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# Impact of knowledge oriented leadership on knowledge management behaviour through employee work attitudes

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## ABSTRACT

Despite the acknowledged importance of knowledge management (KM), many employees avoid practicing KM at the individual level. This avoidance often leads to loss of the intellectual capital due to employee turnover. Many potential behavioural remedies are still untapped in the existing literature. This study extends the construct of knowledge oriented leadership (KOL) and examines its role in predicting KM behaviour among employees of the hospitality sector, at the individual level. It also investigates the mediating effect of employee work attitudes including affective commitment, creative self-efficacy and work engagement, by using partial least square for structure equation modelling. This study finds that KOL positively affects KM behaviour, affective commitment, creative self-efficacy and employee work engagement. Work attitudes (affective commitment, creative self-efficacy, work engagement) mediate the relationship of KOL and KM behaviour. Furthermore the direct positive effect of employee affective commitment, creative self-efficacy and work engagement on KM behaviour is also significant. This study contributes to the body of knowledge by extending the construct of KOL, and by investigating the connection between KOL, work attitudes, and KM behaviour among hospitality employees, at the individual level.

## KEYWORDS

Knowledge management (KM); knowledge oriented leadership (KOL); employee work attitudes; affective commitment; creative self-efficacy; work engagement

## 1. Introduction

When employees leave the organization, or transfer to other departments, their knowledge and talent also go with them. If these employees do not convert their knowledge into organizational knowledge i.e. by transferring, and storing it in organizational memory, then in the circumstances of employee turnover organizations can face loss of human capital. That's why, it is really important to transform the knowledge of employees into organizational knowledge, in this way knowledge

of the employees would be decoded into the intellectual asset of the organizations (Yang, 2004). Particularly in the hospitality sector, which faces the problem of high employee turnover it becomes more important to retain the knowledge of outgoing employees. Hospitality researchers emphasize that it can be done by promoting knowledge management (KM) among employees at the individual level (Kim & Lee, 2013; Yang, 2004). KM is a process of creating, acquiring, transferring, documenting/storing and applying the knowledge (Nonaka & Takeuchi, 1995; Rowley, 2000), and it can be practiced at both individual and organizational levels (Bock & Kim, 2002; Yang & Wan, 2004). This study uses the term KM behaviour for the activities of creation, sharing, storage and applying the knowledge at the individual level.

'Knowledge is the power' is an established paradigm, and it is considered as an important strategic asset for organizations and individual employees. Therefore many employees try to keep it to themselves and do not want to transfer it to others (Kelloway & Barling, 2000). Knowledge gives them a competitive advantage over others and makes them an asset for the organization. Many employees think that sharing of knowledge can decrease the chances of their promotion (Bock, Zmud, Kim, & Lee, 2005; Uriarte, 2008). From the organizational perspective, knowledge should be shared within the organization in order to make it organizational knowledge, as it is essential for the growth and competitiveness of the organization (Kim & Lee, 2013; Sigala & Chalkiti, 2015; Uriarte, 2008). As organizations do not own the intellectual assets of their employees, and are not in a position to coerce the employees to practice KM behaviour (Connelly, Zweig, Webster, & Trougakos, 2012). Therefore organizations need to motivate their employees to practice KM (Donate & Sánchez de Pablo, 2015), for example by providing them a psychological environment, suitable for KM behaviour. In the growing and highly competitive service industry, where competitors can easily copy service innovation, the KM ability becomes more critical (Sigala & Chalkiti, 2015). Literature suggests that human factors are very critical for the successful KM (Cabrera & Cabrera, 2005; Cabrera, Collins, & Salgado, 2006). Therefore this study aims to highlight the factors essential for promoting KM behaviour among employees, with focus on the leadership style which can stimulate desired employee work attitudes which can lead to KM behaviour among employees. It is about encouraging employees to convert the tacit knowledge which is in the mind of employees (Uriarte, 2008) into organizational knowledge. Although many researches are conducted to identify knowledge as a source of a competitive advantage, how to create, retain, share and utilize knowledge in organization needs further explanation (Donate & Sánchez de Pablo, 2015).

Leaders can play a vital role in promoting KM behaviour among their employees (Nguyen & Mohamed, 2011). They can provide a psychological environment to the employees, which allows them to exercise their KM skills, enables them to gain knowledge from organizational resources and contribute to organizational knowledge by sharing their own tacit knowledge within the organization (Crawford,

Gould, & Scott, 2003; Politis, 2002). On the other hand leaders can also create barriers to exercise KM behaviour by adapting inappropriate behaviours (Bryant, 2003; Politis, 2002; Von Krogh, Nonaka, & Rechsteiner, 2012). In an investigation of a leadership style that can encourage KM behaviour among employees, Donate and Sánchez de Pablo (2015) combine the transformational and transaction style of the leadership to develop a new knowledge oriented leadership (KOL) style, and find a positive association with KM behaviour. The transformational leadership theory discusses various dimensions of leader's behaviour, like idealized influence which means serving as a role model, inspirational motivation to communicate a stimulating vision, intellectual stimulation to stimulate the follower to think out of the box, and individualized consideration to emphasis on the development of the follower (Bass, 1985). Later on Raffay and Griffin (2004) also add the personal recognition as a dimension of the transformational leadership. This dimension explains that how leaders can recognize the performance of followers. On the other hand transactional leaders are task oriented and push employees to accomplish organizational and personal goals (Wang, Lee-Davies, Kakabadse, & Xie, 2011). In case of the transactional leadership where leaders contingently reward and penalise the subordination and follow the approach of management by exception, motivation of employees is extrinsic (Franco & Matos, 2015). This study extends the construct of the KOL by incorporating some other leadership behaviours including supportive, consulting, delegating, stimulating knowledge diffusion, facilitating and mentoring. As the existing construct consists only on the combination of transformational and transactional leadership styles, whereas literature suggests that there are several more behaviours having the potential of influencing KM behaviour e.g. mentoring, facilitating and innovative role modelling (Yang, 2010), supportive, delegating and consulting (Singh, 2008). There is consensus among researchers that knowledge is the main source of competitive advantage (Shamim, Cang, & Yu, 2017; Shamim, Cang, Yu, & Li, 2016; Zack, McKeen, & Singh, 2009), so it is important to have a comprehensive construct of KOL, to strengthen the influence on KM behaviour.

Despite the recognized importance of the leadership, Pittaway, Carmouche, and Chell (1998) express grief for the lack of research on leadership specific to the hospitality industry (Tracey & Hinkin, 1994). Majority of research within the hospitality industry is limited to identifying the leadership importance (Ladkin & Weber, 2011). They further argue that the hospitality industry has its own specific characteristics and needs a specialized research in the field of the leadership. This study aims to test the interaction of KOL, after extending the construct of KOL, with KM behaviour. It also discusses the mediating role of employee work attitudes, including affective commitment, creative self-efficacy and work engagement. Affective commitment is used as a mediator in this study because it is the most frequently discussed mediator in literature in relation to KM among employees (Camelo-Ordaz, García-Cruz, Sousa-Ginel, & Valle-Cabrera, 2011; Hashim & Tan, 2015; Matzler, Renzl, Mooradian, von Krogh, & Mueller, 2011).

Work engagement and creative self-efficacy are used as a mediator because both involve cognition (Kahn, 1990; Wood & Bandura, 1989), which needs information processing which ultimately leads to KM behaviour (Uriarte, 2008). Furthermore, there are evidences in literature that leadership styles can influence employee work attitudes (Van, Stam, Boersma, Windt, & Alkema, 2014). This study investigates KOL as an independent variable (exogenous), work attitudes as mediators and KM behaviour as a dependent variable (endogenous).

By investigating these issues, this study contributes to the existing body of knowledge in several ways by filling the number of gaps in the existing literature. Among the leadership behaviour mentoring, facilitating and innovative role modelling are discussed in relation to KM behaviour (Yang, 2010). Donate and Sánchez de Pablo (2015) combine transformational and transaction leadership styles to design a construct of KOL, but a comprehensive construct of the leadership style, especially designed for KM behaviour is missing. Other leadership behaviours like, stimulating knowledge diffusion, supportive behaviour, delegation and consulting need to be considered in the construct of KOL. Researchers have not investigated the association between three separate concepts of the literature i.e. leadership, employee work attitudes and KM behaviour. Specially in the hospitality sector, there is lack of research to investigate how a leadership style can influence KM behaviour among employees through employee work attitudes.

Investigating the link between these three areas is the main focus of this study. For this purpose this study proposes and tests a theoretical model to connect these concepts i.e. leadership style, employee work attitudes and KM behaviour among employees. Furthermore researchers mainly discuss knowledge sharing, which is only one element of KM behaviour, other practices like storing/documenting, and applying need further research. This study considers the whole construct of KM behaviour, including acquiring, transferring, documenting and applying the knowledge. This study attempts to answer 'How can organizations encourage their employees to exercise KM behaviour, through the leadership styles?' with the following three main objectives:

- (1) To extend the KOL construct by incorporating additional leadership behaviours including supportive, consulting, delegating, stimulating knowledge diffusion, facilitating and mentoring;
- (2) To analyse the influence of KOL on KM behaviour among employees of the hospitality sector;
- (3) To analyse the role of employee work attitudes including affective commitment, creative self-efficacy and work engagement, in the relationship of KOL and KM behaviour among employees.

This paper is organized in the following structure. In Section 2, theoretical background, literature and hypothesis are discussed. Section 3 presents the methodology adopted in the paper. The results of statistical analysis are discussed in Section 4. Section 5 closes the study with discussion and conclusions.

