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Article

Establishing a knowledge-based organisation: Lesson learnt and KM challenges in Malaysian organisation

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Establishing a knowledge-based organisation

Lesson learnt and KM challenges in Malaysian organisation

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Abstract

Purpose – Studies on knowledge management (KM) and its effect on organisational innovation and firm performance have been carried out and subsequently proven. However, the consequence is that KM programmes did not achieve the expected results that they were designed for. Considering the issue mentioned above, a KM shortfall and its underlying challenges seem to exist. The purpose of this study is to assess the current practices of KM, lesson learnt and KM challenges in Malaysian organisations from various types of industries.

Design/methodology/approach – The study was conducted with information gathered through a focus group of managers with different hierarchical levels, different types of companies, from multinational corporations to state organisations. This inductive approach was adopted to gain a grounded, rich, local and lived understanding of the process based on the case studies of eight Malaysian organisations that represent the major industries in the Malaysian economic sectors. Additionally, the information gathered was further supported with secondary data that consisted of a case study report of the eight organisations on their KM programmes' implementation.

Findings – The overall results showed that the practice of KM in Malaysian organisations typically displays the following two challenges: (1) process and infrastructure issues and (2) cultural issues. Organisational culture remains the main obstacles faced by most of the organisations in adopting KM. As a lesson learnt, managers should also focus on the after-effect of KM programmes on soft human issues such as employees' satisfaction and well-being.

Research limitations/implications – The authors believe that further research is required considering KM challenges and employee satisfaction or well-being to improve KM performance among different groups of employees through such methods as research survey.

Practical implications – The findings can act as a guideline for any organisations to address when adopting KM. Identification of the KM challenges provides the basis for organisations to attach considerable importance to employees' satisfaction and well-being to enhance the chances of successful KM programmes. Managers should take a proactive approach in creating an appropriate atmosphere to cultivate KM culture among employees.

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Originality/value – This study offers not only challenges in implementing and sustaining an effective KM system within organisations but also promotes moving the KM literature to the next stage where there is a lack of concern on KM implementation effect on “soft” human issues from the perspectives of employees. This is due to organisations tend to eradicate people’s performance in terms of employee well-being and satisfaction and to the author’s knowledge, this has been largely unexplored in previous research.

Keywords Knowledge management, Well-being, Employee satisfaction, KM challenges

Paper type Case study

1. Introduction

In this era of globalisation, knowledge of the economy has gained significant importance. The current economy is more knowledge-intensive than the past. Triggered by technological innovation, knowledge has become an asset to be maximised, managed and developed to achieve competitive advantage, in line with the industrial revolution towards Industry 4.0 (Lasi, Fettke, Kemper, Feld, & Hoffmann, 2014; Yuksel & Sener, 2017). Humans will be the central focus of Industry 4.0. To fulfil the needs and demands for current economy development, leveraging human governance through knowledge management (KM) practices or processes is critical.

Malaysian managers acknowledge KM to be a core part of an organisational business strategy. They recognise the purposeful identification of goals that KM can play an important role in improving organisational performance (Batra & Anand, 2014; Mustapa & Mahmood, 2016). At the organisational level, a survey on Malaysian organisations indicated that they performed moderately well in some part of the KM process such as knowledge sharing and knowledge utilisation but were weak in actions related to generating knowledge (Batra & Anand, 2014). Additionally, there are issues and challenges faced by many organisations in the application and deployment of KM (Gupta, Iyer, & Aronson, 2000; Hashim, Talib, & Alamen, 2014; Henttonen, Kianto, & Ritala, 2016). To achieve the organisations’ goal in implementing successful and effective KM, they need to cope with KM challenges as well as maintain the KM enablers such as organisational culture, structure, information technology (IT) infrastructure, managerial support and human resources.

Previous studies on KM challenges have been studied extensively by KM researchers. Past studies by Wong (2005) have proposed a comprehensive model of 11 factors for implementing KM in small- and medium-sized enterprises (SMEs) which can assist organisations to deal with KM challenges. The study was conducted by reviewing the existing studies based on theoretical justification. This was then used to empirically assess the proposed 11 factors at a smaller scale (18 per cent response rate) through a research survey. However, the results were not systematically being examined and investigated empirically in the SME sector. A recent study by Yap and Lock (2017) has outlined that the major organisational and cultural issue hampering the implementation of KM practices is lack of motivation, bureaucracy and hierarchy, and the vital issue for people concerns with the lack of trust. However, the study is limited to only small and medium-sized construction enterprises in Malaysia, which makes generalisation challenging. According to Batra and Anand (2014) in the review of studies of KM trends in China, Malaysia and India, findings revealed that the Malaysian government and private companies are still searching for solutions of difficulties associated with KM practices, especially knowledge-sharing issues. This proves that more comprehensive findings related to the KM challenges are urgently in need of an organisation.

