Abstract

Purpose – This paper attempts to understand the reasons for knowledge management (KM) project failure.

Design/methodology/approach – Five well-documented cases of KM project failure in the current literature are reviewed. For each case, the authors examine the circumstantial elements of the failure, including the rationale and intended objectives of the KM project, the outcomes of the project and the reasons that led to project failure.

Findings – From the review, two observations are made. First, KM failure factors fall into four distinct categories, namely, technology, culture, content, and project management. Second, KM projects can be traced along a three-stage lifecycle, comprising initiation, implementation, and integration.

Research limitations/implications – The findings are discussed and finally synthesized into a model of KM project failure. The model serves as a starting-point for future research in KM project implementation.

Practical implications – Practitioners may use the model as a risk identification tool for KM project implementation.

Originality/value – This paper highlights the fact that KM project failure is a reality with which both practitioners and researchers have to reckon. Additionally, it leverages on the experiences of five KM failure cases and develops a model that allows KM failure factors to be pre-empted.

Keywords Knowledge management, Case studies, Management failures, Project management

Paper type Case study

Introduction

The recent decade has seen a proliferation of knowledge management (KM) projects in many organisations. Correspondingly, corporate spending on KM projects has increased substantially over the years (Ithia, 2003). This phenomenon is fuelled by the escalating popularity of the knowledge-based view of the firm in which knowledge is recognised as the key sustainable competitive resource (Kogut and Zander, 1992). As a result, organisations are implementing various KM initiatives to identify, share and exploit their knowledge assets. Several widely circulated KM implementation cases include the Buckman Laboratories’ knowledge network (Zack, 1999), Xerox’s Eureka database (Brown and Duguid, 2000), Tech Clubs in DaimlerChrysler, the communities of practice among quantitative biologists in Eli Lilly (Wenger et al., 2002), the various KM initiatives in BP Amoco (Hansen, 2001) and the highly elaborated knowledge distillation processes at the Center for Army Lessons Learned (Thomas et al., 2001).

Invariably, KM has been presented as a compelling strategy for organisations to improve their business processes and gain competitiveness. Furthermore, the outcome of implementing KM has been reported to be remarkably successful either in terms of financial savings, revenues generated or the level of user acceptance. For example, Xerox was estimated to have saved $100 million from its Eureka database (Brown and Duguid, 2000). Through the communities of practice, Hill’s Pet Nutrition enjoyed significant reductions in pet food wastage due to packaging improvements while Hewlett-Packard...
succeeded in standardising sales processes and establishing a consistent pricing scheme (Wenger and Snyder, 2000). The knowledge base at the Center for Army Lessons Learned was very well received as evidenced by the high weekly hits of nearly 100,000 (Holder and Fitzgerald, 1997).

Compared to the success stories, reported cases of KM project failures pale in number. This is despite the estimate that 84 per cent of KM programmes exerted no significant impact on the adopting organisations (Lucier and Torsiliera, 1997). Furthermore, unlike the success stories where the names of the organisations are prominently featured, cases of KM project failure rarely reveal the actual identities of the organisations involved. This suggests that failure remains an organisational taboo even though corporate values such as organisational learning and active experimentation are increasingly espoused in the modern economy. Most people find it difficult to come to terms with failure (Peters, 1987). However, the fear and intolerance of failure go against the tenets of organisational learning and continuous improvements. If failure is ignored, denied or repressed, the opportunity to learn from past mistakes is lost. On the other hand, when failure is embraced as an integral part of learning and development, deeper insights into success can be gained (Thorne, 2000).

Paper objectives

This paper attempts to understand reasons for KM project failure using a multi-case analysis. Five well-documented cases of KM project failure are reviewed. For each case, the authors examine the circumstantial elements of the failure, including the rationale and intended objectives of the KM project, the outcomes of the KM project and the reasons that led to project failure. The findings are discussed and eventually synthesised into a proposed model for KM project failure.

What is KM project failure?

It is widely known that most KM projects take the form of developing discussion databases, technical libraries, lessons learned database, starting communities of practice and identifying internal best practices. However, what is less commonly discussed is what constitutes success or failure in a KM project.

