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TEACHERS' ORGANIZATIONAL COMMITMENT IN INTERNATIONAL SCHOOLS: DOES DISTRIBUTED LEADERSHIP MAKE A DIFFERENCE?

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ABSTRACT

The distribution of leadership practices encourages teachers to be trustful and loyal to the organization, and therefore, ensures their commitment to the school. However, past studies on international schools in Malaysia have focused only on the concept of a 'single' leadership on the school principal alone. Hence, this study investigated the effects of distributed leadership on teachers' organizational commitment and specifically, which aspects of distributed leadership influence teachers' organizational commitment in international schools. The study employed a cross-sectional quantitative survey method. Data were gathered from a sample of 242 teachers selected randomly from ten international schools in Kuala Lumpur and analysed using Partial Least Squares Structural Equation Modeling (PLS-SEM) approach. Findings indicate significant and positive direct relationship between distributed leadership and teachers' organizational commitment. Teachers' participation in decision-making and cooperation in the leadership team had moderate effect sizes while quality and distribution of leadership function and supervision quality and distribution had small effect sizes on teachers' organizational commitment. This study provides insights on the effects of distributed leadership in getting teachers to be more committed in international schools.

Keywords: Distributed Leadership, Organizational Commitment, International Schools, PLS-SEM

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INTRODUCTION

Countries globally are seeking strategies to ensure that their education system is capable of improving their competitiveness in a growing dynamic global economy. In Malaysia, the Education Blueprint 2013-2025 has identified strategies, which among them are on the development of high-performing school leaders and ensuring committed and professional teachers (Ministry of Education, 2012). The education system in Malaysia promotes the development of private and international schools alongside the public schools to ensure that students have access to quality education. Velarde (2017) explained that the international school in Malaysia has the autonomy to develop instructional leadership with the schools being operated under the supervision of both formal and informal leaders. A board of directors provides the general management of the school while management of the curricular and co-curricular activities are the responsibilities of the school principals. International schools are institutions in Malaysia offering education with an international curriculum and using English as a medium of instruction (Ingersoll, 2010). In the past, international schools were exclusive to children of expatriates working in Malaysia. Now, the mastery of English language has rendered international schools as an attractive alternative for local students to obtain their primary and secondary education (Ministry of Education, 2012; Nasa & Pillay, 2017). Further to that, international schools has become the gateway to reputable universities in the world like Harvard, Cambridge, Oxford and Yale universities (Taylor's College, 2019; USAPPS, 2017).

The competitiveness of international schools is determined by the quality of their human capital or to be more specific, the quality of their teachers (Tkachyk, 2017). Teacher retention, however, is an issue faced by international schools (Ritter, 2016; Tkachyk, 2017). Various studies indicated that teacher turnover is due to several reasons such as absence of tenured positions, wanting to explore other career choices, retiring (Karsenti & Collins, 2013; Mancuso, 2010; Mancuso, Roberts, White, Yoshida & Weston, 2011; Ozoglu, 2015) as well as work environment issues, burnout and satisfaction with work (Adams & Muthiah, 2020; Fontaine, Kane, Duquette & Savoie-Zajc, 2012; Lee, Hallinger & Walker, 2012; Ritter, 2016).

Shift Five in the MEB 2013-2025 identified teacher quality as the most important school-related factor to ensure high performing students (Ministry of Education, 2012). Varlas (2013) stated that turnover of teachers can become a problematic issue and has a negative impact on student learning. Quality education cannot be created or developed if teachers lack commitment (Abd Razak, Darmawan & Keeves, 2010). Therefore, retaining human capital is important to ensure sustainable performance of the students and school. Thus, it is imperative that international schools maintain the teachers' high level of commitment so that they would continue their services with the same school for a long period of time.

Organizational commitment can assure that teachers' intention for turnover is negated (Imran et al., 2017). Organizational commitment refers to the attitude of the teachers in terms of their loyalty to the school and this determines their participation and involvement in the decision-making process of the school to ensure its welfare and continued success (Javadi & Yavarian, 2011). Hence, in the school context, teachers' organizational commitment is important and critical for the attainment of its objectives and goals. According to Abd Razak, Darmawan and Keeves (2010), the absence of dedicated and committed teachers will lead to poor quality education. Therefore, the right kind of school leadership should be practiced and ensure that teachers are truly giving their commitment to the school.

