
5	Z -> Y	0.297	0.079	3.764	0.000	Significant

Source: Primary Data Processed, (2022)

Based on the results of the analysis as presented in Table 6 above, the results of direct hypothesis testing (H1, H2, H3, H4 and H5) were obtained in this study. In general, the results of the hypothesis test reveal that almost all independent variables have a positive and significant effect on the dependent variable (H1, H3, H4, and H5), except for the effect of transactional leadership on OCB (H2), which shows an insignificant effect. The test results are also presented in the form of a path diagram, as shown in Figure 1 below:

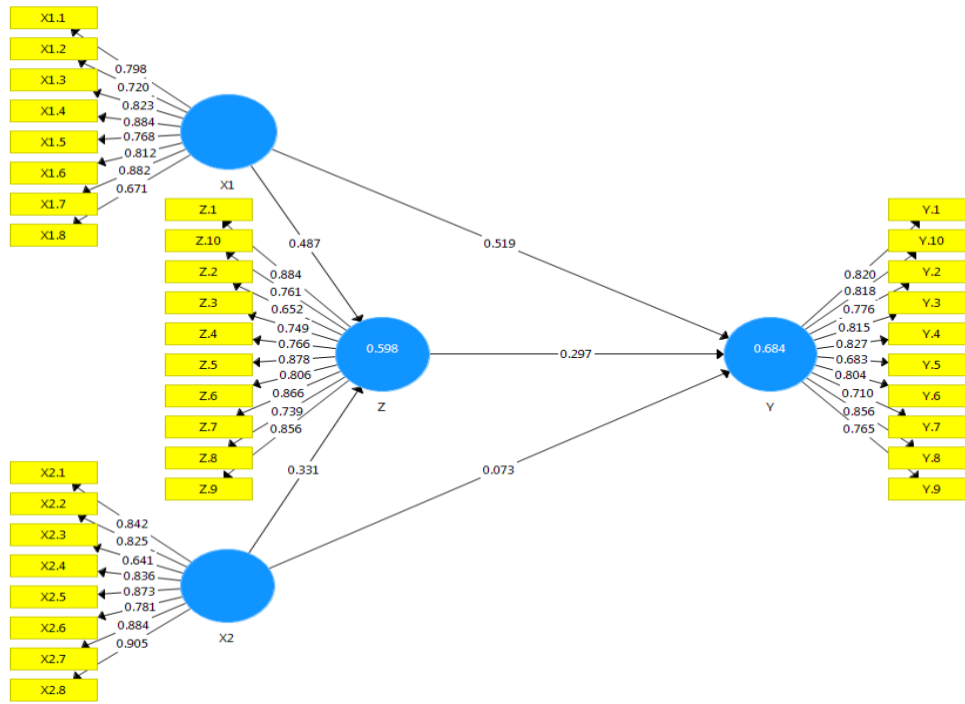


Figure 1: Diagram for Direct Hypothesis Testing; *Source:* Output of Smart PLS, (2022)

Based on Table 6 and Figure 1, the description of hypothesis for each direct effect is described as follows:

Transformational leadership has a significant and positive effect on OCB

The results of hypothesis testing 1, the effect of transformational leadership on OCB has a path coefficient value of 0.519 and a T-statistic value of 4.505 with a significance of 0.000. Considering that the T-statistic value is greater than the T-table value of 1.96 and the significance level is less than 0.05, empirically this value indicates that transformational leadership has a positive and significant effect on OCB. Thus, it is be concluded that hypothesis 1 is accepted.

Transactional leadership has a significant and positive effect on OCB

The results of hypothesis testing 2, the effect of transactional leadership on OCB has a coefficient value of 0.073 and a T-statistic value of 0.622 with a significance of 0.534. Given that the T-statistic value is smaller than the T-table value of 1.96 and the significance level is greater than 0.05, empirically this value indicates that transactional leadership does not have a significant effect on OCB. Thus, the hypothesis 2 is rejected.

Transformational Leadership has a significant and positive effect on Job Satisfaction

The results of hypothesis testing 3, the effect of transformational leadership on job satisfaction has a path coefficient value of 0.487 and a T-statistic value of 4.270 with a significance of 0.000. Considering that the T-statistic value is greater than the T-table value of 1.96 and the significance level is less than 0.05, empirically this value indicates that transformational leadership has a positive and significant effect on job satisfaction. So that it can be concluded that hypothesis 3 is accepted.

