

THE RELATIONSHIP BETWEEN DISTRIBUTED LEADERSHIP AND ORGANISATIONAL CITIZENSHIP BEHAVIOUR AMONG TVET PRACTITIONER IN MALAYSIA

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ABSTRACT

Since the Organ's initial introduction in 1983, research on the Organisational Citizenship Behaviour (OCB) has grown rapidly. Despite its effectiveness in school performance, the OCB is not given much weight in the school administration. 420 educators from 71 Technical and Vocational Education and Training (TVET) institutions in Peninsular Malaysia, including vocational colleges and technical schools, were included in the study's sample. The Ministry of Education directed the researcher to conduct the survey using an online form due to state of COVID-19. A two-step hierarchical regression was used to evaluate the study's initial hypothesis. Leadership practise and school culture were significantly related to the prediction of responder altruism among the three principal's Distributed Leadership (DL). Only school culture had an impact on teacher's courtesy among the three principals' DL. Based on the findings, DL predicts teacher's OCB in a positive and substantial way.

Keywords: *distributed leadership, organisational citizenship behaviour, teacher, vocational*



INTRODUCTION

Academicians have proved over the last two decades that teachers' desire to invest in Organisational Citizenship Behaviour (OCB) has become the key to school success (Cheng, 2015; Somech & Ohayon, 2019). Despite its importance in school performance, the OCB according to Shrestha (2019) is not given much significance in school management practices, including Technical and Vocational Education and Training (TVET). One of the key OCB variables in schools, according to Oplatka (2006), is leadership conduct. Distributed Leadership (DL) provides school leaders with new insights on how to engage multiple sources of interest, talents, and leadership participation (Muijs & Harris, 2003). Organisational operations and decision-making are becoming more complex as organisations struggle to keep up with the rapid changes of a knowledge-based society. Previously, widely accepted leadership approaches based on rivalry and hierarchy are now seen as insufficient to address the challenges of a rapidly changing, increasingly complicated, and globalising world. Educational institutions are in a similar situation. In many countries, there is a growing trend toward school-based management, which has increased the school principals' workload and made it difficult for them to fulfil their responsibilities (Bush, 2012). In these circumstances, schools must involve their staff and stakeholders in decision-making processes to a greater extent than in the past in order to improve and achieve outstanding results (Leithwood *et al.*, 2008).

Since Organ's initial introduction in 1983, research into the topic of OCB has progressed at a rapid pace. The majority of early investigations concentrated on the cause of OCB. The study then expanded dynamically to include diverse issues such as repercussions, scale dimensions, and scale measurement (Organ, 1988; Williams & Anderson, 1991; Podsakoff *et al.*, 2000; Lee *et al.*, 2013; Yu *et al.*, 2021). It is critical for academics to investigate what aspects may improve OCB so that employees' performance could be improved and the organisation's success could be increased (Organ, 2018). Commonly studied antecedents of OCB are job satisfaction (Organ & Ryan, 1995; Purwanto *et al.*, 2021), perceptions of organisational justice (Alizadeh *et al.*, 2012; Ulfa & Siwi, 2021), organisational commitment, personality characteristics (Podsakoff *et al.*, 2000; Djaelani *et al.*, 2020; Vossen & Hofmans, 2021), task characteristics (Todd & Kent, 2006), and leadership behaviour (Podsakoff *et al.*, 1990; Anser *et al.*, 2021).

Previous studies have investigated various leadership styles as antecedents to OCB such as transformational (Lian & Tui, 2012; López-Domínguez *et al.*, 2013; Podsakoff *et al.*, 1990; Song *et al.*, 2012), transactional (Lian & Tui, 2012; Nguni *et al.*, 2006), servant (Bobbio *et al.*, 2012; Sober & Wilson, 2000), and charismatic (Cavazotte *et al.*, 2014). However, there are few studies that look at distributed leadership (DL) as a precursor to OCB. DL is one of the most recent emerging leadership styles in organisational practice, emphasizing leadership as an organisational process (Maxwell *et al.*, 2009), with each member of the organisation having the right and obligation to participate skillfully in leadership practices (Harris, 2013).

