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RESEARCH ARTICLE

Principals' Distributed Leadership Toward Middle Leaders' Organizational Commitment in Primary Schools in Johor

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ARTICLE INFO	ABSTRACT					
Received: May 7, 2024	This study examines the impact of distributed leadership by headmasters and					
Accepted: Aug 24, 2024	organizational commitment among middle leaders on school performance in Johor Using a quantitative survey design, questionnaires were distributed to					
Keywords	378 primary school middle leaders. The pilot study showed high internal consistency reliability for distributed leadership (0.972) and organizational commitment (0.939) questionnaires. Statistical analysis with IBM SPSS					
Distributed leadership	Statistics 25 and IBM SPSS AMOS 24 revealed that headmasters practiced					
Organizational	distributed leadership at a high level, with mean scores between 4.1291 and					
Commitment	4.3397 across four dimensions. Organizational commitment among middle					
Principal leadership	leaders was moderately high, with mean scores ranging from 3.4169 to 4.1825					
Middle leaders	across three dimensions. A statistically significant positive relationship was					
	found between distributed leadership and organizational commitment (r=.411,					
Intercepted: Aug 24, 2024Johor. Using a quantitative survey design, questionnaires were distributed to 378 primary school middle leaders. The pilot study showed high internal consistency reliability for distributed leadership (0.972) and organizational commitment (0.939) questionnaires. Statistical analysis with IBM SPSS 						
*Corresponding Author:	that both distributed leadership by headmasters and organizational					
mtlim2@graduate.utm.my	commitment among middle leaders are prevalent in Johor primary schools.					
	organizational engagement enhancing their commitment and ensuring					
	continued school avcollance. The study concludes that distributed leadership					
	by headmasters and the organizational commitment of middle leaders are					
	critical for maintaining school performance and student achievement					
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INTRODUCTION

Over the past years, the term "Distributed Leadership" (DL) has become increasingly popular among scholars. DL refers to the transfer of authority from the principal to other teachers is known as distributed leadership (Berjaoui & Akkary, 2020). As a result of his inability to continue acting as a hero and taking on all the responsibilities, hence the principal's workload will decrease if they applied the distributed leadership (Goldstein, 2016). This is a result of each person's unique specialization and lack of versatility. The principal's capacity to delegate responsibilities to teachers who possess the necessary skills and abilities to complete them is known as distributed leadership (Manaze, 2019). In allocating the jobs, the principal must consider how it will affect the teachers' organizational commitment so that they are not overburdened with workloads. (Samancioglu et al., 2020). This is so that the teachers' organizational commitment can be leveraged by the well-distributed leadership (Torres, 2019). The teacher will then be beneficial to the students.

As per discussion about school leadership have shifted, distributed leadership is one of the models within the school management scope which draw attention now. Several studies have shown that the

principal leadership style impacted the teachers' daily work and their effectiveness in guiding and teaching students in classroom. Teachers can share information and experiences with one another in a cooperative school environment due to distributed leadership. Aside from that, distributed leadership can increase teachers' organizational commitment by creating a positive school climate where teachers fully participate in school decision-making.

When it comes to distributed leadership, a number of researchers have defined it based on the circumstances surrounding their research.. Spillane (2006) asserts that team leadership, democratic leadership, and shared leadership are not the same as distributed leadership. Harris (2008) outlined how participatory leadership without a monopoly on leadership power is known as distributed leadership. Gronn (2002) explains that distributed leadership is when individuals inside an organization come together voluntarily and work toward a common objective. Leithwood *et al.* (2007) assert that leaders use the idea of distributed leadership as a technique or initiative to impact other team members.. Hulpia et al. (2012) After making a distinction, it may be said that distributed leadership refers to an organization's leader sharing authority and working with others to achieve a common objective.

The term organizational commitment describes the psychological bond and allegiance a person has to their organization (Bennett, 2021; Mercurio, 2015). It includes the degree to which workers identify with the organization's objectives, core values, and mission as well as their intention to stick with it and their readiness to put in effort on its behalf. Affective commitment, or emotional attachment to the organization, continuation commitment, or perceived costs associated with quitting the company, and normative commitment, or sense of duty to stay with the organization, are some of the ways that organizational commitment can exist (Berkovich & Bogler, 2021a). In general, organizational commitment reflects how engaged, committed, and dedicated individuals are to their employment.

One of the key elements that affects whether an organization succeeds or fails is organizational commitment. This comes because of dedicated workers' increased output. Moreover, strong organizational commitment can enhance teamwork skills and boost productivity. Employees with poor organizational commitment, on the other hand, tend to be less positive about the company and are more likely to quit (Zhou et al., 2020). Positive attitudes towards the organization stem from a mix of personal traits, job experience, and organizational perceptions that build organizational commitment. The strong willingness to contribute to and make sacrifices for the organization is correlated with organizational commitment. Several factors can affect organizational commitment, including the style of leadership (Hadi & Tentama, 2020).

It is interesting that this study applies the concepts and frameworks of Western-based research to Malaysian school contexts, given that the social and cultural contexts of Malaysian school organizations differ significantly from those in Western countries and that Malaysian school organizations have strong administrative hierarchies that embody top-down management. Additionally, the Malaysia Education Blueprint 2013–2025 promotes distributed leadership in Malaysian schools has recently increased the popularity of the distributed leadership concepts. Additionally, most of the research are carry on in secondary schools which lack of studies published in Malaysia (Bush & Ng, 2019; Hester et al., 2009). Thus, this research is conducted in the primary schools in Malaysia.