Nevertheless, studies on organizational commitment among teachers in international school is lacking. Therefore, there is a need to investigate school factors that can assure a strong commitment among teachers to continue their services and align their personal goals to the goals of the school where they are attached to. Past studies indicated that teachers' organizational commitment is greatly influenced by school leadership (Adams, 2018; Meyer & Allen, 1997; Ross & Gray, 2006). In MEB 2013-2025, the second most important school-based factor that ensures high performance in students is the quality of the school leaders (Ministry of Education, 2012). Howling (2017) explained that effective school leadership is even more critically needed as there is a greater demand for



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high quality of education due to the expectation of parents. Furthermore, the concept of a 'single' leadership focusing on the principal alone has been contested in recent decades with a more applicable and adaptive concept of distributed leadership (Grant & Singh, 2009; Spillane, 2009; Iles & Feng, 2011).

Single leadership focuses on the principal as the main leader while in distributed leadership, the responsibilities of leadership are shared by the principal with others such as the assistant principal, teacher leader, senior teacher and others (Akdemir & Ayik, 2017; Jacobs, 2010). Recent studies have provided empirical evidence that distributed leadership leads to greater effectiveness of the schools (Hairuddin & Salisu, 2015; Harris, 2015; Naicker & Maestry, 2013). The concept of distributed leadership is quite new in the Malaysian education system and although it has been promoted as a means of developing school leadership in MEB 2013-2025 (Ministry of Education, 2012), yet, there are not many studies that have investigated the practice of distributed leadership in International schools. In Malaysia, studies on distributed leadership are on the rise (Bush, Suriani, Ng & Kaparou, 2018; Jones et al., 2015; Marlia & Yahya, 2016; Thien, & Tan, 2019; Thien, & Adams, 2019; Yaakob et al., 2015) but lacking in international school settings (Keller, 2015; Wickins, 2013). Henceforth, this study aimed to investigate the effects of distributed leadership on teachers' organizational commitment in international schools.

This study contributes to the existing literature on teachers' organizational commitment by providing empirical evidence leading to new knowledge and a better understanding of the relationships between distributed leadership functions and teachers' organizational commitment. Moreover, the study has value added via its contextual originality being the first study that is empirically conducted in the Malaysian International schools' context. Thus, it contributes to the scarce body of literature on both teachers' organizational commitment and distributed leadership functions, generally in the Asian region.

THEORETICAL PERSPECTIVES AND HYPOTHESES DEVELOPMENT

Organizational Commitment

The concept of organizational commitment was popularized by Mowday, Steers and Porters (1979) when they developed the measurement scale for organizational commitment. They posited that there are three types of commitment: how an employee identifies his or her belief in alignment with the values and goals of the organization (affective); the willingness of the employee to exert his or her efforts to participate and become involved on behalf of the organization (normative); and the desire of the employee to maintain being a member of the organization (continuance) (Allen & Meyer, 1996; Mowday, Porter & Steers, 1982; Olcer, 2015).

In other words, Peretomode and Bello (2018) clarified that affective commitment is concerned with the desire of the employee to want to stay with the organization while normative commitment is due to the employee's perception that he or she ought to stay with the organization. On the other hand, continuance commitment reflects the desire of the employee to stay with the organization because of needing to as he or she cannot afford otherwise (Shah, Rehman, Akhtar, Zafar & Riaz, 2012).

Distributed Leadership

The emergent concept of distributed leadership is based on the social, psychological and anthropological perspectives (Hermann, 2016) which can be traced to the concept of Wenger's community of practice (Spillane, Halverson & Diamond, 2001). This type of leadership stresses on the interaction of individuals in a network of collaboration and joint responsibilities but at the same time, focusing on each individual's capabilities, skills and talents (Bennett, 2010; Mayrowetz, 2008; Triegaardt, 2014). In other words, it decentralizes the leadership of the principal (Harris, 2003) and enables the inclusion of other leaders to initiate change within the school system (Leithwood, Mascall & Strauss, 2009; Spillane & Diamond, 2007).



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In the Malaysian context, distributed leadership has been identified in the MEB 2013-2025 as the prescribed school leadership to encourage the participation of teachers in decision-making processes (Bush & Ng, 2019). The active participation of teachers in making mutually accepted decisions, enabling greater collaboration and accountability among them are based on shared leadership roles and responsibilities. Hulpia et al. (2012) proposed that distributed leadership is a complex concept and multidimensional in nature. According to them, distributed leadership refers to the quality and distribution of leadership function and supervision, the teachers' cooperation within the leadership team, and the participation of teachers in decision-making process.