Furthermore, DL is important for organisational constructions because it has the ability to improve employee OCB (Samancioglu *et al.*, 2019) by allowing employees to make decisions with more autonomy, such as flexible rest time. Although there are many studies on the relationship between transformational, transactional, and servant leadership and OCB, there are only few studies on the relationship between DL and OCB. According to a study of related literature, there are just three studies that look at the association between DL and OCB which are by Jofreh *et al.* (2012); Kılınç (2014); Samancioglu *et al.* (2019). Jofreh *et al.* (2012) study found a positive relationship between DL and OCB. This is also supported by Kılınç (2014) and Samancioglu *et al.* (2019). However, Jofreh *et al.* (2012) discovered that not all dimensions of DL had a significant impact on OCB. The dimension of school culture toward DL, for example, has no significant link with civic virtue and teacher civility. Meanwhile, teachers' courtesy and sportsmanship had no significant link with the dimension of DL practice. Future researchers should revisit the analysis in different types of educational institutions to increase the accuracy of these associations, according to Samancioglu *et al.* (2019).

Previous research (Jofreh *et al.*, 2012; Kılınç, 2014; Samancioglu *et al.*, 2019) only included primary school teachers in their respondent sample. As a result, the researcher's data collection sample will be shifted to secondary Technical Schools and Vocational College teachers. This is owing to the fact that there have been few previous studies that have looked into the relationship between TVET schools and employment. It is also to check whether there are any variations in the relationship between different types of schools by comparing the results of prior and current studies.

The majority of OCB research focuses on individuals who work in industrial settings (Khalid & Ali, 2005; Karatepe & Uludag, 2008; Chiang & Hsieh, 2012; Ulfa & Siwi, 2021). However, research on non-profit organisations such as schools is relatively sparse (Dipaola & Tschannen-Moran, 2001). Nowadays, the government continues to pay close attention to technical and vocational schools through the 11th Malaysian Plan (RMK-11), in which will assist Malaysia in becoming a high-income country as a result of the changes brought about by IR 4.0. Furthermore, the Malaysian Education Blueprint (2015-2025), which emphasizes on the importance of TVET in achieving long-term industrial-based job possibilities and boosting the economy, supports this aim (Yaakob *et al.*, 2020). As a result, additional actions must be implemented to reinforce and improve TVET service. This includes improving the quality of TVET programmes and the performance of teachers (Wan Rashid *et al.*, 2020).

The performance of the teacher is extremely essential in terms of improving student ability (Aaronson *et al.*, 2007). However, the Malaysian TVET education system is not immune to the problem of teacher incompetence (Saipudin & Suhairom, 2021). As a result, this study attempts to promote OCB as a potential element that could improve the performance of Malaysian TVET teachers. This is because OCB has been shown to be a component that can help teachers perform better (Dipaola & Tschannen-Moran, 2001). Furthermore, despite the fact that it is a critical aspect alongside technical and teaching methods, current research on Malaysian TVET to improve teacher's attitude, behaviour, and morality for the improvement of teacher's performance is exceedingly concerning (Saipudin & Suhairom, 2021). Despite the fact that three research have been completed to study the link between these two variables, there are still a limited number of studies in this field referring to the dimension between DL and OCB. To close the empirical/contextual gap in this field, a critical investigation of the impact of dimensional relationships between principals DL and instructors OCB in Malaysian technical schools and vocational colleges is required.

OBJECTIVES

There are five objectives for this study which are:

1. To examine the relationship between dimensions of DL and teacher's altruism.

2. To examine the relationship between dimensions of DL and teacher's sportsmanship.
3. To examine the relationship between dimensions of DL and teacher's consciousness.
4. To examine the relationship between dimensions of DL and teacher's courtesy.
5. To examine the relationship between dimensions of DL and teacher's civic virtue.

RESEARCH QUESTIONS

There are five research questions for this study which are:

1. Do the dimensions of principal's DL influence teacher's altruism?
2. Do the dimensions of DL influence teacher's sportsmanship?
3. Do the dimensions of DL influence teacher's consciousness?
4. Do the dimensions of DL influence teacher's courtesy?
5. Do the dimensions of DL influence teacher's civic virtue?

