

*Full Length Research Paper*

# **Multi-dimensional leadership orientation and lecturers' work commitment: A mediating effect in leadership effectiveness among Malaysian polytechnic's heads of department**

**Mohammed Sani Ibrahim**

Faculty of Education, University of Malaya, 50603 Kuala Lumpur, Malaysia.  
E-mail: mohammedsani@um.edu.my. Tel: +600-03-79673894. Fax: +600-03-7967 5010.

Accepted 21 June, 2011

**The purpose of this study was to determine if Malaysian polytechnic's heads of department multi-dimensional leadership orientation effects the lecturer work commitment, and a mediating effects in leadership effectiveness as perceived by the lecturers. The department heads leadership orientation was determined by the structural, human resource, political, cultural, and educational frame used based on Bolman and Deal's leadership frame and Sergiovanni's Leadership model. A total of 841 lecturers and 76 department heads from 24 polytechnics participated in this study. Hierarchical Linear Modeling was used to determine the department head's multi-dimensional leadership effect on lecturers work commitment. The study proves that polytechnic's heads of department practiced multi-dimensional leadership, with human resource frame as the predominant frame. There is a significant relationship between human resource and cultural frames and lecturers work commitment. The department head's leadership effectiveness as perceived by the lecturers mediates the relationship between department head's multi-dimensional leadership and lecturers work commitment.**

**Key words:** Multi-dimensional leadership, leadership effectiveness, work commitment, hierarchical linear modeling.

## **INTRODUCTION**

Malaysia needs to create a better educated and more highly skilled population to achieve the goal of becoming a developed nation by the year 2020. Hence, it is the objective of Malaysian Higher Education to produce professionals as demanded by the nation for human resources who can acquire and apply their knowledge in the context of contemporary society and also provide facilities for research and consultant services (National Higher Education Action Plan, 2007). Malaysian Higher Education is responsible for developing human capital with the capability to compete in the global economy (Mohamed, 2008). However, Malaysian Higher Education's success is directly related to the capability of its workforce. Accordingly, educational leaders must apply effective leadership skills and create an environment that fosters a culture of excellence to attract the most able and motivate existing staff. Malaysian Higher Education

leadership is challenged on how to use the best approach educational reform and the changing nature of our fast-paced, technology-rich, competitive, global world. This is particularly pertinent for educational leaders in polytechnics. As one of the tertiary education provider, Polytechnics' contributions are significant to the development of first-class mentality human capital, therefore it needs to embark on changes in educational leadership (Imran, 2009). Polytechnic leaders articulate the strategic intent of the organization and achieve success through the leadership and management of others. They determine values, culture, change tolerance and employee motivation through the shaping of institutional strategies including their execution and effectiveness. The success of polytechnics education in these complex and competitive environment, depends largely on leaderships practice that drive human capital towards optimal

performances, increased productivity, creative innovations and a committed work force.

The academic department is the basic decision-making units responsible for the institutional missions of teaching, research and public services (Bragg 2000). Hence, academic heads of department plays a critical role (Coats, 2000) in leading their departments towards greater efficiency, functionality and excellence (Rosser, 2003) through fiscal and resource administration as well as ensuring the quality of the academic curriculum (Rodd, 2001). Polytechnics academic department heads are charged with creating a shared vision for the department, and responsible for developing a climate conducive for the development, sustainability and transfer of knowledge. This new reality requires polytechnics academic department heads to focus on leadership behaviors that suit the consumer-driven environment (Wergin, 2004; National Higher Education Action Plan, 2007).

The concern for the best leadership orientation rests on the need for leaders who will not only set goals and direct organizations' resources towards these goals but also stimulate the right attitude and behaviors among workers to enhance their commitment to high performances and values. As suggested in earlier studies, commitment to organizations is reflected by how employees feel about leaders and the behaviors they exhibit (Lok and Crawford, 2001). The strength and quality of leadership skills and effectiveness of the educational leaders plays a vital role in influencing educational organizations characteristics (Sasnett and Ross, 2007) and was shown to have significant impact on lecturer commitment to the institution (Brown and Moshavi, 2002; Cheng, 2005; Gabbidon, 2005; Shirbagi, 2007; Zaharah, 2002). Effective leadership behaviors will influence the employees to remain employed and increase their productivity (McColl-Kennedy and Anderson, 2002).

A paradigm shift in leadership roles in today's complex and dynamic environment requires a flexible and multiple leadership to fulfill the client's needs (Avolio and Bass, 1998; Abdul, 2004). Academic leaders are required to use a multi-dimensional leadership orientation as there are shortfalls in every leadership model and may not be appropriate for every context and situation (Cheng, 2005). A flexible and multiple leadership orientation leads to effective leadership (Bolman and Deal, 1991, 1997; Thompson 2000; Abdul, 2004; Cheng, 2005). Leaders ability to switch between multiple leadership orientations shows high degree of cognition. Leaders who incorporated several elements of leadership orientation were more flexible in carrying out multiple administrative tasks (Bolman and Deal, 1991; 1997) and are competent in fulfilling the subordinates expectations. Understanding of how lecturers become satisfied and committed to their polytechnics and to what degree various factors contribute to their level of commitment, is really important to boost up their performance. Thus, it is important to identify types of leadership that enhance lecturers' commitment

so that academic department heads can work to maximize the productivity of lecturers. Although a significant amount of research focusing on organizational commitment and leadership behavior in business organizations has accumulated, comparatively little data addressed the role of academic department heads leadership orientations on faculty members' commitment in higher education settings. There also was very little information to be found regarding these concepts within Malaysian Polytechnics.

### **Aims of the study**

The aim of the study was to investigate the role of academic department heads leadership orientation as predictors of lecturers' commitment. Another aim of the study was to examine the extent to which perceived leadership effectiveness mediates the relationship between the leadership orientations of academic department heads and lecturer's work commitment. The objectives of this study are as follows:

1. To identify the leadership orientations by the head of academic departments, in the aspect of structural, human resource, political, cultural and educational leadership styles.
2. To identify the relationship between the practice of multi-dimensional leadership of heads of academic department towards lecturer's work commitment.
3. To explore the mediating effect of leadership effectiveness between the practice of multi-dimensional leadership of academic department heads and lecturer's work commitment.

