

# **Transformational Leadership Style and Knowledge Management among University Administrators in Malaysia: Examining the Moderating Effect of Organizational Structure**

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***Abstract:** The study examines the relationships between transformational leadership style, knowledge management and organizational structure using a field study of 255 administrators in one public University in Malaysia. The findings of this study reveal that transformational leadership style is a vital in promoting knowledge management practices in an organization. Specifically, the result of this study reveals that idealized influence, inspirational motivation, intellectual stimulation and individualized consideration of transformational leadership style significantly influence knowledge management practices. Organizational structure found to moderate the effects of transformational leadership on knowledge management indicating that organizational structure plays a crucial role in assisting the leaders to manage knowledge across the organization. The findings of this study have significant contribution to the body of knowledge in the field of knowledge management as well as practical implication to public institutions in Malaysia.*

**Keywords:** Transformational leadership, knowledge management, administrator, organizational structure

## **1. INTRODUCTION**

The concern of the government of Malaysia in developing the nation through knowledge-based economy has become evident. With the aim to become high income nation by year 2020, the knowledge-based economy seen as vital to accelerate a rapid rate of economic growth and enhance international competitiveness. Government organizations are urged to develop a more knowledgeable organization, especially in managing resources and providing public services (Syed-Ikhsan and Rowland, 2004). In the higher education sector, knowledge management is considered as a process of

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knowledge sharing and knowledge distribution through utilizing several knowledge sharing and distribution tools and methods. Nejadhussein and Azadbakht(2004) advocated that universities have plenty of opportunities to apply knowledge management initiatives to achieve their mission and objective. In the similar vein, the role of leadership is essential to the creation of knowledge management where the use of teams, communities of people and other network often ensures that information and knowledge reaches the right people at the right time (Crawford, 2005). Hick, Dattero and Galup (2006) highlighted that leaders play an important role in knowledge management adoption in which their leadership style influences the success rate of knowledge management implementation.

To date, plenty of research has been conducted to address the link between information management and leadership style but only ample of research focuses on the effect of transformational leadership style on knowledge management (Crawford, 2004).

In the Malaysian context, research on the effect of transformational leadership style on knowledge management in higher education sector is not evident, with most of the existing research place a large emphasis on business-oriented organization (Hitam, Mahat, and Rajasegaran, 2008).

Correspondingly, a review of past literature affirms that organizational structure is a crucial element in the organization that affects leadership style and knowledge management in a particular organization (Martinez-Leon & Martinez-Garcia, 2011; Chen, Huang & Hsiao, 2010; Adhikari, 2010; Inkpen& Tsang, 2005). However, there seems to be limited studies that address the effect of organizational structure on both leadership style and knowledge management simultaneously. Given that there are evident gap in both existing literature and in the industry, this study intended to look into how transformational leadership style affects knowledge management in higher education institution. The present study will as well address the effect of organizational structure on the relationship between transformational leadership style and knowledge management.

## **2. TRANSFORMATIONAL LEADERSHIP**

Burns (1998) defines leadership as leaders inducing the followers to act for certain goals that represent values and the motivations – the wants and needs, the aspirations and expectations of both leaders and followers. This advocates that leadership does not only create changes to help achieve organizational goals but leadership itself also changes the people (leaders and followers). A study by Birasnav, Rangnekar and Dalpati (2011) suggest that transformational leaders motivate followers to accept and accomplish difficult goals that followers normally would have not pursued. Transformational leadership is made possible when leader's end values (internal standards) are adopted by followers, thereby producing changes in attitudes, beliefs, and goals of followers.

Bass (1985) and Yukl (1998) define transformational leadership in terms of leader's effect on followers: They feel trust, admiration, loyalty and respect towards the leader; they are motivated to do more than they originally expected to do. Both Bass (1985) and Yukl (1998) identified three ways in which leaders transform their followers, that is:

- (i) Increasing their awareness and level of consciousness of task importance and value.
- (ii) Getting them focus on team or organization goals, rather than their own interests
- (iii) Achieving higher order needs.

