

A Case Study on Knowledge Management Implementation in the Banking Sector – Issues and Challenges

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Abstract—Knowledge management has been increasingly seen as one of the most important practices for organisations to improve its efficiency, effectiveness and long-term competitive advantage. This study aims to uncover the issues and challenges faced by banks, in particular, embarking on an enterprise-wide knowledge management implementation. The findings of this case study research is based upon a banking institution (hereafter referred to as XM Bank) rated among the top ten largest banks in Malaysia. The findings, lesson learned and observations were derived after a series of in-depth interviews with key management representatives. The interviews were followed by a survey against a larger population of the bank. The analysis of the findings from the interviews and survey led to an extrapolation of six key lessons learned. The six key lessons learned is a descriptive guideline for knowledge management implementation efforts in the banking sector in particular and organisations in general. Although the study is based on a specific application in one institution (bank), it provides useful insights and awareness of issues and challenges banks, and other institutions might face when implementing knowledge management.

Keywords—Knowledge Management (KM), knowledge management implementation, knowledge workers, knowledge asset.

I. INTRODUCTION

Knowledge management is nothing new. For hundreds of years, owners of family businesses have passed their commercial wisdom on to their children; master artisans have painstakingly taught their trades to apprentices, and workers have exchanged ideas and know-how on the job [1]. The ability to manage knowledge is becoming increasingly more crucial in today's knowledge economy [1]. But it was not until the 1990s that chief executive started talking about knowledge management [2]. As the foundation of industrialised economies has shifted from natural resources to intellectual assets, executives have been compelled to

examine the knowledge underlying their businesses and how that knowledge is elicited and subsequently leveraged [3]. Therefore, it is not surprising that knowledge management is seen as a key driver of organisational performance and a critical tool for organisational survival, competitiveness and profitability [4, 5]. Given that Knowledge Management involves getting the right information, to the right person, at the right time and cost, leveraging both tacit and explicit knowledge systematically, and using the information delivered to enable informed decision making is crucial in any organisation intending to implement Knowledge Management initiative [3, 6].

For the past 20 over the years, banks have been actively automating their manual processes [7] and have resulted in the creation of many information systems even within one bank. While these information systems were able to help banks to manage their processes and resources better, they also have created some setbacks [8]. Despite the advent of data science in being able to analyse and predict trends by extrapolating historical data, studies have shown that a large number of expertise and knowledge assets in an organisation resides within subject matter experts [9]. Traditional methods of managing human capital, innovation, and learning have proven ineffective as they more often than not fail to contribute to an organisation success [10-12]. The statements above further augment the need for effective knowledge management implementation in organisations. Realizing the important role strategic knowledge asset in galvanising effective decision making, banks are conversely trying to capture and manage data and turn it into organisational knowledge or business intelligence [13]. However, the lack of process definition, classification, a comprehensive knowledge management implementation model among others have restricted such endeavours [8].

Suffice to say that banks, in general, are on the threshold of embarking on comprehensive KM implementation strategies to improve the way they manage their knowledge [8]. However, such strategies are far more complex as one would imagine given the presence of legacy systems and the vast amount of confidential data inundating most banks

today. Therefore, a holistic KM implementation is deemed necessary so that KM initiatives does not disrupt existing work processes, but adds value to existing banking operations leading to improved productivity, decision making and better overall clientele services and customer experience.

II. KNOWLEDGE MANAGEMENT IMPLEMENTATION STUDIES IN MALAYSIA

Although the study is focused towards KM implementation exercise in a banking institution based in Malaysia, it is perhaps crucial to understand how KM implementation fare across other organisations in Malaysia. This section, therefore, discusses the experiences, findings and shortcomings of various KM implementation across some sectors in Malaysia.

A. Higher Education

Suhaimee and Bakar [14] conducted a study to understand the currents status of KM implementation in the Malaysian Public Institution of Higher Education (PIHE). The findings of the study indicate that implementation of KM in the Malaysian PIHE is still in the intermediate level with only 47.1% or an equivalent of 8 universities have started the implementation process of KM. The study observed that no specific methodology had been used in formulating an effective KM Strategic within the Malaysian public institution of Higher Education. The study recommended that specific methodologies and guidelines have to be developed that contain descriptions about implementing Knowledge Management in the Malaysian Public Institution of Higher Education (PIHE).