### **CONCEPTUAL FRAMEWORK**

Despite the differences in leadership theories and models, scholars generally agree that the multi-dimensional leadership theory is more appropriate in understanding educational leadership (Bolman and Deal, 1997; Thompson, 2000; Cheng, 2005; DelFavero, 2006). This theoretical approach was more comprehensive with broader leadership knowledge and more practical for a cognitive understanding of the leadership perspective (Bolman and Deal, 1997). Bolman and Deal's theory of leadership combines existing research and theories on organizations, leadership and management, and categorizes the information into four leadership frames. The four frames are structural leadership, human resource leadership, political leadership, and cultural or symbolic leadership (Bolman and Deal, 1991). The structural leadership emphasizes on analytical skills and organizational management, and the human resource leadership refers to leadership characteristics that are supportive and participative. Political leadership refers to strengths

that are related to power and political sensitivity, while cultural leadership is based on the leader's inspirations and charisma.

Sergiovanni's (1984) Hierarchy of Leadership Forces shares some similarities with Bolman and Deal's (1991, 1997) model. It includes leaderships in the aspects of technical, human, educational, symbolic and cultural. These models help to explain the variations in leaders' perspectives when defining organizational realities (Bensimon, 1989).

Each of the leadership frames had its own view and captures an important part of organizational reality, but are not independent of each other (Bolman and Deal, 1997; Sergiovanni, 1984). Leaders ability to use more than one frame should increase a person's ability to act effectively and make clear judgments (Bolman and Deal, 1991, 1997; Cheng, 2005; Sergiovanni, 1984).

In this study, Bolman and Deal's (1991; 1997) Leadership frames and Sergiovanni's (1984) Hierarchy of Leadership Forces Model were incorporated and used to explore the leadership orientation of academic department heads in polytechnics based on five leadership dimensions; structural leadership, human resource leadership, political leadership, cultural leadership and educational leadership.

The leadership practice and effectiveness of department heads in performing their various roles was shown to be strongly related to lecturer's performance, job satisfactions and commitment (Cheng 2005; Shirbagi 2007). An effective department heads, whose sense of achievement are based in part on lecturer perceptions (Rosser 2003), is a person with the ability to influence the activities of the lecturer toward goal achievement (Addison 2006), enjoy their respect and confidence. They are constantly judged by their actions and reactions to the problems, opportunities and challenges they face (Tucker and Bryan, 1991). Studies conducted by Gmelch and Miskin (2004), had identified four comprehensive roles of academic department heads that were critical to lecturers performance and productivity (Gmelch and Miskin, 2004; Wheeler, 2002). Therefore, polytechnic's academic department heads leadership effectiveness as perceived by their lecturers, that relates to the quality of their performance in their roles as managers, leaders, faculty developers, scholars and students affairs managers (Gmelch and Miskin, 2004; Tucker, 1992), was predicted to have significance influence on the relationship between their leadership orientation and lecturers work commitment.

Lecturers are the central element in polytechnic educational system holding various important responsibilities. Lecturer's commitment is closely connected to their work performance and their ability to innovate and integrate new ideas into their own practice, as well as having an important influence on students' achievement in, and attitudes toward school (Tsui and Cheng, 1999). Lecturers' commitment is viewed based on the social exchange theory. Social exchange is a mechanism that eases social

social interaction and group structure, encouraging a sense of personnel responsibility, appreciation and trust (Blau, 1964), which is used in this study to determine lecturers commitment towards the polytechnic, their students and profession. This exchange process begins with the leadership orientation of academic department heads in performing their roles effectively, thereby enhancing the lecturers abilities and skills to achieve organizations goals. At the end of this process, the lecturers shows their sense of community, affiliation, and personal caring to the polytechnic (Louis, 1998), to student learning, social and intellectual development (Dannetta, 2002; Hoy and Sabo, 1998), and sense of relevance in the teaching profession (Firestone and Rosenblum, 1988).

## METHODOLOGY

### Research design

This study used questionnaires to gather the data. Multi-stage cluster sampling and proportional stratified sampling were used to determine the number of department cluster, while respondents were randomly selected for each cluster. A sample of 96 department heads and 1044 lecturers from 24 polytechnics were selected to participate in this study. Seventy six department heads representing 11 academic department clusters completed the leadership orientation questionnaires – self, for a response rate of 79.2%. For lecturer, 841 completed the questionnaire for a response rate of 80.5%. The overall response rate obtained and analyzed was 83%.

### Data analysis

Researchers have agreed that multi-level structures in data collected need to be considered when studying educational phenomena (Coryn, 2011; Raudenbush and Bryk, 2002; Wang, 1999). This study encountered multi-level issues involving organization and individual levels of theory and analysis. In this study, the lecturers and department heads were the unit to be analyzed. Lecturer work commitment was nested within the structure of the department and the department heads characteristics. Work commitment of individual lecturers is a function of the department heads leadership orientations. Therefore, multi-level modeling analysis using the Hierarchical Linear Model (Raudenbush et al., 2004) was used as an analytical approach to examine the relationship between academic department's head leadership orientations (level 2 predictor), their perceived leadership effectiveness (level 1 predictor) and lecturers' work commitment (level 1 outcome variable). Raudenbush and Bryk (2004) and Hoffman (1997) argue Hierarchical Linear Modeling (HLM) is the best approach when dealing with multi-level issues. They suggest HLM overcomes weakness of disaggregation and aggregation methods and account for individuals and group level variances while assessing predictors at individual and group levels. In sum, HLM measures within and between groups variances for more meaningful results provides a higher to lower outcome at the correct analysis level (Raudenbush and Bryk, 2004; Hoffman, 1997).