## 2. Theoretical framework and hypothesis

### 2.1. *Knowledge-based view of the organization and knowledge management*

Knowledge-based theory of the firm, basically emphasis on knowledge creation, integration, and its application, and considers it as the basic function of an organization (Grant, 1996; Kogut & Zander, 1992). This theory is rooted in the resource-based view of an organization (Donate & Sánchez de Pablo, 2015), which considers strategic assets as the key source of competitiveness (Amit & Schoemaker, 1993). Knowledge-based view considers knowledge as the main strategic asset and resource of the organization which enables the firm to create value (Zack et al., 2009). The knowledge exists in a firm either implicitly or explicitly, and the firm is the knowledge bearing unit (Kogut & Zander, 1992). The problem of many organizations striving for competitive advantage is that, they put more efforts in identifying knowledge than in understanding how to create, retain and share knowledge (Argote & Ingram, 2000).

Therefore it is important for the organizations to design and implement activities which can help them in deploying their capabilities for value creation i.e. they should focus on KM (Grant, 2002). The ultimate goal of KM is to make organization aware of its knowledge, either individually i.e. tacit knowledge, or collective knowledge which is usually explicit, and to devise such strategies which make it easy to obtain knowledge, and facilitate the most effective and efficient use of the knowledge resources (Donate & Sánchez de Pablo, 2015).

Nonaka and Takeuchi (1995) and Rowley (2000) operationalize the KM as the process of knowledge acquisition, organizing knowledge, knowledge leverage, knowledge sharing and organization memory. Grant (1996) and March (1991) categorize KM practices as explorative and exploitative practices. Explorative practice is knowledge creation which aims at creating new knowledge. Knowledge storage, knowledge sharing/transfer and applications are exploitative practice which aims at leveraging existing knowledge. Knowledge acquisition involves acquisition of new knowledge; it can also replace the organization's existing explicit or implicit pool of knowledge.

KM creation activities are more related to organization's internal knowledge development, like through research and development (Darroch & McNaughton, 2002). As organizations create new knowledge, they may forget and lose some of their acquired knowledge (Alavi & Leidner, 2001). Therefore storing acquired knowledge is important. Knowledge storage activities involve the structuring and organization of knowledge, in order to maintain an organizational memory, by storing the knowledge in different forms such as written documentation of knowledge, information storage in electronic database, codified human knowledge stored in expert systems and documented standard operational procedures (Alavi & Tiwana, 2003; Zack, 1999). KM transfer activities allow members of the organization to share and disseminate information and knowledge. It refers to

availability of task information and to know how to help other members in collaboration and problem solving, or generation of new ideas (Cummings, 2004). It also involves exchange of employee knowledge, skills and experience through whole organization (Lin, 2007). For sharing of knowledge a company should develop communication channels, either formal or informal in nature, and personal or impersonal (Alavi & Leidner, 2001). KM application activities include integrating and applying the knowledge to solve the problems, and finding easier and effective solutions for the organization (Grant, 1996; Zack et al., 2009). It involves applications of knowledge to enhance the capabilities of organization and its members, through the development of mechanisms such as routines, norms, or decision-making (Grant, 1996).

Effectiveness of KM is closely linked with the information and communication technologies (ICTs), resulting in many positive organizational outcomes, such as higher employee participation, improved communication, efficient problem solving, better team performance and improved financial performance (Alavi & Leidner, 2001). It can also increase the capacity of employee improvisation (Nisula & Kianto, 2016). So literature acknowledges the important role of KM practices in overall success of the organization.

In the hospitality sector, to meet the challenges of increasing customer expectations, enhance service quality, and maintain customer satisfaction and loyalty, companies must work on enhancing KM at the individual level (Kim & Lee, 2013). For example, sharing the knowledge of customer complicated demands, and customer priorities can facilitate the effectiveness of service design (Hallin & Marnburg, 2008). This kind of KM ultimately enhances organizational innovativeness and performance (Chen & Huang, 2009; Kim & Lee, 2013). Teece (2007) also suggests that the ability of enterprise to generate and implement novel ideas depends on its knowledge base and KM among employees. It is also crucial in case of front line hotel employees because the front line staff are the face of the hotel and they act as a bridge between the customers and the hotel (Ferry, 2005), and their job is to provide customized and high-quality services to the guests of the hotel (Kuo, Chang, Chen, & Hsu, 2012). So their capability and expertise of providing services play a key role in the success of service industry (Lee, 2014). For example service quality plays an important role to retain the customers (Liang, Ma, & Qi, 2013). It is crucial to investigate what enhances KM among front employees of the hospitality sector. It is also suggested by hospitality researchers that KM should be initiated from the initial service encounter (Yang, 2004). This study focuses on a specific leadership style which can positively affect KM behaviour among employees through employee work attitudes.

## **2.2. Knowledge oriented leadership and knowledge management behaviour**

House (1971) conducts the prominent initial work on leadership contingency theories with the development of path goal theory of leadership effectiveness.

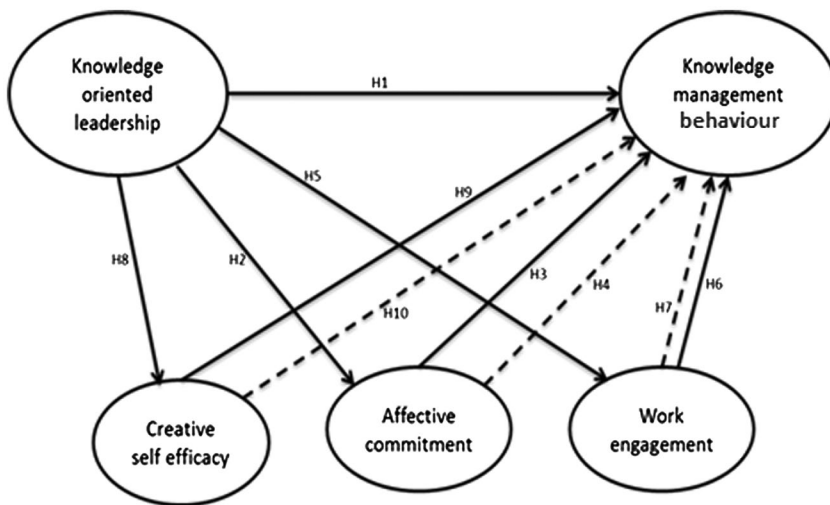


According to path goal theory a leader can achieve desired employee behaviours and attitudes by adapting appropriate leadership behaviour in different situations. Path goal theory is a contingency theory, and proposes that effectiveness of leadership is contingent on the particular style of behaviour adapted by leaders in any particular situation. This theory identifies four types of leader's behaviour (Supportive leadership, Directive leadership, Participative leadership and Achievement oriented leadership). The supportive leadership considers needs of subordinates and creates a friendly work environment (Levine & Hogg, 2009). The supportive leadership involves being patient, helpful, listening and looks for someone's interests (De Jong & Den, 2007). The directive leadership makes sure that subordinates know the rules and procedures to get the work done, clearly explains what is expected of each subordinate, and provides clear guidelines (Levine & Hogg, 2009). The participative leadership involves subordinates in every matter and considers their opinion and suggestion in decision-making (Levine & Hogg, 2009). It involves consulting with people before initiating changes that may affect them. The achievement oriented leadership sets challenging goals for subordinates, and puts emphasis on the excellence of performance, and shows confidence that subordinates can attain high work standards (Levine & Hogg, 2009).

Other major theories of leadership are transformational and transactional leadership, servant leadership, and authentic leadership. Transformational leadership theory considers various dimensions of a leader's behaviour, i.e. Bass (1985) adds idealized influence which means serving as a role model, inspirational motivation to communicate a stimulating vision, intellectual stimulation to stimulate the followers to think out of the box, and individualized consideration to emphasis on the development of followers. Transactional leaders are task oriented and push employee accomplish organizational and personal goals (Wang et al., 2011). In case of the transactional leadership where leaders contingently reward and penalise the subordinates and follow the approach of management by exception, the motivation of employees is extrinsic (Franco & Matos, 2015).

Donate and Sánchez de Pablo (2015) conduct the work on KOL by combining the transformational and transactional leadership styles. In their study, KOL is tested as antecedent of KM behaviour, and they find a positive effect of KOL on KM behaviour. A knowledge oriented manager encourages learning, provides training, acts as a role model, focuses on intellectual stimulation of employees, and provides incentives to develop the mechanism for knowledge transfer, storage, and application (Williams & Sullivan, 2011). Yahya and Goh (2002) also argue that organizations and leadership should create the environment where knowledge can be adequately managed by exercising KM. In this way knowledge orientation of management becomes the dynamic capability of the organization, which promotes creation, sharing, storage and utilization of the tacit and explicit knowledge in the organization (Wang & Ahmed, 2007; Zollo & Winter, 2002). Donate and Sánchez de Pablo (2015) also state that firms focusing on KOL are in a better position to exploit the tacit and explicit knowledge. In this study the





**Figure 1.** Conceptual model (Solid line: Direct effect, Dotted line: Indirect effect).

construct of KOL developed by Donate and Sánchez de Pablo (2015) is extended by adding some other leadership behaviours i.e. supportive, consulting, delegating, stimulating knowledge diffusion, facilitating and mentoring. Politis (2002) argues that the transactional leadership can facilitate KM behaviour. Birasnav (2014) also finds a positive effect of the transformational and transactional leadership on KM. Furthermore Yang (2010) states that mentoring, facilitating and innovating behaviour of leaders also have a positive effect on KM behaviour. Singh (2008) finds a positive association of supportive, delegating and consulting with KM behaviour. Reward and recognition can influence the perceived supervisor support (Bhatnagar, 2014). Stimulating knowledge diffusion mean, making communication very open and transparent, making communication more supportive like informal communication, and by doing this leaders can enhance employee innovativeness (De Jong & Den, 2007). Where there is such kind of information and knowledge diffusion, it makes creating, sharing, storing, applying knowledge more facilitating. Therefore, it is logical to hypothesize that KOL as a construct has the potential to positively affect KM behaviour among employees. Thus the proposed hypothesis is as follows:

*H1:* There is a positive association between KOL and KM behaviour.