On the other hand, another group of researcher (Bass and Riggio, 2006; Skakon, Nielsen, Berg and Gazman, 2010) proposed that there are four (4) dimensions of transformational leadership, that is:

- (i) *Idealized influence*: Leaders create trust and respect of their followers by doing the right thing rather than ensuring they do things right (Kelloway&Barling, 2000)
- (ii) *Inspirational motivation*:The leader provides meaning and challenge to subordinate's work by articulating a vision that is appealing and inspiring to followers. Leaders with inspirational motivation challenge followers with high standards, communicate optimism about future goals, and provide meaning for the task on hand (Kelloway&Barling, 2000)
- (iii) *Intellectual stimulation*: The leader encourages subordinates to be creative and approach problems in new ways. It is the degree to which the leader challenges assumptions, takes risks and encourages followers to use their imagination and to re-think old ways of doing things (Kelloway&Barling, 2000).
- (iv) *Individualized considerations*: The leader pays attention to the individual subordinate's needs and provides coaching and mentoring resulting in the followers is more willing to develop competence and take initiative because they feel trust and respect for their leaders (Coad & Berry, 1998).

### 3. KNOWLEDGE MANAGEMENT

#### 3.1. Leadership Styles in Knowledge Organization

Leaders play the important role and have an impact on knowledge management practices within the organization. Leaders create the conditions that allow participants to exercise and cultivate their knowledge manipulation skills, to contribute their own individual knowledge resources to the organization's pool of knowledge, and to have easy access to relevant knowledge (Crawford, 2005).

According to Politis (2001), leaders do not manage knowledge but they carry out their mission to effectively apply and use knowledge from a variety of traditional positions located throughout the organization. In his findings, leaders encourage communication, encourage negotiation, encourage knowledge sharing and promote interactive processes for knowledge acquisition. They also encourage team members to gather information and the knowledge required to monitor their performance.

Viitala (2004) on the other hand, defined knowledge leadership as leadership that promotes learning where together with his/ her subordinates, clarifies the direction of development, creates the climate which promotes learning, and supports learning process at both individual and group level. The leader also inspires his/her subordinates towards continual personal development through his/her own example. Meaning that knowledge leadership is therefore neither new nor distinctly different from any other form of leadership. In her study also has pointed out some important elements and tasks of leadership, which are especially important if a leader wants to contribute to learning in their unit. In reality, the role "supporter of learning" in terms of knowledge management, it is the nature of leaders' tasks and becomes more closely associated to that of teacher and coach.

### **3.2. Idealized Influence and Knowledge Management**

The dimension "acting as a role model" expressions of the leaders' own attitude towards their work. They lead learning and knowledge through their own example and to be credible, they have to learn and constantly develop their capabilities. Additionally, leaders' interest in their work seems to influence subordinates. Finally, it is important that leaders commit themselves to the changes and developments they agree upon with their subordinates (Viitala, 2004).

According to Jaussi and Dionne (2003), leaders who act creatively make themselves available for creative emulation, which in turn produces more creativity in followers. Acting as a model for creativity was expected to increase the chance that followers would practice idea generation themselves. It means that, Niu (2010) found out when the leaders create the trust and respect of their followers through provided a creative work model, they were able to learn, ability facilitates organizations to accumulate and renew the existing knowledge and contribute to innovation.

Leaders who are perceived to possess the characteristic of idealized influence always have more willingness to involve in risk-taking job activity and thus, they are more influential, effective, and willing to trust their employees (Bass and Riggio, 2006; Birasnav, Rangnekar and Dalpati, 2011). A manager-leader with idealized influence underlines the ideological and moral implications of his decisions, and by role-modelling shows his willingness to sacrifice private interests for the good of the organization. A sample behavioural item is: "The leader emphasizes the importance of having a collective sense of mission" (Amitay, Popper, and Lipshitz, 2005).

Drawing from the above discussion, the following hypothesis was proposed:

H<sub>1</sub>: There is a relationship between idealized influence and knowledge management among university administrators

### **3.3. Inspirational Motivation and Knowledge Management**

According to Amitay, Popper, and Lipshitz (2005), leaders who create motivation through inspiration formulate a clear and inspiring vision of the organization's future. In their behaviours toward people they praise acts done for the common good, express optimism about the future of the organization, show enthusiasm for shared topics, and radiate confidence that the aims will be achieved. A sample item is: "The leader articulates a compelling vision of the future".

Leaders possessing the characteristic of inspirational motivation augment employees' goal accomplishing capabilities or job performance to achieve the set vision (Nemanich and Keller, 2007). In other hand, leaders create individual and team spirit among employees as they show enthusiasm and optimism at employees through coaching, encouraging, and supporting. As a result, they enhance employees' performance while performing job activities and produce high return on investment from employee and increased their knowledge (Birasnav, Rangnekar, and Dalpati, 2011).