LITERATURE REVIEW

Organisation Citizenship Behaviours

OCB is defined as a person's arbitrary behaviour that is not recognised by the formal reward system but contributes to the organisation's overall performance and function (Organ, 1988). OCB, according to another definition, is the extent to which a person exceeds the minimum level of performance expected of him (Dipaola & Tschannen-Moran, 2001). Employees with a high level of OCB are willing to help a colleague who is absent from work, are willing to do things that are important to the organisation without being asked, contribute to the socialisation of newcomers to the organisation, assist other employees in solving problems, suggest new and creative ideas that will benefit the organisation, and are more engaged in the work than they are expected to be. OCB is generally categorised into five groups which are:

Table 1: OCB's Dimensions

Dimensions	Description
Conscientiousness	Involves discretionary behaviours that aim at preventing work related problems, for example-providing advance notice to colleagues when something is changed by you which may affect them.
Altruism	Refers to voluntarily helping others with a specific work related task, such as assisting a co-worker with heavy work load.
Civic virtue	Refers to employee's deep concerns and active attention in the existence of the organisation such as giving one's own suggestions for development in a meeting.
Sportsmanship	Willingness of employees to tolerate less-than-ideal organisational situations without complaining and sacrificing one's own personal interest.
Courtesy	Involves discretionary behaviours that aim at preventing work related problems, for example-providing advance notice to colleagues when something is changed by you which may affect them.

Overall, OCB improves administrative efficiency, contributes positively to organisational performance indicators, and improves students' academic achievement, according to studies in the literature (DiPaola & Hoy, 2005; Organ, 1988; Podsakoff *et al.*, 2000).

Distributed Leadership

The limitations of 'One Man' or 'Hero'-centered leadership models are becoming increasingly apparent, and they are being replaced by participatory, collaborative, and distributed leadership models (Bush, 2012; Crawford, 2012). The DL approach has recently gained traction as a viable alternative to traditional leadership theories. DL is a term used to describe a leadership style that changes the way schools are organised and extends leadership beyond a single person (Bush, 2018). Supovitz *et al.* (2019) defines DL as a mechanism for facilitating active participation in the leadership process by all members of the organisation. DL is defined by Gronn (2000) as the expansion of leadership roles outside of formal management positions and administrative authorities.

Despite the fact that DL is a fluid concept, there are some key elements that set it apart from other leadership models (Harris & DeFlaminis, 2016). For starters, rather than a role or responsibility, leadership is viewed as a practice. For practice, the interactions between the three components of DL (leaders, followers, and situation) are critical. The second distinction is the leadership's goals. Individuals are empowered and given autonomy in DL, which distributes tasks and influences among them. The third distinction is a focus on the interaction between individual and group interactions. Individual leadership is equally important to DL, and it coexists with other types of leadership. In DL, both individual and collective agency of multiple actors play a significant role. The fourth distinction is on the structure. DL deviates significantly from the bureaucratic model by emphasizing an interdependent effort across multiple levels of organisational hierarchy, bringing together people with diverse backgrounds (Gronn, 2000; Harris & DeFlaminis, 2016; Spillane & Anderson, 2019; Tam, 2018).

DL, in addition to delegation of authority, is an approach in which decision-making responsibility is shared among leadership teams and it is made easier for staff to lead organisational activities by delegating some of the school principals' responsibilities to other staff and thus reducing their workload (Hartley, 2010). According to Spillane (2005), in DL, leadership is distributed among some people, and tasks are carried out through the interaction of leaders. In recent years, there has been a lot of talk on DL in the management literature. The amount of evidence has a positive impact on the educational outcomes is growing (Bush & Glover, 2012; Leithwood *et al.*, 2008). DL not only boosts teachers' self-efficacy and has a positive impact on them, but it also contributes significantly to school improvement and effectiveness (Macbeath, 2005; Supovitz *et al.*, 2019).

The researchers introduced several dimensions to better understand this leadership style and identify its characteristics. Within the framework of four dimensions, Spillane (2005) has compiled the most comprehensive pattern for DL (Table 2).