At the core of a nation's educational system lies primary education in Malaysia, which profoundly influences the intellectual and social growth of young learners. In Malaysia, primary education is delivered through diverse school types, including Sekolah Kebangsaan (SK), Sekolah Jenis Kebangsaan Cina (SJKC), and Sekolah Jenis Kebangsaan Tamil (SJKT). Malaysia's primary education history is characterized by a heterogeneous network of schools serving many ethnic communities. When SK was first founded during the British colonial era, it was the major route for primary education. But in the years following independence, SJKC and SJKT were founded, respectively, to address the educational

requirements of the Chinese and Indian communities. This historical background highlights how Malaysia's primary school system is multicultural. Primary education is heavily influenced by language policy, particularly in SJKC and SJKT, where Bahasa Malaysia is taught alongside Mandarin and Tamil. The language policy poses difficulties for curriculum standards and implementation in addition to reflect Malaysia's linguistic variety. Nonetheless, all the year 6 students from SJKC (Sekolah Jenis Kebangsaan Cina), SJKT (Sekolah Jenis Kebangsaan Tamil), and SK (Sekolah Kebangsaan) are evaluated through the Ujian Akhir Sesi Akademik (UASA).

Malaysia continues to place a high premium on ensuring equity and quality in primary education. Educational outcomes are impacted by differences between urban and rural primary schools in terms of facilities, resources, and teacher quality. However, since all principals take the National Professional Qualification for Education Leader (NPQEL) before being appointed, and because all the schools have identical educational environments, this has no bearing on research. Research has investigated strategies to close these gaps, such as distributed leadership towards the middle leader's organizational commitment despite the geographical settings of the sample. Furthermore, studies have shown how crucial inclusive education strategies are for advancing fairness and meeting the needs of a wide range of middle leaders to enhance school performance.

Furthermore, the principal's incompetence has affected teachers in schools, particularly middle leaders. However, a full examination of how the principal's distributed leadership affects teachers' organizational commitment is still absent, particularly in Malaysia (Hulpia & Devos, 2010). Most of the research studied the organizational commitment with transformational leadership (Ross & Gray, 2006). Other than that, the past studies argued that distributed leadership gave their teachers heavy workloads. Does it prove? Thus, the following three major hypothesis were the focus of this study:

Research Objectives

The objectives of the research were to:

Explore the distributed leadership style of headmasters in primary schools in Johor

Explore the level of middle leaders' organizational commitment in primary schools in Johor.

Investigate the relationship between distributed leadership style of headmasters and middle leaders' organizational commitment in primary schools in Johor.

Research Questions

To fulfil the objectives of this study, the following research questions were developed regarding middle-leaders perceived distributed leadership style and its relationship with their organizational commitment.

To what extent headmasters is using distributed leadership style in primary schools?

What is the level of organizational commitment in primary schools?

Is there a relationship between the headmasters distributed leadership tyle and middle leaders' organizational commitment?

Research hypothesis

Null Hypothesis 1 (H0₁): There are no identifiable dominant dimensions of leadership distribution practiced by primary school principals.

Null Hypothesis 2 (H0₂): The level of organizational commitment among teachers in primary schools in Johor does not vary significantly across different dimensions.

Null Hypothesis 3 (H0₃): There is no significant relationship between distributed leadership practices by primary school principals and the organizational commitment of teachers in primary schools in Johor.

LITERATURE REVIEW

Two theories are used in this research to investigate the relationship between distributed leadership and middle leaders' organizational commitment in primary schools in Johor with using the Model of Distributed Leadership by Hulpia *et al.* (2009) and Three Component Model of Commitment by Meyer & Allen (1993).

2.1 Theories



Elements of Distributed Leadership by Hulpia, Devos dan Rosseel et al.(2009)

This study makes use of a theory that Hulpia, Devos, and Rosseel devised. A distributed leadership theory was created by Hulpia *et al.* (2009) to improve leaders' understanding of how to create successful leadership practices inside the company. The Distributed Leadership Inventory was created and validated by Hulpia et al. in 2009, and it has three primary dimensions: coherence leadership team, supervision, and support. Participatory decision-making is the fourth dimension that Hulpia et al. added in 2012. The distributed leadership is reviewed in terms of organizational functions, and the principle, assistant principals, and teacher leaders who carry out responsibilities are examined through the lens of the four dimensions of this practice.



The transformational leadership model has a supportive leadership function wherein the leader is in charge of encouraging and establishing a clear school vision and goals, supporting and encouraging teachers, and promoting teachers' professional development (Leithwood & Jantzi, 2007). According to Tsu (2019), the supervisory leadership function is a feature of the instructional leadership paradigm, in which the leader plays a crucial role in managing and overseeing teachers in classrooms. A cohesive leadership team prioritizes the manner in which its members collaborate, since this demonstrates the team members' transparency, mutual trust, openness, and cooperation (Jamil & Hamzah, 2019). Distributed leadership, according to proponents of participatory school decision-making, should extend beyond organization leaders and include all instructors (Jamail & Don, 2017).

Three-component Model (TCM) of Commitment (Meyer & Allen, 1997)

The Three-Component Model (TCM) of organizational commitment was developed by Allen and Meyer in the late 1980s to aid in defining and quantifying employee commitment to their employers. Three elements of commitment are suggested by the paradigm which comprises affective, continuing, and normative commitment. (Meyer & Allen, 1993). Affective commitment is the phrase used to characterize an employee's emotional connection, feeling of self, and involvement with the organization. (Meyer & Maltin, 2010). High affective commitment is a metric used to assess the costs associated with an employee leaving the organization (Hadi & Tentama, 2020). It is based on losing an employee who would gives up or sacrifices such as money, time, or effort that they have own now. Normative commitment is the belief that staying with the group is moral obligation. (Akin, 2021). Employees with high normative commitment have a strong sense of duty or loyalty to stay, which is frequently motivated by perceived moral or organizational support.

The TCM framework has applications in human resource management and organizational development. Organizations can enhance employee performance, engagement, and retention by developing policies and procedures grounded in a knowledge of the variables influencing organizational commitment. Creating an amazing workplace, supporting leadership, and making sure that company values align with employee expectations are just a few strategies that can assist increase organizational commitment. TCM Our understanding of employee attitudes and behaviours at work has significantly improved because to Allen and Meyer's development of the Three-Component Model of Organizational Commitment. Their research has yielded valuable insights for improving organizational performance and employee engagement, in addition to providing a theoretical framework for the study of organizational commitment. The work of Allen and Meyer is still applicable.(Samancioglu et al., 2020). This will affect the organizational commitment of teachers causing school performance (García Torres, 2019).

