The Effect of Transformational Leadership Styles towards Managing Knowledge Assets

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ABSTRACT

Effectiveness in managing knowledge asset is essential to improve the quality services and to enhance performance. The purpose of this study is to explore on how hospitals extracting the value of their knowledge assets in order to sustain and be competitive by considering leadership styles factors. The data collection was carried out by survey. Questionnaires were distributed to all top management team of private hospitals in Malaysia. From the survey, the results indicate that transformational leadership styles are significantly related to the knowledge assets element. This suggests that some hospitals might use the characteristics of transformational leadership styles such as idealized influence, inspirational motivation, intellectual stimulation and individualized consideration to enhance knowledge assets management. The findings might also assist the regulators and managers of the hospitals to formulate strategies in enhancing governance of knowledge assets.

Keywords: Knowledge Assets; Transformational Leadership Styles; Hospitals

INTRODUCTION

In this knowledge-based economy, managing knowledge assets is important to improve operation activities in organizations. Knowledge assets comprise of human (individuals, teams), structural (strategies, policies, processes, procedures) and technologies that support knowledge sharing. For hospitals, treating patients with an emphasis on prevention and managing the patient through good health practices throughout their life requires significant investment in knowledge assets (Elliot 2000). Thus, managing knowledge assets effectively significantly contributes toward improving hospitals performance. We propose that successful management of knowledge assets in hospitals depends on the character of its leader.

Leadership structure is the most important element in organization (Schwandt & Marquardt 2000), and leaders need to have ability to manage knowledge assets so that the organization can accomplish a competitive benefit (Mulligan 2001). The way the companies approach in managing knowledge assets are influenced by the leaders (Farooqi, Guhar, Nazish & Ahmad 2017). Managing knowledge assets is a newly emerging area in today’s business environment and this study focuses on the effect of leadership styles towards managing those assets. Leaders are the main driver of managing knowledge assets practices in an organization who create an environment of knowledge sharing by incorporating their own knowledge in an organizations pool of knowledge (De Long & Fahey 2000). Transformational leaders exercise influence on their employee’s view about benefits of human capital, as well as, take advantage of these benefits through involving them in the managing knowledge assets process, enhancing communication among employees, and creating organizational culture (Goudarzv & Chigin 2011).

Therefore, leadership plays an important role in managing these knowledge assets effectively.

As a vital health service provider hospitals are expected to deliver good quality of care to patients as well as to provide good strategy to develop competitive advantage. Thus, in line with knowledge based era, there are rapidly growing research on managing these knowledge assets as one of the organization strategy. Nowadays it is generally accepted that knowledge asset is a resource (or set of resources) that needs to be well managed (Enrique, Patrocinio & Mayiya 2018). Some of the important examples of knowledge assets in hospitals are human resources (skills, competencies, networking), information technology skills and procedures, databases, creative activities, successful experiments, advanced medicines and innovative physiotherapy and networking. Knowledge assets are pertinent to enhance the performance and to guarantee quality services to the stakeholders. In the current economy, these knowledge assets are essential elements for value creation in hospitals.

Different leadership styles might affect the success of managing knowledge assets as their strategy. The best
leadership styles as mentioned by many researchers; transformational leadership styles is expected to become one of the factors that influence leaders to implement best practice in the hospital. The current study also investigates which sub categories of transformational leadership styles that increase the value of knowledge assets in the hospitals. Furthermore, the finding on the elements of leadership styles that being practice on managing knowledge assets in hospitals might avoid misallocation of resources and inappropriate management choices.

Apart from that, this study provides practical evidence on standardized elements of knowledge assets and service quality in hospital literature that could assist top management team to develop strategies to achieve competitive advantage. According to Borkowski and Gordon (2006) and Chan and Tan (2016) there is lack of research on service quality has been addressed in healthcare industry. Supported by (Wiig 2002; Van Beveren 2003; Zigan, Macfarlane & Desombre 2008) stated that the employees in hospital or healthcare industry need to embed special knowledge, skills, innovative activities in order to sustain this industry. A research by Peng and Roos (2007) found the importance of human capital element as one of knowledge assets.