In a traditional context, the leadership team in the school comprises of the school principal, the assistant principal and the teacher leaders (Harris, Jones, Adams, & Cheah, 2019; Jones, et al., 2015). However, the assistant principals and teacher leaders in most instances are allocated with specific responsibilities but may have limited or no formal authorities over other teachers in the school (Harris & Muijs, 2005). In a contemporary perspective of distributed leadership, the dispersion of leadership functions among the members of the leadership team reflects the quality and distribution of leadership functions by the school principal (Carson, Tesluk & Marrone, 2007). According to Hulpia et al. (2012), these leadership functions include the responsibility of the school principal to foster and set a mutual vision and clear goals of the school, motivate and assist teachers in executing their responsibilities, and stimulate the professional learning of the teachers.

Apart from the core leadership functions, the leadership team is also responsible to supervise other teachers and assist them personally and socially on professional aspects (Abdul Hads & Nurhayati, 2010). Traditionally, supervision is the major role of the principal but within a distributed concept of leadership, the supervisory roles can be assumed by other senior or teacher leaders (Hulpia et al., 2012). Supervision is a critical process that needs to be implemented systematically to ensure the teachers attain the educational goals effectively through better learning process (Sudarjat, Abdullah & Sunarvo, 2015).

The cooperation of the principal, assistant principals and teacher leaders in the leadership team emphasizes on the dynamic, multidirectional collective activities in a specific context (Fletcher & Kaufer, 2003). The cooperation among its members is characterized by the cohesiveness of the group (Holtz, 2004), clarity of roles in terms of role division and management structure, and orientation to a clearly formulated and mutually shared vision, mission and goals (Senior & Swailes, 2007).

Further to that, teachers' participation in the decision-making process is also a significant characteristic of distributed leadership (Hulpia et al., 2012; Malloy, 2012). According to Halverson (2007), the participation of teachers requires constant communication and regular interaction where teachers work collectively and learn together. Within the concept of distributed leadership, the contribution to leadership does not come from the school principal alone but from the teachers as well (Botha & Triegaardt, 2014). Teachers are empowered to make decisions regarding teaching, learning and assessment (Szeto & Cheng, 2017). In a nutshell, distributed leadership assigned the teachers to lead and make decisions proactively mainly on what happens in the classroom.

Distributed Leadership and Teachers' Organizational Commitment

Past studies have mainly shown that school leadership has a positive influence on the organizational commitment of the teachers (Buda & Ling, 2017; Meyer & Allen, 1997; Nguni, Slegers & Denessen, 2006) but these studies were looking at school leadership as singularly performed by the school principal. However, in recent years, there has been a growing number of studies on distributed leadership and organizational commitment of teachers (Akdemir & Ayik, 2017; Devos, Tuytens & Hulpia, 2014; Hairuddin & Salisu, 2015; Hulpia, Devos & van Keer, 2009; Hulpia, Devos, Rosseel and Vlerick, 2012; Muthiah, Adams & Abdullah, 2020).

Hulpia et al. (2009) assessed distributed leadership based on the amount of leadership functions and its formal distribution, the cooperation in the leadership team, and the participation of teachers in decision-making found



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distributed leadership influences teachers' organizational commitment. Hairuddin and Salisu (2015) study found teachers' organizational commitment mediated the relationship between distributed leadership and self-efficacy. On the other hand, Akdemir and Ayak (2017) study of 722 secondary school teachers in Erzurum showed that cooperation in the leadership team has the highest correlation with organizational commitment, followed by supervision, and least of all, support.

Nevertheless, these studies were conducted in different countries and cultural differences may provide some variance to the outcome from a Malaysian study. In addition to that, these studies used first generation statistical analysis with Pearson correlation and multiple regression while this study used a second-generation statistical analysis with structural equation modeling which is capable of measuring the predictive accuracy and relevancy of the structural model (Hair, Hult, Ringle & Starstedt, 2017). Furthermore, by using similar model, the influence of distributed leadership on organizational commitment can be observed in a different cultural setting. Based on previous studies, the following four hypotheses were tested:

- H1: Leadership functions quality and distribution is positively related to teachers' organizational commitment
- H2: Supervision quality and distribution is positively related to teachers' organizational commitment
- H3: Cooperation in the leadership team is positively related to teachers' organizational commitment
- H4: Teachers' participation in decision-making process is positively related to teachers' organizational commitment

Figure 1 illustrates the hypothesized relationships between the four distributed leadership dimensions (leadership functions quality and distribution, supervision quality and distribution, cooperation in the leadership team, and teachers' participation in decision-making process) with teachers' organizational commitment based on the theoretical grounding and literature discussed above.