To date, key challenges for implementing KM in the various sectors have not been systematically examined and investigated. Many of the existing studies have derived their

set from a large company perspective only or have very much focused on SMEs. Thus, KM has not really been well-designed to meet the needs of organisation's generalisation. This study has proposed 14 concepts and two themes (process and infrastructure issues and cultural issues) of KM challenges, which are believed to be more appropriate for any organisation. It has improved on initial studies by integrating insights and ideas drawn from the eight selected companies as well as adding some new issues. This study highlights the importance of employee satisfaction and well-being from the KM perspective. This is because various studies had proved that KM in any organisation can influence employee job satisfaction (Arif & Rahman, 2018; Kianto, Vanhala, & Heilmann, 2016). Moreover, previous studies on KM challenges rarely mentioned the importance of human issues, especially employee satisfaction and well-being when adopting KM. Thus, this study aims to provide an integrative perspective of KM challenges and identification of human issues on employees' satisfaction and well-being in implementing KM in various organisational sectors.

2. Literature review

2.1 Knowledge management

Knowledge is often defined as a "justified personal belief" (King, 2009). Knowledge is also defined as a fluid mix of framed experiences, values, contextual information and expert insights that provide a framework for evaluating and incorporating new experiences and information (Davenport & Prusak, 1998). KM is among the popular topics currently discussed in academia and the business world. KM is a systematic process of organisation in acquiring, organising and communicating employees' knowledge so that knowledge can be shared and exchanged with other employees to make use of it to increase the effectiveness and productivity at work (Alavi & Leidner, 1999). Furthermore, Kianto et al. (2016) defined KM as a process of identifying and influencing the collective knowledge that contributes to organisational competitive advantage that will assist an organisation to compete in its operating market.

From the business perspective, KM is defined as a "collaborative and integrated approach to the creation, capture, organisation, access and use of an enterprise's intellectual assets" (Chung, Cooke, Seaton, & Ding, 2016). Previous research on KM practices had been carried out extensively, and KM practices have been considered as the established practices in large organisations in the current business world. Large and multinational companies such as Canon, Honda, Toyota, PriceWaterhouseCoopers, TX Instruments and HP have recognised the need and importance of KM for their businesses since way before (Nunes, Annansingh, Eaglestone, & Wakefield, 2006). Large organisations are more aware and have a better understanding of their business operations; they tend to respond quickly to customers, are able to create a new market, develop a new product rapidly and can handle emerging technologies (Nonaka & Takeuchi, 1995). This demonstrates that effective KM practices would contribute to organisational success, with regard to both organisations' performance and productivity.

2.2 Knowledge management process and enablers

Previous research on KM process had been carried out extensively. A KM process can be defined as the most effective method to be used in the process of converting the tacit or implicit knowledge of individuals or groups within the organisations into valuable intellectual assets for the organisations (Ho, Hsieh, & Hung, 2014). Doz (2006) identified knowledge creation and knowledge sharing as a KM process. Mahesh and Suresh (2009) argued that knowledge process consists of knowledge exchanging and knowledge nurturing

and harvesting. Further, [Dysvik, Buch, and Kuvaas \(2015\)](#) discussed knowledge donating and knowledge collecting. Nevertheless, the KM process has been discussed in earlier KM literature that refers to [Davenport and Prusak \(1998\)](#) who categorised the KM process into knowledge generation (includes knowledge acquisition and creation), knowledge codification, knowledge coordination and knowledge transfer. However, knowledge retention was not being stated. Therefore, [Kianto et al. \(2016\)](#) recommended that the KM process focus on five main practices that include knowledge acquisition, knowledge sharing, knowledge creation, knowledge codification and knowledge retention. The five practices cover all the necessary activities required in the KM process ([Hashim et al., 2014](#)). The five main KM processes are crucial for an organisation to maintain a balance between KM processes and KM enablers. For a successful KM implementation, the organisation itself should be physically prepared as well as logistically capable. These capabilities are termed as KM enablers ([Razi, Karim, & Mohamed, 2013](#)). In fact, KM enablers are considered as the elements to measure the readiness of organisations to execute KM processes ([Jandaghi, Irani, Jandaghi, Mousavi, & Davoodavabi, 2014](#)).