Nguyen and Mohamed (2011) by motivating followers to question assumptions, be inquisitive, take intelligent risks and come up with creative observations, leaders encourage individuals to break through learning boundaries and to share their learning experiences both within and across departments. The active role of leaders as supporters of both group-level and individual-level will indicates the supporting learning process. Viitala (2004), noted this aspect are associated with individuals' motivation for learning and their sense of ability to learn. It is the key task of leaders to increase their confidence in this area.

Given the aforementioned discussion, we proposed the following:

H<sub>2</sub>: There is a relationship between inspirational motivation and knowledge management among university administrators

### **3.4. Intellectual Stimulation and Knowledge Management**

According to Jong and Den Hartog (2007), intellectual stimulation may create opportunities for employees to voice ideas that may otherwise be overlooked and is, therefore, believed to trigger idea generation in particular. He also suggests a link between knowledge dissemination and idea generating among employees depends on their awareness of the needs, trends, and problems within their professional and organization environment. This sort of knowledge provides the individual with a source for new ideas.

A study by Amitay, Popper, and Lipshitz (2005) stated, leaders who are characterized by the ability to create intellectual stimulation because their people to look at old problems in new ways encourage them to “think differently,” and legitimize creativity and innovation. In their conversations and discussions they often search for different angles to solve problems, and they regularly examine basic assumptions to see whether they are still viable. A sample item is: “The leader seeks different perspectives when solving problems.”

Leaders must create forums for discussion to organize developmental and innovative new ways of receiving feedback. In other words, the leaders must organize the time, places and frames for their people to communicate all messages that indicate the direction in which knowledge and capabilities should developed (Viitala, 2004). Therefore, leaders who intellectually stimulate employees encourage them to solve task-oriented problems in new and different ways and thereby leaders enforce their employees in challenging organization-held beliefs and values (Birasnav, Rangnekar, and Dalpati, 2011). From this, these leaders promote employees’ ability to analyze and solve organizational problems (Rafferty and Griffin, 2004).

Bryant (2003) argued that there is a clear relationship between transformational leadership and knowledge management in organizations. In addition, conditions of transformational leadership have been highlighted by certain studies in order to promote autonomy, commitment and trust for improving knowledge management processes such as empowerment (Donate and Guadamillas, 2011). For instance, the study by Gagne (2009), showed that empowerment (and transformational leadership) is related to the follower’s needs for competence and autonomy, which are essential conditions for effective knowledge creation and innovation. In an empowering organizational structure, leaders are capable of increasing team member’s self-efficacy and control over their work environment. As a result, they are more likely to share knowledge with one another before and during the decision process (Xue, Bradley, and Liang, 2011).

Based upon aforementioned literature support, we proposed the following:

H<sub>3</sub>: There is a relationship between intellectual stimulation and knowledge management among university administrators

### **3.5. Individualized Consideration and Knowledge Management**

Based on Amitay, Popper, and Lipshitz (2005), leader in high individualized consideration relate to each employee personally and not just as “one more”; they treat each employee as an individual with needs, abilities and aspirations different from those of others, they help their workers to develop their strong points, and they spend much time guiding and training their people. The approach of such leaders is basically non-punitive. They are ready to learn equally from successes and failures. A sample item is: “The leader spends time teaching and coaching.”

The leaders delegates projects to stimulate learning experiences, provides coaching and teaching, and treats each follower as an individual (Politis, 2001) and promote high interpersonal relationships among employees to avoid any conflict, and ensure enhanced employee development in the organizations (Nemanich and Keller, 2007). Leaders gives followers discretion to satisfy their developmental needs and to act accordingly, followers are likely in turn to devote more time to their work due to enhanced feelings of discretion and provision of enriched opportunities to test work capabilities (Cheung and Wong, 2010).

Viitala (2004) stated leaders support their subordinates by reflecting on their own knowledge and capabilities. They also plan together with their subordinates the ways in which to develop their proficiencies to ensure that all the people in the organization develop effectively. Leaders are able to do that if they can sufficiently recognise the capabilities of subordinates. It is important that leaders instil the importance of continual learning, to monitor progress and give positive feedback.