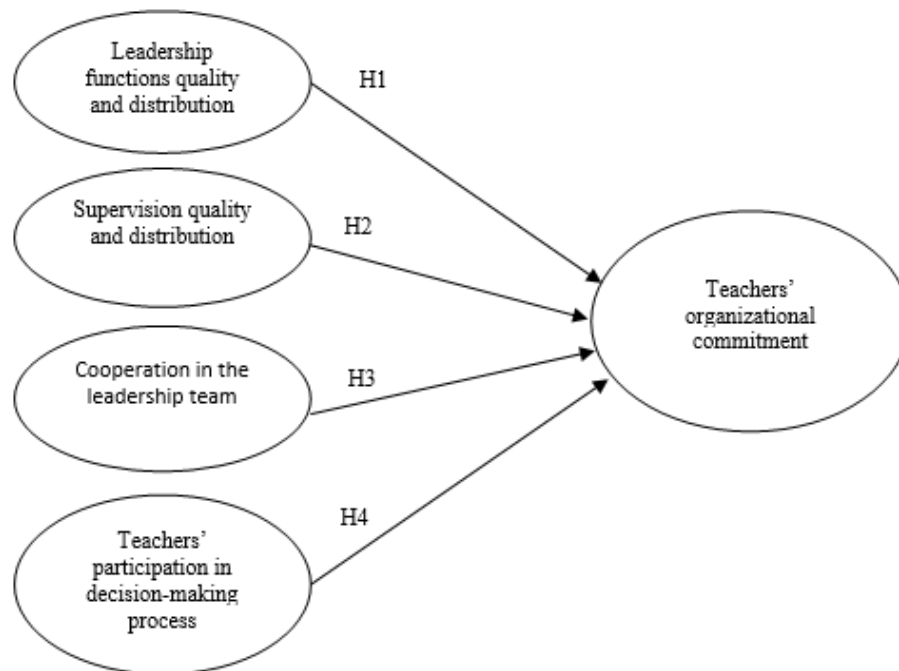


Figure 1. Research Model



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METHODS AND MATERIALS

Participants

This employed a cross-sectional quantitative survey method. Stratified random sampling was used for sample selection from a population of 652 teachers in ten international schools in Kuala Lumpur. The ten international schools were selected using inclusion criteria: (i) the school operates a Western (British or USA curriculum); (ii) the principal of the school has been in service for at least five years; and (iii) the teachers have been under the principal's leadership for at least three years. Stratified random sampling is a probability sampling whereby sampling is done randomly at the specified stratum (Sekaran and Bougie, 2013). In this study, the international schools are the stratum from which the samples are randomly drawn. The sample size was determined based on the calculation for a known population in Krejcie and Morgan (1970). This made up a desired sample size of 242 teachers.

The questionnaires were distributed to the teachers in the ten international schools through the school management and collected after a week. The questionnaire includes a cover letter to explain the purpose and to assure confidentiality of the survey. The teachers returned the questionnaire with a completed informed consent form, indicating their willingness to participate in the survey.

Instrumentation

Data was collected through the Distributed Leadership Inventory (Hulpia et al., 2012) and Organizational Commitment Questionnaire (Allen & Meyer, 1990). Distributed leadership (DL) inventory was divided into four dimensions: leadership function quality and distribution (LFD) with 10 items, supervision quality and distribution (SQD) with 3 items, cooperation in the leadership team (CLT) with 10 items, and teacher participation in decision-making (PDM) with 6 items while organizational commitment (OC) questionnaire twenty-four items. A five-point Likert scale was used to measure the responses to these items in both instruments. Distributed leadership used a scale of ranging from 'never' to 'always' while organizational commitment was based on a scale of 'strongly disagree' to 'strongly agree'.

The questionnaire was validated in a pilot study. The first phase of the pilot study focused on determining the face validity of the questionnaire. This ensures the presentation and relevance of the items to represent the variables of this study (Azwani, No'rain & Noor Shah, 2016). A three-member expert panel conducted the face validity and based on their comments, the items in the questionnaire were improved and revised. Further to that, this questionnaire was piloted using 100 respondents but only 81% was usable for analysis. Rasch analysis was used to determine the reliability and validity of the instrument. Table 1 presents the result of the Rasch analysis.