[Ho et al. \(2014\)](#) specified that organisation's culture is the most important success factor for organisational knowledge. In this context, collaboration, trust, learning exercise, innovation and expertise are the important aspects of organisational culture. Besides that, organisational structure depending on the characteristics of organisation (e.g. centralisation and formalisation) is also an important KM enabler that gives insight into an organisation's capabilities in implementing KM. Additionally, [Razi et al. \(2013\)](#) highlighted that the keys to successful implementation of the KM process depend on not only organisational culture and structure but also IT infrastructure. However, [Jandaghi et al. \(2014\)](#) added another two KM enablers, namely, managerial initiatives and human resources, and subsequently derived a conclusion that KM enabler models should include organisational culture, organisational structure, IT infrastructure, managerial initiatives and human resources. The result of their study on the ranking of KM enablers among university academics members, staff and students revealed that the organisational culture was ranked first as an enabler in the KM process in universities, whereas IT infrastructure was shown to have the least important role as a KM enabler.

2.3 Knowledge management challenges

Until now, organisations face various challenges in implementing and sustaining an effective KM system within them. The key issues and challenges of KM that have been discussed by many scholars are closely related to KM enablers. The KM challenges are well documented in the KM literature. However, past studies were limited to either large organisations or SMEs, which makes the generalisation challenging. [Alavi and Leidner \(1999\)](#) highlighted that managers are very concerned primarily about organisational culture, managerial issues and informational issues in the implementation of KM. Cultural issues are associated with implications of change management, knowledge-sharing issues and the ability to convince the organisation's stakeholder. Managerial issues are related to the value of KM in an organisation and the urgency for metrics to exhibit such value. Furthermore, the concern on informational issues is connected to the effective ways of managing new knowledge, to avoid information overload or inaccuracy, as well as the challenges of configuring an effective technical and technological infrastructure ([Razi et al., 2013](#)).

In addition to technological infrastructure, organisations are aware that technology is an important factor for the success of KM programmes, but the emerging technologies such as email, Web portal and others remain as one of the reasons for the poor performance of KM in some organisations ([Nonaka & Takeuchi, 1995](#)). [Davenport and Prusak \(1998\)](#) had

discussed the intersection between an individual and KM with the use of emerging technology. It concludes that the key is not the use of specific technologies but the changing behaviour of the individual and the culture of their groups that make the KM process challenging. Moreover, there are other KM challenges, such as the problem of creating shared understanding, putting communities in charge and issues in improving information overload (Fischer & Ostwald, 2001). Additionally, dealing with tacit knowledge and IT utilisation, cultural complexity, attention to human resources, organisational structures and increasing business competition have been identified as KM challenges faced by global business today (Kalkan, 2005).

3. Method

3.1 Inductive approach

To understand KM practices in Malaysian organisations, an inductive approach is adopted, focusing on how organisations implement KM programmes. This approach was selected to gain a grounded, rich, local and lived understanding of the process based on the case studies pertaining to the eight selected organisations. Inductive research aims to study a phenomenon in the context and makes no declarations about statistical generalisability (Cunha, Vieira, Rego, & Clegg, 2018). The study was conducted with information gathered through a focus group of managers with different hierarchical levels, different types of companies, from multinational corporations to state organisations. The information gathered was further supported with secondary data that consisted of a report on a case study issued by “Knowledge Management Exchange Conference 2018” (KM Exchange, 2018). Methodologically, we collected information from people who actually managed and were involved in KM functions of their organisations. The managers at these firms were members of the KM project or senior managers who met periodically to share experiences and leverage each other’s expertise. The managers were selected as the participants because these individuals refer to such participants as being “information-rich” (Thornhill, Saunders, & Lewis, 2009).

A focus group was conducted during the KM Exchange Conference in 2018 for discussing on their organisation’s KM case study. They had also demonstrated the KM practices/systems so that we could see the features of the KM implementation. Two researchers participated in the focus group interview and took detailed notes. A semi-structured question was asked during the focus group interview concerning the respondents’ experience with KM, the success of KM programmes, KM challenges, implication of KM and future planning for KM projects. The length of the discussion was about 1 h to 1.5 h. All discussion was taped and later transcribed.