Based upon past literature evidences, the following hypothesis is proposed:

H<sub>4</sub>: There is a relationship between individualized consideration and knowledge management among university administrators

#### **4. ORGANIZATIONAL STRUCTURE**

As highlighted earlier, there are limited research examining the moderating role of organizational structure in transformational leadership and knowledge management relationship on administrators in higher education. Researches done on other sector in the service industry were referred to provide argument on the moderating effect of organizational structure. For example, we referred one of the study that examined the moderating role effect of organizational structure factors on social capital and social network perspectives, which involved knowledge management and firms innovativeness (Chen, Huang, and Hsiao, 2010).

According to Mintzberg (1979), the organizational structure can be defined as the result of the combination of all the ways in which work can be divided into different tasks, the coordination of which must subsequently be ensured. Child (1972), defined this term as "the formal allocation of work roles and the administrative mechanisms to control and integrate work activities including those which cross formal organizational boundaries". According to Chen and Huang (2007), organizational structure also reflects the way in which information and knowledge is distributed within an organization, which affects the efficiency of their utilization. Consequently, it substantially influences the distribution and coordination of the company's resources, the communication processes and the social interaction between organizational members. Therefore, Martinez-Leon and Martinez-Gracia (2011) noted the configuration of organizational structure impedes or facilitates the capacity of the company to adapt to change, to learn, to innovate or to improve its ability to generate added value for its customers.

In summary, the type of organizational structure is decisive in the development of knowledge management. The design of the organization constitutes a process through which leaders model and characterize their structure and organizational process, determining managerial procedure and operation (Martinez-Leon and Martinez-Gracia, 2011). That means, organizational structure may play the moderating role in the relationship between leadership and knowledge management. Ogawa and Scribner (2002) stated the structure of organizations is crucial to conceptualizing leadership because structure and leadership are related in three (3) ways:

- (a) structure can inhibit and even replace leadership. Organization's members grow committed to existing pattern of action and interaction, often blunting efforts to change arrangements with which they have grown comfortable. Structure can substitute for leadership (Kerr and Jermier, 1978) by producing reliable patterns of activity and social relations that do not require the insistence or oversight of a leader.
- (b) Organizational structure can affect leadership by determining the access to resources that leaders can play to exert influence over other. Explanations of leadership as a form of social influence have noted that leaders exchange resources for the compliance of followers. Some of the resources on which leaders rely tied to their positions, including rewards, punishments, and the authority of office (Yukl, 1998).
- (c) Leadership has been conceptualized as a quality of organizations, rather than the province of particular roles of offices. That is, leadership is a form of social influence that occurs when any actor affects an organization's structure. Leadership from this view, constructs, changes, interpolates and uses structure, which includes formal, bureaucratic elements and informal, cultural elements (Ogawa and Scribner, 2002).

Studies by (Chen, Huang, and Hsiao, 2010; Magnier-Watanabe and Senoo 2010; Martinez-Leon and Martinez-Gracia, 2011) have reported the most organizations can be classified as either horizontally and vertically structured. In Malaysia, some common of all organization were applied horizontal or vertical structured depends on many factors including the size of organization, task specialization, the degree of authority to make decision, spans of control, and functional departments.

According to Chen, Huang, and Hsiao (2010), some aspects of vertically structured organizations include specialized tasks, a strict hierarchy with many rules (formalization), vertical communication and reporting systems, few teams or task forces, and centralized decision-making. Meanwhile, horizontal structure involves shared tasks and empowerment, a more relaxed hierarchy with fewer rules, horizontal face-to-face communication, more teams or task forces, and decentralized decision-making. Mohamed, Stankosky, and Murray (2004) mentioned since the traditional organizations are vertically structured around tasks and functions, they



are not suitable for sharing knowledge at the organization level. A new forms of organization structure have emerged: the horizontal organization, the network organization and the virtual organization. The flattened organizations structure minimizes cross-boundaries and open necessary channels for exchanging ideas and sharing knowledge.

Specialization is a design parameter of the organizational structure. Horizontal job specialization refers to the numbers of tasks assigned to any given job, their variety and their proportion of the whole activity represented by each task (Mintzberg, 1979). Vertical job specialization separates the performance of the work from the administration of it (Martinez-Leon and Martinez-Gracia, 2011).