Other researchers (eg; Aiken, Cimiotti, Sloane, Smith, Flynn & Neff 2011; Duffield, Diers, O’Brien-Pallas, Aisbett, Roche, King & Aisbett 2011) also empirically tested that nurses’ knowledge and experiences have positive relationship towards better quality of patient care. By having good quality of care to patients, it also enhances image, goodwill, reputation and trademark of the hospitals. In addition, the management of these knowledge assets will lead to a better performance of hospitals in terms of profitability, efficiency and capacity in long term. Thus, this study argues that hospitals should apply the right knowledge assets management with the right implementation of leadership styles.

REVIEW OF LITERATURE

Healthcare industry faces many challenges in this new era. With the knowledge-based view (KBV) development, knowledge was recognized to be one of the most important resources (Hamzah et al. 2018; Oksana 2016). Therefore, knowledge embedded in all people, supporting materials, treatment and facilities procedures, utilities, physical condition and standards for work processes need to be organized and managed effectively and systematically. These elements of knowledge assets need to be properly identified and managed in order to sustain quality services provided by the hospitals. There are many definitions of knowledge assets. Boisot (1999) defined the knowledge assets as, “stocks of knowledge from which services are expected to flow for a period of time that may be hard to specify in advance, with an economic life viable within industry and market context”. Kamaşak and Bulutlar (2010) stated that knowledge assets represent the source of an organization’s abilities and skills that are deemed needed for its development, competitive advantage and human growth. In addition, Nonaka, Toyama and Konno (2000) define knowledge assets as “firm-specific resources that are indispensable to create values for the firm”.

In the context of healthcare industry, there are many types of knowledge assets have been introduced. Knowledge assets has become a prime importance in hospitals because knowledge is their main output and input. Edvinsson (2003), identified three areas of knowledge assets in healthcare industry are identified; education and development of employees, the work environment and the patient’s attitude towards the health care centers. Apart from that, Peng (2007) found that the most valuable intangible assets especially knowledge assets in the hospitals are employees' competencies, skills, structures, procedures and networking. However, when there are many type of resources in the organization, the managers must be able to identify which resources could bring good strategic assets to enhance organizations’ performance (CIMA 2001). This is supported by Harmansson (2003) who found that there is awareness of knowledge assets in hospitals and the interviewees judged the measurement and management of knowledge assets as highly relevant for their organizations. Howeve many healthcare organizations tend to focus only on knowledge embedded in human, above all knowledge and lack attention to other relevant elements such as knowledge embedded in organizational and relational (Zigan et al. 2008). Therefore, this study investigates the knowledge assets elements as a whole which comprise of human capital, structural capital and relational capital – which has been termed as intellectual capital (Zigan et al. 2008) and how leadership styles relate with these elements.

LEADERSHIP STYLES

Leadership styles research area have evolved and grown over the past years. Many researchers define leadership styles in various way. Leadership styles have been said as one of the key factor that contributes towards better organization’s performance. In general, leadership style is the way leader gives instruction to the team about the task that need to be done, the attitude on how leader interact with employees and subordinates. According to Barnard (1983), leadership is “the ability of a superior to influence the behavior of a subordinate or group and persuade them to follow a particular course of action”. Leadership is also defined as “a process whereby one individual influences a group of individuals to achieve a common goal” (Northouse 2001). Burns (1990) identified two styles of leadership: transactional and transformational according to the state of organization.

According to Dubrin (2008) transformational leadership focuses on what the leader accomplishes rather than on the leader’s personal characteristics and his or her relationship with the group members. Transformational leadership is also defined as a process that transforms individual’s behaviors i.e. it is the ability of a leader
to inspire people to be changed and to be led by him (Northouse 2001). In other word it can be said that “leaders and followers raise one another to higher levels of morality and motivation” (Burn 1978). Transformational leadership styles must assist the employees to make sense out of inconsistency. This involves elements of empathy, understanding, insight, and consideration. Meanwhile transactional leadership basically emphasize on the importance of the relationship between a leader and his employees. It focuses on the benefits of both parties which are derived from a form of ‘contract’ between them, through which the leader gives rewards or recognition in return for the loyalty or commitment of its followers (Bolden et al. 2003). The basic focus of transactional leadership is on more routine transactions rewarding group members for meeting standards (Dubrin 2008). Transactional leadership is also called as managerial leadership which focuses on the role of organization, its supervision and on group performance (Cherry 2013).