2.2 Distributed Leadership and Organizational Commitment.

In the contemporary educational system, distributed leadership has emerged as a workable paradigm that offers improved organizational effectiveness and better management of schools. Distributed leadership in an organization is the sharing of leadership responsibilities and decision-making across various staff members and levels, moving away from traditional hierarchical structures and toward more decentralized and cooperative approaches (Latta, 2019). In order to support schools in implementing distributed leadership strategies, middle leaders are crucial. They can be found working as coordinators, team leaders, or heads of departments. Studies examining the connection between teacher organizational commitment and distributed leadership have yielded important insights into how leadership styles affect middle leaders to their organizations (Hulpia, Devos, & Keer, 2009).

Many studies have examined the distributed leadership and organizational commitment of middle leaders; the findings have been mixed but generally positive. For instance, Spillane (2004) found that middle leaders were more committed to distributed leadership approaches when they felt valued and empowered in their roles. Similarly, Harris & Spillane (2008) discovered a positive correlation between distributed leadership and organizational commitment in schools, particularly for middle leaders who considered themselves to be key decision-makers within their teams.

However, more investigation has shown some challenges and limitations pertaining to the implementation of distributed leadership in learning settings. For example, Leithwood et al. (2008) warned that the use of distributed leadership strategies would exacerbate role ambiguity and conflict among middle leaders, hence decreasing their commitment to and happiness with their jobs. Moreover, a number of scholars have argued that the effectiveness of distributed leadership initiatives

depends on contextual factors like culture, resource allocation, and senior leadership support (Aldaihani, 2020; Hossain, 2021; Lahtero et al., 2019; Liu, 2020).

In educational contexts, distributed leadership offers a promising way to improve middle leaders' organizational commitment. While current empirical data indicates a favorable correlation between distributed leadership and middle leaders' commitment, more investigation is required to fully understand the underlying mechanisms and contextual elements that influence this relationship. Schools may cultivate a feeling of ownership, and commitment among middle leaders by adopting distributed leadership concepts and promoting collaborative leadership cultures. This will ultimately result in better student outcomes and organizational effectiveness.

The study by Berjaoui & Akkary (2020) which involved 1,200 students and 160 teachers in private religious schools in Lebanon found that teachers showed a high degree of dedication and trust in their leaders even though they were not allowed to take part in decision-making alongside the leaders employing formal and informal distributed leadership. Establishing a trusting and respectful educational environment was the principal's responsibility as well as that of the other members of the administrative team. These results are consistent with the Groot (2021) study, which shown that all teachers place a high value on a trusting work environment because teachers' commitment to the school is sparked by a sense of trust.

According to a cross-sectional quantitative survey conducted in Malaysia by Lei and Adams (2021) with 531 randomly selected teachers from 30 primary schools in Perak and Penang, principals who fostered an environment of mutual trust and cooperation made teachers feel like members of the organizational family, which in turn increased their affective commitment. This bolsters the conclusions of Berjaoui & Akkary (2020) and Groot (2021), which highlight the significance of trust in leadership.

Furthermore, 242 randomly chosen instructors from a population of 652 teachers in 10 international schools in Kuala Lumpur, Malaysia, participated in a quantitative study carried out by Muthiah *et al.* (2020). Teachers' affective commitment to change was found to be substantially correlated with the quality of dispersed leadership, teamwork within the leadership team, and teacher involvement in decision-making to achieve school goals. However, there was no association observed with the quality of supervision. These results contrast with the quantitative study by Lei and Adams (2021), which suggested that under distributed leadership, teachers' affective commitment to change is fostered by school leaders or supervisors who manage, control, and monitor the teaching process.

A quantitative study by confirmed that distributed leadership significantly impacts job satisfaction and commitment among 344 school teachers in Gaziantep, Turkey. This significance is due to the application of distributed leadership, coherent teamwork, and the encouragement of teachers' participation in decision-making, thereby increasing their commitment to their schools. support this statement, explaining that joint decision-making can foster collaboration among teachers and produce constructive outcomes for the school.

A quantitative study conducted in Gaziantep, Turkey by Samancioglu *et al.* (2020) discovered that 344 school teachers' commitment and job satisfaction are significantly impacted by distributed leadership. This significance stems from the application of distributed leadership, amicable collaboration, and encouraging instructors to participate in decision-making processes, all of which fortify their commitment to their organizations. Liu dan Watson (2020a) bolster this claim by elucidating how collaborative decision-making among educators can promote teamwork and result in positive school outcomes.

A mixed-method study by Ishetu *et al.* (2020) in public secondary schools in the East Hararghe Zone of the Oromia Regional State found that when distributed leadership methods were used, teacher participation in decision-making was minimal. Several significant barriers to the implementation of

distributed leadership in these public secondary schools were the unwillingness of instructors to participate, the distrust of middle school administrators, their dislike of working in groups, and inadequate communication. Lei and Adams (2021) quantitative research in Malaysia demonstrated that primary school teachers were only devoted if they felt that their school was run by a leadership team that prioritized transparency, mutual trust, group cohesion, open communication, and distinct responsibilities for teachers and leaders.

According to a case study conducted by Antinluoma *et al.* (2021) in four Finnish schools, professional learning communities have the potential to emphasize the use of distributed or shared leadership. Staff knowledge, dedication, motivation, engagement, teamwork, and shared accountability are all improved by this technique; in particular, the sense of community belonging is strengthened. Teachers are more likely to devote more time and effort to school operations when they feel like they belong.

According to a comprehensive assessment of journals published over the last 20 years conducted by Berkovich dan Bogler (2021), distributed and transformational leadership increases followers' influence or goal identification inside the school, which influences teachers' commitment on both an affective and normative level. Kesuma et al. (2021) conducted a systematic evaluation of sixteen research articles from Europe, some areas of Asia, and America. They found that leadership styles have an impact on self-efficacy and are closely related to teachers' commitment, intention to leave, job satisfaction, and emotional strain. This claim is corroborated by a quantitative study conducted by Rashid dan Latif (2021) involved 440 Malaysian primary school teachers in the state of Perak. The teachers agreed that they can participate fully and effectively because of the principal's distributed leadership, which affects their sense of self-efficacy. This aligns with Groot (2021) study, which explains that distributed leadership appears positively related to teachers' collaboration, commitment to achieving school goals, and their sense of self-efficacy.