This study aims to construct explanatory patterns and ideas from the data via a bottom-up approach, with no preconceptions. Therefore, an interpretive approach leads the research from first-order concepts obtained directly from the focus group and case descriptions to deeper, more theoretical and conceptually abstract interpretations (Cunha et al., 2018; Van Maanen, 1979)

3.2 Data collection and analysis

The research subjects comprise eight organisations that represent the major industries in the Malaysian economic sector: banking (1), oil and gas (2), agency of youth and sport (1), statutory body (1), construction (1), consulting and research firm (1) and higher education industry (1). A brief detail of the eight selected organisations and their KM practices/functions is provided in the appendix. Organisations were selected in such a way that diversity was present, and a formal KM function had been established within the

organisation. Hence, different types of companies, from multinational corporations to state organisations, were selected. The organisations were large multidivisional firms with national or global operations who had created formal KM functions within them.

The information obtained from the focus group interview was used to construct a first-order analysis (Van Maanen, 1979) which involved the identification of the common and recurring issues on KM challenges that have been pointed out by different respondents. These common KM challenges were then aggregated into 14 first-order concepts. The 14 concepts have been considered and aggregated as close as possible to the “informants’ own language” (Cunha et al., 2018). The focus group process revealed persistent themes and recurring patterns concerning KM challenges, which could be observed from all of the organisations’ experiences in implementing the KM programmes. Throughout the progress with analysis of the transcripts and supported by the case description report, the initial patterns were modified and conceptual relationships between first-order concepts were considered. These relationships led to the creation of new thematic categories that were not evident in first-order concepts. From second-order analysis, four main themes emerged: (1.1) insufficient planning process, (1.2) low technology adoption, (2.1) lack of employees’ support and (2.2) inadequate awareness in change management.

The third step of the analysis was developing a higher level interpretation of the second-order themes that resulted in two overarching dimensions (Gioia, Corley, & Hamilton, 2013). By using conceptual logics, a profound understanding of the topic was highlighted and a higher level of abstraction could be achieved from the two identifiable dimensions. The four second-order themes were then grouped in pairs into two overarching dimensions:

- (1) process and infrastructure issues; and
- (2) cultural issues.

4. Findings and discussion

Figure 1 shows the two interpretive orders of the methodological approach. The first column displays the first-order concepts. The second column represents the main themes that articulate the first-order concepts in a theoretically integrated manner. Finally, the last column depicts the dimensions that resulted from the other two orders of analysis (Gioia et al., 2013). The dimensions in the final column are the last step of the analysis and comprise the overarching causes of KM challenges in Malaysian organisations (Cunha et al., 2018).

4.1 Process and infrastructure issues

Two recurring themes were related to the insufficient planning process and low technology adoption among the organisations.

Second-order theme: (1.1) Insufficient planning process. The planning process is critical in implementing the KM programme, and the design of the KM programme must be firmly anchored to the organisation’s business needs. From the case analysis, the result led to the first-order themes whereby there was a lack of quality time management, ineffective resource utilisation and poor communication that were faced by several Malaysian organisations. These challenges contribute to the overarching dimension of process and infrastructure issues. A few organisations reported that they have difficulties in the transformation process of the new policies, processes and systems in dealing with the KM programme. The KM programme needs to be designed firmly and meet the organisations’ business needs, as expressed by one of the studied organisations. Thus, KM practices and