From an IT project perspective, a failed project can be considered one that has missed the deadline by more than 30 percent, exceeded the budget by more than 30 percent or has an end-product that does not meet the user’s requirements (Norton, 2003). However, some argue that KM initiatives are more organic in nature vis-à-vis IT projects and may not even fit into the traditional notion of a project. Even so, most KM projects characteristically involve the use of resources, have specific deliverables and are measurable. Davenport et al. (1998) identified several indicators of KM project success:

- growth in the resources attached to the project, including people and budget;
- growth in the volume of knowledge content and usage (that is, the number of documents or accesses for repositories or participants for discussion-oriented projects);
- the likelihood that the project would survive without the support of a particular individual or two, that is, the project is an organizational initiative, not an individual effort; and
- evidence of financial return either for the knowledge management activity itself or for the larger organization.

Owing to the multiplicity of perspectives from different stakeholders, it does not seem necessary to develop a single, all-encompassing definition of KM project failure. Hence, for the purpose of this paper, KM failure is simply defined as KM projects that have few, or none of the above characteristics identified by Davenport et al. (1998).

Research method

To find documented cases of KM failure, searches were conducted on three popular online databases, namely ProQuest, Ebsco Host and Emerald, using the search terms “knowledge management” and “failure”. Five cases were eventually selected for analysis.
The selected cases met two important criteria. One, they had been published in peer-reviewed scholarly journals. This ensured that the case studies were of a high quality and that the findings presented were culled from a defensible methodology. Two, they provided sufficient contextual details about the KM projects from their inception to eventual termination.

Each case was manually reviewed with the intention to tease out three salient details. The first was the organisational context and the rationale for which the KM projects were conceived. The second was the final outcome for each KM project. The third and final detail was an explanation for the failure.

**Cases in KM failure**

**Case 1: a global bank**

A global bank that spanned across 70 countries decided to implement various KM projects after the departure of a major client who felt it could not receive integrated services across divisions and countries from the bank (Newell, 2001; Scarbrough, 2003). The main objective of the KM project was to leverage on intranet technology to develop a global knowledge network so that the services in the bank could be integrated. Among several independent intranet projects proliferated were OfficeWeb, GTSnet and Iweb.

OfficeWeb brought together the relevant branch managers in the Domestic Division to create a community of users where local knowledge could be freely shared. The project was strategically important as it could support the shift towards a more decentralised, entrepreneurial, organisational structure in the branches. GTSnet was intended to consolidate the disparate sources of information across the bank and allow users in the Transaction Services Division to obtain information from an integrated source. The project was given abundant financial resources and was staffed mainly by external IT consultants. Iweb was designed specifically for the IT function. Besides being a central repository for storing information, Iweb was intended for use as a platform for staff to gain and share expertise particularly in intranet technology. The project was well allocated with technical staff and hardware resources. Furthermore, a senior IT manager was involved in establishing standards for the creation and maintenance of contents on the intranet.

Officeweb was abandoned even before it was rolled-out. GTSnet held obsolete content soon after it was implemented. Iweb was more successful than the other two projects, but it failed to promote any sharing of knowledge within the IT division.

The main reasons for the KM projects’ failure at the bank were as follows:

- During test trials of Officeweb, the bandwidth of the existing infrastructure was found to be inadequate to support the network traffic generated.
- GTSnet did not involve the targeted end users during the project development stage. It also failed to convince the users of the importance of the project to the success of the Division. Furthermore, GTSnet was staffed by external IT consultants who did not possess the relevant business knowledge. Hence, when it was launched, it was unable to garner support internally to bring together the technical and business expertise.
While Iweb infrastructure was fully operational, it was unable to change the users’ basic attitudes towards knowledge-sharing behaviour. When it was launched, there was no impetus for individuals to share their knowledge or access the knowledge of others.