A qualitative study conducted by Amignew (2021) found that the organizational commitment of 275 high school teachers in Diyarbakır, Turkey, could be predicted by the principal's distributed leadership style. In contrast, a quantitative study conducted by Zulkefli *et al.* (2021) with 350 secondary school teachers in Peninsular Malaysia demonstrated that teachers are effectively committed to a relatively high level through distributed leadership. According to a quantitative study by Mbonu & Azuji (2021), strong teacher self-responsibility toward students and the school was the real cause of high teacher commitment in secondary schools in Anambra, Nigeria, rather than the principal's distributed leadership style. Additionally, these secondary school teachers received promotions, fixed pay, and in-service training in addition to having the freedom to make their own decisions.

A quantitative study by Kuppan dan Razak (2021a) found that distributed leadership could increase teachers' commitment and revealed differences in teachers' commitment based on gender in national primary schools in Gombak district. In national elementary schools in the Gombak area, Kuppan dan Razak (2021a) discovered that gender-based disparities in teachers' commitment might be attributed to distributed leadership in their quantitative study. This statement is corroborated by a quantitative study by Lei and Adams (2021) found that female teachers are more affected by distributed leadership on their affective commitment to change than male teachers are because women must overcome greater challenges in order to be recognized for their work. However, the study by Noriza *et al.* (2021) explained that the distributed leadership of vice principals could not enhance teachers' commitment.

METHODOLOGY/MATERIALS

This study uses a quantitative approach by distributing questionnaires to 378 middle leaders of primary schools in the state of Johor to measure the effectiveness of the distributed leadership of headmasters.

3.1 Study Design

In order to systematically collect and evaluate numerical data to test the research hypotheses, a sequential explanatory design with Structural Equation Modeling (SEM) was combined with an organized approach in this quantitative study. The study used a cross-sectional survey approach, in which a sample population representative of the target demographic was given a well-crafted questionnaire. Using stratified random sampling helped to reduce prejudice and guarantee diversity. Three months were spent gathering data, which was then put into statistical software for analysis. The study was conducted in two stages: first, descriptive statistics (mean and standard deviation) were used to summarize the data, and inferential statistics (regression analysis) were used to test preliminary hypotheses. Second, SEM was analyzed using SPSS AMOS to further explore and validate the relationships between variables. Both factor analysis and Cronbach's alpha were used to evaluate the validity and reliability of the instrument. Robustness and integrity of the results were ensured by rigorous adherence to ethical principles throughout the process, including informed consent and confidentiality.

3.2 Population and Sample

During the 2022 academic year, there were 896 middle leaders in Johor who held the positions of subject coordinator and head of department of 9,856 primary schools (SJKC, SJKT, and SK) in total. Only middle leaders were chosen for this study due to budgetary and scheduling restrictions. 378 middle leaders were selected as the study's sample to gauge how they felt about principals' distributed leadership. Thirty of the 408 middle leaders were disqualified because they had already taken part in the pilot study as respondents. Permission to disseminate the questionnaires was obtained from the State Department of Education (officers from the Quality Assurance Sector) to ensure their successful distribution. A total of 378 questionnaires were returned by the middle leaders (response rate: 100%).

3.3 Instrumentation

Two tools were employed in this study's data collection stage. Initially, the Distributed Leadership Inventory (DLI) developed by Hulpia et al. (2009) was utilized for the quantitative strand to gauge middle leaders' opinions of the principals of primary schools' distributed leadership strategies. Middle leaders answered questions on this questionnaire by selecting the correct response on a five-point Likert scale that ranged from 1 (strongly disagree) to 5 (strongly agree). The DLI was modified to suit the Malaysia context since there are several differences between the original DLI which employ in western country. Many studies that employed the DLI instrument established the instrument's high level of validity and internal consistency. For instance, a study by Rashid & Hashim (2018) that examined the connection between teacher efficacy and distributed leadership found that the DLI items had a Cronbach's α value of 0.918. Muthiah et al. (2021), who also utilized the DLI had a high α score of 0.91, proving the instrument's internal consistency.

The Organizational Commitment Questionnaire (OCQ), created by Meyer & Allen (1993), is the second tool utilized in the study. It consists of 15 items that assess the three aspects of organizational commitment which are affective, normative, and continuance commitment in middle-leaders. The organizational commitment facet of the OCQ instrument measures middle-level leaders' organizational commitment using a five-point rating system. There are five phases on the scale from 1 (strongly disagree) to 5 (strongly agree). Although Allen & Meyer (1990) organizational commitment measures were used in this study, the researcher changed them to better fit the Malaysian educational system.

After modifying the adopted survey instrument, the researchers administered ten questionnaires to experts in headship studies at the selected Institute of Teacher Education Malaysia and Aminuddin Baki Institute (IAB). Then, the participants were purposively selected and asked to respond to the modified survey instrument. This group was selected for this special task because they were more engaged in, and well-versed with, the depth and breadth of headship and teacher related studies. All

experts arrived at a similar conclusion that the instrument was suitable, sound and contextually adequate for studying DL and OC in the Malaysia primary school context.

3.4 Translation process

The items were completely translated into Malay because most of the middle-leaders' teachers received their education in a system that taught Malay. In order to guarantee accuracy in meaning from English to Malay, a stringent translation procedure was used, involving two translators translating both ways (Hair et al., 2017). An expert in the Malay language was also employed to make sure that the items' meanings were finished in the Malay language and that the sentence structure and grammar were correct. Ultimately, a small group of middle leaders and language instructors examined and assessed the items to make sure that the meanings of the English and Malay versions were equivalent. If the meanings of the steps were not clear, they were repeated. Prior to initiating the pilot test, a few modifications were implemented in response to recommendations provided by the middle-leaders engaged in the translation procedure.