### Research instrument

The perceptions of the department heads leadership orientations was obtained using 35 items adapted from the *Leadership Orientation Survey (LOS)* (Bolman and Deal, 1991) and Sergiovanni's

**Table 1.** Department heads leadership types

Type of leadership	Detail
Balanced leadership	Leaders in this category scored above the overall mean in at least four leadership dimensions
Moderately balanced leadership	Leaders in this category scored above the overall mean on any three leadership dimensions
Unbalanced leadership	Leaders in this category scored above the overall mean on not more than two leadership dimensions

Source: Thompson, (2000).

**Table 2.** Mean score and standard deviation for leadership dimension.

Leadership orientation	Lecturers (n = 841)		Department heads (n = 76)	
	Overall mean score	Standard deviation	Overall mean score	Standard deviation
Structural	3.84	0.65	4.25	0.42
Human resource	3.88	0.56	4.39	0.40
Political	3.80	0.61	4.18	0.46
Cultural	3.79	0.63	4.19	0.43
Educational	3.85	0.61	4.32	0.45

Transformational Leadership Forces Model (1984). Respondents indicated the extent to which the department heads exhibited each of the 35 behaviors using a 5-point Likert scale (1 = never to 5 = always). The scores on each leadership dimension was compared to the mean of all scores to determine the use of leadership dimension.

The academic department heads leadership effectiveness was measured by their roles performance as perceived by the lecturers. The perceived roles performance was measured using the integration of *Department Chair Role Orientation Instrument* (Gmelch and Miskin, 2004) with various department heads roles and leadership effectiveness questionnaires based on Malaysian polytechnics department heads jobs scope. Thirty seven items were used to obtain lecturers perception on academic department heads effectiveness in their roles as department manager, leader, faculty developer, scholar and student affairs managers based on a 5-point Likert scale (1 = low performance to 5 = excellence).

Lecturer commitment was measured using 19 items related to commitment towards the polytechnic and students. *Organizational Commitment Questionnaires (OCQ)*; Mowday et al., 1979) was used to obtain lecturers perceptions of their commitment to the polytechnic. Respondents indicated the extent to which they exhibited each of the 10 behaviors using a 5-point likert scale (1 = strongly disagree to 5 = strongly agree). Lecturer commitment to students was measured using a combination of nine items adapted from Kanungo's (1982) Job Involvement Questionnaires, committed behaviors (Hoy and Sabo, 1998) and lecturer interactions with students (Blackburn and Lawrence, 1995), based on a 5-point Likert scale (1 = never to 5 = always). Where as lecturers commitment to their profession was measured using eight items adapted from professions, careers and occupation questionnaires (Blau, 1985; Greenhaus, (1971) in Celep 2000). The lecturers evaluated their commitment to the profession based on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree).

Cronbach's alpha was used to test the reliability of the instruments. The result of the data analysis showed that the instruments had a high degree of validity with a consistent reliability. The

reliability for the leadership orientations scale ranged from 0.90 to 0.94, and the corrected item-total correlation scores ranged from 0.6 to 0.82. The reliability for the organizational commitment, students commitment and commitment to professions scales was 0.93; 0.91 and 0.90 respectively, with corrected item-total correlation ranged from 0.52 to 0.84. Where as, the reliability for the leadership effectiveness scales was between 0.89 to 0.94, and the corrected item-total correlation scores ranged from 0.61 to 0.87.

## RESEARCH FINDINGS

### Academic department heads multi-dimensional leadership orientations

The department heads leadership orientations is categorized into three leadership types that indicates the degree to which perceptions of the behaviors of department heads reflect their balanced (or unbalanced) use of the five leadership dimension as shown in Table 1. Department heads were perceived to have a balanced leadership orientation if they scored above the overall mean in at least four leadership dimensions, and as having a moderately balanced leadership orientation if they scored above the overall mean in three leadership dimensions. Department heads that scored above the overall mean in two or less leadership dimension were categorized as having unbalanced leadership.

### Department heads leadership orientation

Table 2 presents the mean and standard deviations for

the respondents' ratings on the department heads leadership orientation. The overall mean of each leadership dimension as evaluated by the department heads and the lecturers was between 4.18 and 4.39, and 3.79 and 3.88 respectively. Inspection on the leadership dimension mean score, shows that human resource leadership has the highest overall mean score obtained by both respondents group evaluation, department heads (4.39), as well as lecturers (3.88), indicating that it was the predominant leadership orientation among the department heads. The next most frequent predominant leadership orientation was the educational leadership and structural leadership. Whereas political and cultural leadership were the most least used leadership dimension as perceived by both. The standard deviation for each leadership dimension for the two groups of respondents, ranged from 0.56 to 0.65, and from 0.4 to 0.46 for lecturers and department heads respectively. It shows that lecturers and department heads agreed on the perceptions towards leadership orientations of department heads.

The details of how respondents perceive department heads leadership orientations based on either single or multi-dimensional leadership can be referred as in Table 3. The study found that both lecturers and department heads agree that polytechnic's head of department have used at least one leadership dimension in their leadership practice with majority of them perceived that department heads practised a multi-dimensional leadership orientation by using at least three leadership dimensions.

Of the 386 (45.9%) lecturers that perceived the department heads as having an unbalanced leadership orientations, a total of 267 agreed that department heads did not practise any leadership dimensions, 45 lecturers perceived their department heads employed two leadership dimensions, where as 74 perceived their department heads practiced only one leadership dimension. The human resource leadership was perceived by the lecturer as the predominant leadership orientation among the department heads that employed only one leadership dimension. The combination of structural/cultural leadership and human resource/political leadership was perceived as the most commonly used leadership orientations by department heads who employed two leadership dimensions.

The department heads were perceived by the majority of lecturers as using multiple leadership dimensions in their leadership practiced. A total of 312 lecturers perceived that their department heads used all five dimensions in their leadership orientation. The human resource, political and cultural leadership were the most frequently used by department heads that employed three leadership dimensions, where as department heads that employed four leadership dimensions, frequently used a combination of human resource/political/ cultural/ education leadership.