This study only focuses on transformational leadership styles because according to Crawford (2005), transformational leadership style is a strong predictor of knowledge management while the transactional behavior is related to knowledge management only to some extent. Furthermore, as coined by Brown (1994) transformational leadership is needed in an evolving technological society. Thus, transformational leaders must meet market demands faster and better than before, given the increasingly interdependent economy. Transformational leadership focuses on change and the role of leadership is to envision and implement the change and transform of organizational performance (Bolden et al. 2003).

Transformational leadership influences the fundamental attitudes and assumptions of an organization’s members, creating a common mentality to attain the firm’s goal. This style usually generates higher performance than transactional leadership (Bass & Avolio 2000). Although evidence shows that transformational leaders exercises a substantial influence on performance, understanding the processes through which he or she exerts this influence is still limited and largely speculative (Yulk 1999 & Schwartz 2002). Therefore, it is believed that if transformational leaders are able to manage intellectual capital (IC) properly, hospitals performance should be at the top or amongst the first tier organisation. Al-Abrow (2014) found that the positive impact of transformational leadership on performance which focus on employees and patient’s satisfaction was operationalized by organizational learning and partially elements of intellectual capital.

In 21st century, improving the productivity of professionals in private hospitals must be the primary corporate initiative because the performance of knowledgeable professionals, strategies, technologies’ would enhance hospitals’ performance. Pfifer (1998) demonstrates that those firms that put people first realize higher profits and this practice is simply wise management of IC because the most abundant resource in hospital is IC. The development of useful theoretical or conceptual tools or models for analyzing IC in hospitals is very important specifically to improve accessibility, accountability and quality of services. This study only focuses on transformational leadership styles because according to Crawford (2005), transformational leadership style is a strong predictor of knowledge management while the transactional behavior is related to knowledge management only to some extent. Furthermore, as coined by Brown (1994) transformational leadership is needed in an evolving technological society. Thus, transformational leaders must meet market demands faster and better than before, given the increasingly interdependent economy. According to Dubrin (2008) transformational leadership focuses on what the leader accomplishes rather than on the leader’s personal characteristics and his or her relationship with the group members. Transformational leadership focuses on change and the role of leadership is to envision and implement the change and transform of organizational performance (Bolden et al. 2003).

TRANSFORMATIONAL LEADERSHIP STYLES

Transformational leadership style generally can create higher performance on an organization as compared to transactional leadership styles. The leader of this style has the characteristics like charismatic, visionary and always can influence the subordinates looking in the future which is beyond the objectives, goals and visons being set up.

 Furthermore, transformational leadership behaviors have been shown to increase organizational performance and learning (Aragón-Correa, GarcíaMorales & Córdón-Pozo 2007), decrease employee job stress and burnout (Gill, Flaschner & Shacher 2006), increase personal and social identification and self-efficacy (Kark, Shamir & Chen 2003), and increase organizational commitment and collective efficacy (Walumbwa, Wange, Lawler & Shi 2004).