B. Small and Medium Industries (SMEs)

Tan [15] reported that KM did impact SMEs to a large extent. According to Tan, this is evident from the case studies reported although the maturity of KM adoption in SMEs in the country remains suspect. The same was true about the institutions KMS implementations.

C. Healthcare

Borosan et al. [16] reported on KM and KMS implementation in the health sector in Malaysia. The study espoused various facets of knowledge sharing in particular and KM implementation in general. The study also reported a positive attitude of KM implementation in the country among healthcare practitioners and caregivers. KMS implementation in the institutions examined were also at its infancy.

D. MSC Status Companies

Tasmin [17] examined KM and KMS adoption among companies registered under the Multimedia Super Corridor. He reported that many of the organisations studies and some of KM implementation in place. He argued however, that such implementation were devoid of a clear structure and long-term to implementation KM. Tasmin also reported that most institutions examined did not implement a dedicated KMS and had relied on tradition content management system applications to implement its KM initiatives.

E. Tertiary Education

Yusoff et al. [19] undertook an in-depth case study to examine its state of KM and KMS adoptions. The studied espoused that while the institution did attempt to implement best practices throughout its organisation; little was done to systematically engage subject matter experts. Furthermore, Yusoff reported that there were no evidence of organisation-wide knowledge sharing initiatives in place. The systems in place were based on content management system that served as a repository of vast explicit knowledge defeating the purpose of the top-level management in wanting to incorporate best practices.

F. Research Institutes

Ramin et al. [20] carried an explorative study to understand the state of knowledge management implementation amongst research institutions in the country. Ramin reported that the organisation studied had placed excessive importance on the role of technology in achieving its' KM goals ignoring other salient aspects like people and aligning KM initiatives against organisation goals. Thus, it is not surprising to note that these organisations have reported that its KM initiatives not met its aim. In short, the organisations that took part in the explorative study have failed to realise the potential of KM to elicit knowledge asset among its employees and subject matter experts.

III. KM IMPLEMENTATION GLOBALLY

A. Generic

Albers [2] in his seminal article espoused a set of best practices to increase the success KM implementation efforts. The guideline include involving upper management to emphasize the systems importance (leadership involvement), fostering a cooperative environment for sharing knowledge (culture), initiating policies that reward those who share knowledge (processes), appoint someone to manage and update the system (champion/KM manager), make sure employees get something from it (reward) and develop an information system that is easy to use (KM system/solution). It must be noted many researchers and practitioners have long used the guidelines from Albers in structuring their respective KM implementation around the world. Invariably the findings from Albers further underlines the complexity and efforts involved in a typical KM implementation effort.

B. Banking

Kridan and Goulding [21] proposed a model to describe the knowledge flow that they refer to as Knowledge Creation Progress which they argue applies to banks in particular. The model Kridan and Goulding [21] illustrates the knowledge creation process flow. The authors argue that environmental forces play an important role in an organisation to maintain its competitive edge. They add that through a combination of people and technology, backed by the right "environment" shall is the panacea to facilitate a continuous flow of knowledge creation for a bank's products and service offerings. The outcome of the knowledge creation process according to the authors are knowledge creation, knowledge retention and knowledge sharing. Although the model in Fig. 1 provides a holistic description

Researchers Cebi and Gozlu [13] carried out similar research across five banks in Turkey. The results of their study showed that the KM implementation provided various albeit interrelated benefits to the banks participated in the study. The five banks in the study were reported to have demonstrated the effective and efficient utilisation of its resources. However, similar to the study by Kridan and Goulding, the outcomes discussed by Cebi and Gozlu were abstract rendering them unusable for most intents and purposes.

Bhosale [8] on the other hand proposed what has been termed as Banking Knowledge Management Model. The author espoused a set of steps to initiate KM in banks that included the creation of mind-set, identify knowledge areas, acquiring knowledge, developing knowledge, making available knowledge and defining knowledge pools. While the Banking Knowledge Management Model by Bhosale is the first real attempt to infuse KM in banks, it lacks the specific strategies required to facilitate knowledge sharing which is undoubtedly the most important facet in a KM implementation effort.

IV. AIMS OF THE STUDY

Bankers are increasingly finding themselves on the hot seat and almost constantly under pressure to deliver. While they are aware of the enormous amount of responsibility cast upon them, they appear to be under the grip of fear in taking a crucial decision involving financial or structural ramifications [22]. Knowledge management must be able to address such issues and challenges in finding solutions to encourage decisions and redefine staff lapses and accountability, to be more objective without being too much subjective. Prevailing research findings on KM implementation have been largely limited to success stories and lessons learnt from banks in other countries. Given the dearth of research on KM implementation issues and challenges particularly in Malaysian banks, this study, therefore, seeks to uncover the same.