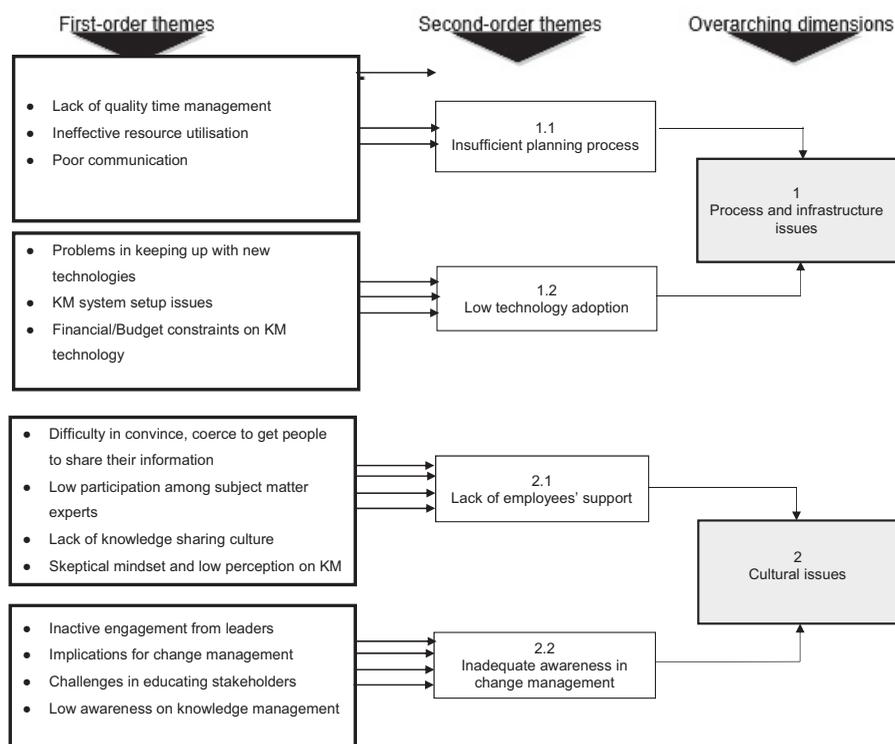


Figure 1.
The two
interpretative orders
emerging from the
data

processes should be embedded into daily activities that contribute to the desired outcomes of the organisations involved.

In addition, when an organisation implements a KM programme without strategic planning and end-to-end process flow, it creates problems when the organisation enters a KM project phase (i.e. content acquisition, organising and managing the content and publishing and disseminating the content), as well as having a difficulty in getting a common agreement from all parties. This plays a crucial step in ensuring the initiative to be conducted effectively and successfully. Poor communication among the parties in the organisation would lead to difficulty in reaching a mutual agreement in the relevant issues. Some organisations reported that awareness and understanding of KM are still an issue. This shows that effective communications are critical, and it is a non-stop process for KM programmes. A number of organisations reported that ineffective utilisation of resources is one of the challenges prior to the KM approach. Some organisations faced difficulties in trying to have quality time management where getting time to look at the data collected, editing and presenting it to the relevant departments are considered as challenging. Further, they require more time to divide tasks between implementing the KM initiatives and setting up the KPIs and targets as requested by the top management.

The above evidence indicates that organisations may improve KM programmes by first communicating the definition and awareness of what KM is all about so that messages would be delivered more effectively to all organisational members. [Kalkan \(2005\)](#) highlighted that at the beginning of the KM initiatives, organisations will face challenges to

define what constitutes knowledge in the organisation, because this will support the development of further initiatives of KM programmes. Therefore, an effective communication process such as exchanging dialogues or initiating more social interactions is encouraged in organisations. Kumar, Singh, and Haleem (2014) reported that use of inappropriate KM strategies contributes to the failure of the KM programme. Other than that, the organisations themselves should be prepared with effective resources planning to ensure maximum utilisation of their resources (i.e. human resources and physical and logistic capabilities) for the successful implementation of KM programmes (Razi et al., 2013). Additionally, the success of the KM programme mostly depends on the effectiveness of the KM process and KM strategy (Chan & Mohamed, 2017). The KM processes (acquiring, sharing, creation, codification and retention) should lead to changes in the performance of the organisations' practices and policies as well as the creation of new ideas, whereas the KM strategy should incorporate the needs and activities that meet the organisations' objectives.

Second-order theme: (1.2) Low technology adoption. In the present business environment, almost all organisations depend on IT, and due to this reason, technology has become a powerful enabler for the successful implementation of a KM programme (Chan & Mohamed, 2017). However, this becomes a challenge for Malaysian organisations, especially in dealing with new technologies and determining the IT/infrastructure requirement. It was reported by many Malaysian organisations that IT initiatives are very important in the KM strategy. This involves the establishment of "Knowledge Management Centre" and the transformation of the library towards a new centre of KM excellence. This centre is a knowledge hub to capture strategic knowledge asset and operational information. However, they experienced issues in setting up the KM system. The issues include formulating the user and system requirement to the vendor, and it is a challenge to engage a reputable vendor for the completion of the project.