Transformational leadership style explains that a leader can motivate a subordinate to perform above and beyond what he/she had previously believed possible (Bass 1985). There are four dimensions of transformational leadership style: (i) Idealized influence: When a leader is trusted and respected by his/her subordinate, this type of leader will tend to put his/her subordinates’ needs before his/her own (Avolio & Bass 2004). (ii) Inspirational motivation: This is shown in a leader when he/she acts in a way that causes subordinates to perform better by instilling a sense of meaning in their work (Avolio & Bass 2004). (iii) Individualized consideration: This type of leader is usually thought of as a coach or mentor, he/she tends to be concerned for each of their subordinates’ independent needs (Avolio & Bass 2004). (iv) Intellectual stimulation: This dimension is exhibited when a leader asks questions to increase innovation and creativity (Avolio & Bass 2004).
KNOWLEDGE ASSETS

Hospitals is a knowledge-intensive industry. Hospitals need to employ and coordinate specialized knowledge, skills and abilities embedded in their employees to deliver high quality care to patients (Wiig 2002; Van Beveren 2003; Zigan et al. 2008). It could be argued that among the most important intangible resources in hospitals are knowledge embedded in the employees – human capital: comprises skills, experiences, competence and creativity. Its’ embodied in the ability to perform labor to produce economic value. It is one of the components of intellectual capital and are developed through investments in education, training and experiences provided by companies with the objective of fostering creativity, innovation and organizational growth (Cordeiro, Fernandes, Mauricia, Silva, de Barros & Romano 2017).

Meanwhile, knowledge embedded in organization refers to processes, information systems, databases, policies, intellectual property and culture of the organization. These assets are belonging to the organization and is one of the components of intellectual capital – organizational capital. They are left after employees go home for the night. For hospitals, the structural resources that contain doctor and nursing knowledge, practice guidelines and protocols that are used to support in the application of their knowledge and skills in the delivery of patient care (Hamzah, Hazlina, Norman & Amrizah 2017; Covell 2012).

Knowledge embedded in relation refers to all relations an organization entertains with external parties such as patients, suppliers, partners and other stakeholders (Allee 2000). This is also one of the intellectual capital component - relational capital. For hospitals, relational capital contains the doctors and patients relationship, doctors and nurses relationship and doctors and management relationship (Hamzah et al. 2017). As coined by Bontis (2002), this knowledge is influenced by the knowledge in the employee and the knowledge embedded in organization (Bontis 2002). Many hospitals tend to focus more on knowledge embedded in employee, above all knowledge and lack attention to other relevant knowledge assets (Zigan et al. 2008). By knowing as much as possible about all resources within the organization, managers will be able to know which activities to initiate and what strategic decisions to make in order to improve organizational performance.

It is generally accepted that knowledge assets are resources (or set of resources) that need to be well managed. Despite some variation in terms, definition and underlying discipline, scholars accept the definition of knowledge assets consist of human capital (HC), organizational capital (OC) and relational capital (RC). These resources are often performance drivers; hence there is a causal relationship between those resources and value creation. They require being interrelated to create more value (Marr 2005).

For hospital, there are three areas of intellectual capital are identified: education and development of employees, the work environment and the patient’s attitude towards the health care centres (Hermanson 2003). The Education and Development Perspective is important because it strengthens the hospitals competence. Patients have rights to choose which hospitals to be treated and it is not based on location solely, prestige and reputation will affect their choice. Thus, the hospital should invest more in education and development of its employees in order to increase their skills.

The Work Environment Perspective captures the importance of a well functioned and structured hospitals and the importance of identifying and nurture key employees. The key employees have an important role in hierarchy organization as they can communicate between different employees’ category. This perspective is more towards enhancing human capital and structural capital aspect. The Patient Perspective is a new challenge for hospital. Easy access to medical and health information improves patients’ knowledge about treatment and health care methods. This leads to patients with higher expectations, demanding more and better care. This perspective is more towards customer and relational capital. The goal for this perspective is to find aspects that capture this new challenging relationship.