From the department heads perspective, a majority of department heads, as at 31.6%, perceived themselves as using all leadership dimensions followed by 19 respondents

(25%) that did not used any leadership dimensions in their leadership practice.

It can be summarized that in the aspect of multi-dimension leadership, structural, human resource, political and cultural leadership dimension obtained high percentage by lecturers, whereas, head of departments seem to prefer structural, educational, political, human resource and cultural leadership.

### Hierarchical linear modeling

The first step in evaluating a hierarchical linear model was to estimate the variance components and significance test within- and between-group variance in lecturer's work commitment. This mode is known as a *null model* because no predictors are used. The associated variance components were then used to calculate the intraclass correlation coefficient (ICC), which indexes the ratio of between- department heads variance in work commitment to the total variance.

The intraclass correlation specifying the percentage of the total variance residing between groups. Consequently, the ICC(I) can be calculated as  $\tau_{00} / (\tau_{00} + \sigma^2)$ , where  $\tau_{00}$  represents the between-group variance and  $\sigma^2$  represents the within-group variance. The presence of a larger ICC (10% or more) warrants use of multi-level methods (Bliese, 2000; Lee, 2000). The second step involved performing the coefficient regression model and the intercept-as out-come model, in which, the level 2 predictor was entered into the equation. The Level-2 predictor was grand mean centered to produce a comparative result (Hofmann and Gavin, 1998).

The results indicated that between-group variance ( $\tau_{00}$ ) for the lecturers work commitment variables was significantly different from zero (Table 4). The intraclass correlation (ICC) of more than 10% indicates that majority of the variance in lecturers work commitment variables resides between groups. Thus, it shows that the level of lecturer commitment to polytechnics, their students and profession varied significantly between department heads.

The intraclass correlation for commitment to polytechnic is 0.116, [ICC=3.71/(28.37+3.71)], indicating that 11.6% of the variance resides between groups, and shows that the level of lecturer commitment to polytechnics varied significantly between department heads. Thirty two percent of the variance in lecturer commitment to their student [ICC=8.88/ (18.99+8.8) = 0.32], also resides between group indicating the significant variability in lecturers level of commitment to their students between department heads. However, the result of intraclass correlation analysis on lecturer's commitment to their profession showed only 4% of the variance was caused by group level characteristics. These findings indicated that there was no significant difference in lecturer's commitment to the teaching profession between the academic department heads.

**Table 3.** Department heads' leadership orientations as perceived by lecturers and heads of department.

Type of leadership	Combination of leadership orientations used	Lecturer		Department head		
		Frequency	Percent	Frequency	Percent	
Unbalanced	<b>No dimension</b>	267	31.7	19	25.0	
	<b>One dimension</b>	74	8.8	11	14.5	
	Structural	15		2		
	Human Resource	33		5		
	Political	8		0		
	Cultural	9		1		
	Educational	9		3		
	<b>Two dimensions</b>	45	5.4	6	7.9	
	Structural/Human Resource	3		0		
	Structural/ Political	2		0		
	Structural/ Cultural	7		0		
	Structural/ Educational	3		2		
	Human Resource / Political	7		0		
	Human Resource / Cultural	6		0		
Human Resource / Educational	5		1			
Political / Cultural	6		2			
Political / Educational	4		0			
Cultural / Educational	2		1			
Total	386	45.9	36	47.4		
Moderately balanced	<b>Three dimensions</b>	79	9.4	7	9.2	
	Structural / Human Resource / Political	12		0		
	Structural/ Human Resource / Cultural	2		1		
	Structural/ Human Resource / Educational	5		1		
	Structural/ Political / Cultural	7		1		
	Structural/ Political / Educational	3		3		
	Structural/ Cultural / Educational	6		0		
	Human Resource / Political / Cultural	24		0		
	Human Resource / Political / Educational	5		0		
	Human Resource / Cultural / Educational	6		1		
	Political / Cultural / Educational	9		0		
	Total	79	9.4	7	9.2	
	Balanced	<b>Four dimension</b>	64	7.6	9	11.8
		Structural/ Human Resource / Political / Cultural	18		0	
Structural/ Human Resource / Political / Educational		8		2		
Structural/ Human Resource / Cultural / Educational		4		3		
Structural/ Political / Cultural / Educational		9		2		
Human Resource / Political / Cultural / Educational		25		2		
Total	<b>Five (all) dimensions</b>	312	37.1	24	31.6	
	Total	376	44.7	33	43.4	

**Table 4.** Within- and between-group variance component in lecturer's work commitment.

Dependent variable	$\tau_{00}$	$\sigma^2$	ICC	$\chi^2$
Commitment to polytechnic	3.71	28.37	0.11	186.15***
Commitment to students	8.88	18.99	0.32	466.01***
Commitment to profession	1.36	32.28	0.04	142.88***

\*\*\*  $p < 0.001$ ; ICC =  $[\tau_{00}/(\sigma^2 + \tau_{00})]$ .

### **Academic department head's multi-dimensional leadership orientations and lecturer's work commitment**

#### ***Department head's leadership orientations and lecturer commitment to polytechnics.***

The results for the coefficient regression model indicate that political leadership and cultural leadership were the only predictors that significantly related to lecturer commitment to polytechnics. Political leadership showed a significant negative relationship [ $\gamma_{03} = -0.39$ ;  $p < 0.05$ ], where as cultural leadership had a significant positive relationship [ $\gamma_{04} = 0.31$ ;  $p < 0.10$ ] in lecturers commitment to polytechnics. Collectively, the two predictors account for 9%, [ $R^2 = (3.71 - 3.39)/3.71 = 0.09$ ] of the between-group variance in lecturers commitment to polytechnics (Model 2 of Appendix A).