### **2.3. Knowledge oriented leadership, employee work attitudes and knowledge management behaviour**

Attitudes reflect the feelings about something which can be either favourable or unfavourable, while behaviours are normally followed by the attitudes (Robbins, Judge, Millett, & Boyle, 2013). Attitude is the way we think, behaviour is the way we act. At the work place, different attitudes are strong mediators of different

behaviours in relation to different variables (Harrison, Newman, & Roth, 2006; Robbins et al., 2013). Employee work attitudes, specifically affective commitment (Allen & Meyer, 1990), work engagement (Kahn, 1990) and creative self-efficacy (Tierney & Farmer, 2002) are found as antecedents of many organizational and behavioural outcomes in number of studies (Agarwal, Datta, Blake, & Bhargava, 2012; Aryee, Walumbwa, Zhou, & Hartnell, 2012; Hashim & Tan, 2015; Matzler & Mueller, 2011; Slåtten, 2014; Slåtten & Mehmetoglu, 2011b).

*Affective commitment* indicates the emotional attachment of the employee with the organization (Allen & Meyer, 1990). Employees with affective commitment are loyal to the organization and consider the goals of organization as their own goals (Mahdi, Mohd, & Almsafir, 2014). It is an emotional bond between organization and the employee (Ashman & Winstanley, 2006). It plays an important role in satisfying the basic psychological needs of the employees in the organization and stimulates positive emotions (Rivkin, Diestel, & Schmidt, 2015). Particularly in case of knowledge workers, affective commitment can be influenced by mentoring, and skills enhancement opportunities (Jayasingam & Yong, 2013).

In the hospitality sector, importance of commitment is well established and discussed by number of researchers. Slåtten and Mehmetoglu (2011b) conduct a survey on front line hotel employees and find a positive effect of commitment on creative thinking among employees. Ottenbacher, Shaw, and Lockwood (2006) argues that high commitment of hotel managers facilitates their innovative work behaviours. Garg and Dhar (2014) reveal the mediating role of commitment in the relationship of leader member exchange and service quality among hotel employees. In the management literature commitment appears to be an antecedent of KM behaviour in several studies, e.g. Hashim and Tan (2015) find a positive relationship between commitment and intention of knowledge sharing. Matzler et al. (2011) identify the mediating role of commitment in the relationship of employee personality traits and KM behaviour. Affective commitment can also mediates the relationship of KM and human resource practices (Camelo-Ordaz et al., 2011). However there is lack of research on this topic in the hospitality sector.

Researchers also suggest that some leadership styles can positively influence employee job commitment e.g. transformational leadership (Van et al., 2014), authentic leadership (Avolio, Zhu, Koh, & Bhatia, 2004), supportive leadership (Mahdi et al., 2014) servant leadership (Van et al., 2014). Brooks and Seers (1991) argue that supervisory behaviours can affect the employee commitment. However, leadership, affective commitment and KM behaviour are not considered all together in one model in the previous research. There are evidences in literature that leadership behaviours like supportive, transformation and transaction style can influence commitment, which can lead to improvement in KM behaviour. Therefore it is logical to assume that KOL can positively affect the employee commitment because transformational and transactional styles and supportive behaviour are major contributors in the construct of KOL. Where delegating behaviour may give a feeling of empowerment because of autonomy (De Jong

& Den, 2007), and empowerment can lead to commitment (Avolio et al., 2004). Arora and Rangnekar (2015) argue that mentoring also has a positive impact on employee commitment. In case of this study all these behaviours are used to design a construct of a leadership style specifically for KM behaviour. Literature provides evidences of the mediating role of commitment, number of studies are showing that commitment facilitates the impact of different factors on KM (Camelo-Ordaz et al., 2011; Hashim & Tan, 2015). Yen (2009) argues that, commitment enhances the feeling of association with other colleagues. Goo and Huang (2008) also suggest the mediation of commitment to enhance the durability of relationship with other members. This bond of relationship can motivate employees to share the knowledge with each other to solve the business problems. There are empirical evidences which show the role of commitment as a mechanism through which leaders and managers achieve the desired outcomes, hence providing the justifications for the mediating role of commitment (Agarwala, 2003). KOL can provide better psychological settings for the employees to practice KM behaviour. Thompson and Heron (2006) argue that commitment mediates the relationship of psychological settings and KM behaviour. Based on the above arguments it is logical to say that commitment can mediate the association of KOL and KM behaviour. If a leader positively influences employee affective commitment through KOL, it can lead to KM behaviour among employees. Thus the proposed hypotheses are:

H2: There is a positive association between KOL and employee affective commitment.

H3: There is a positive association between affective commitment and KM behaviour.

H4: Affective commitment mediates the relationship of KOL and KM behaviour.

*Work engagement* is a positive status of mind at the work place. Initially, Kahn (1990) defines work engagement as 'the harnessing of organizational members' selves to their work roles'. Kahn (1990) further states that, the employees with the sense of work engagement express their efforts and engagement physically, cognitively, and emotionally while performing any particular role. Schaufeli, Salanova, González-romá, and Bakker (2002) explain work engagement as 'a positive fulfilling, work-related state of mind that is characterized by vigour, dedication and absorption'.

There are many positive outcomes of work engagement reported by researchers such as, it lowers the employee burnout (Schaufeli & Bakker, 2004), reduces employee turnover (Saks, 2006) and work stress (Britt, Castro, & Adler, 2005), employee productivity, organization citizenship behaviour, financial performance, commitment, customer satisfaction (Richman, 2006; Saks, 2006) and employee innovative work behaviour (Agarwal et al., 2012; Aryee et al., 2012). Demerouti, Bakker, and Gevers (2015) argue that work engagement can lead to contextual performance and creativity, and it acts as a mediator in the relationship of seeking resources with creativity and contextual performance.

Research on work engagement in the tourism and hospitality sector reflects the increasing interest of researchers. Several studies are reporting positive

outcomes of work engagement in tourism and hospitality, for example work engagement among front line hotel staff leads to service climate and customer loyalty (Salanova, Agut, & Peiró, 2005). Yeh (2013) suggests that work engagement can also lead to employee innovative work behaviour in the hospitality sector. Agarwal et al. (2012) argue that work engagement can be predicted by the leader member exchange. Slåtten and Mehmetoglu (2011b) state that in the hospitality industry, work engagement can be predicted by role benefits, job autonomy and strategic attention. Mauno, Kinnunen, and Ruokolainen (2007) argue that job demands and resources are antecedents of work engagement. However, the existing literature has not considered the role of work engagement in predicting KM behaviour among employees which is a noticeable gap. As it has the potential to positively influence KM behaviour. Employees who are engaged in the work can be in a better state to perform KM activity. Employees with the sense of work engagement express their efforts and engagement, physically, cognitively and emotionally while performing any particular role (Kahn, 1990). Cognition involves information processing, which leads to knowledge acquisition by understanding the pattern of information (Uriarte, 2008), and stimulates KM behaviour. Literature is also evident that employee work engagement can be influenced by leadership behaviours (Aryee et al., 2012; Van et al., 2014). If leaders influence the work engagement positively, in this way they actually stimulate a cognitive process involving the information processing leading to KM behaviour. Furthermore hospitality literature is also evident of the mediating role of work engagement towards behavioural outcomes (Slåtten & Mehmetoglu, 2011a). On these grounds it can be hypothesized that KOL can positively affect employee work engagement, leading to enhanced KM behaviour.

H5: There is a positive association between KOL and employee work engagement.

H6: There is a positive association between employee work engagement and KM behaviour.

H7: Employee work engagement mediates the relationship of KOL and KM behaviour.

The *Creative self-efficacy* concept is developed by Tierney and Farmer (2002), following the inspiration and roots of creative self-efficacy of Bandura (1997) and Gist and Mitchell's (1992) conceptualization of work related self-efficacy. In order to understand the concept of creative self-efficacy it is important to have knowledge of self-efficacy in general.

Self-efficacy is derived from social cognitive theory (Slåtten, 2014). Wood and Bandura (1989) define self-efficacy as 'something that 'refers to beliefs in one's capabilities to mobilize the motivation, cognitive resources, and courses of action needed to meet given situational demands' and according to Bandura (1997) self-efficacy means 'a person's belief that he or she can perform successfully in a particular setting'.

Self-efficacy ranges from general to specific (Slåtten, 2014). Generalized self-efficacy represents a person's overall trait, while the specific type of self-efficacy is related to any particular area or specific task capability. Creative self-efficacy

represents the contents and characteristics of employee or any person's belief in the particular context of creativity. Tierney and Farmer (2002) define creative self-efficacy as 'the belief one has the ability to produce creative outcomes'.

In the hospitality sector, creative self-efficacy is a mediator in the relationship of transformational leadership and innovative behaviour (Slåtten, 2014). However, there is lack of research on creative self-efficacy in the hospitality sector, especially in relation to KM behaviour. Literature suggests that a leader by adopting an appropriate leadership style can influence employee creative self-efficacy (Slåtten, 2014). Self-efficacy in general positively affects employee behavioural outcomes (Lee, 2014) because it empowers employees with the confidence on their capabilities to perform any specific task (Bandura, 1977; Gist & Mitchell, 1992). When an employee with a high level of creative self-efficacy, exercise KM behaviour i.e. exploring new knowledge by creation activities, and exploiting the existing knowledge by applying it in different ways, he/she can do it with more confidence, and effectiveness. Furthermore, the drive to produce creative outcomes can also motivate employee to exercise KM behaviour. Furthermore literature is also evident of the mediating role of creative self-efficacy in the relationship of leadership and employee behavioural outcomes (Slåtten, 2014). Thus this leads to the following hypotheses (Figure 1):

*H8: There is a positive association between KOL and employee creative self-efficacy.*

*H9: There is a positive association between employee creative self-efficacy and KM behaviour.*

*H10: Employee creative self-efficacy mediates the relationship of KOL and KM behaviour.*

### **3. Research methodology**

This study is a quantitative, causal and explanatory study, examining the linkage between KOL, employee work attitudes, and KM behaviour among employees. The research paradigm of this study is positivism, applying scientific approaches to the social phenomena following the deductive approach, and it is a cross-sectional study.