TRANSFORMATIONAL LEADERSHIP STYLES AND INTELLECTUAL CAPITAL

Previous research found that, there were positively significant relationship between leadership style and intellectual capital Muller, Judd and Yzerbyt (2005), Paktinat (2013), Mohammad et al. (2012), Kumari (2014), Birasnav (2010) and Chao (2013). For example, studies by Birasnav (2010) and Chao (2013), revealed that leadership factors have strong and significant potential to influence components of human capital, structural capital and relational capital. This can be major interests for every leader to know how they can contribute with their capability of leadership to retain and even create knowledge assets within the organization. The phenomenon above describes the importance of this relationship applicable in manufacturing industry instead of servicing industries. The transformational leadership style depends on high levels of communication from management to meet goals. Leaders motivate employees and enhance productivity and efficiency through communication and high visibility. This style of leadership requires the involvement of management to meet goals. Leaders express the future prospect of the organization and they express a perspective in order to make new ideas and facilities for the future in the times of crisis and alternation and create new strategic dimensions (Berson & Avolio 2004). In addition to that, transformational leaders can make decisions about determining the business strategies, designing processes, increasing innovation and creativity, understanding social networks by assessment and evaluation of human capital, relational capital, structural capital and knowledge management functions of an organization (Sarlak et al. 2012). However, Krishnan (2005) argues that they create the flexibility of strategy especially developing human capital to become an appropriate set of skills in order to
answer a dynamic environment. Therefore, in the context of hospitals top management team who have appropriate style of transformational leadership, it is expected that they can increase the merits of staff, skills and education, encourage staff to think about their own actions, encourage workers to work in group and improve the performance of staffs. Transformational leadership in hospitals are also expected to have a positive relationship towards managing structural capital. With the same characteristics mentioned above, they can reinforce the dimensions of transformational leadership style in the management methods of its managers and in this way, improve and reconstruct the structure, the processes, systems and procedures as well as supporting the creativity and innovation by creating systems which protect new ideas and facilities.

It is also expected that the transformational leadership with high level of communications have in influence on relational capital elements in hospitals. Strategic plan to automate and mechanize some of the issues related the customers or stakeholders such as response time of patients' complaints, systematic documentation of medical suppliers and enough attention to customers need were part of relational capital in hospitals. Therefore, the following research framework and hypotheses being formulated to test whether transformational leadership style is positively related to intellectual capital.

RESEARCH FRAMEWORK
Leadership styles influences the intellectual capital of an organization (Birasnav, Rangnekar & Dalpati 2010). Moreover, leadership itself is a powerful intangible asset and has very strong power influences in the organization. Previous studies found that there was relationship between leadership styles and intellectual capital (Pakinat, Saeidian, Poursargol & Poursarkari 2013; Kumari Usmani & Hussain 2014). The behavior and leadership styles brings friendship, mutual trust, respect and gentleness to the relationship between the leader and group’s members is a kind of driving force and progress and development engine of IC and its elements (human, structural and customer) in the organization.

Kumari, Usmani & Hussain (2014) found that leadership creates a social relation within the ethical framework of an organization. She argued that leaders responsible for the competencies improvement and overall organizational commitment to ensure for the effective teamwork of the employees. Hence, in order to manage those empowered employees, strong responsible leadership is essential to attain organizational excellence and excellent organizations constantly strive to develop strong leadership skills in all subordinates.

Birasnav, Rangnekar & Dalpati (2010) and Chao (2013), claim that leadership factors have strong and significant potential to influence intellectual components in an organization. It can be major interests for every leader to know how they can contribute with their capability of leadership to retain and even create intellectual capital within the organization. The phenomenon above describes the importance of leadership styles towards intellectual capitals.

There is very few study on leadership styles and IC components in servicing industry especially hospitals. According to Abdul Rani, Pa’wan, Che Musa & Tajudin (2008), Malaysian employees prefer charismatic leaders which is one of the criteria of transformational leadership style as their leader in organization. Thus, this study only focus on the relationship between transformational leadership style and knowledge assets.

The transformational leadership style depends on high levels of communication from management to meet goals. Leaders motivate employees and enhance productivity and efficiency through communication and high visibility. This style of leadership requires the involvement of management to meet goals. Leaders express the future prospect of the organization and they express a perspective in order to make new ideas and facilities for the future in the times of crisis and alternation and create new strategic dimensions. In addition to that, transformational leaders can make decisions about determining the business strategies, designing processes, increasing innovation and creativity, understanding social networks by assessment and evaluation of IC and knowledge management functions of an organization (Sarla, Moradgholi & Ghorbani 2012). Transformational leadership styles leaders create the flexibility of strategy especially developing IC to become an appropriate set of skills in order to answer a dynamic environment. Therefore, in the context of hospitals top management team who have appropriate style of transformational leadership, it is expected that they can increase the merits of staff, skills and education, encourage staff to think about their own actions, encourage workers to work in group and improve the performance of staffs.