Case 2: a pharmaceutical company

An American-owned global pharmaceutical company which specialised in high margin “lifestyle” drugs aimed to accelerate its internal drug development processes through overt knowledge management initiatives. The management committed a substantial amount of political and financial resources to implement three forms of KM projects, namely, “lessons learned”, “warehouse” and “electronic café” (McKinlay, 2002).

“Lessons” was a highly structured debriefing exercise conducted by each workgroup at the end of a major drug development process. It was intended as a method to archive corporate lessons and to prevent the loss of operational knowledge in the drug development process. “Warehouse” was an organisation-wide groupware populated with content based on the “lessons learned” debriefings. Its objective was to capture not only problems and solutions but the details of administrative and decision-making processes. It had features such as common repositories and discussion forums that supported coordination and collaboration across workgroups. “Café” was a set of linked web sites based on the anecdotes of individuals involved to the drug development programmes. It was intended as a platform for self-reflection and sharing of personal experiences among a small group who had been identified as organisational innovators. Within “café”, individuals were liberated to digress from reality and to discuss hypothetical issues or explore radical alternatives.

“Lessons” yielded uneven results within three years of its implementation. “Warehouse” could not be adapted to the specific context of each workgroup, while “café” was perceived to be exclusive, impractical and remote from reality. None of these KM projects had an effective mechanism to encourage participation or measure outcomes.

The main reasons for the failure of KM at the pharmaceutical company were as follows:

- In “lessons”, there was no mechanism to sift through the lessons compiled. Neither were there any opportunities to extend the scope of the exercise beyond existing procedures. In addition, the output from “lessons” was a list of dissatisfaction with how standard operating procedures were applied rather than critical reflections on the procedures themselves. Thus, instead of fostering organisational innovation, “lessons” became a ritualised reinforcement of routines.
- “Warehouse” could not be adapted to the specific context of each workgroup. It was thus deemed to be irrelevant to day-to-day operational processes.
- Contributing to “warehouse” was perceived as a loss in personal expertise while accessing “warehouse” was perceived as a sign of inadequacy. Hence, “warehouse” did not attract spontaneous contribution and access.
- The open-ended nature of “café” had inadvertently made its relevance and practicality questionable. Furthermore, the exclusive access to “café” limited its potential for expansion.

Case 3: A manufacturing company

A European manufacturing company that had more than 60 production units in some 30 countries implemented three distinct KM projects, namely, “production project”, “supply-chain project” and “design project” (Kalling, 2003). The focus of “production” was on capturing, documenting and sharing knowledge about production methods such as machine maintenance methods and safety prevention. The main aim was to cut production costs. “Supply” was intended to improve and distribute knowledge about offered products in downstream supply chain. The aim was to enhance product functionality and better understand the effects of product design on the economics of transport and warehousing. The objective of “design” was to improve structural product design so that designers could construct prototypes with minimal raw materials.
Two years after implementation, “production” was able to capture and transfer knowledge to the plant that needed it, but its aim to promote the application of the new knowledge resulted in a mixed level of success. “Supply” was a codification of knowledge culled from customers, warehouse delivery centres, transporters and end-consumers. However, it was under-utilised. “Design” was a highly sophisticated software system but it was largely neglected by designers and became obsolete after a while.

The main reasons for the failure of KM at the manufacturing company were as follows:

- In “production”, out of 40 plants studied, ten plants did not apply the new knowledge largely because they did not perceive a production performance gap in their plants. They were unconvinced of the value created from applying the new knowledge. It was later discovered that the rest of the plants that applied the new knowledge actually saw a significant improvement in their production performance.
- When “supply” was launched, it was under-utilised because users found that the software merely provided them with information they already possessed. Moreover, “supply” neither resulted in increased sales volume for sales staff nor helped create better products for designers.
- “Design” was perceived to be too cumbersome and difficult to be understood. In addition, it did not reduce the raw material costs or the amounts of prototypes as intended. Since “design” was largely neglected by designers, it was not updated and after a while became obsolete.

Case 4: a European-headquartered company

The management of a European-headquartered company was convinced that a knowledge-based learning organisation was the key for the company to achieve cost-effectiveness, competitiveness and a better management of business risks. For this reason, it commissioned a KM team that comprised nine management staff to implement a KM initiative (Storey and Barnett, 2000).