#### ***Department head's leadership orientations and lecturers commitment to the students***

Research findings shows that the between-group variance for lecturers commitment to student was significantly different from zero [ $\chi^2 = 66.01$ ;  $p < 0.001$ ]. Results for the group level model indicates that none of the leadership dimensions (level 2 predictors) was positively related to lecturers commitment to students (Model 5 Appendix A). The structural leadership showed marginally significant negative relation with lecturers commitment to students, [ $\gamma_{01} = -0.32$ ;  $p < 0.10$ ]. Results indicated that department heads leadership orientation was not positively associated with lecturers commitment to their students. Therefore, department heads leadership orientation does not explained the large between-group variance component in lecturer's commitment to students.

#### ***Department head's leadership orientations and lecturer commitment to profession***

The results of the coefficient regression model (Model 8 of Appendix A) indicates that the department heads leadership dimension were significantly related to lecturers commitment to their profession except for

educational leadership [ $\gamma_{05} = 0.06$ ;  $p = 0.710$ ]. Human resource [ $\gamma_{02} = 0.19$ ;  $p < 0.10$ ] and cultural leadership [ $\gamma_{04} = 0.24$ ;  $p < 0.05$ ] showed a significant positive relationship with lecturers commitment to their profession, where as structural [ $\gamma_{01} = -0.31$ ;  $p < 0.01$ ] and political leadership [ $\gamma_{03} = -0.24$ ;  $p < 0.05$ ] showed a significant negative relationship. Collectively, all four predictors account for 25%, [ $R^2 = (1.36 - 1.02)/1.36 = 0.25$ ] of the between-group variance in lecturers commitment to profession.

The result of the analysis on the coefficient regression model showed that a different aspects of lecturers work commitment was influenced by a different leadership dimension practiced by the department heads.

### **Department head's leadership effectiveness as a mediator between the relationship of leadership orientations and lecturer's work commitment**

To examine the mediating effect of leadership effectiveness between department heads leadership orientation and lecturers work commitment variables, the researcher followed the recommendations of Kenny et al. (2003) and Krull and MacKinnon (2001). Based on Kenny et al. (2003), department heads leadership effectiveness (M) mediates the relationship between department heads leadership orientation (X) and lecturers work commitment variables (Y) if: (1) leadership orientation is significantly related to lecturers work commitment in the absence of M; (2) leadership orientation is significantly related to department heads leadership effectiveness; (3) department heads leadership effectiveness is significantly related to lecturers work commitment; and (4) there is a change in X-Y relationship, after controlling for leadership effectiveness.

#### ***Department head's leadership orientation, leadership effectiveness and lecturer work commitment***

The study predicted that the positive effect of leadership orientation dimensions to lecturers work commitment was primarily mediated by the perceived leadership effectiveness of department heads in performing their roles. The statistics in Table 5 shows that the dimensions of leadership orientation are either significant or slightly significant to department heads leadership effectiveness in performing their roles as manager, leaders, faculty

**Table 5.** The relationship between department heads leadership orientation and leadership effectiveness.

Predictor variable (Level 2)	Outcome variable (Level 1)				
	Manager	Leader	Faculty developer	Scholar	Student affairs
Structural ( $\gamma_{01}$ )	-0.34*	0.36*	-0.55*	0.17	0.72**
Human Resource ( $\gamma_{02}$ )	-0.44*	0.46*	-0.59	0.36	0.58*
Political ( $\gamma_{03}$ )	-0.20	0.28**	-0.29	0.14	0.32
Cultural ( $\gamma_{04}$ )	-0.26*	0.21*	-0.30	0.19	0.37*
Educational ( $\gamma_{05}$ )	-0.17	0.25*	-0.34	0.07	0.40*

\*\*\*  $p < 0.001$  ; \*\* $p < 0.01$ ; \* $p < 0.05$ ; \* $p < 0.1$ ; ns = not significant.

developer, and student affairs manager, thus meeting the second requirement for mediator. Structural leadership orientation showed a significant positive relationship with department heads effectiveness as leader [ $\gamma_{01} = 0.36$ ;  $p < 0.05$ ] and student affairs manager [ $\gamma_{01} = 0.72$ ;  $p < 0.01$ ], and had a significant negative relationship with the effectiveness in their roles as department manager [ $\gamma_{01} = -0.34$ ;  $p < 0.05$ ] and faculty developer [ $\gamma_{01} = -0.55$ ;  $p < 0.051$ ]. The department heads human resource leadership had a significant positive relationship with their perceived effectiveness as leaders [ $\gamma_{02} = 0.46$ ;  $p < 0.05$ ] and showed a weak relationship in their effectiveness in the roles of department manager [ $\gamma_{02} = -0.44$ ;  $p < 0.10$ ] and student affairs manager [ $\gamma_{02} = 0.58$ ;  $p < 0.10$ ]. Political leadership orientation had a significant positive relationship only with the perceived effectiveness in department heads role as leaders [ $\gamma_{03} = 0.28$ ;  $p < 0.01$ ], where as department heads educational leadership orientation showed a significant positive relationship with their perceived effectiveness as leaders [ $\gamma_{04} = 0.25$ ;  $p < 0.05$ ] and student affairs managers [ $\gamma_{03} = 0.40$ ;  $p < 0.05$ ].

As shown in Appendix A, the cultural and political leadership dimension practiced by department heads (Model 1) along with their effectiveness in their roles as leaders and student affairs managers (Model 2) were significant to lecturer's commitment towards the polytechnic, thus meeting the first and third requirement for mediation. The results also showed that the effect of cultural [ $\gamma_{04} = 0.26$ ;  $p < 0.05$ ] and political leadership [ $\gamma_{04} = -0.20$ ;  $p = ns$ ] on lecturers commitment to polytechnic after controlling the dimension of perceived leadership effectiveness, was slightly reduced (Model 3). This indicates that the relationship between cultural and political leadership practiced by department heads and lecturers commitment to polytechnic was mediated by the department heads perceived effectiveness as leader and student affairs manager.

The results also indicated that structural leadership was slightly negatively significant to lecturers commitment towards the students (Model 5), thus partially meeting the first requirement for mediation. The department heads perceived effectiveness in performing the roles of manager and faculty developer was positively related to

lecturers commitment towards the students (Model 4), thus meeting the third requirement for mediation. The perceived leadership effectiveness as manager and faculty developer mediates the relationship between department heads structural leadership and lecturers commitment to the students, as the structural leadership became insignificant [ $\gamma_{01} = -0.16$ ;  $p = ns$ ] (Model 6) after controlling the leadership effectiveness variables.