Table 2: DL's Dimensions

Dimensions	Description
School Culture	School culture includes values, norms, and beliefs that support the distribution of leadership at school and create an environment in which teachers are encouraged to collaborate with one another and participate in school and professional improvement decisions, as well as their own leadership training. In such a setting, the principal serves as an appropriate symbol for the teachers in accordance with the leadership distribution by utilising collective functions, behaviours, and responsibilities. Furthermore, it indicates the level of parental involvement and accountability for their children's educational progress as well as the manner in which school tasks are completed.
Shared responsibility	It is the extent to which decision-making has shifted from a hierarchical to a bilateral and distributed pattern, as well as the extent to which teachers have participated in the decision-making process. The 'backroom decision making' is reduced in the distributed leadership pattern. The principal provides the required resources and facilities to the teachers in order to satisfy them and encourage them to participate in the systematic distribution of leadership and data collection, so that final decisions can be planned with their cooperation, resulting in an increase in their accountability to the students' educational progress.
Leadership practice	The level of involvement of teachers and other staff members in the distribution of leadership is referred to as leadership experiences, and it focuses on the principal's support (providing resources and facilities, attracting members' participation, empowering them, providing data, and so on) for school improvement planning, improving collective decision-making, and accountability in schools and among students and parents. In general, this index includes the daily activities of the schools in relation to the distribution and development of leadership, the individuals who are responsible for carrying out these activities, the tools required for optimal leadership performance, and the planned measures or objectives in relation to the distribution of leadership.
Mission, vision and goals	It indicates the extent to which teachers and school staff are involved in defining the school's mission, perspective, and objectives, as well as the extent to which this has been done systematically and based on the teachers' records and experiences. Furthermore, this index refers to the schools' protective environment for newcomer teachers, as well as encouraging them to accept leadership responsibilities, which leads to the development of mutual trust and expectations among the principal, teachers, and other school members.

The Relationship between DL and OCB

In the past, only three studies have looked at the relationship between DL and OCB: Jofreh *et al.* (2012), Kılınç (2014), and Samancioglu *et al.* (2019). 360 teachers and 52 headmasters at elementary schools in Karaj, Iran were the subjects of a dimensional relationship study between DL and OCB conducted by Jofreh *et al.* in 2012. The data indicate that not all DL dimensions significantly associate with OCB dimensions. For instance, none of the DL dimensions significantly affect courtesy. Additionally, there is only a positive correlation between altruism and conscientiousness and the traits of advancement and professional acclaim. Following that, only sportsmanship has a positive correlation with school culture, mission, vision, and goal. And finally, having leadership experience only promotes civic virtue. While Samancioglu *et al.* (2019) and Kılınç (2014) investigated the relationship between a composite DL and OCB score. In a study of 258 teachers in 14 schools in Turkey's Kastamonu district, Kılınç (2014) found that teachers OCB more frequently in schools where DL is prevalent. Samancioglu *et al.* (2019) found that DL had a significant impact on teachers' OCB in a study of administrators at 15 randomly chosen primary schools in Gaziantep, Turkey. These results suggest that one of the main incentives for instructors to take part in OCB is DL.

After the implementation of DL, the teachers' perspectives will change. DL allows people from a variety of backgrounds to participate in, contribute to, and contribute to leadership practices. Teachers will be given official and unofficial leadership positions like department head, mentor, or guide (Muijs & Harris, 2003). As a result, teachers' extracurricular behaviour will improve. According to DiPaola and Hoy (2005), OCB will motivate educators to devote more time and energy to promoting educational advancement and a positive learning environment. This demonstrates that determining OCB in schools involves shared autonomy as a key component (Oplatka 2006). As a result, the current study suggests that OCB and DL have a positive relationship, meaning that teachers tend to exhibit more OCBs when there is a higher concentration of DL in the school environment.

METHODOLOGY

The research method uses quantitative approach, namely research using

positivism philosophy with the type of causality as it aims to determine the effect of independent variables consisting of DL and to the dependent variable (OCB). This quantitative analysis is similar to the one conducted by Khalid and Ali (2005); Nizan and Khalid (2016); Bantha and Sahni (2021).

The proportional random sampling was based on systematic and stratified method while the sample size determination was based on Krejcie and Morgan's (1970) table, which provided the provision to achieve at the required sample size. In West Malaysia, there are 7796 teachers working in 81 technical schools and vocational colleges (MOE, 2020). The sample size required for this study is 375 teachers. In previous studies involving the collection of data from teachers in the education sector, response rates ranged from 70% to 80%. (Jofreh *et al.*, 2012; Kılınç, 2014; Samancioglu *et al.*, 2019). From these studies, a response rate of 75% is expected. A total of 500 questionnaires were distributed in order to get at least 375 responses. The sample size is appropriate according to Roscoe (1975) who established the rule of thumb as the following:

For most studies, samples of greater than 30 but less than 500 are appropriate.

1. To break down sub-samples, a sample size of at least 30 per category is required.
2. In multivariate research, the sample size should be several times larger than the number of variables in the study.