3.5 Data Collection

Before administering the main questionnaire, two pilot studies were conducted involving thirty middle leaders from primary schools who were not part of the actual study. The primary aim of these pilot studies was to ensure the reliability and validity of the instruments used in the research. During the first pilot session, the middle leaders provided feedback on the questionnaire items, which was then used to refine and improve the instruments. Following this, an exploratory factor analysis (EFA) was performed on the data collected from these middle leaders. The EFA had to meet specific conditions: the variables included must be at the matrix level, the correlation matrix must contain at least two correlations of 0.30 or greater (Tabachnick & Fidell, 2013)variables with measures of sampling adequacy less than 0.50 should be removed, and Barlett's Test of Sphericity must be statistically significant. These steps were crucial to ensure that the instruments used in the main study were both reliable and valid.

In order to determine the measurement precision of the instrument's validity and reliability, a pilot test was first conducted. Therefore, the instrument employed thirty middle-level managers who were not included in the study's primary sample. Following the pilot test, a few adjustments were made once more according to the middle-leaders' advice and ideas to ensure the content validity of several items. For distributed leadership practices and organizational commitment, the computed coefficient of alpha reliability was 0.972 and 0.939, respectively. As a result, the tool was appropriate and capable of gauging middle-leader organizational commitment through primary distributed leadership. Because the two sections' α values are all equal, it is considered that all items exhibit internal consistency and were approved for actual data collection since α value of all the two sections exceeded the values of 0.70 (Gay et al., 2016).

The final data were analyzed using both descriptive and inferential statistics. The study employed frequency mean and percentages to assess distributed leadership techniques and ascertain the aspects of organizational commitment that school principals find most important. The impact of principals' distributed leadership relationships on middle-level leaders' organizational commitment aspects was investigated by regression analysis.

Before proceeding with the final data collection, the researchers obtained formal approval and consent from various relevant educational authorities, including the Malaysian Ministry of Education. After securing the necessary approval, the researchers distributed the questionnaires to the selected schools. All questionnaires were collected after a week to determine the return rate.

RESULTS AND FINDINGS

The findings of the study show that organizational commitment can be enhanced by the distributed leadership style of headmasters.

4.1 Demographic

Table 1: Middle Leaders' Description

Background	Number (378)	Percentage (%)
Gender		
Male	91	24.1
Female	287	75.9
Age		
20 - 24 years	2	0.5
25 - 29 years	21	5.6
30 - 34 years	29	7.7
35 - 39 years	58	15.3
40 - 44 years	106	28.0
45 years and above	162	42.9
Service Duration		
< 1 year	8	2.1
1 - 3 years	21	5.6
4 - 6 years	4	1.1
7 - 9 years	31	8.2
10 - 12 years	38	10.1
13 years and above	276	73.0
Service Duration with Current Headmaster		
< 1 year	101	26.7
1 year	52	13.8
2 years	87	23.0
3 years	41	10.8
4 years	30	7.9
5 years and above	67	17.7
School Type		
SK (National School)	217	57.4
SJKT (Tamil National-type School)	13	3.4
SJKC (Chinese National-type School)	148	39.2
Current Position		
Senior Assistant of Administration and Curriculum	27	7.1
Senior Assistant of Student Affairs	29	7.7
Senior Assistant of Co-curriculum	25	6.6
Senior Assistant of Afternoon Session	6	1.6
Senior Assistant of Special Education	2	0.5
Subject Panel	289	76.5
District of Service in Johor		
Segamat	42	11.1
Tangkak	42	11.1
Mersing	28	7.4
Kota Tinggi	28	7.4
Kluang	14	3.7

Muar	28	7.4
Batu Pahat	42	11.1
Pontian	42	11.1
Kulai	56	14.8
Johor Bahru	28	7.4
Pasir Gudang	28	7.4

A summary of the 378 middle leaders who answered the questionnaire is provided in the descriptive statistics.

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Senior Assistant of Afternoon Session	6	1.6
Senior Assistant of Special Education	2	0.5
Subject Panel	289	/6.5
District of Service in Johor	42	4.4.4
Segamat	42	11.1
Tangkak	42	11.1
Mersing	28	/.4
Kota Tinggi	28	/.4
Kluang	14	3.7
Muar	28	1.4

Batu Pahat	42	11.1	
Pontian	42	11.1	
Kulai	56	14.8	
Johor Bahru	28	7.4	
Pasir Gudang	28	7.4	

, the questionnaire data comprises responses from 378 individuals, with a majority being female (75.9%) and most aged 45 years and above (42.9%). A significant portion of the respondents have over 13 years of service (73.0%) and less than one year with their current principal (26.7%). Most respondents are employed at national schools (SK) (57.4%), and the predominant role held is subject panel (76.5%). Geographically, the distribution of respondents is even across several districts in Johor, with the highest concentration in Kulai (14.8%).

4.2 Dominant Dimensions of Principal Distributed Leadership

Table 2: Analysis of the Level of Distributed Leadership Practice

Function	Mean (M)	Standard	Level of	f
		Deviation (SP)	Practice	
Support	4.1291	0.60796	High	
Supervision	4.3397	0.62524	High	
Cohesive Leadership Team	4.2455	0.53440	High	
Participative Decision-making	4.1841	0.56140	High	
Overall Mean	4.2246	0.58225	High	

Supervision (M= 4.3397; SD=0.62524) suggesting that the highest mean level. The cohesive leadership team (M= 4.2455; SD= 0.53440) indicating a second high mean level. The participative decisions-making (M= 4.1841; SD=0.5614) indicating a third high mean level. Support (M=4.1291; SD=0.60796) indicating that the level of support is lowest mean level among the functions. The overall mean score is 4.2246 with a standard deviation of 0.58225, indicating a high level of minimum practice across all functions. Overall, the results indicate that the participants perceive high levels of supervision which is dominant dimensions of distributed leadership. However, minimum practice across all the other functions evaluated in the study which are cohesive leadership team, participative decision-making and support.