Formalization refers to the degree of codified rules and procedures existing in the organizations to guide the employee behaviors and work process (Andrews and Kacmar, 2001). In highly formalized organizations, derived from the strict adherence to formal rules and regulations. The obedience of the rules, procedures and regulations may constrain the employees in combining the various sources of knowledge for developing new products or services (Bidault and Cummings, 1994). Besides that, less formalized structure would stimulate employees to think creatively about their work, facilitate openness and encourage new ideas, seek out other sources information, ask different questions and thus, engage in more sense-making approaches to their work (Chen, Huang, and Hsiao, 2010). Therefore, leaders with a more formalized structure, employees are less willing to take the initiatives to enhance the creativity about their work through knowledge management.

Based on (Gao, Li, and Clarke, 2008; Andrews and Kacmar, 2001), centralization refers to the locus of decision making lying in the higher levels of hierarchical relationship. Top-down directives would reinforce an environment of fear, distrust, and internal competition while decreasing collaborations and integrative actions. Another study by (Damanpour, 1991; Janz and Prasarnphanich, 2003), centralization creates a non-participatory environment that reduces communication, commitment, involvement among participants and prevents employees from exerting discretion in their work and cause inefficiency in creation and sharing of knowledge. In addition, under a decentralized structure, employees would have more opportunities to provide inputs and more discretion to determine what actions are required. Thus, based on study by Chen and Huang (2007), within a more decentralized structure they may accelerate the knowledge management process by bringing new ideas, exchanging knowledge to the ongoing agenda and can facilitate employees' motivation to speed the transitions of knowledge into new product and services.

An integrated structure provides opportunities for employees to learn from their colleagues, build communication and coordination channels to share relevant expertise and knowledge (Germain, 1996; Janz and Prasarnphanich, 2003). Developing an efficient common network structure and organization-wide knowledge structure are essential for ensuring ease flow of communication and to

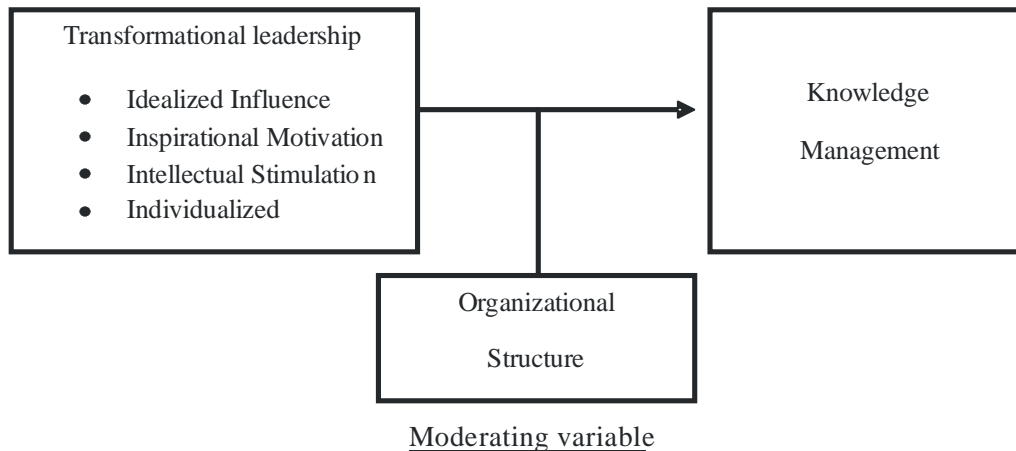
achieve knowledge management system success (Jennex and Olfman, 2005). According to Birasnav, Rangnekar, and Dalpati, (2011), there are two (2) types of communication are considered such as mass communication and face-to-face communication. Mass communication is generated between organization and employees through using an advanced technological infrastructure and publishing a newsletter weekly or monthly, whereas face-to-face communication is generated between an employee and manager through direct verbal communication.

Given the aforementioned literature support, we deliberately proposed the following hypothesis:

H<sub>5</sub>: Organizational structure moderates the relationship between transformational leadership style and knowledge management of university administrators.

From the above literature discussion and proposed hypothesis, we developed a conceptual framework for this study as shown in Figure 1.

**Figure 1: Research Model of Transformational Leadership Style and Knowledge Management among University Administrators in Malaysia: The Moderating Effect of Organizational Structure**



## 5. METHODOLOGY

Data were obtained from managers using a structured questionnaire through a survey. The participants in the study were administrative staff currently working in one of the universities in Malaysia. This administrative staffs were selected as they are considered very much knowledgeable about the issued studied. A total of 596 questionnaires were distributed to the respondent using cluster sampling method and a total of 225 questionnaires were returned which make up the response rate of 42.79%.