In order to overcome a non-response problem, a larger sample size is necessary. Thus 500 questionnaires had been issued to overcome possible non-response problems. Data and information were gathered by questionnaires of OCB (30 items), DL (24 items), job satisfaction (six items) and organisational commitment (six items). Job satisfaction and organisational commitment are the control variables for this study. The questionnaires validity was tested by Pearson Product moment and the reliability was tested by Cronbach's alpha to be 87.2%, 95%, 81% and 90% respectively.

Table 3: Cronbach Alpha for Variable's Scale

Variables	No. of Items	Sources of Questionnaire	Scale	Response format	Alpha
Teacher's OCB	30	Podsakoff <i>et al.</i> (1990)	Interval	5-Point Likert Scale	0.872
Principal's DL	24	Gordon (2005)	Interval	5-Point Likert Scale	0.950
Job Satisfaction	6	Andrews and Withey (1976)	Interval	5-Point Likert Scale	0.810
Organisational Commitment	6	Mowday, Steers and Porter (1979)	Interval	5-Point Likert Scale	0.900

The teachers will be assessed using questions on their OCB, job satisfaction, organisational commitment, principal's DL, and demographic factors. Each school must evaluate five to six teachers on average. All of the variables' questionnaires will be closed-ended questions. Due to the fact that the respondents must evaluate many dimensions of variables, the use of closed-ended questions will aid them in making faster decisions. Teachers will be given the Malay and English versions of the questionnaires, with instructions to complete them in one language only. The questionnaires will have to be returned later, and the data will be analysed by the researcher. SPSS will be used to analyse the data collected from survey questionnaires (version 20.0). Statistical tests such as correlation and regression will be used to obtain the study's results.

STUDY FINDINGS

Response Rate

The study's sample included 420 educators from 71 TVET institutions in Peninsular Malaysia, including vocational colleges and technical schools. Due to COVID-19, the Ministry of Education instructed the researcher to conduct the survey using an online form. As a result, the researcher had to follow the instructions and conduct the survey using Google Forms. A total of 430 cases were collected, but 10 were eliminated due to multiple missing data points per case.

Restatement of the Study Hypothesis

Due to some variations in the principal's DL dimensions as derived from the factor analysis, the hypothesis that concerned the principal's DL dimensions were restated. The dimension of civic virtue for OCB and shared responsibility for DL were eliminated from the study. A summary of the revised hypotheses is given in Table 4.

Table 4: Summary of Restated Hypotheses

H ₁	Dimension of principal's DL have significant relationship with the dimension of teacher's altruism.
H1a	Principal's leadership practice has significant relationship with the teacher's altruism.
H1b	Principal's mission, vision and goal has significant relationship with the teacher's altruism.
H1c	Principal's school culture has significant relationship with the teacher's altruism
H ₂	Dimension of principal's DL have significant relationship with the dimension of teacher's courtesy.
H2a	Principal's leadership practice has significant relationship with the teacher's courtesy.
H2b	Principal's mission, vision and goal has significant relationship with the teacher's courtesy.
H2c	Principal's school culture has significant relationship with the teacher's courtesy.
H ₃	Dimension of principal's DL have significant relationship with the dimension of teacher's sportsmanship.
H3a	Principal's leadership practice has significant relationship with the teacher's sportsmanship.
H3b	Principal's mission, vision and goal has significant relationship with the teacher's sportsmanship.
H3c	Principal's school culture has significant relationship with the teacher's sportsmanship.
H ₄	Dimension of principal's DL have significant relationship with the dimension of teacher's sportsmanship.
H4a	Principal's leadership practice has significant relationship with the teacher's conscientiousness.
H4b	Principal's mission, vision and goal has significant relationship with the teacher's conscientiousness.
H4c	Principal's school culture has significant relationship with the teacher's conscientiousness.

Hypothesis Testing

A two-step hierarchical regression was conducted to test the first hypothesis of the study. Specifically, the researcher hopes to evaluate how well the respondent's participations of principal's DL predict level of teacher's altruism. The predictors comprised of the three principal's DL (leadership practice, mission, vision and goal and school culture). The criterion variable relates to teacher's altruism. In this study, job satisfaction and organisation commitment were statistically controlled. Hence, these variable were entered into the regression equation in the first step. In the second step, all three variables representing the dimensions of principal's DL were entered.