#### **3.1. Population and sampling**

This is a survey-based study following cross-sectional research design. Primary data are collected from the front line employees of the four and five star hotels in London and Bournemouth, UK using structured questionnaire. The front line personnel are the face of hotels and they act as a bridge between the customers and the hotels (Ferry, 2005), and their jobs are to provide customized and high-quality services to the guests of the hotels (Kuo et al., 2012). Thus their capability and expertise of providing services play a key role in the success of this industry (Lee,

2014). Furthermore hospitality researchers emphasize on the initiation of KM, from the initial service encounter (Yang, 2004).

Population of the study comprises employees of four and five star (4/5\*) hotels in the UK. According to the national statistics office (UK), 2,267,000 employees are working in the hospitality sector. As the exact number of employees working in 4/5\* hotels is not available, this study uses this number to calculate the sample size. According to this number, the minimum requirement of the sample size is 384 employees at the 95% confidence level. As the focus of this study is on employees of 4/5\* hotels only, the minimum sample size requirement for this study should be less than 384 respondents as this study does not cover the whole hospitality industry. Furthermore this study only includes the employees who have worked with the same current hotel for more than one year.

### **3.2. Data collection strategy**

Firstly, the database of contact details of 4/5\* hotels is made. The list of hotels is available on the official website of AA ([www.Theaa.com](http://www.Theaa.com)). AA is the agency that inspects and rates the hotels in the UK as 1\*–5\*. Contact details of each hotel is gathered from the official website of each hotel. Total 880 questionnaires are distributed to hotel employees by multiple personal visits, in different timings to involve maximum employees. As there are different employees in different shifts (i.e. Morning shift, and night shift). Here it is important to clarify that unit of analysis in this study are the hotel employees in individual capacity, and not the hotel. Questionnaires are given to the accessible staff, and the shift managers to pass them to other members. Participants are requested to drop the questionnaire at the reception after completing it. Questionnaires are collected from every hotel by multiple personal visits. Finally, 367 questionnaires are received in return, out of which 330 are usable.

Before launching the data collection process, a pilot study was conducted. The questionnaire was evaluated by academic and industrial experts. A few questions are eliminated after the feedback of the pilot study, and changes in the formatting are made. On the basis of feedback, quality of items is improved, i.e. wording issues.

### **3.3. Questionnaire design and measures**

Questionnaire includes adopted, modified and self-developed items. There are total 57 questions in the questionnaire. The first section of the questionnaire consists of 36 questions related to different leadership behaviours which make the construct of KOL. The second section is related to KM behaviour, consists of 12 items. In the third section employee job attitudes are measured by asking 3 questions for creative self-efficacy, 3 for affective commitment and 3 for work engagement. Finally, the fourth section is for demographic information, which



consists of questions about age, gender, work experience, education, managerial level, year of working with the current hotel and hotel category. Details of adopted, modified and self-developed items are as follows:

*Leadership behaviours* included in this study are supportive, consulting, intellectual stimulation, providing vision, recognition, stimulating knowledge diffusion, facilitating, rewarding, innovative role modelling, delegating and mentoring. The supportive behaviour of a leader is measured by adopting four items from Hay & McBer (2000). Four items for intellectual stimulation and three items for rewarding behaviour are adopted from Bass and Avolio (2004). One item to measure delegating behaviour is adapted from Suutari and Riusala (2001), and two are developed by the authors. Similarly one item to measure mentoring is adapted from Bass and Avolio (2004), and two are developed by the authors. Three items for each consulting, innovative role modelling, providing vision, stimulating knowledge diffusion, recognition and facilitating behaviour are developed by the authors. All items are measured by using the seven-point Likert scale ranging from 1 = never to 7 = always, by asking 'how often your leader does the following' for example, 'Gets others to look at problems from different angles'.

*KM behaviour* is measured by 12 items, where, 6 items are adopted from the study of Van and Hendrix (2004), five items are adapted and modified from study of Hansen (2002) and four items are developed by the authors. All items are measured by using the seven-point Likert scale ranges from 1 = never to 7 = always.

*Employee work attitudes* are measured by adopting reliable and valid scales ranges from 1 = strongly disagree; and 7 = strongly agree. Creative self-efficacy is measured by three items adopted from Tierney and Farmer (2002). Affective commitment is measured by three items adopted from Allen and Meyer (1990), work engagement is measured by three items adopted from Schaufeli et al. (2002).

This study uses two different scales i.e. one ranges from strongly disagree to strongly agree, and other ranges from never to always. However the direction of both scales is same i.e. negative to positive. This is consistent with number of studies (e.g. Donate & Sánchez de Pablo, 2015; Shamim et al., 2017). Questionnaire items are given in appendix.

### **3.4. Data analysis procedure**

This study follows the deduction approach, and tests the hypotheses on the basis of data collected through structured questionnaire. Data is analysed using quantitative techniques. Factor analysis is conducted, and convergent validity and discriminant validity are examined. Reliabilities of the factors are examined through the Cronbach's Alpha. Descriptive statistics are also applied to present the mean values and standard deviation. Partial least square (PLS) is employed to analyse the model and hypotheses testing, using the smartPLS 3.0

software package. The variance-based approach is used because PLS enforces lesser restrictions on distribution and sample size (Chin, Marcolin, & Newsted, 2003). PLS is an structure equation modelling approach which considers the measurement model and the theoretical structural model, simultaneously (Chin, 1998). Furthermore PLS is an effective method to resolve the issues of multicollinearity (Chin et al., 2003).

## 4. Results

### 4.1. Respondent's profile

Table 1 shows that 64.5% of the respondents are females (214 out of 330). This percentage is very close to the population distribution on the basis of gender, as according to the Labour Force Survey (2009) UK, 65% of front line hotel employees are females. In case of Age, 68.8% of respondents are between 21 and 30 years (227 out of 330). Majority of respondents (251), which are 76.1%, have 1–5 year work experience. Sixty-six per cent of the respondents hold a high school diploma (225). All the respondents are either front line employees (264) which are 80%, or front line managers (66) which are 20%. It is important to mention here that front line managers (usually known as shift managers in hotels) are leaders for their team members and they are employees as well at the same time, and they respond to the questionnaire as employee. This study includes front line managers, because they are also in direct contact with the customers. Furthermore all the respondents have worked with their current boss for more than 1 year, as this study does not include the respondents who have worked with their current boss for less than 1 year. Sixty-seven per cent respondents are working in 4\* hotels, and 33% are working in 5\* hotels. Details of respondent demographics are given in Table 1.

**Table 1.** Respondent's profile.

Sample size	330	Sample size	330
Age		Gender	
Less than 20 years	6.1%	Male	35.2%
21–30 years	68.8%	Female	64.5%
31–40 years	19.4%		
41–50 years	5.8%	Managerial level	
Years of working in hotel industry		Front line staff	80%
1–5 years	76.1%	Front line manager	20%
6–10 years	17.0%	Hotel category	
11–15 years	5.8%	Four star	67%
16–20 years	1.2%	Five star	33%
Education		Year of working with current boss	
Have not completed high school	9.1%	01–02 years	74.8%
High school diploma	68.2%	02–03 years	16.7%
College	17.0%	03–04 years	4.2%
Graduate degree	4.2%	More than 04 years	4.2%
Master's degree	1.2%		
Above Master	.3%		

**Table 2.** Convergent validity and reliability (N = 330).

Construct	Items	Factor loadings	Eigenvalue	AVE	CR	Cronbach's alpha
Leadership behaviours	Supportive	Sup1	3.81	.90	.94	.898
		Sup2				
		Sup3				
		Sup4				
	Intellectual stimulation	Is1	3.79	.89	.94	.887
		Is2				
		Is3				
		Is4				
	Rewarding	Rew1	2.83	.87	.93	.875
		Rew2				
		Rew3				
		Rew4				
	Providing vision	Pv1	2.86	.90	.94	.960
		Pv2				
		Pv3				
		Pv4				
	Mentoring	Ment1	2.87	.90	.94	.976
		Ment2				
		Ment3				
		Ment4				
	Delegating	Del1	2.87	.915	.948	.978
		Del2				
		Del3				
		Del4				
	Consulting	Con1	2.87	.915	.948	.97
		Con2				
		Con3				
		Con4				
	Innovative role modelling	Irm1	3.75	.883	.926	.957
		Irm2				
		Irm3				
		Irm4				
	Facilitating	Fac1	2.89	.933	.958	.977
		Fac2				
		Fac3				
		Fac4				
	Recognizing	Rec1	2.88	.923	.958	.978
		Rec2				
		Rec3				
		Rec4				
	Stimulating knowledge diffusion	Skd1	2.85	.903	.947	.974
		Skd2				
		Skd3				
		Skd4				

KOL	Supportive	.928				
	Intellectual stimulation	.951				
	Rewarding	.938				
	Providing vision	.946				
	Mentoring	.941				
	Delegating	.946				
	Consulting	.947				
	Innovative role modelling	.941				
		.932				
		.947				
KM behaviour	Facilitating	.939				
	Recognizing					
	Stimulating knowledge diffusion					
	KA1	.934	10.63	.885	.989	.97
	KA2	.947				
	KA3	.944				
	KT4	.937				
	KT5	.928				
	KT6	.916				
	KD7	.927				
Creative self-efficacy	KD8	.929				
	KD9	.933				
	KAP10	.936				
	KAP11	.941				
	KAP12	.937				
	CSE1	.961	2.78	.903	.991	.96
	CSE2	.974				
	CSE3	.956				
	AC1	.957	2.72	.894	.988	.97
	AC2	.967				
Affective commitment	AC3	.936				
	WE1	.958				
	WE2	.980	2.79	.880	.991	.96
Work engagement	WE3	.956				

## 4.2. Reliability, validity and descriptive statistics

Reliability is measured by the Cronbach's alpha. The Cronbach's alpha for every construct is more than .7, as shown in Table 2, which indicates a high level of reliability. According to George and Mallery (2003), the Cronbach's alpha more than .7 is acceptable. Factor analysis is conducted to establish convergent validity. According to Fornell and Larcker (1981) convergent validity is established if, all the factor loadings in the construct exceed .7, average variance extracted (AVE) should be more than .5 and the composite reliability (CR) should be more than .7. Table 2 indicates that every factor loading in each construct meets the minimum requirement. Factor loadings in the KOL construct ranges from .928 to .951, for KM behaviour loadings range from .947 to .954. In case of creative self-efficacy, affective commitment and work engagement loading ranges from .956 to .961, .936 to .957 and .956 to .980, respectively. AVE for every construct is also more than minimum requirement of .5, i.e. AVE of KOL is .887, for KM behaviour is .885, for creative self-efficacy AVE is .903, for affective commitment it is .894, and AVE for work engagement is .880. CR for every construct is also more than the minimum requirement of .7. Furthermore CR of each construct is greater than AVE. So the convergent validity is established.