V. CASE STUDY

XM Bank (actual name withheld) is a Malaysian bank based in Kuala Lumpur incorporated almost 30 years ago. The bank serves both local and international clientele. As one of the top-ten largest bank in Malaysia, it serves the interest of both private and public sectors by providing banking and credit insurance products and services in addition to advisory services. XM Bank was a logical choice for the purpose of the case study as it expressed its intention to embark on an enterprise-wide KM implementation. Due to the broad nature of the bank's operations, the implementation of KM in this case study was limited to the following areas namely risk management, customer relationship management, management and marketing, performance evaluation. Given that the areas above constitute a significant part of a typical bank's core operations, for most intents and purposes the study can consider to have encompassed the entire bank's operations. Preliminary discussion with management representatives revealed the leadership's commitment to embark on an organisation wide KM initiative. KM activities undertaken in XM Bank is currently on a piecemeal basis mostly undertaken through informal knowledge sharing

sessions organised by the Human Resource Department. Realising the same, XM Bank commissioned the study to understand its own readiness to embark on a KM implementation and expressed its desire that the findings of the study will uncover issues and challenges that the bank must overcome.

VI. METHODOLOGY

The study employed a mixed-mode research method. This method was chosen given the need to obtain a holistic perspective and representative of employees in the bank in regards to their knowledge management implementation. The bank was chosen due to bank expression of interest to engage in KM activities. Due to the same reason, the research embarked on a series of in-depth interviews involving key management representatives. The interviews were followed by a survey against a larger population of the bank.

Semi-structured questions were posed to selected interviewees from XM Bank. The interview questions were based on an established KM tool [23]. Since the study was set out to understand the issues and challenges of KM implementation in a banking institution, senior management personnel were therefore consulted. Three interviews were conducted with key management representatives, i.e. Information Technology Manager, Human Resources Manager and the Operations Manager. Their responses were triangulated to garner a more holistic understanding of KM implementation factors. The KM implementation factors were analysed and categorised into three broad categories (themes) namely KM critical success factors, KM infrastructure, and knowledge network levels. KM critical success factors involved an examination of incentives and rewards systems, KM awareness, and knowledge sharing culture, leadership support in KM and KM measurement and metrics to report KM benefits. KM infrastructure, on the other hand, included systems, structures, processes and strategy to support KM whereas knowledge network levels examined knowledge sharing and utilisation at four level namely inter-organisation, organisation, team and individual.

Subsequently, a survey was administered against selected representatives of the XM Bank. Given that the sampling frame of 170 employees, the sample size of 34 returned responses was therefore deemed sufficient. The survey instrument (Knowledge Management Baseline Assessment Result [24]) is routinely used by organisations to assess its KM readiness.

VII. FINDINGS

The findings from the interviews provided a basis to triangulate the findings obtained from the survey data. To facilitate an objective understanding of the findings (interviews and survey) common themes were used to analyse the findings of the interviews and survey data. The identified themes were categorised by KM critical success factors, KM infrastructure, and knowledge network levels. From the analysis of the of the first theme – Critical Success Factor, it was observed that while the interviewees unanimously agreed that leadership support was a prime driver in XM Bank, the respondents were in total disagreement. The respondents at

large felt that there was not enough support rendered to them to facilitate KM activities as reflected in Fig. 3 below.

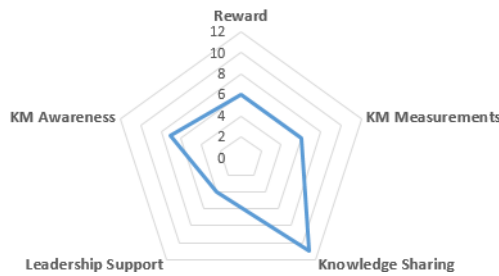


Fig. 3. Analysis of KM Critical Success Factors from Survey Respondents

Many respondents, however, felt that knowledge sharing is a critical success factor in KM implementation and felt that employees were already engaging in knowledge sharing activities in the bank. This view yet again differs from the interviewees who felt that knowledge sharing culture was lacking in the bank. On the other hand, both the interviewees and the respondents agreed that there are no established knowledge measurement methods or practices in the bank.