4.3 Level of Teacher Organizational Commitment Practices

 Table 3: Analysis of the Level of Organizational Commitment Practices

Function	Mean (M)	Standard Deviation (SD)	Level of Practice
Affective Commitment	4.1825	0.62351	High
Continuance Commitment	3.5651	0.81449	Medium High
Normative Commitment	3.4169	0.82038	Medium High
Overall Mean	3.7215	0.75279	Medium High

Based on the table, the employees' levels of organizational commitment were varied. Affective commitment stands out as having a high degree of emotional attachment and dedication (M=4.1825; SD=0.62352). Continuance (M=3.5651; SD=0.81449) and normative commitments (M=3.4169; SD=0.82038) follow closely, both categorized as medium high, suggesting a moderate to high degree of perceived obligation and loyalty. A largely good corporate commitment environment is further supported by the total mean score of 3.7215, which is medium high across all commitment categories. The results underscore the significance of cultivating emotional bonding and a sense of duty among staff members to amplify organizational dedication and ultimately propel organizational prosperity.

4.4 The Relationship between Distributed Leadership and Organizational Commitment in Primary Schools in Johor

Dimension of Distributed	β	Beta	t-value	Sig (n)	R ²	Contribution
Participative Decision	0.474	0.448	9.715	0.000	0.201	20.1
Making	1 7 3 9		8 4 3 0	0.000		
R	1.737	0.448	0.150	0.000		
R ²		0.201				
Adjusted R ²		0.199				
Standard Error		0.576				

Table 4: Regressions of Distributed Leadership and Organizational Commitment

Multiple regression analysis was used to ascertain the effect of distributed leadership on the organizational commitment of middle leaders, as demonstrated in Table 4. As shown in Table 4, the element of participative decision-making (β =0.474; t=9.715; p=0.000) was statistically significant and explained 20.1 per cent of the variance in organizational commitment. However, the other three components of distributed leadership were statistically insignificant and did not contribute to teachers' organizational commitment. Hence the simple regression equation from the above finding is Y= 1.739 + 0.474 X.

4.5 Instrument's validation

The data normality was checked through the histogram, Q-Q plot and Kolmogorov-Smirnov tests before continuing with the data analysis. The distributed leadership practices and organizational commitment were further examined by suing the EFA with component analysis through Oblimin rotation procedure. Overall, data from the analysis showed that the total variance account for each scale was higher than 0.60 per cent, which is the cut-off value emphasized by Tabachnick & Fidell (2013). The values for the Bartlett test of sphericity were also significant for all scales. Data were presented based on the values of Kaiser Meyer Olkin (KMO) for sampling adequacy, Barlett's test of sphericity, and total variance explained. KMO values ranged from 0.864 to 0.888, while the total variance explained values is 64 per cent for distributed leadership component. The last scale was the commitment scale (KM0=0.864; Barlett's test= 0.000; organizational total variance explained=65.72%). Item loadings ranged from 0.503 to 0.815 for distributed leadership and 0.528 to 0.887 for organizational commitment. Moreover, we examined the multicollinearity of the scales, which should not exceed the value of 0.90, which may result in the existence of multicollinearity (Tabachnick & Fidell, 2013). In fact, the total items-correlation values, data showed that the highest correlation values were 0.787 for distributed leadership and 0.830 for organizational commitment which were lower than 0.90. Thus, the low existence of multicollinearity was established. This shows that the items have high consistency and reliability.

Before conducting data analysis, the normality of the data was checked using histograms, Q-Q plots, and Kolmogorov-Smirnov tests. Distributed leadership practices and organizational commitment were examined through Exploratory Factor Analysis (EFA) with component analysis using the Oblimin rotation procedure. The analysis revealed that the total variance accounted for by each scale exceeded the recommended 60% cut-off value, with Bartlett's test of sphericity being significant for all scales (Tabachnick & Fidell, 2013). Data were presented based on the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy, Bartlett's test of sphericity, and total variance explained. KMO values ranged from 0.864 to 0.888, with total variance explained being 64% for distributed leadership and 65.72% for organizational commitment. Item loadings ranged from 0.503 to 0.815 for distributed

leadership and 0.528 to 0.887 for organizational commitment. Examination of multicollinearity showed low correlation values, indicating high consistency and reliability of the items, with the highest correlation values being 0.787 for distributed leadership and 0.830 for organizational commitment, both below the 0.90 threshold (Tabachnick & Fidell, 2013).

Before conducting full structural equation modeling (SEM), confirmatory factor analysis (CFA) of the measurement model is required to ensure indicators accurately represent the constructs being measured (Byrne, 2010). Using IBM SPSS AMOS version 24, CFA was performed to test the validity and reliability of the instruments (Kenny, 2007). Convergent validity is achieved when factor loadings are significant and exceed .50, while discriminant validity is met when correlations between factors do not exceed .90 (Brown, 2015). Items failing these criteria are discarded unless essential (Hair et al., 2010). Items not meeting these criteria are discarded. Average variance extracted (AVE) should be above .50 and composite reliability (CR) above .70 to ensure convergent validity (Hair et al., 2010). Model fit is assessed using seven indices: Chi-square/df (χ 2/df <5.0), Comparative Fit Index (CFI >.90), Tucker-Lewis Index (TLI >.90), Root Mean Square Error of Approximation (RMSEA <.08), factor loading (>.50), AVE (>.50), CR (>.70), and the critical ratio (>+1.96) (Hair et al., 2010; Kline, 2011). The measurement model is considered fit when all criteria are met.

The Confirmatory Factor Analysis (CFA) for four functions of distributed leadership including support, supervision, cohesive leadership teams, and participative decision-making shows that each function has acceptable items based on their model fit values. For the support function, each item had factor loadings between .60 and .80 and regression weights from .36 to .64, with model fit values p-value = .393, RMSEA = .010, GFI = .995, CFI = 1.000, and ChiSq/df = 1.038. In the supervision function, factor loadings ranged from .75 to .87 and regression weights from .56 to .75, with model fit values p-value = .000, RMSEA = .052, GFI = .994, CFI = .998, and ChiSq/df = 2.022. For cohesive leadership teams, factor loadings were between .77 and .86, and regression weights from .59 to .74, with model fit values p-value = .006, RMSEA = .077, GFI = .982, CFI = .991, and ChiSq/df = 3.249. Lastly, for joint decision-making, factor loadings ranged from .77 to .90 and regression weights from .59 to .81, with model fit values p-value = .996, RMSEA = .000, GFI = 1.000, CFI = 1.000, and ChiSq/df = 0.020. These values show that the items for each function are acceptable.