Bond and Fox (2015) stated that person and item reliability should exceed 0.80, implying that the expected consistency on the logit scale for the responses on differing sets of items and persons that measure the same variable. Item separation indicates how well a sample of people is able to separate the items that were used in the test while person separation is the efficiency of a set of items to separate those persons measured (Linarce, 2012). Both measures must exceed 2.00. Mean square for statistics given by item infit mean square and person infit mean square show the size of the randomness or the amount of distortion of the measurement system for item and person respectively (Bond & Fox, 2015). The acceptable range is between 0.6 and 1.4. Cronbach's alpha is a measure of internal consistency, which reflect how closely related a set of items are, as a group (Linarce, 2012). The cut-off value is 0.80. Overall, results indicate that the distributed leadership inventory and organizational commitment questionnaire have acceptable reliability and validity. All measures of reliability and validity exceeded the cut-off value or within the allowable range.



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Table 1

Result of Rasch analysis in pilot study

Measures	Distributed Leadership	Organizational Commitment	Cut-Off Values
Item Reliability	0.85	0.91	>0.80
Person Reliability	0.92	0.87	>0.80
Item Separation	2.38	3.11	>2/00
Person Separation	3.30	2.61	>2.00
Item Infit Mean Square	0.99	1.02	0.6 – 1.4
Person Infit Mean Square	1.02	1.25	0.6 – 1.4
Cronbach's Alpha	0.91	0.92	>0.80
Dimensionality	Yes	Yes	

Data analysis

Partial Least Squares Structural Equation Modelling (PLS-SEM) was used to determine the direct relationships between distributed leadership and teachers' organizational commitment, and the effects of distributed leadership components on teachers' organizational commitment. PLS-SEM runs the measurement models and structural model assessments simultaneously using factor analysis and multiple regression analysis respectively, thus allowing a more rigorous analysis of the research model (Hair et al., 2017). Hence, PLS-SEM is a two-step process involving the assessment of both reflective measurement and structural models (Thien & Adams, 2019).

The reflective measurement models are the outer models when the indicators of the constructs are considered to be caused by the said construct. In other words, causality begins from the latent construct to the indicator (Wong, 2013). The structural model which is also known as the inner model describes the relationships among the latent variables in the model (Thien & Adams, 2019). This approach also increases the explained variance of the endogenous latent variable (Hair et al., 2017), which is the teachers' organizational commitment. Hence, the use of PLS-SEM in this study helps to understand the correlational patterns among the latent constructs and explain as much as possible, their variance within the specified model (Urbach & Ahlemann, 2010). Henceforth, the terms latent variables and constructs are used interchangeably for the ease of interpretation.

RESULTS

Demographic Profiles of the Respondents

The demographic profiles of the respondents are presented in Table 2. Majority of the respondents were female teacher with 67% compared to 33% male teachers. Almost half of the teachers, at 44.5% were within the age range of 35 to 44 years old and 22% were between 45 and 54 years old while 16.5% were below 35 years old and 17% were 55 years and older. In terms of academic qualification, only 8% have diploma while 48% has bachelor, 32.5% with master and 11.5% at PhD level. There were 37.5% of teacher with 5 years or less of working experience, 46% between 6 and 10 years, 4.5% between 11 and 15 years, and 9% above 15 years.



Table 2
Demographic Profiles of the Respondents

Characteristics	Total	Percentage
Gender		
Male	66	33.0
Female	134	67.0
Age Range		
Below 35 years old	33	16.5
35- 44 years old	89	44.5
45-54 years old	44	22.0
55 years and above	34	17.0
Educational Level		
Diploma	16	8.0
Bachelor	96	48.0
Master	65	32.5
PhD	23	11.5
Teaching Experience		
5 years and less	75	37.5
6-10 years	98	46.0
11-15 years	9	4.5
16-20 years	28	9.0
More than 20 years	0	0.0

Assessment of Reflective Measurement Model

In this study, two measurement models were used. The four dimensions of distributed leadership were identified as separate exogenous latent variables to relate to the endogenous latent variable of teachers' organizational commitment. Indicator reliability is the proportion of indicator variance explained by the latent construct while internal consistency is the reliability based on the interrelationship of the observed items in the latent construct (Hair et al., 2014). Composite reliability is sometimes called the construct reliability which also measures the internal consistency in scale items. It is the total amount of true score variance relative to the total scale score variance (Hair et al., 2017).