For some organisations, it is challenging when it comes to implementing a digital solution for the KM programme, whereby it is necessary to ensure the correctness and quality of the information from the very beginning in designing the solution. Convincing top management and stakeholders is not an easy task; hence, this causes financial and budget constraints to implement KM technology. Because of this financial challenge, organisations need to be equipped with excellent marketing teams to gain sponsorships and investments from the relevant parties; otherwise, regular reporting to top management on the system performance is crucial to demonstrate the benefits of the system. This gives restriction to the organisations in keeping up with the new technologies. Organisations should consider the relevancy of implementing technology in supporting the KM programme. It is noted that higher usage of IT promotes knowledge sharing and it improves teamwork among the organisations' employees (Razi et al., 2013). Kumar et al. (2014) supported that the use of information technology supports and encourages dialogues and knowledge sharing among employees. It is well known that technology helps in KM; however, organisations should recognise that the success factors in implementing KM programmes do not rely solely on only technologies but on both IT and the creative minds of employees, which are an excellent combination in managing the organisational knowledge.

4.2 Cultural issues

The majority of the organisations have reported that the main obstacles for KM are the organisational culture. Two frequent themes, which are lack of employees' support and unclear change management awareness, are paired because they refer to organisational culture issues.

Second-order theme: (2.1) Lack of employees' support. From the emerging data, organisations reported that they faced difficulties to convince and coerce the people within them to share the relevant information. Employees' support and engagement, as a part of the organisational culture, should be an important element to be considered in implementing KM programmes because "KM cannot be separated from the business goal and cannot be effectively addressed without addressing organisational culture", as reported by one of the biggest bank institutions in Malaysia. Another public service institution stated that to strengthen the sustainability and longevity of the KM programme, they face challenges in terms of low participation among subject-matter experts, retention of knowledge (tacit knowledge) and a lack of a knowledge-sharing culture. "People are reluctant to share knowledge with one another", as stated by some organisations. Employees are not aware of the importance of KM programmes, and they have sceptical mindset and low perception towards KM, even though town hall sessions and trainings were conducted. The aim of the training sessions is to encourage employees to share knowledge and to instil commitment among them. Unfortunately, cultural issues remain the biggest challenge for Malaysian organisations. Employees' perception of KM is limited, and cross-departmental sharing and access to knowledge are also a challenge for organisations. Some organisations reported that "it was hard to get commitment from some departments; therefore, we focused on the departments that gave full cooperation first and made them as examples and told the success story". The aim is to create competitiveness among the departments in developing a knowledge-sharing culture.

The above evidence proved that building an effective culture within an organisation is a crucial requirement for effective KM, as claimed by previous scholars (Chan & Mohamed, 2017; Kumar et al., 2014; Razi et al., 2013; Razi & Habibullah, 2017). As such, trust among individuals is crucial in facilitating the creation of effective culture, whereby individual willingness to support each other can be achievable through collaborations and a sense of faith among the individuals (Ho et al., 2014). In this context, human resources department's role is crucial because this particular department has the ability to encourage the culture of sharing knowledge among employees (Kalkan, 2005). Hence, effective human resources management policies must be implemented. This involves the building of meaningful relationship and trust within the organisations, and effective training and education on KM programmes may further support KM initiatives (Kumar et al., 2014). The key source of knowledge and creativity comes from the employees. Therefore, investing in employees should be balanced with investment in technology for a successful KM implementation.

Second-order theme: (2.2) Inadequate awareness in change management. The awareness of change management is critical for Malaysian organisations to ensure that there is a sense of commitment to implement the difficult transformation in terms of new human capital policies, processes and systems. As claimed by some organisations, the change management should be driven by their leadership. This aligned with Chan and Mohamed (2017), who emphasised that leadership plays the key role in the management of organisational knowledge. Lack of leadership commitment to knowledge sharing can lead to organisational failure to leverage knowledge. It becomes challenging when the individuals (i.e. management team) are not aware of the importance of KM. This requires a comprehensive change management plan or else it could stunt the growth of KM initiatives. Besides that, there have been challenges in educating stakeholders, i.e. management/sponsor and the impacted users who resisted the adoption of KM programmes and the need to adapt them into their work processes with a new work style. This shows that the organisations need to first be communicated on the urgent need for change and a change management programme is necessary for KM initiatives (Razi et al., 2013; Razi & Habibullah, 2017).

4.3 Lesson learnt

Organisations have addressed both human and organisational factors as KM challenges. However, it can be seen that there is a lack of concern on KM implementation effect on “soft” human issues from the perspective of individual employees (Kianto et al., 2016). Malaysian organisations tend to focus more on organisational performance metrics to review the KM performance, whereby it eradicates people’s performance in terms of employee well-being and satisfaction. In fact, the success of KM cannot be guaranteed from the physical resources itself (i.e. IT infrastructure) but by the combination of both physical and human resources (Jandaghi et al., 2014). Since the knowledge-sharing process relies on each individual, the readiness of organisational members in accepting, executing and maintaining the KM programmes should be evaluated. Organisations should demonstrate KM as an innovative organisational practice that can promote employees’ satisfaction and improve the well-being of employees at work.