### **5.1. Transformational Leadership Style**

The transformational leadership style was measured with Bass (1985) Multifactor Leadership Questionnaire 5-S (MLQ) which consists of 20 items. This 20-items instrument is then divided into four (4) dimensions which cover the measurement of transformational leadership style. Respondent were asked to use a 5 point Likert-type scale to indicate the extent to which they agree with the given statement. Response choice alternatives ranges from 1 (strongly disagree) to 5 (strongly agree). The reliability value and number of items in each dimension are presented in Table 2. The reliability value above the accepted mark of 0.70 suggests that the assessment instrument can be used with confidence.

### **5.2. Knowledge Management**

Knowledge management was measured by Natarajan and Shekbar (2001) measurement of knowledge management. This measurement consists of 24 items and is divided into 5 dimensions. A 5 point Likert-type scale ranges from 1 (strongly disagree) to 5 (strongly agree) is used to measure the level of agreement towards the given statement.

### **5.3. Organizational Structure**

Organizational structure was measured using instrument developed by Martinez-Leon and Martinez Garcia (2011). The measurement consists of two (2) questions. A 5 point Likert-type scale ranges from 1 (strongly disagree) to 5 (strongly agree) is used to measure the level of agreement towards the given statement.

### **5.4. Assessment of Normality**

Normality test was carried out in this study to make sure the data collected was normally distributed. In the present study, histogram and normal Q-Q plot were used to test the normality of the distribution. Based on the testing, it was found that independent variables and its four dimensions, dependent variable, as well as moderating variable were approximately normally distributed. The results of the test showed significant value 0.000 which  $p < 0.05$ . The actual shape of the distribution for each group can be seen in histogram and also supported by an inspection of normal probability plots by normal Q-Q plot.

## **6. FINDINGS**

### **6.1. Demographic Statistics**

The sample included administrator ranging from the age of 25 years old and of those 59 years old and above. Based on the analysis of 255 respondents, the highest frequency were from respondents of the age group 35 – 44, 41 – 54 and 25 – 34 years old which represented 33.3% or 85 respondents, 31.4% or 80 respondents and

**Table 1**  
**Demographic Statistics of Respondent (N = 255)**

<i>No</i>	<i>Item</i>	<i>Category</i>	<i>Frequency</i>	<i>Percentage</i>
1.	Age	25 – 34	62	24.3
		35 – 44	85	33.3
		45 – 54	80	31.4
		55 – 58	24	9.4
		59 above	4	1.6
2.	Grade	41	120	47.1
		44	52	20.4
		48	46	18.0
		52	24	9.4
		54	13	5.1
3.	Scheme of service	N	103	40.4
		W	40	15.7
		S	62	24.3
		J	21	8.2
		F	20	7.8
		KP	9	3.5
4.	Level of education	Diploma	2	0.8
		Degree	158	62
		Master	94	36.9
		PhD	1	0.4
5.	Length of service	1 – 5	54	21.2
		6 – 10	58	22.7
		11 – 15	39	15.3
		16 – 20	24	9.4
		21 – 25	36	14.1
		26 – 30	29	11.4
		31 more	15	5.9

**Table 2**  
**Assessment of Reliability of Constructs**

<i>Elements</i>	<i>Cronbach's Alpha</i>	<i>No. of items</i>
Transformational Leadership	0.825	16
• Idealized influence	0.737	4
• Inspirational motivation	0.706	4
• Intellectual stimulation	0.892	4
• Individualized consideration	0.751	4
Knowledge Management	0.838	24
• Knowledge Acquisition	0.762	5
• Knowledge Creation	0.828	5
• Knowledge Storage	0.821	5
• Knowledge Sharing	0.785	4
• Knowledge Transfer	0.822	5
Organizational structure	0.647	2
TOTAL		42

24.3% or 62 respondents. Then it were followed by the age 55 – 58 (9.4%) and 59 above (1.6%) which represented 24 respondents and 4 respondents. The majority of the respondents are from Grade 41 (47.1%), Grade 44 (20.4%) and Grade 48 (18.0%). Respondents from Grade 52 were 9.4% while Grade 54 only represented 5.1%.