The Confirmatory Factor Analysis (CFA) for the organizational commitment's dimensions shows acceptable model fit values for affective, continuance, and normative commitment factors. For the affective commitment dimension, each item had good factor loadings between .63 and .91, with regression weights from .40 to .83 (40 to 83 percent). The model fit values were $\chi^2/df = 2.895$, GFI = .994, CFI = .997, and RMSEA = .071, indicating acceptable items. For the continuance commitment dimension, factor loadings ranged from .62 to .80 and regression weights from .38 to .65 (38 to 65 percent). The model fit values were $\chi^2/df = 1.295$, GFI = .994, CFI = .999, and RMSEA = .028, indicating acceptable items. For the normative commitment dimension, factor loadings were between .67 and .78, with regression weights from .47 to .61 (47 to 61 percent). The model fit values were $\chi^2/df = 2.806$, GFI = .992, CFI = .992, and RMSEA = .069, also indicating acceptable items. These values prove that the items for each dimension of organizational commitment are acceptable.



Structural Equation Modeling of Distributed Leadership and Organizational Commitment

The structural equation model depicted illustrates the relationships among several variables: support, supervision, cohesive leadership team, and participative decision-making, all of which load onto the latent construct of distributed leadership. This in turn influences organizational commitment, which is further divided into affective commitment, continuance commitment, and normative commitment. The fitness indices for the model are provided: the P-Value is .326, indicating non-significance and suggesting a good fit; the RMSEA is .019, well below the .08 threshold, indicating a close fit; the GFI is .991, above the .90 threshold, suggesting a good fit; the CFI is .999, indicating an excellent fit; and the Chi-square/df is 1.138, well below the threshold of 5.0, suggesting a good model fit. These indices collectively indicate that the model has an excellent fit to the data, with all the fit indices meeting or exceeding the recommended levels.

The equation for the above-mentioned structural equation model are as follows:

Y=0.62 + 0.83X1+0.91X2+0.90X3+0.91X4

WITH

Y= Organizational Commitment

X₁=Support

X₂=Supervision

X₃=Cohesive Leadership Team

X₄=Participative Decision-Making

DISCUSSION

This study examined the relationship between the distributed leadership and organizational commitment of middle-leaders in selected primary schools in Johor. Before that, the study provided some important material on the degree to which relationships are boosted and middle leaders' organizational commitment is elevated through distributed leadership. Then, before proceeding with the determination of middle leaders' organizational commitment and relationship analysis, teachers were required to filled in the distributed leadership questionnaire based on the model of Hulpia et al. (2009) involving four facets of support, supervision, participative decision-making and cohesive leadership team. After that, the middle leaders' organizational commitment was determined based on the Meyer & Allen (1993) model involving three facets of affective, normative and continuance commitment.

The Structural Equation Modeling (SEM) results presented in the path diagram provide compelling insights into the relationships between distributed leadership and organizational commitment. This section will discuss the findings in the context of existing literature and theoretical frameworks.

Supervision has the highest coefficient, indicating it is the most critical factor in establishing distributed leadership. Effective supervision involves guiding, mentoring, and supporting middle leaders, which empowers them and enhances their leadership roles. This finding aligns with Harris (2008), who emphasized the role of middle leaders in decision-making. However, it contrasts with (Muthiah et al., 2020), who found no significant link between supervision quality and teachers' affective commitment, suggesting the need for further investigation into contextual differences. A cohesive leadership team significantly contributes to distributed leadership. This factor highlights the importance of teamwork, unity, and shared goals among leaders to foster a collaborative environment. This result is consistent with the findings of Samancioglu et al. (2020) and Liu & Watson (2020a), which emphasized the importance of teamwork and joint decision-making in enhancing organizational commitment.

Support is another crucial element, indicating that providing resources, encouragement, and backing is essential for distributed leadership. Supportive environments enable middle leaders to feel valued and empowered. This finding is in line with Groot (2021), who identified a supportive working climate as vital for teacher commitment. Participative decision-making plays a significant role in distributed leadership. Involving teachers in decision-making processes fosters a sense of ownership and collaboration, essential for distributed leadership. The positive impact of participative decision-making is supported by Liu & Watson (2020a) and Berjaoui & Akkary (2020), who found that teacher involvement in decisions enhances their commitment and sense of agency.

Organizational commitment has the strongest effect on affective commitment, suggesting that distributed leadership significantly boosts teachers' emotional attachment to the organization. This finding aligns with study Lei and Adams (2021) and Muthiah et al. (2021), who noted that affective commitment is highly influenced by a supportive and cooperative environment. Organizational commitment is significantly improved by distributed leadership. This indicates that when leadership roles are shared and collaborative, middle leaders feel more committed to their organization. This is consistent with the general findings of Spillane (2004) and Harris (2008), which found positive correlations between distributed leadership practices and organizational commitment.

Organizational commitment moderately influences continuance commitment, implying that distributed leadership affects teachers' considerations of the costs associated with leaving the organization. This finding partially aligns with the broader literature, which often emphasizes the emotional and normative aspects of commitment more than continuance commitment. Organizational commitment also moderately impacts normative commitment, indicating that distributed leadership enhances teachers' sense of obligation to stay with the organization. This is supported by Berkovich dan Bogler (2021), who noted that distributed leadership positively impacts normative commitment by fostering a sense of duty and belonging.