Table 5: Results of Hierarchical Regression of Principal's DL and Teacher's Altruism

Variables	Model 1 Std. β	Model 2 Std. β
Step 1: Control variables		
Job satisfaction	.17**	.15**
Organisational commitment	.55**	.53**
Step 2: Principal's DL		
Leadership practice		.17**
Mission, vision and goal		.08
School culture		.16**
R ²	.48	.49
Adj. R ²	.47	.49
R ² Change	.48	.01
F-Change	191.79**	3.58**

Note: * $p < .05$, ** $p < .01$

In Table 5, the control variable showed significant contribution toward the variance in teacher's altruism. In this study, control variable (job satisfaction and organisational commitment) were significantly and positively related to teacher's altruism ($\beta = .17$, $p < .01$ and $\beta = .55$, $p < .01$ respectively). In Model 2, the three principal's DL were able to explain

49.0% ($R^2 = .49$, F -change = 3.58, $p < .01$) of the observed variations on teacher's altruism after controlling for the effect of job satisfaction and organisational commitment. Of the three principal's DL, leadership practice and school culture significantly contributed to the prediction of respondent's altruism while leadership practice ($\beta = .17$, $p < .01$) had the most impact on teacher's altruism. On the other hand, school culture ($\beta = .16$, $p < .01$) had positive impact on teacher's altruism. The other principal's DL which was mission, vision and goal was not significant in predicting respondent's altruism. Thus, hypothesis H1a and H1c were supported.

Secondly, the researcher examined the impact of the respondent's participations of principal's DL on teacher's courtesy. The predictors comprised of the three principal's DL (leadership practice, mission, vision and goal and school culture). The criterion variable is the teacher's courtesy. Similarly, job satisfaction and organisation commitment were also statistically controlled. Hence, these variable were entered into the regression equation in the first step. In the second step, all three variables representing the dimensions of principal's DL were entered.

Table 6: Results of Hierarchical Regression of Principal's DL and Teacher's Courtesy

Variables	Model 1 Std. β	Model 2 Std. β
Step 1: Control variables		
Job satisfaction	.24**	.16**
Organisational commitment	.45**	.39**
Step 2: Principal's DL		
Leadership practice		-.13
Mission, vision and goal		.10
School culture		.15**
R^2	.42	.45
Adj. R^2	.42	.44
R^2 Change	.42	.03
F -Change	152.06**	6.66**

Note: * $p < .05$, ** $p < .01$

From Table 6, it can be seen that the control variable accounted for 42.0% ($R^2 = .42$, F -change = 152.06, $p < .01$) of the variance in teacher's courtesy. In this study, control variable (job satisfaction and organisational commitment) were significantly and positively related to teacher's courtesy ($\beta = .24, p < .01$ and $\beta = .45, p < .01$ respectively). On adding the three model variables relating to principal's DL, the R^2 increase to .45. This indicates that principal's DL were able to explain an additional of 3% (R^2 change = .03, F -change = 6.66, $p < .01$) of the observed variations on teacher's courtesy. Of the three principal's DL, only school culture ($\beta = .15, p < .01$) had an impact on teacher's courtesy. The other principal's DL (leadership practice and mission, vision and goal) were not significant in predicting respondent's courtesy. Hence, hypothesis H2c was accepted.

Next, the researcher evaluates how well the respondent's participations of principal's DL predict level of teacher's conscientiousness. The predictors comprised of the three principal's DL (leadership practice, mission, vision and goal and school culture). The criterion variable relates to teacher's conscientiousness. In this study, job satisfaction and organisation commitment were statistically controlled. Hence, these variable were entered into the regression equation in the first step. In the second step, all three variables representing the dimensions of principal's DL were entered. Table 7 summarises the results of the analyses.

Table 7: Results of Hierarchical Regression of Principal's DL and Teacher's Conscientiousness

Variables	Model 1 Std. β	Model 2 Std. β
Step 1: Control variables		
Job satisfaction	.32**	.24**
Organisational commitment	.36**	.29**
Step 2: Principal's DL		
Leadership practice		-.04
Mission, vision and goal		.19**
School culture		.08.15**
R^2	.40	.43
Adj. R^2	.40	.43