5. Research implications

Even though research on KM challenges has been widely explored, it is extremely difficult to understand comprehensively on what are the challenges that hinder many organisations to achieve their targeted performance of KM function. This study contributes to KM, particularly in two areas. First, this study provides a comprehensive understanding of emerging issues of KM practices from diverse organisations. Information was gathered from different types of organisations and industries; hence, their views represent high generalisability. The findings of this study may benefit from a focus on the possible links between KM challenges and a firm’s strategy in dealing with KM implementation. This will reduce organisation’s competitiveness from a knowledge resource perspective.

The second contribution of this study is to offer a first step towards establishing an understanding of the after-effect of KM programmes towards soft human issues such as employees’ satisfaction and well-being. Previous research seems to focus very much on the effect of KM on organisational performance and eradicates the effect on people’s performance. Despite highlighting the KM challenges faced by many organisations, this study identified that the emerging KM challenges continue to exist because organisations are not aware of the importance of soft human issues (i.e. employees’ satisfaction and well-being). A study done by Kianto et al. (2016) has proven that there is an impact of KM practices on employee job satisfaction. Therefore, this study adds to the existing body of KM concerning not only the KM challenges in an organisation but also the importance of soft human issues that need to be tackled by organisations when implementing KM function.

In terms of practical implications, the new findings from this study may convince the top management of the organisations to attach considerable importance to employees’ satisfaction and well-being to enhance the organisations’ KM practices and ultimately achieve their goals. This is mainly because the success of KM is not solely relying on the physical resources but on the combination of physical and human resources. Employees that represent as organisation human resources play a vital role in any organisation because the source of knowledge embedded in every individual and this resource are the intellectual assets for every organisation.

Moreover, the results showed that organisational culture is the main KM challenge faced by many Malaysian organisations. This is aligned with previous studies that emphasised that organisational culture is the primary concern by the managers, especially over the implications for change management (Alavi & Leidner, 1999). Besides that, Gupta et al. (2000) stated that organisational culture is associated with the problem of how to convince

and get people to share their information. This notifies that managers should not only encourage employees to take an active part in KM practices but also try to help them blend in with the KM process within the organisation. Without building an appropriate organisational culture within an organisation, there is no point in improving the KM practices. Managers or practitioners should pay more attention and make initiatives to create an appropriate atmosphere to cultivate KM culture among employees.

6. Conclusion

The result of this study illustrates that KM in Malaysian organisations has room for improvement, driven by its leadership. The main obstacle towards the implementation of KM is organisational culture, whereby building an effective culture to promote knowledge sharing and encourage collaboration is a crucial requirement for the success of KM programmes and implementing a digital solution through the usage of IT is another requirement for KM. It should be noted that it is important to develop a strong culture of change management; a balanced focus on governance, people, process and infrastructure is crucial for effective KM programmes.

Despite its novel findings, this study has the following limitations and several avenues that may be answered or overcome by future research. Firstly, primary participants in this study are largely the middle-level and high-level managers who have experience in managing individual and organisational knowledge, and thus, the sample may be less than completely representative. In addition, future research should include different employee groups (i.e. executive levels and general employees) to continue exploration in understanding the KM practice, the effect of KM and its challenges, which may impact research results.

Secondly, it should be noted that as the study design was primarily exploratory research, whereby it used to gain an understanding of the problems from the focus group discussion and supported by the case study report only. Therefore, it provides insights into the problem and develops ideas for potential quantitative research for future works. It is recommended that future research employs the quantitative method such as using a questionnaire survey to check on the validity and reliability of the ideas. It may impact research results in discovering a new finding.

Another limitation of the study relates to the lack of an empirical analysis of KM work performance, employee satisfaction and employee well-being. As such, much more research remains to be done. Potential fruitful avenues for future research include adding closely related issues such as examining the effect of KM practices and challenges on work performance, employee satisfaction and employee well-being could also prove valuable.

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Appendix. Research methodology

The orientation of the research project was to enrich our understanding of KM projects and the activities that are associated with KM success and the KM challenges through KM practices in each organisation. Details of the organisations and the KM projects in the organisation are provided below. The names of the organisations are masked to preserve confidentiality.