The initiative that enjoyed high visibility encompassed a series of plans such as creating informative web pages of the management and all business units, organising staff into communities of practice and identifying internal knowledge champions. The initiative progressed on the basis that IT systems would be the foundation for all activities and processes. As time passed, the team found out that the web site and intranet development were divided between the IT and media affairs departments. These two departments had diverging agendas and held conflicting views as to how the IT systems should be developed. Members in the team suspected that the IT manager’s involvement in the KM initiative was to gain a dominant position in the company’s strategy, methodology and budget. As a result, tension started to grow within the KM team. Meanwhile, external market conditions deteriorated and prompted the company to implement a major organisational restructuring exercise. The KM initiative faded and became lost in the turbulence.

The main reasons for the failure of KM initiative at the company were as follows:

- The top management was committed only up to a point. In the face of crisis, the KM initiative, which was perceived as a “nice-to-have” rather than mission-critical activity, was completely ignored. This underscores the need for the KM initiative to be grounded in the organisation’s strategy.
- The KM team failed to manage the political processes between the IT and media affairs departments which in part undermined the initiative.

“Failure is ignored, denied or repressed, the opportunity to learn from the past mistakes is lost.”
The KM team spent little time deliberating on the potential barriers to the initiative and did not consider the idea of rolling out a pilot even though the scale of the initiative was significant. The team could have avoided such pitfalls if external advice had been sought.

**Case 5: a global company**

A global company, which was one of the top ten organisations in its industry, lost a number of deals because of its inability to offer integrated solutions in the order handling line of business (Braganza and Mollenkramer, 2002). In response, the management commissioned a KM project known as Alpha with the objective to create a “blueprint for gaining and maintaining global order handling services market leadership”. Underpinning Alpha was a comprehensive attempt to manage the knowledge across the company.

Within Alpha several functions and teams such as business architecture, IT and knowledge content and design were formed. One of Alpha’s priorities was to build a network of “knowledge-enabled worktables” to provide staff customised access to Alpha’s knowledge base. Due to the teething problem of using new technology and the poor translation of design requirements to system functionalities, the IT team could not complete the first worktable for the sales function on schedule. Meanwhile, the knowledge content and design team had already developed a large amount of content. Fearing that the delay could dampen interest in KM, the team engaged a vendor to develop an intranet system as a quick alternative to making its content available. This move was perceived by the IT team as an invasion into its territory. Furthermore, the intranet was treated with scepticism from the rest of the functions in Alpha. By the end of the year, the viability of the worktable was in doubt. Given the high dependence and unsustainable expenditure on external IT resources, Alpha was perceived to be losing control over its IT-related projects. Thus, the management curtailed the worktable project and disbanded Alpha completely when it eventually lost faith in knowledge management.

The main reasons for the failure of Alpha were as follows:

- Knowledge was managed within silo-oriented communities. Thus, business-critical knowledge that straddled across multiple functional groups was neglected.
- There was an over-reliance on IT systems to manage knowledge in Alpha. Tacit knowledge and behavioural issues, on the other hand, received insufficient attention.
- Three different external consulting firms were engaged at different stages of Alpha’s development. Inputs from these consultants confounded instead of facilitated the KM initiative.
- As time passed, the cost to sustain the KM initiative ballooned beyond control. The management decided to cut its losses and terminated the initiative altogether.

**Analysis of the cases**

Inductive analysis, which involves unitising and categorising, was used on the above five cases to uncover a list of KM project failure factors. Through the process of unitising, “raw” failure factors were identified and isolated from each case. Subsequently, through the process of categorising, the “raw” failure factors derived from unitising were organised into categories on the basis of similarity in meaning. The list of failure factors underwent iterative revisions and refinements until it met three criteria, namely, exhaustion of sources, saturation of categories and emergence of regularities (Lincoln and Guba, 1985). Two important observations were made during this process.

**Observation 1: four categories of KM failure factors**

There appears to be four distinct categories of KM failure factors: technology; culture; content; and project management.