The analysis of the second theme – KM Infrastructure revealed some interesting insights shown in Fig. 4 below. The respondents felt that there were inadequate KM strategies and structure in place to support KM implementation. The views from the respondents are in contrast from the views espoused from the interviewees who felt that XM Bank had rolled out adequate initiatives to foster KM activities across the bank. It was indeed surprising to note that the employees of the bank felt that there were established KM processes and systems in

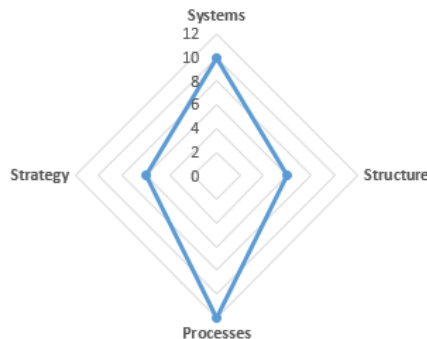


Fig. 4. Analysis of KM Infrastructure from Survey Respondents

place to support KM implementation although XM Bank is in its early stages of KM adoption. It was indeed surprising to note that the employees of the bank felt that there were established KM processes and systems in place to support KM implementation although XM Bank is in its early stages of KM adoption.

The analysis of the third theme – Knowledge Network Levels revealed an almost consistent response between the interviewees and the respondents. The findings from the respondents as illustrated in Fig. 5 below revealed that inter-organisation knowledge is relatively low. This goes to suggest that little knowledge sharing exist across the organisation. Interestingly enough significant number of respondents felt that individual knowledge and team knowledge was rather high which justifies the business case on the need for KM to be implemented in XM Bank to elicit,

disseminate and leverage on key organisational knowledge from subject matter experts (individual knowledge).

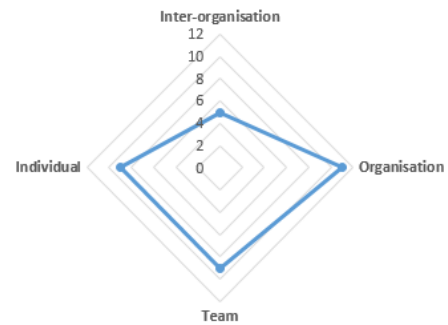


Fig. 5. Knowledge Networking Levels

VIII. KEY LESSONS LEARNED AND OBSERVATIONS

The analysis of the findings from the interviews and survey as discussed in the preceding section led to an extrapolation of six key lessons learned discussed below.

A. Building Communities of Practice

The ability to handle and communicate knowledge has been acknowledged as one of the strengths of XM Bank as reported by the respondents in Fig. 5. It is important to note that while the teams and individuals form the backbone of any organisation, its sum total is far greater than the strengths of each subject matter expert. Communication across fields of practice are complex, and they rely on the ability to develop a common frame to translate complex knowledge in a way that makes sense between different fields of practice. Therefore, this calls for the formation of Communities of Practices that do not currently exist in XM Bank.

B. Reward and Recognition

The findings from the survey have shown that employees, in general, are not keen on sharing information or knowledge with others as they feel it is not important. Others feel that sharing of knowledge is cumbersome and not part of their job scope. To address this, employers could generate means to channel rewards or recognition to its employees (knowledge workers) that actively shares knowledge to fellow knowledge workers. The reward and recognition system in place must cater towards intrinsic and extrinsic needs aimed at encouraging and motivating subject matter experts to engage in more knowledge sharing activities. By initiating this, organisations can eliminate the “what’s in for me syndrome” which is typical for most organisations embarking on enterprise-wide KM initiatives for the first time.

C. Technology Roles in Knowledge Sharing

There is arguably a symbiotic relationship between Information Technology (IT) and Knowledge Management (KM). IT makes the connection possible, which enables knowledge sharing, but IT alone does not motivate the practice of knowledge sharing. This was echoed by the interviewees given the limitation of existing IT infrastructure in XM Bank in achieving intended KM objectives. This views was share by other authors who reported that implementing technology while disregarding other factors which motivate knowledge sharing will only reinforce existing negative

behaviour [25, 26]. In short, technology design for KM requires careful attention to the social, organisation and managerial factors which will eventually drive certain key behaviours expected as part of KM implementation.