This study also evaluates discriminant validity following the approach suggested by Fornell and Larcker (1981). According to this approach the AVE of each construct should be higher than the squared correlation between the constructs. Table 3 presents the square of correlation coefficient and AVE values, and AVE of each construct is higher than the squared correlation among any constructs. AVE values are given in bold face along the diagonals. So according to analysis shown in Table 3, discriminant validity is also established. Descriptive statistics are also presented in Table 3, indicating the mean values and the standard deviations.

Results of factors analysis, reliability and validity testing reflect the quality of the research model, furthermore the values of *R*-square also meet the minimum requirements, i.e. for affective commitment *R*-square is .651, for creative self-efficacy it is .464, for KM behaviour it is .767 and for work engagement *R*-square is .347.

## 4.3. Hypotheses testing

Path analysis is done using the partial least square method to test the proposed hypotheses. Table 4 and Figure 2 show the highlights of path analysis. Hypotheses are tested in number of steps. Firstly, the direct effects of KOL on KM behaviour, affective commitment, creative self-efficacy and work engagement are examined. Then direct effects of work engagement, creative self-efficacy and affective commitment on KM behaviour are given. Finally the effect of KOL, on KM behaviour, through the mediation of affective commitment, work engagement and creative self-efficacy are discussed.

**Table 3.** Discriminant validity and descriptive statistics (*N* = 330).

	Mean	Standard deviation	KOL	KMB	Creative self-efficacy	Affective commitment	Work engagement
KOL	4.43	1.7	<b>.887</b>				
KMB	4.42	1.6	.374***	<b>.885</b>			
Creative self-efficacy	4.51	1.66	.465***	.290***	<b>.903</b>		
Affective commitment	4.41	1.61	.651***	.467***	.558***	<b>.894</b>	
Work engagement	4.32	1.65	.346***	.200***	.650***	.401***	<b>.880</b>

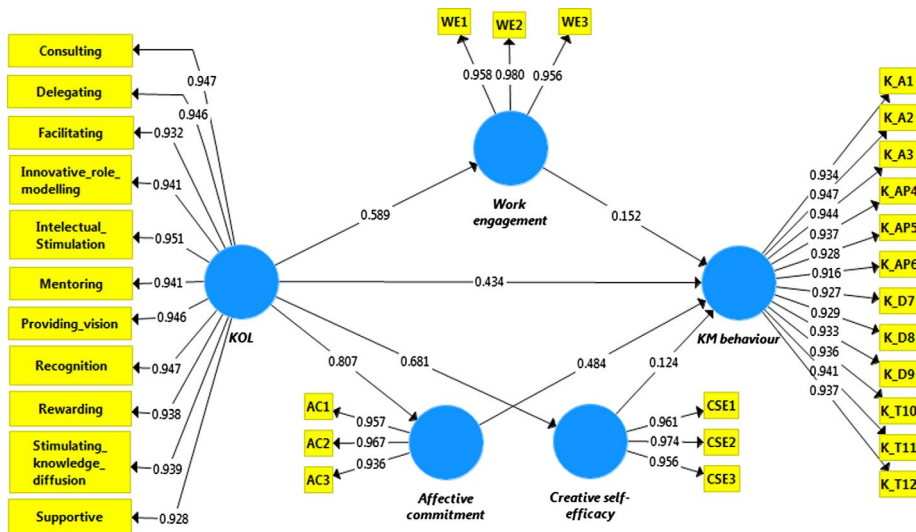
Note: AVE is given in boldface along the diagonals.  
\*\*\* *p* < .001.

**Table 4.** Path analysis.

Path		Direct effect (t-value)	Indirect effect (t-value)	Total effect (t-value)	Hypothesis	Result
KMB	←	.43** (5.24)	.38** (5.81)	.81** (26.72)	H1	Supported
AC	←	.80** (29.49)		.80** (28.56)	H2	Supported
CSE	←	.68** (16.71)		.68** (16.61)	H8	Supported
WE	←	.58** (12.35)		.58** (12.68)	H5	Supported
KMB	←	.11* (2.75)		.11* (12.50)	H6	Supported
KMB	←	.23** (3.78)		.68** (3.78)	H9	Supported
KMB	←	.83** (5.88)		.83** (5.88)	H3	Supported
KMB	←	.42** (5.03)	.39** (5.84)	.81** (27.41)	H4	Supported
KMB	←	.75* (18.75)	.06* (2.40)	.81** (2.35)	H7	Supported
KMB	←	.66** (3.54)	.15** (3.54)	.81** (26.75)	H10	Supported

Notes: KMB: Knowledge management behaviour; KOL: knowledge oriented leadership; AC: Affective commitment; WE: Work engagement; CSE = Creative self-efficacy.  
\*\* *p* < .005; \* *p* < .05.





**Figure 2.** PLS path analysis.

According to Table 4, there is a significant direct and positive effect of KOL on KM behaviour ( $\beta = .43, p < .005$ ), affective commitment ( $\beta = .80, p < .005$ ), creative self-efficacy ( $\beta = .68, p < .005$ ) and work engagement ( $\beta = .58, p < .005$ ). These results support H1, H2, H8 and H5. The results also acknowledge the positive and significant direct effect of employee work engagement ( $\beta = .11, p < .05$ ), creative self-efficacy ( $\beta = .23, p < .005$ ) and affective commitment ( $\beta = .83, p < .005$ ), on KM behaviour among employees. Therefore, H3, H6 and H9 are accepted. For the mediation analysis the Baron and Kenny's (1986) mediation analysis procedure is adopted as it is the most widely used procedure to examine the effect of a mediating variable, and it is suitable to use with the structural equation modelling technique (Hayes, 2009). In the analysis of mediating effects, p values are obtained through bootstrapping. Following this approach, initially, work engagement and creative self-efficacy are controlled, and affective commitment is entered into the model to test the mediating effect of affective commitment in the relationship of KOL and KM behaviour. The results show that there is significant indirect effect of KOL on KM behaviour through the mediation of affective commitment ( $\beta = .39, p < .005$ ). This finding supports H4. Then work engagement is entered into the model to test the mediation, and other two work attitudes are excluded. The results indicate that work engagement significantly mediates the interaction of KOL and KM behaviours ( $\beta = .06, p < .05$ ). This leads to the acceptance of H7. Similarly mediation of creative self-efficacy is investigated by controlling the effect of affective commitment and work engagement, according to the results in Table 4, creative self-efficacy also significantly mediates the relationship of KOL and KM behaviour among employees ( $\beta = .15, p < .005$ ) and based on these findings H10 is also accepted.

## 5. Discussion and conclusions

Leadership gives the direction to the employees in any organization to achieve the organizational goals (Dessler, 2001). This study sheds light on the leadership behaviours suitable for enhancing KM behaviour among employees of the hospitality sector. Leadership can facilitate the utilization of both tacit and explicit knowledge in the organization (Wang & Ahmed, 2007; Zollo & Winter, 2002).

The first objective of this study is to extend the construct of KOL developed by Donate and Sánchez de Pablo (2015) by incorporating additional leadership behaviours including supportive, consulting, delegating, stimulating knowledge diffusion, facilitating and mentoring. The results indicate a good model fit, and factor loadings are also acceptable, the results of factor analysis validate the construct. The extension in the KOL construct can improve the expected outcomes. Specifically, its impact on KM behaviour among employees can be further enhanced after adding these behaviours in the construct. The second objective of this study is to analyse the influence of KOL on KM behaviour among employees of the hospitality sector. According to the results of data analysis KOL appears to be a strong predictor of KM behaviour among employees. This finding supports H1, and suggests that, in order to enhance KM behaviour among employees, hospitality managers should adopt the given range of leadership behaviours, which are merged together to form the KOL style. This finding also validates the initial investigation of Donate and Sánchez de Pablo (2015), in a more comprehensive way. It means, if a leader adopts the KOL style, he/she can motivate employees to practice KM behaviour at the individual level. This argument is also consistent with the path goal theory of House (1971), which suggests that leaders can achieve desired employee outcomes by adapting different leadership behaviours. Furthermore, it validates the finding that human factors plays important role in enhancing KM (e.g. Prieto Pastor, Pérez Santana, & Martín Sierra, 2010; Yahiaoui, Chebbi, & Weber, 2016).