The technology category refers to aspects of KM infrastructure, tools and technology. The failure factors identified in this category are as follows:
Connectivity (T1). The technical infrastructure could not support the required number of concurrent access due to bandwidth limitation ("OfficeWeb" in case 1).

Usability (T2). The KM tool had a poor level of usability. KM users found the tool too cumbersome or complicated for use ("Design" in case 3).

Over-reliance (T3). An over-reliance of KM tools led to the neglect of the tacit aspects of knowledge (case 5).

Maintenance cost (T4). The cost of maintaining the KM tool was prohibitively high. The management intervened and terminated the KM project (case 5).

The culture category includes softer aspects related to human and organisational behaviour. The failure factors in this category are as follows:

Politics (Cu1). The KM project was used as an object for political manoeuvring such as gaining control and authority within the organisation (case 4).

Knowledge sharing (Cu2). Staff did not share knowledge within the organisation due to reasons such as the lack of trust and knowledge-hoarding mentality ("IWeb" in case 1; "warehouse" in case 2).

Perceived image (Cu3). Staff perceived accessing other's knowledge as a sign of inadequacy ("warehouse" in case 2).

Management commitment (Cu4). The management appeared keen to commence the KM project. However, when problems emerged, commitment to the KM project was quickly withdrawn (case 4).

The content category refers the characteristics or properties of the knowledge itself. The failure factors in this category are as follows:

Coverage (Co1). The content was developed fragmentarily from different groups of KM users. Hence, cross-functional content could not be captured (case 5).

Structure (Co2). The content was not structured in a format that was meaningful to the task at hand. KM Users also found the content indigestible (case 5).

Relevance and currency (Co3). The content was either not contextualised or current to meet the needs of the KM users. It could not help KM users achieve business results ("warehouse" in case 2; "Supply" in case 3).

Knowledge distillation (Co4). There was a lack of effective mechanism to distil knowledge from debriefs and discussions. Hence, valuable knowledge remained obscured ("lessons" in case 2).

The project management category refers to the management of the KM initiative as a project. The failure factors in this category are as follows:

User involvement (PM1). There was a lack of KM user involvement in the project. Hence, besides not being able to secure user buy-in when the project was rolled out, the knowledge requirements of the users were poorly understood ("GTSNet" in case 1; "Supply" in case 3).

Technical and business expertise (PM2). When the project was implemented, it lacked staff with the required technical and business expertise to sustain the initiative ("GTSnet" in case 1).

Conflict management (PM3). Conflict occurred among stakeholders of the KM team but there was no attempt to manage it (case 4).

Rollout strategy (PM4). The KM project did not have a proper rollout strategy. Specifically, the lack of a pilot phase meant that many teething problems that could have been mitigated at the initial stage were left unchecked (case 4).

Project cost (PM5). The overall cost associated with the KM project was in excess of what was originally anticipated (case 5).
Project evaluation (PM6). There was no systematic effort to track and measure the success of the KM project as it developed. Thus, if there were early successes, the opportunity to publicise success stories could not be seized. Conversely, if there were failures, there were no opportunities to correct the mistakes (‘Production’ in case 3; case 4).

Involvement of external consultants (PM7). The engagement of multiple external consultants caused the KM project to meander and created confusion (case 5).

It must be noted that a singular set of factors solely responsible for KM failure across all the five cases could not be found. Different factors, the interactions among them and the context had a part to play in contributing to the failure in each case. Nonetheless, even though KM failure factors are generally context-specific, they could still be identified within one or more of the categories discussed above.

Observation 2: KM failure factors could afflict any stage in the KM project lifecycle

Based on the five cases, the KM projects were traceable through a lifecycle that could be generically divided into three successive stages, namely, initiation, implementation and institutionalisation. At the initiation stage, a dedicated team was assembled to meet a specific KM need. Users’ requirements were gathered and the necessary systems and processes were developed. At the implementation stage, the KM project was formally rolled out to a part of or the entire organisation. This was the first instance in which the KM users interacted with the “live” version of the systems and were engaged in the processes brought about by the KM project. In the institutionalisation stage, the visibility of the KM team faded. The new KM systems and processes became part of the day-to-day routine of the organisation. Not all KM projects reviewed in the five cases, however, arrived at the institutionalisation stage. The OfficeWeb project in case 1 (global bank), for example, was aborted even before it could progress to the implementation stage.