The analysis showed that only six (6) scheme were involved in this study which are scheme N (administration), W (bursary), S (librarian), J (engineering), F (information technology) and KP (security). The greatest numbers of the respondents were from scheme N (40.4%), S (24.3%) and W (15.7%) which carried 103, 62 and 40 respondents. Meanwhile, there were 21 respondents (8.2%) from scheme J, 20 respondents (7.8%) from scheme F and only 9 respondents (3.5%) from scheme KP. In regards to the respondents' highest academics education, most of the respondents are holders of bachelor's and master's degree. There were 158 respondents (62%) with bachelor's degree and 36.9% (94 respondents) were master's degree holders. Only one (1) respondent was a PhD holder and another two (2) respondents (0.8) were with diploma.

In term of the respondents' length of service in their working experience, the highest frequency was respondents who had been in their service for a period of 6 – 10 and 1 - 5 years. They represent 22.7% and 21.2% with a total of 58 and 54 respondents. These were followed by respondents who have been in service for 11 – 15 years (15.3%), 21 – 25 years (14.1%), 26 – 30 years (11.4%) and 16 – 20 years (9.4%). The least frequency was respondents who have been in service for more than 31 years (5.9%) which represented 15 respondents.

## 6.2. Descriptive Statistics, Reliability Coefficient and Correlations

The descriptive statistics for all the variables in the present study are presented in Table 2, alongside with the correlation matrix. All the dimensions of transformational leadership are correlated positively with knowledge management (idealized influence  $r = .393$ , inspirational motivation  $r = .223$ , intellectual stimulation  $r = .293$ , individualized consideration  $r = 2.69$ ). The result from the correlation test preliminary supports the proposed hypothesis that all the four dimension of transformational leadership styles have an impact on knowledge management.

**Table 3**  
Construct Correlation and Scale Reliability Values a Complete Standardised Solution

Variables	TL	Influence	Motivation	Stimulation	Consideration	KM
TL	(.825)					
Influence	.806**	(.737)				
Motivation	.868**	.582**	(.706)			
Stimulation	.898**	.692**	.791**	(.892)		
Consideration	.682**	.401**	.445**	.390**	(.751)	
KM	.357**	.393**	.223**	.293**	.269**	(.838)

Notes: \*\*Correlation is significant at the 0.01 level (2-tailed)

### 6.3. Hypothesis Testing

The first hypothesis was: there is a relationship between idealized influence and knowledge management. A simple linear regression was conducted to test the hypothesis. Result of the regression analysis indicates that the hypothesis were statistically significant,  $R^2 = .155$ , Adjusted  $R^2 = .151$ ,  $F(1, 254) = 46.233$ ,  $p < .05$ . Idealized influence is statistically significant ( $\hat{\alpha} = 0.393$ ,  $p = 0.001$ ), indicating that 15.5% of the variance in knowledge management is accounted by idealized influence.

The second hypothesis was: there is a relationship between inspirational motivation and knowledge management. A simple linear regression was conducted to test the hypothesis. Result of the regression analysis indicates that the hypothesis were statistically significant,  $R^2 = .050$ , Adjusted  $R^2 = .046$ ,  $F(1, 254) = 13.210$ ,  $p < .05$ . Idealized influence is statistically significant ( $\beta = 0.223$ ,  $p = 0.001$ ), indicating that 5% of the variance in knowledge management is accounted by inspirational motivation.

The third hypothesis was: there is a relationship between intellectual stimulation and knowledge management. A simple linear regression was conducted to test the hypothesis. Result of the regression analysis indicates that the hypothesis were statistically significant,  $R^2 = .086$ , Adjusted  $R^2 = .082$ ,  $F(1, 254) = 23.769$ ,  $p < .05$ . Idealized influence is statistically significant ( $\beta = 0.293$ ,  $p = 0.001$ ), indicating that 8.6% of the variance in knowledge management is accounted by intellectual stimulation.

The fourth hypothesis was: there is a relationship between individualized consideration and knowledge management. A simple linear regression was conducted to test the hypothesis. Result of the regression analysis indicates that the hypothesis were statistically significant,  $R^2 = .072$ , Adjusted  $R^2 = .068$ ,  $F(1, 254) = 19.660$ ,  $p < .05$ . Idealized influence is statistically significant ( $\beta = 0.269$ ,  $p = 0.001$ ), indicating that 7.2% of the variance in knowledge management is accounted by inspirational motivation.

The fifth hypothesis was: organizational structure moderates the relationship between transformational leadership style and knowledge management of university administrators. A hierarchical multiple-regression was used to assess this hypothesis.