The third objective of this study is to analyse the mediating role of employee work attitudes including affective commitment, creative self-efficacy and work engagement, in the relationship of KOL and KM behaviour among employees. This study finds that affective commitment, creative self-efficacy and work engagement mediate the relationship of KOL and KM behaviour. This finding supports H4, H7 and H10, and it means that, though KOL has a strong direct effect on KM behaviour, but some of the effects are carried by employee affective commitment, creative self-efficacy and work engagement. If employees are committed, engaged in work and have creative self-efficacy, they are in better psychological settings to practice KM behaviour, as the results of data analysis support the direct effect of work attitudes as well i.e. acceptance of H3, H6 and H9. Furthermore, acceptance of H2, H5 and H8 indicates that KOL can stimulate these work attitudes. These findings are consistent with the literature that, normally behaviours are followed by attitudes, and at the work place, different attitudes are strong mediators

of different behaviours in relation to different variables (Harrison et al., 2006; Robbins et al., 2013)

Front line staff in hotels and other industries is in direct contact with the customers and receive information from them. If, a leader can motivate employees, to process these information, to gain tacit knowledge, and to share the tacit knowledge within the organization, in this way, such employees can increase the explicit knowledge of the organization. This study tells the hospitality managers how they can enhance the KM behaviour among front line employees, by proposing a framework of a leadership i.e. KOL. By adapting this leadership style they can enhance KM behaviour among employees and meet the challenges of increasing customer expectations, enhancing service quality, maintaining customer satisfaction and loyalty (Kim & Lee, 2013). For example, if a leader shows support by asking about employee's personal problems, this can enhance employee's affective commitment and loyalty, and then for the betterment of organization employee would share the knowledge and skills with other colleagues. Similarly when knowledge oriented leader stimulates open and transparent communication; informally communicates the issues, information, and knowledge to the employees; and arranges informal and formal meetings to share thoughts, such activities promote a suitable culture of KM behaviour, as culture can influence the work behaviours in organizations (Shamim & Abbasi, 2012). A knowledge oriented leader facilitates the employee by providing time and money to implement the ideas; and provides accurate information and knowledge wherever required by employees to perform their tasks. In this way such leaders increase the tendency of KM behaviour among employees, by facilitating the acquisition, and applications of knowledge. Furthermore, such leaders also create the thirst of knowledge among employees by providing a clear and motivating vision, and providing direction for future activities. They also promote KM behaviour by allowing subordinates to determine how to do their work and to decide about the means by which they strive for their objectives; by giving subordinates sufficient autonomy to determine relatively independently how to do a job; and by allowing the subordinates to alter the decision by themselves according to situation, and this argument is consistent with Shamim et al. (2017). This study also shows that which work attitude is more important for KM behaviour. The results show that affective commitment is the key attitude which can really facilitate the knowledge oriented leader in order to enhance the KM behaviour among employees.

Existing literature is also evident of positive outcomes of KM behaviour including higher employee participation, improved communication, efficient problem solving, better team performance, and improved financial performance (Alavi & Leidner, 2001), financial performance and competitiveness (Andreeva & Kianto, 2012), firm performance (Ferraresi, Quandt, dos Santos, & Frega, 2012; Palacios Marqués, José Garrigós Simón, & Simon, 2006), innovation capability (Sáenz, Aramburu, & Blanco, 2012), etc. So there are important implications of enhancing

KM behaviour in the organization, hence it becomes crucial to investigate the factors that can enhance KM in the organizations.

Future research can be conducted by using the longitudinal research design, and KOL can be tested in different environmental and cultural settings, i.e. different countries for the validation of the results. Furthermore this study is limited to the hospitality industry; in the future other industries can be considered to increase the generalizability of the findings. Review of literature reveals the lack of qualitative research on this topic. Future research should also focus on the qualitative methods of enquiry. Interviews of employees and senior management can be useful to explore the factors hindering employees to use the organizational resource i.e. ICTs to gain new knowledge, or share own knowledge. Another limitation of this study and future research consideration is the issue of the belonging of an employee to a specific team, or in this case, a specific hotel or a hotel chain. Future research should consider the influence of belonging to specific team or type of hotels. Additionally, the investigation of moderating effect of demographic factors is an important research area which should be considered in future research. Several studies use demographics as control variables. Following Donate and Sánchez de Pablo (2015), for the methodological parsimony, this study does not include the control variables, which can be considered in future research. Furthermore, moderating effect of work attitude is also an interesting line of research for future, as this study only discusses the mediating effect of work attitudes.

In conclusion, this study shows how KOL can help to enhance the KM behaviour among employees. It also discusses how work attitudes facilitate the relationship of KOL and KM behaviour. This study provides empirical evidences which have important implication for the managers and researchers in the hospitality sector. It also extends the body of knowledge by:

- Extending the construct of KOL, initially designed by Donate and Sánchez de Pablo (2015).
- Analysing the role of KOL in predicting KM behaviour, for the first time in the hospitality sector.
- Investigating creative self-efficacy, and work engagement as predictor of KM behaviour among employees of the hospitality sector.
- Discussing employee affective commitment, creative self-efficacy, and work engagement as mediators in the relationship of KOL and KM behaviour, for the first time in the hospitality sector.
- Connecting KOL, work attitudes and KM behaviour, this is not yet done in the hospitality and management literature.
- Hospitality researchers mainly discuss knowledge sharing, which is only one element of KM behaviour, other practices like documenting, and applying need further research. This study considers the whole construct of KM

behaviour which is the combination of acquiring, transferring, documenting, and applying the knowledge.

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## References

- Agarwala, T. (2003). Innovative human resource practices and organizational commitment: An empirical investigation. *The International Journal of Human Resource Management*, 14, 175–197.
- Agarwal, U. A., Datta, S., Blake, B. S., & Bhargava, S. (2012). Linking LMX, innovative work behaviour and turnover intentions. *Career Development International*, 17, 208–230.
- Alavi, M., & Leidner, D. (2001). Knowledge management and knowledge management systems: Conceptual foundations and research issues. *MIS Quarterly*, 25, 107–136.
- Alavi, M., & Tiwana, A. (2003). Knowledge management: The information technology dimension. In M. Easterby-Smith and M. A. Lyles (Eds.), *The Blackwell handbook of organizational learning and knowledge management* (pp. 104–121). Malden, MA: Blackwell.
- Allen, N., & Meyer, J. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology*, 63(1), 1–18.
- Amit, R., & Schoemaker, P. J. (1993). Strategic assets and organizational rent. *Strategic Management Journal*, 14, 33–46.
- Andreeva, T., & Kianto, A. (2012). Does knowledge management really matter? Linking knowledge management practices, competitiveness and economic performance. *Journal of Knowledge Management*, 16, 617–636.
- Argote, L., & Ingram, P. (2000). Knowledge transfer: A basis for competitive advantage in firms. *Organizational Behavior and Human Decision Processes*, 82, 150–169.
- Arora, R., & Rangnekar, S. (2015). The joint effects of personality and supervisory career mentoring in predicting occupational commitment. *Career Development International*, 20, 63–80.
- Aryee, S., Walumbwa, F. O., Zhou, Q., & Hartnell, C. A. (2012). Transformational leadership, innovative behavior, and task performance: Test of mediation and moderation processes. *Human Performance*, 25(1), 1–25.
- Ashman, I., & Winstanley, D. (2006). The ethics of organizational commitment. *Business Ethics: A European Review*, 15, 142–153.
- Avolio, B., Zhu, W., Koh, W., & Bhatia, P. (2004). Transformational leadership and organizational commitment: Mediating role of psychological empowerment and moderating role of structural distance. *Journal of Organizational Behavior*, 25, 951–968.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191.
- Bandura, A. (1997). *Self-efficacy: The Exercise of control*. New York, NY: Freeman.

- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173–1182.
- Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York, NY: The Free Press.
- Bass, B. M., & Avolio, B. J. (2004). *MLQ multifactor leadership questionnaire*. Redwood City, CA: Mind Garden.
- Bhatnagar, J. (2014). Mediator analysis in the management of innovation in Indian knowledge workers: The role of perceived supervisor support, psychological contract, reward and recognition and turnover intention. *The International Journal of Human Resource Management*, 25, 1395–1416.
- Birasnav, M. (2014). Knowledge management and organizational performance in the service industry: The role of transformational leadership beyond the effects of transactional leadership. *Journal of Business Research*, 67, 1622–1629.
- Bock, G. W., & Kim, Y. G. (2002). Breaking the myths of rewards: An exploratory study of attitudes about knowledge sharing. *Information Resources Management Journal*, 15, 14–21.
- Bock, G. W., Zmud, R. W., Kim, Y. G., & Lee, J. N. (2005). Behavioural intention formation in knowledge sharing: Examining the roles of extrinsic motivators, social psychological forces, and organizational climate. *MIS Quarterly*, 29, 87–111.
- Britt, T. W., Castro, C. A., & Adler, A. B. (2005). Self-engagement, stressors, and health: A longitudinal study. *Personality and Social Psychology Bulletin*, 31, 1475–1486.
- Brooks, J. L., & Seers, A. (1991). Predictors of organizational commitment: Variations across career stages. *Journal of Vocational Behavior*, 38, 53–64.
- Bryant, S. (2003). The role of transformational and transactional leadership in creating, sharing and exploiting organizational knowledge. *Journal of Leadership & Organizational Studies*, 9, 32–44.
- Cabrera, Á., Collins, W. C., & Salgado, J. F. (2006). Determinants of individual engagement in knowledge sharing. *The International Journal of Human Resource Management*, 17, 245–264.
- Cabrera, E. F., & Cabrera, A. (2005). Fostering knowledge sharing through people management practices. *The International Journal of Human Resource Management*, 16, 720–735.
- Camelo-Ordaz, C., García-Cruz, J., Sousa-Ginel, E., & Valle-Cabrera, R. (2011). The influence of human resource management on knowledge sharing and innovation in Spain: The mediating role of affective commitment. *The International Journal of Human Resource Management*, 22, 1442–1463.
- Chen, C. J., & Huang, J. W. (2009). Strategic human resource practices and innovation performance: The mediating role of knowledge management capacity. *Journal of Business Research*, 62, 104–114.
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. In G. A. Marcoulides (Ed.), *Modern methods for business research* (pp. 295–336). Mahwah, NJ: Lawrence Erlbaum Associates.
- Chin, W. W., Marcolin, B. L., & Newsted, P. R. (2003). A partial least squares latent variable modeling approach for measuring interaction effects: results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study. *Information Systems Research*, 14, 189–217.
- Connelly, C. E., Zweig, D., Webster, J., & Trougakos, J. P. (2012). Knowledge hiding in organizations. *Journal of Organizational Behavior*, 33, 64–88.
- Crawford, C. B., Gould, L. V., & Scott, R. F. (2003). Transformational leader as champion and techie: Implications for leadership educators. *Journal of Leadership Education*, 2(1), 1–2.
- Cummings, J. N. (2004). Work groups, structural diversity, and knowledge sharing in a global organization. *Management Science*, 50, 352–364.
- Darroch, J., & McNaughton, R. (2002). Examining the link between knowledge management practices and types of innovation. *Journal of Intellectual Capital*, 3, 210–222.