Such a lifecycle model is unlike the SECI (Nonaka and Takeuchi, 1995) and KLC (Firestone, 2000) which are conceptual in nature, or the KM maturity model (Langen, 2000) and KM stages of implementation (O’Dell, 2000) which tend to focus on the overarching, strategic KM implementation issues. It is, however, comparable to Szulanski’s (2003) model of transfer of best practices which has a process-oriented perspective.

A close examination of the list of failure factors reveals that the factors could afflict all the stages in the KM project lifecycle. For example, during the initiation stage, factors PM1 (user involvement) and PM2 (technical and business expertise) occurred in the GTSNet project in case 1 (global bank). These factors led to content obsolescence and caused the project to derail. During the implementation stage, factor T2 (usability) was found to plague the design project in case 3 (manufacturing company). At the institutionalisation stage, factor Co4 (knowledge distillation) was the main reason why the lessons project in case 2 (pharmaceutical company) did not meet its objectives. In other words, none of the stages in the KM project lifecycle were immune to the failure factors.

Discussion

Based on observation 1 presented earlier, four main findings have been identified.

Technology issues are non-trivial

For a long time, technology was perceived to be the panacea for all knowledge management problems because it represents a highly tangible and visible solution (Silver, 2000). To correct the imbalance in perspective, several scholars and practitioners have cautioned against excessive focus on technology (Davenport and Prusak, 1999; Nonaka and Takeuchi, 1995). They argued that technology is merely an enabler that supports knowledge management efforts. In fact, factor T3 (over-reliance) directly contributed to the failure of the KM project in case 5 (global company).

While technology should not have pre-eminence over all other considerations in a KM project, this paper shows that technology issues are far from being trivial. For example, the failure in the OfficeWeb project in case 1 (global bank) was attributed to the problem of
network connectivity. In case 5 (global company), the KM project was abandoned because the IT maintenance costs associated with the project became unsustainable.

**Cultural factors are multi-level**

Consistent with extant literature on the barriers to knowledge management, cultural factors emerged as a major failure factor. This paper shows that cultural factors that led to KM project failure can further be granularised into three levels, namely, personal, group and organisational. At the personal level, factor CU3 (perceived image) was responsible for the failure of the warehouse project in case 2 (pharmaceutical company). At the group level, factor CU1 (politics) derailed the KM project in case 4 (European-headquartered company) while factor CU2 (knowledge sharing) hampered IWeb project in case 1 (global bank). At the organisational level, factor CU4 (management commitment) sealed the fate of the KM project in case 4 (European-headquartered company). Such a three-level perspective to cultural factors provides a simple way for practitioners to assess the cultural climate of the organisation before contemplating a KM project. Deliberate measures can then be established for each level to promote an environment conducive to knowledge management, and hence minimise the risk of KM project failure.

**No content, no KM**

Arguably, content is at the heart of any KM solution. Content which is out-dated, irrelevant, ill-structured or has inadequate coverage can often be the cause of KM failure. For example, in Supply project in case 3 (manufacturing company), KM users could not achieve business results as the content was irrelevant to their needs. In the KM project in case 5 (global company), the content could not support important business processes because it was developed fragmentarily by various groups within the organisation. Even with impressive technological sophistication, highly efficient processes and a knowledge-embracing culture, without useful content, a KM project is unlikely to succeed. Hence, during the early stages of a KM project, issues related to the content must be adequately addressed. These include an understanding of who the KM users are, what problems they face, where they usually find solutions to their problems and how their needs can best be met.

**A KM project is nothing short of a project**

Although some KM practitioners do not see KM initiatives as a deterministic, milestone-driven venture (for example, Wenger et al., 2002), this paper reveals that KM projects were not unlike any typical projects in which project management issues were featured very prominently.