Organisation one

This is an institution of bank with staff strength of over 2,800. It supervises and regulated banking and financial institutions in Malaysia to develop a modern and solid Malaysian financial system. The bank recognises that knowledge becomes a key driver of performance, and this drive towards KM strategy implementation. In the KM strategy, three key elements have been focused:

- (1) formulation of the vision and the KM programme;
- (2) establishment of knowledge culture; and
- (3) improvement of KM practices.

Various KM tools have been applied to work processes; KM has been embedded into the bank's shared values and leadership competencies, and a centre of excellence in knowledge has been established. Despite some of the successful KM programmes, KM in the bank has room for improvement in dealing with KM challenges. The main obstacle towards KM is organisational culture, and change management is another important element to consider.

Organisation two

It is the largest technical public organisation that is responsible for overseeing the development, implementation and maintenance of public infrastructure projects. It comprises of 20 divisions and 15 states offices with staff strength over 23,000 staff. The aim is to ensure that critical information and knowledge are readily made available to all personnel to accelerate learning, quality and service improvement, greater innovation capacity and attainment of business goals. KM programmes started with cultivating and implementing the Communities of Practice (CoP) and Virtual Communities of Practice (VCoP), as a proven knowledge-intensive technique to encourage creative discussions and open dialogues among the technical professionals. Since the first introduction of CoPs and VCoPs, there are a number of key challenges faced by the company to ensure the sustainability and longevity of the KM programme.

Organisation three

This is a global university of Islamic finance set up by one of the Malaysian banks that offers postgraduate study on Islamic finance. A KM centre has been established as a powerhouse to achieve its mission as global reference point for Islamic Finance knowledge and knowledge leader. A knowledge repository centre as part of KM project initiatives was developed to manage the company's intellectual contributions effectively and provide discovery and access to Islamic finance knowledge produced by the expertise and company's leaders. There are several challenges and lessons learned in realising the KM initiative.

Organisation four

It is an oil and gas company with 92,000 employees operating in more than 70 countries. Major company activities involved in vertically integrated oil and gas player, the upstream and downstream activities. KM solution has been deployed to implement KM in a diverse organisation with a standard toolkit and processes to deliver cost savings and unlock greater value from company's assets. Four key objectives of KM were developed, i.e. connecting people to people, connecting people to validated content, enhancing collaboration and capturing and sharing lessons learnt. KM elements that were a mix of IT tools and processes were developed to achieve the four key objectives.

Organisation five

It is Malaysia's national oil and gas company that has exploration and production ventures with a strength of 48,000 employees operating in several countries across the globe. The aim is to manage knowledge of the business activities (upstream and downstream), governance and performance, corporate and communities of practice. The company established its KM ICT team to ensure that KM enablers can assist to achieve the KM objectives. The team started the KM project by communicating the urgent need for change to the company's stakeholder. Change management programmes were then launched, and the KM team still survived and needed to stay relevant for the success of the first sprint of the KM project.

Organisation six

It is a statutory body that is responsible for regulating and developing Malaysian capital markets. KM was being recognised because of the symptoms of knowledge loss experienced by the company. Losing knowledge and expertise make an organisation unable to sustain its stable processes. Knowledge visibility was also another issue faced by the company. The company implements the KM audit methodology as a starter to create a knowledge assets inventory using a software tool. There is a lot more to do in dealing with KM challenges, and with the knowledge audit as the key for the KM initiatives, the company continues to work on strengthening the KM model in addressing the core KM challenges in the organisation.

Organisation seven

It is an agency under Youth and Sports Council that plays a role as the main function of national sports and is responsible for improving the performance of athletes. KM initiative started when the agency realises that the knowledge movement from many projects, programmes, processes and activities has not been well saved and managed properly. These valuable pieces of knowledge need to be leveraged, acquired and integrated well. Therefore, the KM team start to foster the KM value to the sports library project. A content management project was developed followed by KM principles being applied in the agency's project. Despite the challenges faced by the agency, KM is still an ongoing process.

Organisation eight

It is a consulting and research firm that focused on knowledge, learning and innovation. It also assists organisations to develop bespoke KM strategies, frameworks, roadmaps and programmes. The KM team has been part of the company's policy and strategy. The KM strategy prioritised on information and document management as an initial phase to support improved document and knowledge sharing across the organisation. Additionally, as a consulting firm, the KM team continues to provide knowledge mapping workshops in assisting their clients, which showed that they were serious about the KM projects. To date, the company is still active in conducting KM workshops.

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