Transformational leadership dimensions in hospitals also expected to have a positive relationship towards managing human capital. With the same characteristics mentioned above, they can reinforce the dimensions of transformational leadership style in the management methods of its managers and in this way, improve and reconstruct the structure, the processes, systems and procedures as well as supporting the creativity and innovation by creating systems which protect new ideas and facilities. It is also expected that the transformational leadership with high level of communications have in influence on relational capital elements in hospitals. Strategic plan to automate and mechanize some of the issues related the customers or stakeholders such as response time of patient complaints, systematic documentation of medical suppliers and enough attention to customers need were part of relational capital in hospitals.

Managers using the transformational leadership style receive certain tasks to perform and provide rewards or punishments to team members based on performance results. Managers and team members set predetermined goals together, and employees agree to follow the direction and leadership of the manager to accomplish those goals.
Employees receive rewards, such as bonuses, when they accomplish goals. It is expected that transformational leadership give significant relationship towards knowledge assets as strategy in hospitals. Hence intellectual capital indicators could become a part of strategic assets to the private hospitals to gain sustainable competitive advantage. Thus, the following hypothesis is formulated to test whether transformational leadership is positively related to knowledge assets.

The diagram below shows the relationship between transformational leadership style dimensions: Idealized Influence, Inspirational Motivation, Intellectual Stimulation and Individual Consideration) and the knowledge assets (human capital, structural capital and relational capital).

By referring to the above framework, the overall transformational leadership styles dimensions will be represented and measured using Multifactor Leadership Questionnaire (MLQ) and Knowledge Assets measured using the findings from the preliminary study and adoption from previous literatures. There are four hypotheses developed based on the above framework. The hypotheses are as follows:

\[ H_1 \] Idealized Influence significantly related to knowledge assets.

\[ H_2 \] Inspirational Motivation significantly related to knowledge assets.

\[ H_3 \] Individualized Consideration significantly related to knowledge assets.

\[ H_4 \] Intellectual Stimulation significantly related to knowledge assets.

**RESEARCH METHODOLOGY**

This research study was designed to analyze the relationship between the dimensions of the transformational leadership of top management and intellectual capital. Subsequently, a quantitative research design was adopted to through self-administered questionnaire that were mailed directly to all private hospitals in Malaysia. A cross-sectional survey method was used to conduct this study. Transformational leadership styles questionnaire was adopted using the Multifactor Leadership Questionnaire (MLQ) developed by Bass and Avolio (2004). The questionnaire relating elements of knowledge assets was adopted from Shewchuk (2005), Peng (2007), Ramirez (2013) and findings from preliminary studies conducted by the authors at early stage. The MLQ has been used by many researchers (Bass et al. 2003; Bono & Judge 2003; Hinkin & Tracey 1994) and has been shown to have a high validity (Lowe, Kroeck & Sivasumbramaniam 1996; Judge & Piccolo 2004). The MLQ questionnaires have been applied by many researcher and empirically, has been tested as valid and reliable to be used by the other researcher. This study only focus on the most effective leadership styles; transformational leadership styles which consist of twenty questions. Likert scale was used range number 1 until 5.

Probability sampling was used to select the sample because the Malaysian private hospitals are spread across the country. The respondents eligible for the study were top management teams such as CEOs, directors, executive directors, managers, executives, and other professional staff. The selection was carried out by members of human resources unit for each private hospital in Malaysia. A total of 760 sets of questionnaire were sent to 151 private hospitals in Malaysia. There were 5 sets of questionnaire sent to each private hospital. However, only 166 sets were returned from 88 Malaysian private hospitals. However, 15 questionnaires were returned blanked. Thus, this resulted to a response rate of 20% on total questionnaires distributed and 58% on total hospitals participated.