Transactional leadership has a significant and positive effect on job satisfaction

The results of hypothesis testing 4, the effect of transactional leadership on job satisfaction has a path coefficient value of 0.331 and a T-statistic value of 2.945 with a significance of 0.003. Considering that the T-statistic value is greater than the T-table value of 1.96 and the significance level is less than 0.05, empirically this value indicates that transactional leadership has a positive and significant effect on job satisfaction. Therefore, it justifies that hypothesis 4 is accepted.

Job satisfaction has a significant and positive effect on OCB

The results of hypothesis testing 5, the effect of job satisfaction on OCB has a path coefficient value of 0.297 and a T-statistic value of 3.764 with a significance of 0.000. Considering that the T-statistic value is greater than the T-table value of 1.96 and the significance level is less than 0.05, empirically this value indicates that job satisfaction has a positive and significant effect on OCB. So that it confirms that hypothesis 5 is accepted.

Hypothesis Testing for Indirect Effect

The indirect relationship hypothesis test is conducted to examine the role of the mediating variable and to see the nature of the mediation generated from the research model. According to Hair et al. (2017) testing the mediating effect with the PLS-SEM

technique does not use the Sobel test, but uses a bootstrapping approach. The results of the mediation effect test using the PLS bootstrapping method are presented in Table 7 below:

Table 7: The Results for Hypothesis Test in Indirect Effect

Hypothesis	Influence	Coefficient	Std. Dev	T Statistics	P Values	Description
6	X1->Z->Y	0.145	0.057	2.546	0.011	Significant
7	X2->Z->Y	0.098	0.042	2.346	0.019	Significant

Source: Primary Data Processed, (2022)

The role of job satisfaction in mediating the effect of transformational leadership on OCB

The mediation test in hypothesis 6 intends to see the indirect effect of transformational leadership on OCB through job satisfaction as a mediating variable having a path coefficient of 0.148 and a T-statistic value of 2.546 with a significance of 0.011. Given that the T-statistic value is greater than the T-table value of 1.96 and the significance level is less than 0.05, empirically this value indicates that job satisfaction plays a role in mediating the effect of transformational leadership on OCB, so that it can be said that job satisfaction has mediating role. Thus, it can be concluded that hypothesis 6 is accepted.

The role of job satisfaction in mediating the effect of transactional leadership on OCB

The mediation test in hypothesis 7 intends to see the indirect effect of transactional leadership on OCB through job satisfaction as a mediating variable. The role of job satisfaction as a mediator appears to have a path coefficient of 0.098 and a T-statistic value of 2.346 with a significance of 0.019. Considering the T-statistic value is greater than the T-table value of 1.96 and the significance level is less than 0.05, empirically this value indicates that job satisfaction plays a role in mediating the effect of transactional leadership on OCB, so that it confirms that hypothesis 7 is accepted.

Discussion

The effect of transformational leadership on OCB

The results of this study reveal that directly, transformational leadership has a positive and significant effect on OCB. These results reveal that the existence of transformational leadership in hospitals provides a strong impetus for nurses to display OCB. Leaders with a transformational style can develop inspirational relationships with organizational members or followers where in the process both leaders and followers are transformed for the better. This transformation improves the behavior of the people involved and increases the morale of leaders and followers (Uhl-Bien et al., 2014). Transformational leaders have the ability to change organizations and trick their members into having more responsibilities than the job description (Supriyanto et al., 2020).

Previous studies have also confirmed this finding, for example Kim & Park (2019); Mi et al. (2019) revealed that transformational leadership directly affects OCB. Mekpor & Dartey-Baah (2017) also confirms that employees' OCB increases when the leader intensely motivates and inspires them and pays attention to them. Transformational leadership in hospitals has a correlation with nurses' OCB because basically nurses have understood the urgency of helping each other behavior through standard guidelines and work procedures as well as health ethics provisions that can be accessed easily by nurses, so that leadership relatively plays an important role as an effort to improve OCB nurses and the relationship of subordinates with hospital leaders (Nanang et al., 2020).

The effect of transactional leadership on OCB

The results of the current study reveal that transactional leadership has no a significant implication on OCB. The results of this study are inversely proportional to the research of Dartey-Baah & Addo (2019); Lasut et al. (2019) the findings show that transformational and transactional leadership simultaneously and partially have a significant improvement on OCB. However, the finding in this study is consistent with the results of the Arar & Nasra (2019) study revealing that transactional leadership does not have a direct effect on employee OCB. The absence of a vital role of transactional leadership in increasing OCB among nurses is because transactional leadership is more likely to process economic value exchange relationships, while OCB, especially for nurses, tends to be voluntary.