D. Cultivating Knowledge-sharing Behaviour

Respondents felt that they often see knowledge sharing as a time-consuming activity and often fail to see the benefits that knowledge sharing could bring to the organisation due to “What’s in it for me” mindset. To mitigate this, organisations must appeal to the needs of individuals’ self-interest while balancing the interest of the organisation as a whole.

E. Managerial Context of Knowledge-sharing Behaviour

Leadership is the process by which one individual influences the behaviours, attitudes and thoughts of others. Senior Management plays a critical role in leading knowledge-sharing efforts and communicating the importance of knowledge sharing in addition to practising what they preach. The interviewees echoed the importance of managerial context of knowledge-sharing although they opinionated that it could have been given further importance.

F. Social Context of Knowledge Sharing Behaviour

Research has shown that employees are five times more inclined to turn to co-workers and colleagues for answers to their problems rather than other sources of information [27]. While the personal contact is a fundamental part of knowledge sharing, “too often knowledge transfer has been confined to such concepts as improved access, electronic communication, and document repositories.” [28]. The aforementioned findings in the literature has been supported by the findings of the case study in part given specific strategies undertaken by individuals to increase spontaneous exchanges between themselves. This is similar to the views espoused by Smith & McKeen [29] that factors that could increase knowledge sharing between employees include:

- Introducing new joiners to key people in the organization
- Developing a team-based structure on which a sense of community can be built
- Rotating key staff throughout the organization to build networks
- Locating work areas so they intersect with others
- Cultivating an atmosphere of informality where people feel comfortable asking others for help.

The findings showed that employees of XM Bank must have a strong awareness with an acute understanding of KM. Additionally, it would be wise to engage a coach to facilitate a knowledge sharing efforts within the organisation. Employees must be made to realise that their accumulated tacit knowledge are recognised and valued within an organisation and most importantly, by their co-workers especially new joiners. As for the individual, he or she must realise that the commitment to continual improvement is paramount. Meanwhile for teams, even though they may be self-managed and capable of learning from each other, there are still barriers that need to be overcome. Typical barriers include unclear or unproductive communication; different approaches result in the individual being untrusting of others,

no consensus decision, not understand each other roles and most importantly, not aligned to a common goal.

IX. CONCLUSION

KM initiatives should not merely be seen as an attempt to alleviate some of the problems of poor control and use of knowledge in the face of increasing complexity but also as a means for banks to have better leverage on what it does best. The findings, lesson learned and key observations derived from in-depth interviews followed by a survey provided the researchers a holistic yet a micro-outlook of various issues.

Similar to other findings [7, 21], this study uncovered a key observation - that issues and challenges of KM in the banking industry do not significantly differ from other industries but the increasing complexity of bank’s environment makes its implementation more difficult. Additionally, the six key lessons learned derived from the analysis of the findings were Building Communities of Practice, Reward and Recognition, Technology Roles in Knowledge Sharing, Cultivating Knowledge-sharing Behaviour, Managerial Context of Knowledge-sharing Behaviour and Social Context of Knowledge Sharing Behaviour. Although XM Bank is committed to managing its information and ultimately its knowledge assets, there is yet a concerted effort to involve its knowledge workers in a systemic manner. This observation does not come as a surprise because although banks, in general, have realised the crucial role of KM in gaining competitive advantage, they have at largely been laggards in the implementation of KM. This is partly due to banks’ general conservative predisposition including “a wait and see attitude” of what will be the true benefits and pitfalls from early KM adopters. This trend is consistent with a survey from International Data Corporation’s (IDC) [30] and is more prevalent among large banks. With greater awareness of the importance upon KM, IDC expects this situation to change in the near future, and KM implementation may well become a priority if a not a requirement in the banking sector.

The application of the six key lessons learned espoused in this study is aimed at banks to address issues and challenges when implementing KM. Although the study is based on a specific application in one institution (bank), it provides useful insights of issues and challenges banks in particular, and other institutions might face when implementing KM. Nonetheless, further research could be undertaken particularly on post-implementation issues faced by banks that could aid in the formulation of customised frameworks and KM implementation plans in banks. Suffice to say; KM will continue to make inroads as long as banks rely on the ability of their employees to make good decisions; on meeting customers needs more efficiently, and on their ability to continuously innovate. Therefore the six key lessons learned presented in this study is a novel attempt to address impending issues and challenges faced by banks in their quest towards organisation-wide KM implementation.

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shared with representatives XM Bank while this paper is written for the benefit of the larger research community.

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