**RESULTS AND DISCUSSION**

Data analysis commenced with the inspection and review of the data in order to ascertain its suitability for analysis. The data was analyzed using Statistical Package for the Social Science (SPSS) version 23. Table 1 shows the tabulation of frequency and percentage derived from respondents’ feedback.

Based on the above table, the results show that 42% of respondents are senior managers. These managers came from various department of the hospitals such as human resource department, pharmacist, operation department, administration, financial department and others. They are part of the management team and involve directly with decision making activity of the hospitals. Unfortunately, only 14.8% of the respondents are from CEO. This has been expected due to their tight schedule. However, the respondents from the respondents were satisfied due to the fact that majority of the respondents have six to ten year
experience and perhaps the answer given are more concise and accurate. Apart from that, 36.4% respondents were from well establish hospitals which have been operated more than 20 years.

Table 2 depicts the mean score and standard deviation by items for the transformational leadership styles construct. From the table, it indicates that the majority of the items scored between 2.78 to 3.05 for \( TFL \). According to Bass and Avolio (1994) key of frequency for the scores are; 4 = frequently; 3 = fairly often; 2 = sometimes; 1 = once in a while and 0 = not at all. The results show that, in general, the top management team in Malaysian private hospitals score themselves as significantly more transformational in “Inspirational Motivation”. These leaders are admired, respected and trusted. Among the things the leader does is to articulate in simple ways, shared goals and mutual understanding of what is right and important. This type of leader also promote positive expectations about what needs to be done (Bass 1998).

Table 3 shows the result of hypothesis 1 which states that there is a positive relationship between \( TFL \) and knowledge assets. The proposed research model for this hypothesis is:

\[
KA = 4.610 + 0.244 \times (TFL) + e.
\]

Table 4 shows the result of hypothesis 1(a), 1(b), 1(c) and 1 (d) which states that there is a positive relationship

| Educational Level | Frequency | Percent |
|-------------------|-----------|---------|
| Diploma           | 14        | 15.9    |
| Bachelor Degree   | 27        | 30.7    |
| Master’s Degree   | 30        | 34.1    |
| Doctoral Degree   | 2         | 2.3     |
| Professional      | 15        | 17.0    |

| Job specification | Frequency | Percent |
|-------------------|-----------|---------|
| Middle Management Level | 26       | 29.5    |
| Senior Management Level | 37       | 42      |
| Top Management Level     | 25       | 28.4    |

| Position in the facility | Frequency | Percent |
|--------------------------|-----------|---------|
| Chief Executive Officer  | 11        | 12.5    |
| Senior Executive         | 10        | 11.4    |
| Executive Director       | 6         | 6.8     |
| Vice President            | 1         | 1.1     |
| Director                 | 2         | 2.3     |
| Manager                  | 52        | 59.1    |
| Others                   | 6         | 6.8     |

| Hospital Establishment | Frequency | Percent |
|------------------------|-----------|---------|
| Less than 5 years      | 11        | 12.5    |
| 6-10 years             | 14        | 15.9    |
| 11-15 years            | 20        | 22.7    |
| 16-20 years            | 11        | 12.5    |
| More than 20 years     | 32        | 36.4    |

| Length of time working with current hospitals | Frequency | Percent |
|-----------------------------------------------|-----------|---------|
| Less than 5 years                             | 25        | 28.4    |
| 6-10 years                                    | 33        | 37.5    |
| 11-15 years                                   | 19        | 21.6    |
| 16-20 years                                   | 4         | 4.5     |
| More than 20 years                            | 7         | 8.0     |

| Leadership Styles | Mean  | Standard Deviation |
|-------------------|-------|--------------------|
| Transformational (TFL) | 2.78  | 0.7250             |
| Idealized Influence Attributes (IIA) | 3.05  | 0.5667             |
| Inspirational Motivation (IM) | 2.83  | 0.7165             |
| Intellectual Stimulation (IS) | 2.92  | 0.7785             |
| Individualized Consideration (IC) |       |                    |
between II.A, IM, IS and IC with knowledge assets. The regression equation for this model is:

\[ KA = 4.199 + 0.22(II.A) + 0.406(IM) - 0.094(IS) + 0.032(IC) + e \]