**Table 4**  
Simple Linear Regression Analysis

Variable	$\beta$	$t$	$p$
<sup>a</sup> Idealized influence	.393	6.799	.000
<sup>b</sup> Inspirational motivation	.223	3.635	.000
<sup>c</sup> Intellectual Stimulation	.293	4.875	.000
<sup>d</sup> Individualized Consideration	.269	4.434	.000

<sup>a</sup> $R^2 = .155$ , Adjusted  $R^2 = .151$ ,  $F(1, 77) = 46.233$ ,  $p = .001$

<sup>b</sup> $R^2 = .050$  Adjusted  $R^2 = .046$ ,  $F(1, 77) = 13.210$ ,  $p = .001$ .

<sup>c</sup> $R^2 = .086$ , Adjusted  $R^2 = .082$ ,  $F(1, 77) = 23.769$ ,  $p = .001$

<sup>d</sup> $R^2 = .072$  Adjusted  $R^2 = .068$ ,  $F(1, 77) = 19.660$ ,  $p = .001$ .

**Table 5**  
**Hierarchical Regression to Examine Moderating Effect of Organizational Structure**

<i>Model and Variable</i>	<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>	
	<i>B</i>	<i>Std. error</i>	<i>Beta</i>	<i>R<sup>2</sup></i>
Model 1				
Transformational leadership (TL)	0.121	0.20	0.296	0.378
Organizational structure (OS)	0.206	0.20	0.505	
Model 2				
TL x OS	0.045	0.21	0.108	0.389*

Dependent variable: Knowledge management, Confidence Interval: \* $p < 0.05$

Preliminary analyses were conducted to ensure no violation of the assumptions of normality, linearity, multicollinearity and homoscedasticity. The overall of four dimensions of transformational leadership were entered at Step 1, explaining 37.8 percent of the variance in knowledge management. After entry of the transformational leadership and organizational structure (Zscore TL x Zscore OS) at Step 2, the total variance explained by the model as a whole was 38.9 percent,  $F(3, 251) = 53.37$ ,  $p < 0.05$ . The unstandardized regression coefficient for the interaction term was 0.045 as (Beta = 0.108 with value of  $p = 0.032 < 0.05$ ). The interaction between transformational leadership and organizational structure only explained an additional 1.1 percent of the variance in knowledge management, R square change = 0.011,  $F$  change (1, 251) = 4.63,  $p < 0.05$ . In the final model, it showed that there was significant positive relation between transformational leadership and organizational structure towards knowledge management process. This indicates that organizational structure does moderate the relationship between transformational leadership and knowledge management. Therefore,  $H_5$  was accepted.

## 7. DISCUSSION

This study explored how transformational leadership is related to knowledge management in the higher education industry. The result indicates that the four dimension of transformational leadership style are related to knowledge management. The result also illustrate that organizational structure does moderate the relationship between transformational leadership and knowledge management.

In this study, the result of correlation and simple linear regression in assessing the variables or the empirical relationship between dimensions of transformational leadership style and knowledge management were statistically significant. The positive association between the dimension of transformational leadership style and knowledge management suggest that there is a high correlation between transformational leadership style and knowledge management. The assessment of moderating effect of organizational structure on the relationship between transformational leadership style and knowledge management also suggest that

organizational structure plays a crucial role in assisting a good leader to manage information and knowledge across the organization.

## 8. LIMITATION AND FUTURE RESEARCH DIRECTIONS

The present study has several limitations which provide opportunity for future research. First and foremost, the findings of the study are limited to the selected sample, that is, management administrators in the university. Findings from the present study are not applicable for administrators aside from the education industry.

Second, data were gathered using only one type of instrument that is the questionnaires and it does not involve the use of qualitative measures. This postulate a weaknesses as the respondent might keep some judgment or do not admit their agreement or disagreement in detail towards a given statement. A series of interview to the administrators and their leaders may provide other crucial information that is not gathered in the present study.

## 9. CONCLUSION

The present research investigated the relationship between the dimensions of transformational leadership styles towards knowledge management and organizational structure as a moderator of the study. The results showed that dimensions of transformational leadership were significantly related to knowledge management. The results also indicated that organizational structure does moderate the relationship between transformational leadership and knowledge management. We hope that this research would stimulate more research attention on how transformational leadership style could help enhances knowledge management and at the same time, expand the research framework by examining and identifying other possible variables (both moderating and mediating variables) that could possibly enhance the present framework.

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