The construct validity given by AVE is the degree to which a test measures what it claims to be measuring (Polit & Beck, 2012). AVE is the measure of the amount of variance that is captured by a latent variable in relation to the amount of variance caused by measurement error (Hair et al., 2017). Table 3 present the indicator reliability based on outer loadings, the internal consistency based on Cronbach's Alpha, the construct reliability based on composite reliability, and the construct validity based on the average variance extracted (AVE) for distributed leadership and teacher organizational commitment respectively.

According to Hair et al. (2017), the cut-off value for outer loading, Cronbach's Alpha and composite reliability is 0.70 while for AVE is 0.50. When indicator reliability and construct validity are achieved, this implies that convergent validity has also been attained. Based on the results presented in Table 3, loading values of each item were above 0.70, AVE values for each construct ranged from 0.655 to 0.817, and composite reliability (CR) values are above 0.80. The finding implied the indicator and construct reliability and validity for distributed leadership and teachers' organizational commitment have been achieved.



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Table 3
Results of Measurement Model

Latent Constructs	Indicators	Outer Loading	Cronbach's Alpha	Composite Reliability	AVE
Leadership Function Quality and Distribution	DL1a	0.831	0.942	0.950	0.658
	DL1b	0.804			
	DL1c	0.817			
	DL1d	0.800			
	DL1e	0.832			
	DL1f	0.826			
	DL1g	0.801			
	DL1h	0.806			
	DL1i	0.793			
	DL1j	0.799			
	Supervision Quality and Distribution	DL2a			
DL2b		0.914			
DL2c		0.868			
Cooperation in the Leadership Team	DL3a	0.775	0.941	0.950	0.655
	DL3b	0.825			
	DL3c	0.807			
	DL3d	0.825			
	DL3e	0.823			
	DL3f	0.817			
	DL3g	0.830			
	DL3h	0.782			
	DL3i	0.807			
	DL3j	0.800			
	Teacher Participation in Decision-Making	DL4a			
DL4b		0.864			
DL4c		0.825			
DL4d		0.864			
DL4e		0.842			
DL4f		0.860			
Teachers' Organizational Commitment	OC1a	0.752	0.977	0.979	0.712
	OC1b	0.794			
	OC1c	0.787			
	OC1d	0.839			
	OC1e	0.798			
	OC1f	0.821			
	OC1g	0.843			
	OC2h	0.859			
	OC2a	0.788			
	OC2b	0.791			
	OC2c	0.723			
	OC2d	0.758			
	OC2e	0.776			
	OC2f	0.860			
	OC2g	0.816			
	OC2h	0.792			
	OC3a	0.838			



OC3b	0.830
OC3c	0.840
OC3d	0.865
OC3e	0.832
OC3f	0.831
OC3g	0.846
OC3h	0.796

The discriminant validity assessment was also done to ensure that the reflective construct has the strongest relationships with its own indicators (Hair et al., 2017). The assessment of discriminant validity used the Fornell-Larcker's (1981) criterion. Wong (2013) stated that based on the Fornell-Larcker criterion, discriminant validity is achieved when the square root of AVE of the same latent variable is always higher than the square root of AVE of different latent variables. Results in Table 4 indicate that all square root of AVE of the same latent variable is always higher and thus, implied that these latent variables have discriminant validity.

Table 4
Discriminant Validity Using Fornell-Larcker's (1981) Criterion

Constructs	1	2	3	4	5
Leadership Function Quality & Distribution (1)	0.811				
Supervision Quality & Distribution (2)	0.712	0.904			
Cooperation in the Leadership Team (3)	0.761	0.709	0.809		
Teachers' Participation in Decision-Making (4)	0.720	0.674	0.684	0.844	
Teacher's Organizational Commitment (5)	0.782	0.712	0.788	0.799	0.812

Assessment of structural model

The bootstrapping analysis yielded the assessment result of the direct path between distributed leadership and teachers' organizational commitment latent variables. Findings in Table 5 indicate that H1, H2, H3, and H4 were supported as leadership function quality and distribution ($\beta = 0.211$, $p < .001$), supervision quality and distribution ($\beta = 0.113$, $p < .001$), cooperation in the leadership team ($\beta = 0.296$, $p < .001$), and teachers' participation in decision-making ($\beta = 0.368$, $p < .001$) were positively related to teachers' organizational commitment at the significance level of .50 respectively. Thus, each dimension of distributed leadership was positively related to teachers' organizational commitment.