As shown in Appendix A, the structural, human resource, political and cultural leadership were significant to lecturers commitment to their profession (Model 8), thus the first requirement for mediation was met. The department heads perceived leadership effectiveness in their roles as manager, faculty developer, and scholar were positively related to lecturer's commitment to their profession (Model 7), thus meeting the third requirement for mediation. The structural [ $\gamma_{01} = -0.14$ ;  $p = ns$ ], human resource [ $\gamma_{02} = 0.07$ ;  $p = ns$ ] and political leadership [ $\gamma_{03} = -0.11$ ;  $p = ns$ ] became insignificant to lecturers commitment to profession, where as the effect of cultural leadership [ $\gamma_{04} = 0.18$ ;  $p < 0.10$ ] became less significant (Model 9) after controlling the leadership effectiveness variables. The results indicated that the effect of leadership orientation on lecturer's commitment to the profession was mediated by the perceived leadership effectiveness.

## DISCUSSION

Lecturers and academic department heads in the Malaysian polytechnics agree that department heads used multi-dimensional leadership orientations as proposed by Bolman and Deal (1991, 1997) and Sergiovanni (1984) which comprises of structural, human resource, political, cultural and educational leadership. Results indicated that department heads in Malaysian polytechnics practice multiple leadership orientations in their administrative duties. This proves the capability of academic department heads to adapt their leadership orientations according to the needs and demands of the current educational environment that is constantly changing and becoming more complex. Lecturers and academic department heads generally agree that department heads are more inclined to use human resource,

educational and structural leadership in their leadership orientations. These leaderships create a conducive and harmonious environment for the teaching and learning process to take place.

As mid-level leaders, department heads were responsible for their professional roles in academic curriculum and co-curriculum as well as functional roles, including the organizational and administrative aspects of their departments. In carrying out these roles, department heads employed structural leadership to ensure that lecturers and support staff discharged their daily work and responsibilities assigned to them. Structural leadership was also employed when department heads set the direction or pathway of their department and enforced rules to be adhered by the lecturers and students. Through the use of human resource leadership, department heads were deemed as being considerate and sensitive towards problems and welfares of their lecturers and students. Furthermore, department heads employed human resource leadership to increase the productivity, performance and commitment of lecturers. As education leaders, department heads were responsible for the development of the curriculum and planning of academic programs to improve the performance quality of their students. Thus, department heads employed educational leadership when they showed sensitivity and monitored the academic development of the polytechnics, provided the stimulus for the professional and intellectual growth of their lecturers and for themselves.

Political and cultural leaderships are leadership orientations that are rarely employed by department heads when managing their departments. Department heads would use cultural leadership when they become sources of inspiration and good models to their lecturers and students. Through departmental events and activities, department heads were able to instill among the lecturers and students, the mission and aims of their organizations, making the latter a part of the culture of the departments and institutions. As for political leadership, its used by department heads to build a network or relationship between departments and other units within the organization in the polytechnic, or with other organizations like industries, local communities and politicians.

The leadership of academic department heads is not only crucial in determining the success of his department, its mission and programs, but also in generating quality performance and commitment in their lecturers. The outcome of this research also shows that only the cultural leadership orientation led to an increase in lecturer commitment to polytechnics, where as political leadership shows a negative relationship. The relationship of these leadership dimensions was mediated by the perceived leadership effectiveness of department heads in their roles as leader and student affairs managers. This finding proves that activities and programs carried out by department heads affected lecturer's commitment and encouraged the lecturers to work towards achieving the aims of the polytechnic. The department heads ability in

creating a quality learning environment and committed work force was by balanced the power and authority they used in gaining lecturers support and trust.

The effect of department heads structural leadership on lecturer's commitment towards the quality of learning and teaching process and student's achievement was influenced by department heads effectiveness in performing the roles of manager and faculty developer. The finding suggests that the department heads structural leadership is negatively associated with the lecturer commitment to the students within the dynamic competitive environment. Beside the economic exchange of leadership-lecturer commitment relationship, the use of structural leadership which use authoritarianism is not conducive to improving lecturer commitment. This indicates that department heads who exhibit a high level of authoritarianism is destructive to lecturers' psycho-logical states and work commitment. In order to manage the lecturers more efficiently and effectively, it is critically important for department heads to demonstrate appropriate leadership behaviors to enhance their level of commitment. The effectiveness of department heads in administrating the department, and in their support and encouragement of lecturer's professional development and growth will enhance the lecturers' motivation and commitment towards the students.

The relationship between department heads human resource and cultural leadership practice and lecturers' commitment towards their profession was affected by the perceived effectiveness of department heads in performing the roles of manager, faculty developer and scholar. The effectiveness of these leadership dimension may stimulates the sense of relations in teaching career among the lecturers, in enhancing their career development and professionalism, and helping them to achieve their potential in teaching, researching and services. The department heads ability in interpreting a clear vision and objectives may influence the lecturers' views on their values and self-achievement, which will motivates and inspire them to devote their energy and loyalty to their profession.

## Conclusion

This research was able to identify the multi-dimensional leadership orientations employed by department heads in Malaysian polytechnics from the perspectives of lecturers and academic department heads. The findings confirms that department heads employ multi-dimensional leadership orientations, at least four leadership orientations with human resource leadership perceived as the predominant leadership orientation employed by department heads.

In analyzing the relationship between department heads multi-dimensional leadership and lecturer commitment, it is found that the level of lecturers work commitment varied significantly between department heads. The variance in

it is found that the level of lecturers work commitment varied significantly between department heads. The lecturers level of work commitment was due largely to the department heads leadership orientations. Specifically, the findings of this research proved that activities and programmes carried out by department heads affected lecturer commitment and encouraged the lecturers to work towards achieving the aims of the polytechnic, their aims towards the profession and in fulfilling their responsibilities to the students. However, there was differing feedback from lecturers regarding their commitment to students. Polytechnic lecturers stated that their commitment to students was not influenced by leadership orientations of department heads. This meant that the leadership orientations of department heads neither significantly influenced nor contributed directly to lecturer commitment to students.