- De Jong, J. P., & Den, H. D. N. (2007). How leaders influence employees' innovative behaviour. *European Journal of Innovation Management*, 10, 41–64.
- Demerouti, E., Bakker, A. B., & Gevers, J. M. (2015). Job crafting and extra-role behavior: The role of work engagement and flourishing. *Journal of Vocational Behavior*, 91, 87–96.
- Dessler, G. (2001). *Management*. Upper Saddle River, NJ: Prentice-Hall.
- Donate, M. J., & Sánchez de Pablo, J. D. (2015). The role of knowledge-oriented leadership in knowledge management practices and innovation. *Journal of Business Research*, 68, 360–370.
- Ferraresi, A. A., Quandt, C. O., dos Santos, S. A., & Frega, J. R. (2012). Knowledge management and strategic orientation: Leveraging innovativeness and performance. *Journal of Knowledge Management*, 16, 688–701.
- Ferry, S. M. (2005). *Butlers and household managers: 21st century professionals* (5th ed.). North Charleston, SC: Book Surge.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18, 39–50.
- Franco, M., & Matos, P. G. (2015). Leadership styles in SMEs: a mixed-method approach. *International Entrepreneurship and Management Journal*, 11, 425–451.
- Garg, S., & Dhar, R. L. (2014). Effects of stress, LMX and perceived organizational support on service quality: Mediating effects of organizational commitment. *Journal of Hospitality and Tourism Management*, 21, 64–75.
- George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference*, 11.0 update (4th ed.). Boston, MA: Allyn & Bacon.
- Gist, M. E., & Mitchell, T. R. (1992). Self-efficacy: A theoretical analysis of its determinants and malleability. *Academy of Management Review*, 17, 183–211.
- Goo, J., & Huang, C. D. (2008). Facilitating relational governance through service level agreements in IT outsourcing: An application of the commitment–trust theory. *Decision Support Systems*, 46, 216–232.
- Grant, R. M. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal*, 17(S2), 109–122.
- Grant, R. M. (2002). *Contemporary strategy analysis. Concepts, techniques and applications* (4th ed.). Boston, MA: Blackwell.
- Hallin, C. A., & Marnburg, E. (2008). Knowledge management in the hospitality industry: A review of empirical research. *Tourism Management*, 29, 366–381.
- Hansen, M. T. (2002). Knowledge networks: Explaining effective knowledge sharing in multiunit companies. *Organization Science*, 13, 232–248.
- Harrison, D. A., Newman, D. A., & Roth, P. L. (2006). How important are job attitudes? Meta-analytic comparisons of integrative behavioral outcomes and time sequences. *Academy of Management Journal*, 49, 305–325.
- Hashim, K. F., & Tan, F. B. (2015). The mediating role of trust and commitment on members' continuous knowledge sharing intention: A commitment-trust theory perspective. *International Journal of Information Management*, 35, 145–151.
- Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs*, 76, 408–420.
- Hay & McBer. (2000). *The organization climate dimensions*. Boston, MA: Author.
- House, R. J. (1971). A path goal theory of leader effectiveness. *Administrative Science Quarterly*, 16, 321–339.
- Jayasingam, S., & Yong, J. R. (2013). Affective commitment among knowledge workers: The role of pay satisfaction and organization career management. *The International Journal of Human Resource Management*, 24, 3903–3920.
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33, 692–724.

- Kelloway, E. K., & Barling, J. (2000). Knowledge work as organizational behavior. *International Journal of Management Reviews*, 2, 287–304.
- Kim, T. T., & Lee, G. (2013). Hospitality employee knowledge-sharing behaviors in the relationship between goal orientations and service innovative behavior. *International Journal of Hospitality Management*, 34, 324–337.
- Kogut, B., & Zander, U. (1992). Knowledge of the firm, combinative capabilities, and the replication of technology. *Organization Science*, 3, 383–397.
- Kuo, N. T., Chang, K. C., Chen, M. C., & Hsu, C. L. (2012). Investigating the effect of service quality on customer post-purchasing behaviors in the hotel sector: The moderating role of service convenience. *Journal of Quality Assurance in Hospitality & Tourism*, 13, 212–234.
- Ladkin, A., & Weber, K. (2011). Leadership issues and challenges in the tourism industry: A Hong Kong perspective. *Asia Pacific Journal of Tourism Research*, 16, 273–288.
- Lee, K. J. (2014). Attitudinal dimensions of professionalism and service quality efficacy of frontline employees in hotels. *International Journal of Hospitality Management*, 41, 140–148.
- Levine, J. M., & Hogg, M. A. (2009). *Encyclopedia of group processes and intergroup relations*. Thousand Oaks, CA: Sage.
- Liang, D., Ma, Z., & Qi, L. (2013). Service quality and customer switching behavior in China's mobile phone service sector. *Journal of Business Research*, 66, 1161–1167.
- Lin, H. F. (2007). Knowledge sharing and firm innovation capability: An empirical study. *International Journal of Manpower*, 28, 315–332.
- Mahdi, O. R., Mohd, E. S. B. G., & Almsafir, M. K. (2014). Empirical study on the impact of leadership behavior on organizational commitment in plantation companies in Malaysia. *Procedia – Social and Behavioral Sciences*, 109, 1076–1087.
- March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science*, 2, 71–87.
- Matzler, K., & Mueller, J. (2011). Antecedents of knowledge sharing – Examining the influence of learning and performance orientation. *Journal of Economic Psychology*, 32, 317–329.
- Matzler, K., Renzl, B., Mooradian, T., von Krogh, G., & Mueller, J. (2011). Personality traits, affective commitment, documentation of knowledge, and knowledge sharing. *The International Journal of Human Resource Management*, 22, 296–310.
- Mauno, S., Kinnunen, U., & Ruokolainen, M. (2007). Job demands and resources as antecedents of work engagement: A longitudinal study. *Journal of Vocational Behavior*, 70, 149–171.
- Nguyen, H. N., & Mohamed, S. (2011). Leadership behaviors, organizational culture and knowledge management practices. *Journal of Management Development*, 30, 206–221.
- Nisula, A. M., & Kianto, A. (2016). The role of knowledge management practices in supporting employee capacity for improvisation. *The International Journal of Human Resource Management*, 27, 1920–1937.
- Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company*. New York, NY: Oxford University Press.
- Ottensbacher, M., Shaw, V., & Lockwood, A. (2006). An investigation of the factors affecting innovation performance in chain and independent hotels. *Journal of Quality Assurance in Hospitality & Tourism*, 6, 113–128.
- Palacios Marqués, D., José Garrigós Simón, F., & Simon, F. (2006). The effect of knowledge management practices on firm performance. *Journal of Knowledge Management*, 10, 143–156.
- Pittaway, L., Carmouche, R., & Chell, E. (1998). The way forward: Leadership research in the hospitality industry. *International Journal of Hospitality Management*, 17, 407–426.
- Politis, J. D. (2002). Transformational and transactional leadership enabling (disabling) knowledge acquisition of self-managed teams: The consequences for performance. *Leadership & Organization Development Journal*, 23, 186–197.

- Prieto Pastor, I. M., Pérez Santana, M. P., & Martín Sierra, C. (2010). Managing knowledge through human resource practices: Empirical examination on the Spanish automotive industry. *The International Journal of Human Resource Management*, 21, 2452–2467.
- Raffay, A. E., & Griffin, M. A. (2004). Dimensions of transformational leadership: Conceptual and empirical extensions. *The Leadership Quarterly*, 15, 329–354.
- Richman, A. (2006). Everyone wants an engaged workforce: How can you create it? *Work Span*, 49, 36–39.
- Rivkin, W., Diestel, S., & Schmidt, K. H. (2015). Affective commitment as a moderator of the adverse relationships between day-specific self-control demands and psychological well-being. *Journal of Vocational Behavior*, 88, 185–194.
- Robbins, S., Judge, T. A., Millett, B., & Boyle, M. (2013). *Organisational behaviour*. Frenchs Forest: Pearson Higher Education AU.
- Rowley, J. (2000). From learning organisation to knowledge entrepreneur. *Journal of Knowledge Management*, 4, 7–15.
- Sáenz, J., Aramburu, N., & Blanco, C. E. (2012). Knowledge sharing and innovation in Spanish and Colombian high tech firms. *Journal of Knowledge Management*, 16, 919–933.
- Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology*, 21, 600–619.
- Salanova, M., Agut, S., & Peiró, J. M. (2005). Linking organizational resources and work engagement to employee performance and customer loyalty: The mediation of service climate. *Journal of Applied Psychology*, 90, 1217–1227.
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, 25, 293–315.
- Schaufeli, W. B., Salanova, M., González-romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3, 71–92.
- Shamim, S., & Abbasi, A. S. (2012). Interethnic culture orientation of business managers in Pakistan. *Middle-East Journal of Scientific Research*, 12, 632–642.
- Shamim, S., Cang, S., & Yu, H. (2017). Supervisory orientation, employee goal orientation, and knowledge management among front line hotel employees. *International Journal of Hospitality Management*, 62, 21–32.
- Shamim, S., Cang, S., Yu, H., & Li, Y. (2016, July). Management approaches for Industry 4.0: A human resource management perspective. In *IEEE Congress on Evolutionary Computation (CEC)*, 2016 (pp. 5309–5316). Vancouver: IEEE.
- Sigala, M., & Chalkiti, K. (2015). Knowledge management, social media and employee creativity. *International Journal of Hospitality Management*, 45, 44–58.
- Singh, S. K. (2008). Role of leadership in knowledge management: A study. *Journal of Knowledge Management*, 12, 3–15.
- Slåtten, T. (2014). Determinants and effects of employee's creative self-efficacy on innovative activities. *International Journal of Quality and Service Sciences*, 6, 326–347.
- Slåtten, T., & Mehmetoglu, M. (2011a). Antecedents and effects of engaged frontline employees. *Managing Service Quality: An International Journal*, 21, 88–107.
- Slåtten, T., & Mehmetoglu, M. (2011b). What are the drivers for innovative behavior in frontline jobs? A study of the hospitality industry in Norway. *Journal of Human Resources in Hospitality & Tourism*, 10, 254–272.
- Suutari, V., & Riusala, K. (2001). Leadership styles in Central Eastern Europe: Experiences of Finnish expatriates in the Czech Republic, Hungary and Poland. *Scandinavian Journal of Management*, 17, 249–280.

- Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28, 1319–1350.
- Thompson, M., & Heron, P. (2006). Relational quality and innovative performance in R&D based science and technology firms. *Human Resource Management Journal*, 16, 28–47.
- Tierney, P., & Farmer, S. M. (2002). Creative self-efficacy: Its potential antecedents and relationship to creative performance. *Academy of Management Journal*, 45, 1137e1148.
- Tracey, J. B., & Hinkin, T. R. (1994). Transformational leaders in the hospitality industry. *Cornell Hotel and Restaurant Administration Quarterly*, 35, 18–24.
- Uriarte, F. A. (2008). *Introduction to knowledge management* (pp. 45–65). Jakarta: ASEAN Foundation.
- Van, D. D., Stam, D., Boersma, P., Windt, N., & Alkema, J. (2014). Same difference? Exploring the differential mechanisms linking servant leadership and transformational leadership to follower outcomes. *The Leadership Quarterly*, 25, 544–562.
- Van, D. H. B., & Hendrix, L. (2004). *Eagerness and willingness to share: The relevance of different attitudes towards knowledge sharing*. Paper presented at the Fifth European Conference on Organizational Knowledge, Learning and Capabilities, Innsbruck, Austria.
- Von Krogh, G., Nonaka, I., & Rechsteiner, L. (2012). Leadership in organizational knowledge creation: A review and framework. *Journal of Management Studies*, 49, 240–277.
- Wang, C. L., & Ahmed, P. K. (2007). Dynamic capabilities: A review and research agenda. *International Journal of Management Reviews*, 9, 31–51.
- Wang, J., Lee-Davies, L., Kakabadse, N., & Xie, Z. (2011). Leader characteristics and styles in the SMEs of the People's Republic of China during the global financial crisis. *Strategic Change*, 20, 17–30.
- Williams, P., & Sullivan, H. (2011). Lessons in leadership for learning and knowledge management in multi-organisational settings. *International Journal of Leadership in Public Services*, 7, 6–20.
- Wood, R. E., & Bandura, A. (1989). Impact of conceptions of ability on self-regulatory mechanisms and complex decision making. *Journal of Personality and Social Psychology*, 56, 407–415.
- Yahiaoui, D., Chebbi, H., & Weber, Y. (2016). HR practices, context and knowledge transfer in M&A. *The International Journal of Human Resource Management*, 27, 1–21.
- Yahya, S., & Goh, W. K. (2002). Managing human resources toward achieving knowledge management. *Journal of Knowledge Management*, 6, 457–468.
- Yang, J. T. (2004). Job-related knowledge sharing: Comparative case studies. *Journal of Knowledge Management*, 8, 118–126.
- Yang, J. T. (2010). Antecedents and consequences of knowledge sharing in international tourist hotels. *International Journal of Hospitality Management*, 29, 42–52.
- Yang, J. T., & Wan, C. S. (2004). Advancing organizational effectiveness and knowledge management implementation. *Tourism Management*, 25, 593–601.
- Yeh, C. M. (2013). Tourism involvement, work engagement and job satisfaction among frontline hotel employees. *Annals of Tourism Research*, 42, 214–239.
- Yen, Y. R. (2009). An empirical analysis of relationship commitment and trust in virtual programmer community. *International Journal of Computers*, 3, 171–180.
- Zack, M. (1999). Managing codified knowledge. *California Management Review*, 40, 45–58.
- Zack, M., McKeen, J., & Singh, S. (2009). Knowledge management and organizational performance: An exploratory analysis. *Journal of Knowledge Management*, 13, 392–409.
- Zollo, M., & Winter, S. G. (2002). Deliberate learning and the evolution of dynamic capabilities. *Organization Science*, 13, 339–351.

## Appendix: Questionnaire

### Leadership behaviours

Answer question using following scale: How often your leader do the following  
1 = never; 2 = rarely; 3 = sometimes; 4 = often; 5 = regularly; 6 = a lot; 7 = always  
Leadership behaviours

#### Supportive

- |     |   |   |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|---|---|
| (1) | Encourages employees to talk to him/her about personal problems             | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (2) | Devotes a great deal of time to employees' job security and fringe benefits | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (3) | Frequently demonstrates concern for employees                               | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (4) | Believes subordinates' feelings are as important as the task at hand        | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

#### Intellectual stimulation

- |     |  |   |   |   |   |   |   |   |
|-----|--|---|---|---|---|---|---|---|
| (5) | Examines situations critically asking if they are suitable                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (6) | Looks for alternative ways to solve problems                                 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (7) | Gets others to look at problems from different angles                        | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (8) | Suggests new alternatives, ways of carrying out and complementing activities | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

#### Rewarding

- |      |   |   |   |   |   |   |   |   |
|------|---|---|---|---|---|---|---|---|
| (9)  | Gives support to others in exchange for their efforts                                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (10) | Makes it clear what each one can expect to receive when performance targets are reached | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (11) | Expresses satisfaction when others correspond to his expectations                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

#### Providing vision

- |      |  |   |   |   |   |   |   |   |
|------|--|---|---|---|---|---|---|---|
| (12) | Articulates a positive and motivating vision of the future   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (13) | Communicating an explicit vision on the role and preferred types of innovation, providing directions for future activities | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (14) | Tells us that what our organization want to become in longer run   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

#### Mentoring

- |      |  |   |   |   |   |   |   |   |
|------|--|---|---|---|---|---|---|---|
| (15) | Invests time in teaching and training                                | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (16) | Share knowledge and experience frequently with juniors and newcomers | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (17) | Assist subordinates in day to day activities                         | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

#### Delegating

- |      |  |   |   |   |   |   |   |   |
|------|--|---|---|---|---|---|---|---|
| (18) | Allows subordinates to determine how to do their work and to decide about the means by which they strive for their objectives. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (19) | Giving subordinates sufficient autonomy to determine relatively independently how to do a job                                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (20) | Allow subordinates to alter the decision by themselves according to situation  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

#### Consulting

- |      |   |   |   |   |   |   |   |   |
|------|---|---|---|---|---|---|---|---|
| (21) | Consults with subordinates and seeks the approval of the workgroup.   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (22) | Checks with people before initiating changes that may affect them, incorporating their ideas and suggestions in decisions | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (23) | Your superiors facilitate consensus building in work-group sessions   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

#### Innovative role modelling

- |      |  |   |   |   |   |   |   |   |
|------|--|---|---|---|---|---|---|---|
| (24) | Do problem solving in creative, clever Ways  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (25) | Continuously adjust the decisions as external environment changes  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (26) | Being an example of innovative behaviour i.e. exploring opportunities, championing ideas and putting efforts in implementation of ideas. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (27) | Looking for ways to do things better and improve results.  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

#### Facilitating

- |      |  |   |   |   |   |   |   |   |
|------|--|---|---|---|---|---|---|---|
| (28) | Provide time and money to implement the ideas  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (29) | Provide accurate information and knowledge wherever required by employees to perform their tasks | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

- |  |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|
| (30) Makes your job smooth and easier by arranging necessary resources to get the job done | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--|---|---|---|---|---|---|---|

*Recognizing*

- |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|
| (31) Showing appreciation for (innovative) performances   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (32) Pays attention when someone makes a suggestion.  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (33) Give a praise (compliments), awards (e.g. certificates of achievement, private budgets, increased autonomy) and ceremonies (e.g. public speeches and celebrations) when employees do something innovative. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

*Stimulating knowledge diffusion*

- |  |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|
| (34) Stimulates open and transparent communication                                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (35) Informally communicates the issues, information, and knowledge to the employees | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (36) Arrange informal and formal meetings to share thoughts                          | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

**KM behaviour**

- |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|
| (1) When I need certain knowledge, I ask my colleagues about it   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (2) I like to be informed of what my colleagues know  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (3) When one of my colleagues is good at something, I ask him/her to teach me how to do it                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (4) When I have learned something new, I tell my colleagues about it  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (5) I share information I have with my colleagues   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (6) I regularly tell my colleagues what I am doing  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (7) How often you document knowledge that you created   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (8) How often you document the knowledge you share within your team (e.g. reports, manuals, e-mails, fax)?  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (9) How often you convert your knowledge into codified procedures   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (10) I incorporate the suggestions acquired by the customers, colleagues, into product, process, or service | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (11) My knowledge helps me to serve the customer in a better way  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (12) My knowledge helps me in day to day problem solving activities   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Please indicate your level of agreement with the following statements

1 = strongly disagree; 2 = disagree; 3 = slightly disagree; 4 = moderate; 5 = slightly agree; 6 = agree; 7 = strongly agree

*Creative self-efficacy*

- |  |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|
| (1) I believe I could have handled a more challenging job than the one I will be doing | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (2) I have confidence in my ability to solve problems creatively                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (3) I feel that I am good at generating novel ideas                                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

*Affective commitment*

- |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|
| (1) I feel like 'part of the family' at my organization           | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (2) This organization has a great deal of personal meaning for me | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (3) I feel a strong sense of belonging to my organization         | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

*Work engagement*

- |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|
| (1) I view my job as being meaningful             | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (2) I like to work intensely                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (3) I often become absorbed in the job I am doing | 1 | 2 | 3 | 4 | 5 | 6 | 7 |