R ² Change	.40	.03
F-Change	140.21**	7.26**

Note: * $p < .05$, ** $p < .01$

As can be seen from Table 7, the control variable showed significant contribution toward the variance in teacher's conscientiousness. In this study, control variable (job satisfaction and organisational commitment) were significantly and positively related to teacher's conscientiousness ($\beta = .32, p < .01$ and $\beta = .36, p < .01$ respectively). In Model 2, the three principal's DL were able to explain 43.0% ($R^2 = .43$, F -change = 7.26, $p < .01$) of the observed variations on teacher's conscientiousness after controlling for the effect of job satisfaction and organisational commitment. Of the three principal's DL, only mission, vision and goal significantly contributed to the prediction of respondent's conscientiousness ($\beta = .19, p < .01$). The other principal's DL which were leadership practice and school culture were not significant in predicting respondent's conscientiousness. Thus, it can be said that hypothesis H3b was accepted.

Lastly, the researcher examines the impact of the respondent's participations of principal's DL on teacher's sportsmanship. The predictors comprised of the three principal's DL (leadership practice, mission, vision and goal and school culture). The criterion variable is the teacher's sportsmanship. Similarly, job satisfaction and organisation commitment were also statistically controlled. Hence, these variable were entered into the regression equation in the first step. In the second step, all three variables representing the dimensions of principal's DL were entered. Table 8 summarises the results of the analyses.

Table 8: Results of Hierarchical Regression of Principal's DL and Teacher's Sportsmanship

Variables	Model 1 Std. β	Model 2 Std. β
Step 1: Control variables		
Job satisfaction	.32**	.30**
Organisational commitment	.44**	.41**
Step 2: Principal's DL		
Leadership practice		-.04
Mission, vision and goal		.19**
School culture		-.06
R ²	.51	.53
Adj. R ²	.51	.52
R ² Change	.51	.02
F-Change	215.41**	4.87**

Note: * $p < .05$, ** $p < .01$

From Table 8, it can be seen that the control variable accounted for 51.0% ($R^2 = .51$, F -change = 215.41, $p < .01$) of the variance in teacher's sportsmanship. In this study, control variable (job satisfaction and organisational commitment) were significantly and positively related to teacher's sportsmanship ($\beta = .32$, $p < .01$ and $\beta = .44$, $p < .01$ respectively). On adding the three model variables relating to principal's DL, the R^2 increase to .53. This indicate that principal's DL were able to explain an additional of 2% (R^2 change= .02, F -change = 4.87, $p < .01$) of the observed variations on teacher's sportsmanship. Of the three principal's DL, only mission, vision and goal ($\beta = .19$, $p < .01$) was significantly contributed to the prediction of respondent's sportsmanship. The other principal's DL which were leadership practice and school culture were not significant in predicting respondent's sportsmanship. Hence, it can be said that hypothesis H4b was supported.

Since not all principal's DL were found to be significantly and positively influence the dimensions of teacher's OCB, it can be said that hypothesis H1a, H1c, H2c, H3b, and H4b were supported. In summary, all hypotheses are partially supported.

The findings indicated a significant positive relationship between the dimensions of DL and the dimensions of teacher's OCB in response to the initial research question. Numerous studies have established a link between various leadership techniques and OCB. For instance, Bamble *et al.* (2011) found that the majority of leadership styles and OCB have a positive, significant relationship (such as transformational leadership, charismatic leadership, etc). This study's findings are consistent with those of Mascall *et al.* (2009), who also came to the conclusion that all aspects of DL have a favorable, significant relationship with OCB. Therefore, it can be said that the teacher's OCB is influenced by the leadership distribution in the schools.

CONCLUSION

The present study concluded that distributed leadership predicted teacher OCBs positively and significantly. Teachers in schools where leadership practices are distributed over multiple individuals are more likely to perform OCBs. It should be noted that research on both distributed leadership and organisational citizenship is still evolving, which constituted a potential difficulty for the researcher to discuss the findings of the present study in relation to the related literature. For that reason alone, it should be suggested that more research evidence is required to better understand the constructs of distributed leadership and OCBs, their relationships, antecedents, and consequences for school settings. Future researchers should focus more on examining and determining the various leadership styles such as teacher leadership to see whether they promote or inhibit teacher OCBs. Furthermore, future studies should investigate the relationships between OCB and other such potential organisational variables as commitment, trust, socialisation, health, climate, and school academic optimism, and such personal qualities as psychological hardiness, coping with stress, and resistance to change. In future studies, schools' socioeconomic status should also be taken into consideration as an independent variable that may affect teachers' perceptions of OCBs.

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