For example, user involvement, which is a typical project management consideration, was ignored at the start of the GTSNet project in case 1 (global bank). Conflict management, a necessary project management skill, was lacking in the KM project in case 4 (European-headquartered company). The failure to contain the cost in the KM project in case 5 (global company) led to the termination of the project altogether. Hence, for a KM project to succeed, this paper argues that the need for a proper project management process.

In addition to the four main findings discussed, a model of KM project failure can be built from observations 1 and 2.

**A model of KM project failure**

Table 1 shows the model of KM project failure. The model is constructed by mapping the various KM failure factors to the specific stages in the KM project lifecycle in which they emerged in the cases.

“**There appear to be four distinct categories of KM failure factors: technology, culture, content and project management.**”
Even though the model represents an aggregation of the five cases and has inevitably obscured the nuances found in individual KM projects, it could help practitioners pre-empt KM failure factors as their projects progress. In particular, the model can be used as a risk identification tool. As highlighted in this paper, KM projects attract an alarmingly high level of risk. Nonetheless, many KM project pitfalls can be avoided if they were identified and discussed before the project commences or better managed during the project itself. For example, if KM practitioners were informed of factor T3 (over-reliance), they would be careful to chart a KM project that deploys technology appropriately rather than excessively. Likewise, factor Co4 (knowledge distillation) serves to highlight the need for a systematic mechanism to cull knowledge particularly for KM projects which involve generative and open-ended discussions.

Additionally, since all stages of the KM project lifecycle are susceptible to failure, efforts can be guided through the model to eliminate specific failure factors before they emerge. For example, prior to the initiation stage, practitioners may wish to review if factors such as T1 (connectivity), PM1 (user involvement) and PM7 (external consultants) pose as threats to the KM project. Likewise, factors such as PM4 (roll-out strategy), Cu2 (knowledge sharing), Cu3 (perceived image) and Cu4 (management support) need to be deliberated prior to the implementation stage. Finally, before the KM project becomes institutionalised, attention must be paid to factors such as T4 (maintenance) and PM5 (project cost).

### Conclusion

Enticed by the plethora of success stories, many organisations implement KM initiatives with the view that their well-intended efforts, coupled with the presence of success factors, will naturally result in the better management and exploitation of their knowledge assets. Success factors to KM projects commonly cited include the alignment between the knowledge managed and the goals of the organisation, the identification of a specific population that has a specific knowledge need (Dixon, 2000), a clear articulation and commitment to knowledge management (Trussler, 1998), senior management support and technical and organisational infrastructure (Davenport and Prusak, 1999).

It appears ironic that the KM projects reviewed in this paper exhibited many of the above success factors. For example, in case 3 (manufacturing company), the projects were conceived with specific corporate cost-cutting objectives. In case 5 (global company), the KM project received top management endorsement, had a specific population with a specific knowledge need and even commanded a reconfiguration to the organisational
structure. Yet, all these projects ended in failure because they were plagued by failure factors related to either technology, content, culture or project management. This suggests that the success of a KM project is not only contingent on the presence of success factors, but also on the absence of failure factors.

This paper has highlighted that KM project failure is a reality that both practitioners and researchers have to reckon with. For KM practitioners, the model of KM project failure proposed in this paper can be used as a risk identification tool that allows KM failure factors to be pre-empted. By consciously reviewing the four main failure factors against the stages in which they emerge in the KM project lifecycle, the likelihood of failure can be minimised. For KM researchers, this paper serves as a starting point for a few possible future research directions. One is to take a deductive research approach and determine empirically the relative strength of each failure category using the model of KM project failure. Alternatively, more case studies can be reviewed to validate, refine or add to the overall completeness of the model. Another research direction is to investigate the relationships among variables such as the project management skills of a manager, the nature of the KM project and the likelihood of KM project failure. By inviting greater inquiring into the study of KM project failure, hopefully, negative consequences such as lost time, wasted resources and a dampened morale can be averted.

References


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