Subsequently, the effect size for each dimension was then assessed to inform the size of the effect of significant predictors of teachers' organizational commitment. According to Cohen (1988, p. 410), the values of 0.02 represent small, 0.15 represent medium, and 0.35 represent large effects. Table 5 shows the effect size for each dimension of distributed leadership on teachers' organizational commitment. Teachers' participation in decision-making ($f^2 = 0.245$) and cooperation in the leadership team ($f^2 = 0.135$) have medium effects on teachers' organizational commitment as compared to leadership function quality and distribution ($f^2 = 0.064$) and supervision quality and distribution ($f^2 = 0.022$) which have small effects on teachers' organizational commitment.



Table 5

Results of Direct Relationships Assessment

Hypothesis	β	T	p-value	Decision	Effect Size
H1: LFD \rightarrow OC	0.211	4.230	0.000	Supported	0.064
H2: SD \rightarrow OC	0.113	2.541	0.011	Supported	0.022
H3: CLT \rightarrow OC	0.296	5.892	0.000	Supported	0.135
H4: PDM \rightarrow OC	0.368	7.918	0.000	Supported	0.245

Notes: LFD – leadership function quality & distribution; SD – supervision quality & distribution; CLT – cooperation in the leadership team; PDM – teachers’ participation in decision-making; OC – organizational commitment.

Figure 2 shows the PLS Algorithm output highlighting the path coefficient, β and the predictive accuracy coefficient, R^2 . It indicates that the combined effects of four distributed leadership dimensions could explain 77.3% of variance in teachers’ organizational commitment. In other words, the predictive accuracy of this structural model is 77.3%. Based on the path coefficients, it is shown that teachers’ participation in decision-making has the highest effect on teachers’ organizational commitment ($\beta = 0.368$), followed by cooperation in the leadership team ($\beta = 0.296$), leadership function quality and distribution ($\beta = 0.211$) and supervision quality and distribution ($\beta = 0.113$).