The outcome of the study also shows that the department heads leadership effectiveness as perceived by the lecturers in performing their various roles mediates the effects of department heads leadership orientations on the lecturers work commitment. Therefore, as educational leaders of the 21<sup>st</sup> century, academic heads of department should instill strong beliefs and commitment among the lecturers to move forward in transforming the higher education.

Further scientific studies and research using a larger population is needed to validate the findings of this research. Future studies may wish to rely on other measures of effectiveness. The perceptions of the superior would provide a broader assessment of effectiveness and the ability to obtain multiple views of academic department head's performance rather than relying on the single interpretation resulting from the assessment of lecturer. It is also suggested that future studies should pursue more objective measures of effectiveness such as lecturer turnover, program growth (number of student, size of budget), and the rates of student achievement. These types of measures speak directly to the duties of academic department heads to maintain operations and develop their programs and department.

## REFERENCES

- Abdul SA (2004). Kepimpinan unggul tonggak pengurusan pendidikan cemerlang. Prosiding Seminar Nasional Pengurusan dan Kepimpinan Pendidikan ke 12. Institut Aminudin Baki. (In Malay).
- Addison EP (2006). The principles of leadership effectiveness in higher education. Harper and Row, New York.
- Avolio BJ, Bass BM (1998). You can drag a horse to the water, but you can't make it drink except when its thirsty. *J. Leadersh. Stud.*, 5: 1-17.
- Bensimon EM (1989). The meaning of "good presidential leadership": A frame analysis. *Rev. Higher Educ.*, 12(2): 107-123.
- Blackburn RT, Lawrence JH (1995). *Faculty at Work*. John Hopkins University Press, Baltimore, MD.
- Blau GJ (1985). The measurement and prediction of career commitment. *J. Occup. Psychol.*, 58: 277-288.
- Blau PM (1964). *Social exchange: Exchange and power in social life*. John Wiley & Sons, New York.
- Bliese PD (2000). Within-group agreement, non-independence, and reliability: Implications for data aggregation and analysis. In Klein KJ, SWJ Kozlowski. *Multilevel theory, research, and methods in organizations*. Jossey-Bass, San Francisco, pp. 349-381.
- Bolman L, Deal T (1991). Leadership and management effectiveness: A multi-frame, multi-sector analysis. *Hum. Resour. Manage.*, 30(4): 509-534.
- Bolman L, Deal T (1997). *Reframing Organizations: Artistry, choice, and leadership*. Jossey-Bass, San Francisco, CA.
- Bragg DD (2000). Preparing community college deans to lead change. *New Dir. Commun. Coll.*, 109: 75-85.
- Brown FW, Moshavi D (2002). Herding academic cats: Faculty reactions to transformational and contingent reward leadership by department chairs. *J. Leadersh. Stud.*, 8(3): 79-103.
- Celep C (2000). Teacher's organizational commitment in educational organization. *Natl. Forum Teacher Educ. J.*, 10(3).
- Cheng YC (2005). *New paradigm for re-engineering education: Globalization, localization, and individualization*. Springer, Asia-Pacific Educational Research Association. Netherlands
- Coats LT (2000). Interpersonal behavior and the community college department chairperson. *Commun. Coll. J. Res. Pract.*, 24(10): 773-783.
- Coryn CLS (2011). Role of evaluation to improve the school quality: Experience from various countries. The 2nd Kasetsart University International Conference on Education, Bangkok, Thailand, 25-27 Jan.
- Dannetta V (2002). What factors influence a teacher's commitment to student learning?. *Leadersh. Policy Schools*, 1(2): 144-171.
- Del Favero M (2006). An examination of the relationship between academic discipline and cognitive complexity in academic deans' administrative behavior. *Res. Higher Educ.*, 47(3): 281-315.
- Firestone WA, Rosenblum S (1998). Building commitment in urban high schools. *Educ. Eval. Policy Anal.*, 10(4): 285-289.
- Gabbidon SL (2005). A study on the attitudes and experiences of chairpersons in American criminalology and criminal justice programs. *J. Crim. Justice Educ.*, 15(1): 1-17.
- Gmelch WH, Miskin V (2004). *Chairing an Academic Department*. Sage Publication, Thousand Oaks, CA.
- Goleman D (2000). Leadership that gets results. *Harv. Bus. Rev.*, 3: 78-90.
- Hofmann DA (1997). An overview of the logic and rationale of hierarchical linear models. *J. Manage.*, 23(6): 723-744.
- Hofmann DA, Gavin MB (1998). Centering decisions in HLM: Theoretical and methodological implications for organizational science. *J. Manage.*, 24(5): 623-641.
- Hoy WK, Sabo JD (1998). *Quality Middle Schools: Open and Healthy*. Corwin Press, Thousand Oaks, CA.
- Imran Idris (2009). Merealisasikan kecemerlangan melalui penajajaran semula JPPKK. Amanat tahun baharu Jabatan Pengajian Politeknik dan Kolej Komuniti. UNITEN, Januari. (In Malay)
- Kanungo RN (1982). Measurement of job and work involvement. *J. Appl. Psychol.*, 67(3): 341-349.
- Kenny DA, Korchmaros JD, Bolger N. (2003). Lower level mediation in multilevel models. *Psychol. Methods*, 8(2): 115-128.
- Krull JL., MacKinnon DP (2001). Multilevel modeling of individual and group level mediated effects. *Multivar. Behav. Res.*, 36(2): 249-277.
- Lee VE (2000). Using hierarchical linear modeling to study social contexts: The case of school effects. *Educ. Psychol.*, 35(2): 125-141.
- Lok P, Crawford J (2001). Antecedents of organizational commitment and the mediating role of job satisfaction. *J. Manage. Psychol.*, 16(8): 594-613.
- Loui KS (1998). Effects of teacher quality of work life in secondary schools on commitment and self efficacy. *School Effect. School Improve.*, 9(1): 1-27.
- McColl-Kennedy JR, Anderson RD (2002). Impact of leadership style and emotions on subordinate performance. *The Leadersh. Q.*, 13: 545-559.
- Mohamed KN (2008). Mengubah senario global dalam pengajian tinggi. Seminar Pengurusan Akademik IPT. Langkawi, Ogos. (In Malay)
- Mowday RT, Steers RM, Porter LW (1979). The measurement of organizational commitment. *J. Vocat. Behav.*, 14: 224-227.
- National Higher Education Action Plan (2007). *Beyond 2020*. Ministry of Higher Education Malaysia.