The study concludes that primary school headmasters in Johor exhibit high levels of distributed leadership with identifiable dominant dimensions, rejecting the null hypothesis that no such dimensions exist. Teacher organizational commitment in these schools varies significantly across different dimensions, refuting the null hypothesis of no variation. Additionally, a statistically significant, though weak, positive relationship between distributed leadership and teacher organizational commitment was found, leading to the rejection of the null hypothesis that no such relationship exists. These findings affirm that distributed leadership enhances teacher engagement and commitment, thereby supporting school excellence in Johor.

The SEM results highlight the significant positive impact of distributed leadership on organizational commitment, particularly through effective supervision, cohesive leadership teams, and supportive environments. These findings provide strong empirical support for promoting distributed leadership practices in educational settings to enhance middle leaders' commitment and ultimately improve

school effectiveness. However, addressing potential challenges and contextual factors is crucial for successful implementation.

Implications to Practice

These findings underscore the importance of distributed leadership in enhancing organizational commitment among middle leaders in educational settings. Effective supervision, cohesive leadership teams, and supportive environments are particularly critical. However, the varying impact of supervision quality noted in different studies suggests the need for further exploration of contextual factors and their influence on these dynamics. Future research should delve deeper into understanding these contextual factors, such as organizational culture, resource allocation, and senior leadership support, to better grasp their impact on the effectiveness of distributed leadership. Additionally, gender differences observed by Kuppan dan Razak (2021a) and contrasting findings regarding supervision quality highlight areas for further investigation.

Future Studies and Conclusion

The results obtained from this study can also be expanded by gathering information from more extensive samples that encompass a broader spectrum of Malaysian teachers. As a result, more patterns that principals employ can be better exposed to ascertain the most appropriate strategy to take in the principals' leadership of Malaysia context. From the other perspective, it is interesting to explore the related potential mediators and moderators in the relationship between distributed leadership and organization commitment. Variables such as job satisfaction, employee engagement, organizational culture, and psychological empowerment could offer deeper insights. Conduct qualitative research to delve into employees' perceptions and experiences of distributed leadership can provide a richer comprehension of how these practices are received and their impact on commitment.

Overall, this research has illuminated the distributed leadership applied by principals in national primary schools in Johor, Malaysia. The study underscores the importance of addressing both emotional and rational aspects of commitment in organizational strategies. By fostering affective attachment, ensuring job security, and promoting a culture of mutual respect and reciprocity, organizations can enhance employee engagement, satisfaction, and retention, thereby driving overall organizational success. Concurrently, the principals should be aware of the elements of distributed leadership that may raise organizational commitment.

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PART A: DISTRIBUTED LEADERSHIP

Instructions: Read each statement carefully and circle only ONE number that represents your view of the HEADMASTER at your school.

Strongly	Disagree	Slightly	Disagree	Agree (A)	Strongly Agree (SA)
Disagree (SD)	(D)	(SD)			

╞							
1	1	2	3	4	5		

During my service at the school, I find that the headmaster...

Statement	SD	D	SD	A	SA
1. discusses the school vision with me.	1	2	3	4	5
2. praises me when i perform excellently.	1	2	3	4	5
3. allocates time to meet with me to discuss school-related matters.	1	2	3	4	5
4. explains the reasons when he/she criticizes me.	1	2	3	4	5
5. is willing to help me after school hours.	1	2	3	4	5
6. evaluates teachers' performance with the Integrated Assessment of Education Service Officers.	1	2	3	4	5
7. assesses the creativity of teachers in teaching.	1	2	3	4	5
8. evaluates the effectiveness of School-Based Assessment (PBS).	1	2	3	4	5
9. supervises teachers' learning and teaching as a routine activity through the teachers' Daily Lesson Plan.	1	2	3	4	5
10. provides improvement suggestions after supervision in the Malaysian Education Quality Standard Scoring Form.	1	2	3	4	5
11. has a team of middle leaders that functions in organizing school activities.	1	2	3	4	5
12. shares the same goals with all middle leaders as stated on the bulletin board.	1	2	3	4	5
13. assigns middle leaders according to their expertise.	1	2	3	4	5
14. allocates management time for middle leaders with a duty schedule.	1	2	3	4	5
15. ensures that tasks to be carried out in the school administration calendar are clearly known by all middle leaders.	1	2	3	4	5
16. distributes leadership functions for critical activities such as the power to distribute tasks to achieve school goals.	1	2	3	4	5
17. has a group of middle leaders who can make decisions effectively.	1	2	3	4	5

Statement	SD	D	SD	A	SA
18. gives me the opportunity to make decisions.	1	2	3	4	5
19. encourages the exchange of ideas among middle leaders.	1	2	3	4	5
20. ensures that all middle leaders know their respective limits of authority as stated in the Primary School Governance Guidelines by the Ministry of Education (MOE).	1	2	3	4	5

Part B: Organizational Commitment

Instructions: Read each statement carefully and circle only ONE number that represents your view of YOUR COMMITMENT at the school

Strongly Disagree (SD) Disagree

(D)

Slightly Disagree (SD)



During my service at the school, I...

Statement	SD	D	SD	Α	SA
21. am happy to serve at this school throughout my service.	1	2	3	4	5
22. am proud to tell others that i am part of this school.	1	2	3	4	5
23. consider the problems in this school as my own problems.	1	2	3	4	5
24. have a strong sense of belonging to this school.	1	2	3	4	5
25. feel that this school has many personal memories for me.	1	2	3	4	5
26. stay at this school because i find it difficult to move to another school.	1	2	3	4	5
27. stay at this school to maintain my seniority.	1	2	3	4	5
28. stay at this school to keep my daily life stable.	1	2	3	4	5
29. stay at this school because it is a necessity at the present time.	1	2	3	4	5
30. stay at this school because there are few job options in other organizations if i want to leave this school.	1	2	3	4	5
31. continue to serve in the same school as it is a work ethic.	1	2	3	4	5
32. must continue to serve at the same school.	1	2	3	4	5
33. feel guilty if i leave this school for a better job offer elsewhere.	1	2	3	4	5
34. have been educated with values of loyalty to continue serving this school.	1	2	3	4	5
35. believe staying with one school throughout my service is the right thing to do.	1	2	3	4	5