There are mixed results between the sub-categories of LS and KA. The above results are favorable for ‘inspirational motivation’ factor when it has a positively significant relationship to the value of knowledge assets. The regression equation shows that for every unit increase in the inspirational motivation factor, there is 40% increase in knowledge assets. Since the p value for the t-test is 0.006 <0.05, the null hypothesis is rejected at 0.05 level of significance. Therefore, hypothesis 1(b) is accepted. However, the other hypotheses are rejected. Thus, it shows that the characteristics of inspirational motivation that embedded within hospitals top management team give significant impact to the value of hospital’s knowledge assets. This result consistent with other literatures that shows transformational leadership style give positive impacts towards knowledge assets elements. However, the uniqueness of this study is the elements of transformational leadership style that contribute the most on managing knowledge assets is inspirational motivation (IM).

In addition to that, this study contributes to the literature by investigate the appropriate elements of knowledge assets in Malaysian hospitals. The elements of knowledge assets which consist of 13 indicators which based on three main categories; Human capital, Structural capital and Relational capital. Human capital is the knowledge that embedded to the hospital personnel would take with them if they leave the hospitals. Examples are experiences, expertise, knowledge, commitment, and competencies. Structural capital is the knowledge that stays with the hospital at the end of the working day such as policies, databases, systems, and procedures. Lastly relational capital is the relationship that hospital have with their external stakeholders like patients, public, third party agencies, competitors, and Ministry of Health. 62 items were asked covering the range of knowledge assets in the hospitals. There were 22 items for human capital, 16 items for structural capital and 24 items for relational capital. All the standardized indicators of the knowledge assets for the Malaysian private hospitals.

### CONCLUSIONS

The study was directed to examine which dimension of Transformational Leadership Style by top management team in Malaysian hospitals that positively related with the elements of knowledge assets. The study began with the exploration of self-perception leadership styles adopted by MLQ questionnaire. Describing how top management team of Malaysian private hospitals perceive their own leadership styles offers us updated information in health care setting. The results show that Transformational leadership style has significantly positive relationship with knowledge assets elements. However, only Inspirational Motivation does influence the hospitals knowledge asset. While the other sub categories of transformational leadership have no significant relationship. It is believed that, consistent with today’s dynamic environment in which the populations are constantly changing, transformational leaders would represent a key factor for better achievement of goals and health outcomes. The results supported the hypothesis event though not all the characteristics of transformational leadership styles applied at top management team in Malaysian private hospital. Furthermore, in the hospitality field, transformation leadership style and knowledge assets have received little attention. This study will be important to
both future researchers and practitioners as a first step in developing leaders’ strategy for increasing organization. If transformational leadership style has an impact on knowledge assets, then strategic planning programs could be targeted to knowledge assets value creation of the organization. Therefore, future research should further analyze this relationship towards hospitals performance.

The findings drawn from this study are not without their limitations. This study used survey questionnaire to collect information from Private Hospitals top management teams that are engaged in managing private hospitals. However, most of the feedback are from managers and only few CEOs are answering the questionnaire. Perhaps, this is due to the fact that the time duration allocated to respondents to answer the questionnaire was not sufficient. In addition, the weakness of this study is that the data only conducted from the perspectives of Private Hospitals top management team. Future research should include Public Hospitals in Malaysia. Hence, the findings can be generalized to represent all hospitals in Malaysia. Furthermore, this study only examined one type of leadership style which is Transformational LS. As a result, future research in this area could be extended to other types of LS such as Transactional LS and Laissez Faire. Apart from that, future studies can explore the relationship between leadership styles and service quality provided in private hospitals. This will contribute to the literature knowledge as to identify a more suitable leadership styles for specific service quality provided in each unit of hospitals.

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