- Raudenbush SW, Bryk AS (2002). *Hierarchical Linear Models: An Applications and Data Analysis Methods*. 2nd ed. Sage Publications, Inc. Thousand Oaks, CA.
- Raudenbush SW, Bryk AS, Cheong YF, Congdon R, Du Toit M (2004). HLM 6: Hierarchical linear and nonlinear modeling. Scientific Software International, Inc.
- Rodd LR (2001). The act of chairing: What dreaming thought the Japanese and the Japanese thought me. *Assoc. Dept. Foreign Lang. Bull.*, 32(3). [www.mla.org/adfl/bulletin/V32N3/323005.htm](http://www.mla.org/adfl/bulletin/V32N3/323005.htm) [Dis. 2009]
- Rosser VJ (2003). Faculty and staff members' perceptions of effective leadership: Are there differences between women and men leaders? *Equity Excel. Educ.*, 36(1): 71-81.
- Sasnet B, Ros, TJ (2007). Leadership frames and perceptions of effectiveness among health information management program directors. *Perspect. Health Inform. Manage.*, 4(8).
- Sergiovanni TJ (1984). Leadership and excellence in schooling. *Educ. Leadersh.*, 41(5): 4-13.
- Shirbagi N (2007). Exploring organizational commitment and leadership frames within Indian and Iranian higher education institutions. *Bull. Educ. Res.*, 20(1): 17-32.
- Thompson MD (2000). Gender, leadership orientation, and effectiveness: Testing the theoretical models of Bolman, Deal and Quinn. *Sex Roles*, 42(11/12): 969-990.
- Tsui KT, Cheng YC (1999). School organizational health and teacher commitment: A contingency study with multi-level analysis. *Educ. Res. Eval.*, 5(3):249-268
- Tucker A (1992). *Chairing the Academic Department: Leadership among Peers*. 3rd ed. Macmillan, New York
- Tucker A, Bryan RA (1991). *The academic dean: Dove, dragon and diplomat*. American Council on Education. McMillan Publishing, New York.
- Wang J (1999). Reasons for hierarchical linear modeling: A reminder. *J. Exp. Educ.*, 68: 89-93.
- Wergin JL (2004). *Leadership in place*. The Department Chair. Aiker Publication, Bolton, MA. 14(4).
- Wheeler DW (1992). The role of the chairperson in support of junior faculty. In: MD Sorcinelli, AE Austin. *Developing new and junior faculty*. Jossey-Bass, San Francisco, CA. 87-96
- Zaharah M (2002). *University academic administrator management practices: A case study*. Ph.D. Thesis. National University of Malaysia, Faculty of Education (In Malay).

## APPENDIX

**Appendix A:** The Relationship Between Department Heads Leadership Orientations, Leadership Effectiveness And Lecturer's Work Commitment.

Variable	Commitment to polytechnic			Commitment to students			Commitment to profession		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
<b>Level 1</b>									
intercept ( $\gamma_{00}$ )	39.25***	39.28***	39.25***	36.59***	36.72***	36.60***	32.23***	32.29***	32.24***
manager ( $\gamma_{10}$ )	0.09		0.10	0.16**		0.16**	0.11*		0.11*
leaders ( $\gamma_{20}$ )	0.17**		0.16*	0.001		0.002	-0.01		-0.02
Faculty developer ( $\gamma_{30}$ )	0.11		0.12	0.23**		0.23**	0.14*		0.14*
scholar ( $\gamma_{40}$ )	0.12		0.11	0.08		0.08	0.14*		0.14*
Student affairs ( $\gamma_{50}$ )	0.14 <sup>+</sup>		0.15 <sup>+</sup>	0.11		0.11	-0.01		-0.003
<b>Level 2</b>									
structural ( $\gamma_{01}$ )		-0.22	-0.03		-0.32 <sup>+</sup>	-0.16		-0.31**	-0.14
Human resource ( $\gamma_{02}$ )		0.06	-0.07		0.36	0.23		0.19 <sup>+</sup>	0.07
Political ( $\gamma_{03}$ )		-0.39*	-0.20		-0.43	-0.12		-0.24*	-0.11
cultural ( $\gamma_{04}$ )		0.31 <sup>+</sup>	0.26*		0.19	0.17		0.24*	0.18 <sup>+</sup>
educational ( $\gamma_{05}$ )		0.16	-0.16		0.04	-0.30		0.06	-0.16
Within-group variance ( $\sigma^2$ )	18.42	28.38	18.41	13.88	19.00	13.91	13.53	17.4	13.60
Between group variance ( $\tau_{00}$ )	2.10	3.52	1.72	9.31	8.38	9.26	0.93	1.06	0.76
<b>Variance of intercept</b>									
Chi squared ( $\chi^2$ )	89.42 <sup>+</sup>	167.55***	78.65	227.99***	406.96***	223.16***	90.58 <sup>+</sup>	119.56***	83.32
Deviance	4985.87	5267.11	4993.15	4802.26	4994.84	4808.42	4703.02	4817.9	4712.20

\*\* p < 0.001 ; \*\* p < 0.01; \* p < 0.05; <sup>+</sup> p < 0.1; ns = not significant.