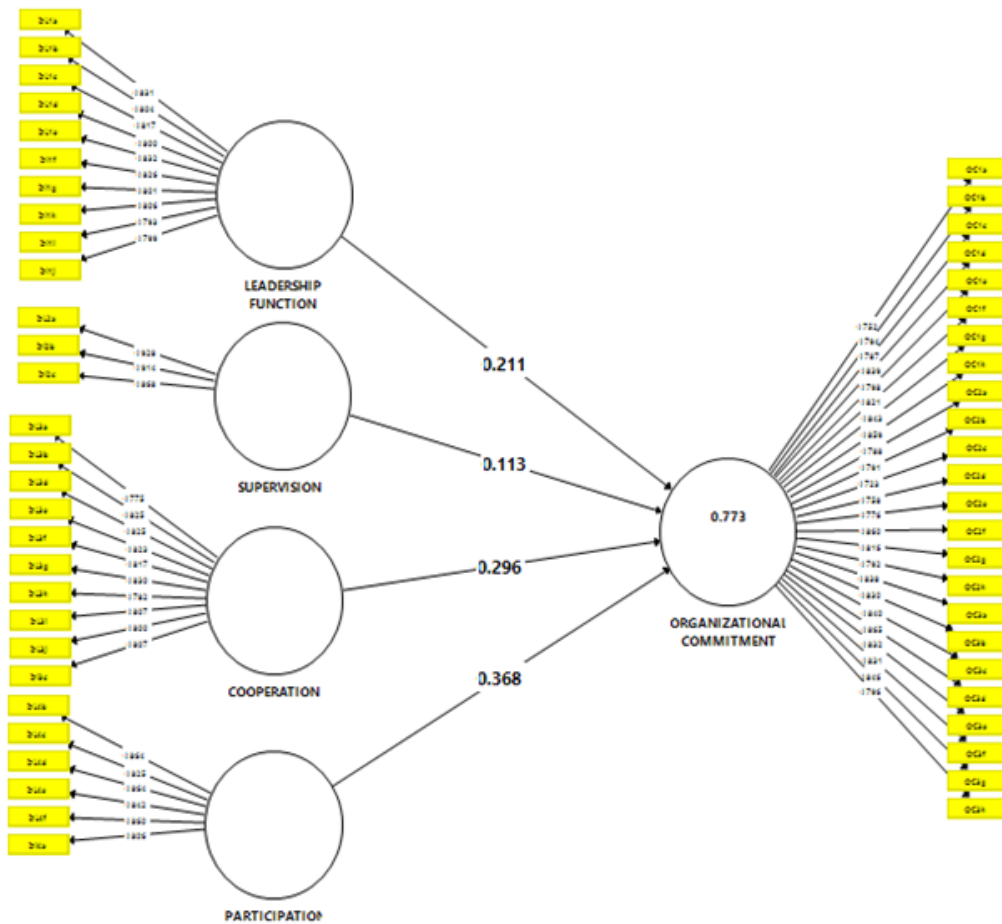


Figure 2. PLS Algorithm analysis output



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DISCUSSION

The relationships of the dimensions of distributed leadership and teachers' organizational commitment were found to be positive in this study, which corroborate with findings of past studies (Akdemir & Ayik, 2017; Devos et al., 2014; Hairuddin & Salisu, 2015; Hulpia et al., 2009; Hulpia et al., 2012). Thus, international schools that practice distributed leadership may have an advantage of reducing the intention of teachers for turnover (Dajani, 2013; Howling, 2017). Teachers are more loyal and committed to the school as distributed leadership encourages greater participation from the teachers in decision-making, harnesses their cooperation in the leadership team, and distributes leadership function and supervisory tasks to them (Akdemir & Ayik, 2017; Hulpia et al. 2012).

Teachers' participation in decision-making has the greatest effect on their organizational commitment. This agrees with past findings (Diosdado, 2008; Hulpia et al., 2012) which also reported the positive correlation of teachers' participation in decision-making with their organizational commitment. However, in Hulpia et al. (2012), teachers' participation in decision-making was not the most important predictor of organizational commitment. Rather, cooperation in the leadership team was the main predictor. Hence, this reflects that the situational context of the schools may have provided some deviances to explain teachers' organizational commitment based on features of distributed leadership.

In this study, cooperation in the leadership team was also found to be positively related to teachers' organizational commitment with a moderate effect size. Thus, this study also shows that teachers prefer school leadership that values on group cohesion, role clarity and goal orientedness (Hairuddin & Salisu, 2015; Hulpia et al., 2012). Quality and distribution of leadership functions and supervision were also positively related to teachers' organizational commitment, but the effect sizes were smaller. These dimensions reflect the supportive leadership functions of the principal who is responsible to foster and set a mutually agreed school vision with clear goals, motivate and provide assistance to teachers, and stimulate teachers' professional learning (Leithwood & Jantzi, 1999; Hulpia et al., 2012). The smaller effect sizes of these two dimensions on teachers' organizational commitment implied that there is room for improvement on how principals could share more leadership functions rather than just delegating tasks.

Overall, the predictive accuracy and relevancy of the structural model indicated that the dimensions of distributed leadership are critically needed to ensure teachers are committed and loyal to the school that they are attached to. Distributed leadership which combines some facets of transactional leadership, transformational leadership and instructional leadership positively affects and enhances teachers' organizational commitment. Among others, transactional leadership focuses on the role of supervision, organization and work performance which are also important elements of distributed leadership while transformational leadership encourages shared vision among the teachers (Ramesh & Hedge, 2017). Instructional leadership according to Bush (2015) needs to be distributed as instructional effectiveness requires the collaboration among the principle, senior, middle and teacher leaders.

CONCLUSION AND IMPLICATIONS

The findings of this study provide insights on the effects of teachers' participation in decision-making, cooperation in the leadership team, and quality and distribution of leadership function and supervision as important essence of distributed leadership to drive teachers' organizational commitment. Based on the social exchange theory, the empirical evidence substantiates that the practice of distributed leadership can be exchanged in the process of getting teachers to be more committed to the organization. From a practical viewpoint, these findings inform the management of international schools to encourage greater participation from the teachers in making decision and providing them with the opportunities for collaboration among them. It is also expressly important that the quality and distribution of leadership function and supervision be improved so that teachers gain greater trust and align their personal goals with the school vision and mission. Globally, international school growth has become more apparent because people become more mobilized as demand for quality education increases. High quality



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education is the result of competent teachers who are the human capital of the school and therefore, the retention of these teachers depend very much on their loyalty and commitment to the school.

Overall, this study has shown that distributed leadership is important to ensure teachers' organizational commitment. However, this study had only explored a limited scope of teacher population in ten international schools in Kuala Lumpur. Future studies should expand the scope of the population to include other international schools throughout Malaysia and investigate whether similar findings are attained. The current structural model provided a high level of predictive accuracy and relevance, but the dynamism and complexity of the education market now implied that there may be other intervening factors that can affect the relationship between school leadership and teachers' organizational commitment. Hence, future studies should explore other factors as well.

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