The effect of transformational leadership on job satisfaction

The results of the study found that transformational leadership plays a positive and significant role on job satisfaction. This provides an understanding that the higher the implementation of transformational leadership in hospitals, the higher the job satisfaction of nurses in hospitals will be. The results of this study are in line with the research of Mickson & Anlesinya (2019) which states that transformational leadership has a positive and significant effect on job satisfaction. Employee job satisfaction increases when the leader motivates them and is always an inspiration for good behavior (Puni et al., 2018). Idris et al. (2021) stated that leaders who are able to transform their members to be better and have high job satisfaction are because they are treated and given encouragement.

The effect of transactional leadership on job satisfaction

The results of this study explain that transactional leadership convincingly predicts job satisfaction. This provides an understanding that the higher the implementation of transactional leadership in hospitals, the implications for the job satisfaction of nurses. Transactional leadership can contribute to job satisfaction through meeting the needs of subordinates (Avolio & Bass, 2002). The research findings of Dartey-Baah & Ampofo (2016) also show a significant and positive relationship between transactional leadership style and job satisfaction. employee goals tend to increase when their leaders are able to cover the needs of their subordinates (Aboramadan & Dahleez, 2020). Therefore, a leader with a transactional style is a strong predictor of job satisfaction.

Effect of job satisfaction on OCB

This study found that job satisfaction has a positive and significant effect on OCB. This gives an understanding that the higher the job satisfaction of nurses in hospitals, the higher the OCB among nurses will be. The behavior of leaders and fellow co-workers is very influential on job satisfaction. The resulting behaviors can create good job satisfaction and shape the OCB attitude of each of his subordinates (Robbins & Judge, 2017). Gyekye & Haybatollahi (2015) show that job satisfaction has a significant effect on employee OCB. The results of this study are also in line with the research of Prasetio & Hayuningrat (2017) which found that there was a significant and positive effect between job satisfaction on OCB. Satisfied employees tend to develop OCB behavior (Narzary & Palo, 2020).

The effect of transformational leadership on OCB mediated by job satisfaction

The findings of the current study indicate that job satisfaction not only has a significant and positive direct effect on OCB but can also act as a mediating variable of transformational leadership style on OCB. The results showed that job satisfaction plays a role in mediating the effect of transformational leadership on OCB. Transformational leadership plays an important role in increasing nurse job satisfaction, through meeting the needs of members and being more inclusive and responsive in overcoming work problems (Idris et al., 2021). Nurses who are satisfied with their work tend to feel comfortable being part of the organization, have a high commitment, and feel that the organization cares about their existence, so they reciprocate by displaying high OCB (Narzary & Palo, 2020). The results of this study are in line with the research of Asrunputri et al. (2020); Idris et al. (2021) which states that employee job satisfaction can mediate the relationship of leadership style which is the strongest predictor and has a large effect on employee OCB.

The effect of transactional leadership on OCB mediated by job satisfaction

Transactional leadership has no direct effect on nurses' OCB but indirectly it influences nurses' OCB through job satisfaction. The results showed that job satisfaction plays a role in mediating the effect of transactional leadership on OCB. Based on these findings, it is stated that in public sector health organizations transactional leadership to improve OCB needs to first create job satisfaction. Job satisfaction increases when employees feel that the leader is able to exchange needs with them fairly (Aboramadan & Dahleez, 2020). Transactional leadership encourages leaders to adjust their behavior to understand followers' expectations (Avolio & Bass, 2002), and when followers' expectations are met, they tend to be satisfied and this in turn has implications for positive behaviors such as OCB (Nurjanah et al., 2020). The results of this study are in line with research conducted by Rusdiyanto & Riani (2015) which shows that transactional leadership has a significant effect on job satisfaction, job satisfaction has a significant effect on OCB, and job satisfaction acts as a mediator.

Conclusions

Based on the analysis of research results, the present study reveals that there is a significant effect between transformational leadership on OCB, job satisfaction on OCB. However, not as we expected, transactional leadership did not show a significant improvement on nurses' OCB. Furthermore, both transformational leadership and transactional leadership are able to act as strong predictors of job satisfaction. Finally, as we hypothesized that job satisfaction mediates the effect of transformational leadership and transactional leadership on nurses' OCB.

The present study is limited to a sample that only covers 1 public sector hospital and it is cannot generalize the research findings, future research is expected to involve more than 1 type of hospital so that the scope of the study is wider. This study found non-significant results between transactional leadership and nurses' OCB, future research can use other leadership styles, such as servant leadership which tends to have a higher influence on the public sector organization. This study uses job satisfaction as a mediator, further research is expected to use it as a moderator, considering that job satisfaction has a major influence on the tendency of employees to take positive voluntary actions.

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