The Relevance of Integration for Knowledge Management Success: Conceptual and Empirical Findings

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Abstract

Many organizations pursue knowledge management (KM) initiatives, with different degrees of success. One key aspect of KM often neglected in practice is following an integrated and holistic approach. Complementary, KM researchers have increasingly focused on factors that determine KM success and examined whether the metrics used to measure KM initiatives are reasonable. In this article, the importance of integration issues for successful KM is analyzed by means of a case study of a KM initiative at an international consulting company. The investigations demonstrate the importance of an integrated KM approach – an integrated view of KM strategy, KM processes, KM technology, and company culture – to ensure KM success.

1. Introduction and overview

1.1. Subject and purpose of the article

Knowledge management (KM) has progressed from an emergent concept to an increasingly common function in business organizations over the past 20 years [25]. Intense competition, fickle consumers, shorter product life cycles, and globalization are some of the driving forces that have led to increased inspection of the usage, application, and leveraging of knowledge in organizations [3]. Successful KM is expected to have a positive influence on a company’s performance and effectiveness [19]. It consists of critical enablers, such as employee training, teamwork, and performance measurement [7]. This leads to the first proposition:

KM is crucial for a company to succeed. Successful KM depends on the achievement of critical success factors based on supporting conditions.

Although KM systems (KMS) are shown to provide benefits to organizations [3], they – like many other types of information systems (IS) – have a high chance of failure due to both technical and IT-related factors, as well as KM-related cultural, behavioral, and strategic factors [8].

Problems experienced with KM initiatives are assumed to be the result of one or more of the following three factors:

1) A focus on the technological dimension of KM (i.e. KMS), together with a lack of attention to the social dimension (e.g., organizational culture) [9], [20], [24].
2) The absence of a clearly defined purpose and value for the business. In this context, a key requirement for realizing the business value of KM is the institutionalization of KM practices and systems into people’s natural work flow [9], [24], [11], [13], [27].
3) The failure of KM frameworks, concepts and systems to adopt corporate contexts’ specific requirements [27], [4]. Given its focus on people and their interactions, KM is intrinsically highly context specific. Each organizational setting poses its own challenges for successful KM.

These aspects lead to the second proposition:

An integrated and holistic KM initiative, as well as the complete embedding of KM in organizations is essential for KM success.

Based on both propositions, the overall goal of this article is to analyze and investigate connections and interdependencies between KM success and an integrated and holistic view of the subject area.

The corresponding research question can be formulated as follows: To what extent do KM success factors accepted in literature support an integrative perspective and does such a perspective account for KM success?
1.2. Research approach and structure

Qualitative case study research was employed for this study. Section 2 introduces Riempp’s architecture for integrated KMS and its performance measurement system. Section 3 is an overview of KM and KMS success. It also discusses the success assessment framework of Jennex and Olfman. Section 4 compares the key performance indicators of Riempp’s architecture for integrated KMS and the critical success factors of Jennex and Olfman’s success assessment framework, using the case study findings. Section 5 concludes the article by outlining the findings, limitations, and further research areas.

2. Foundations on integrated KMS architectures

2.1. Background of KMS approaches

Alavi/Leidner define KM as a “systemic and organizationally specified process for acquiring, organizing, and communicating knowledge of employees so that other employees may make use of it to be more effective and productive in their work” [1]. KM systems are clarified as “IT-based systems developed to support and enhance the organizational processes of knowledge creation, storage/retrieval, transfer and application” [2].

Alternatively, Jennex [15] took a holistic view of a KMS as a system created by combining content, organizational processes, users and technical solutions to facilitate the capture, storage, retrieval, transfer, and reuse of knowledge to improve organizational and individual decision-making. This holistic view, which integrates people, process, and technology, is a Churchman [18] view of KM that allows the KMS to take the form required to accomplish KM goals.

Two kinds of KMS implementations are used to address the comparison between KM approaches: an approach based on infrastructure or generic systems (KM in the large) and an approach based on processes or tasks (KM in the small) [17]. The latter perspective mainly focuses on employees’ usage of knowledge in a task, process, or project that already possesses a common context of understanding in order to improve the effectiveness of that task, process or project [17]. On the other hand, the former perspective assumes that users do not have a common context of understanding. It concentrates on the construction of a KMS which supports KM processes throughout the organization and which captures more knowledge contexts [17], [30]. The integrated KMS is designed to fit both aspects. The approach based on processes or tasks supports specific tasks and processes, whereas the infrastructure or generic-system-orientated perspective helps to integrate the knowledge within a system in order to use it efficiently across the organization [16].

2.2. Riempp’s architecture for integrated KMS

Riempp’s architecture for integrated KMS was developed by combining desk research, multiple case studies, and action research. The field research involved a KM initiative at PricewaterhouseCoopers, as well as studies and workshops with ten organizations in the context of the “Customer Knowledge Management” competence centre at the University of St. Gallen [27].

Riempp’s architecture for integrated KMS consists vertically of three layers (strategy, process, and system) and horizontally of four pillars (content, competence, collaboration, and orientation). All these elements are influenced by the organizational culture (figure 1).

![Figure 1. Overview of Riempp’s integrated KMS architecture [27]](attachment-image-url)

The strategy layer is composed of the business strategy, the KM strategy and KM goals, as well as the measurement system. In the latter, metrics are defined to monitor the progress of the KM initiatives. The measurement system of the integrated KMS architecture will be discussed in more detail in the next section.

The process layer consists of business and support processes. KM processes constitute support processes and are subject to the KM strategy. Employees with
specific KM roles execute the KM processes by accomplishing specific KM activities.

The system layer describes the integrated KMS, which is ideally accessed through a portal. The KMS supports the KM processes and is composed of the following four functional pillars:

1. Content relates to the management of information objects, its context, and the management of content itself.
2. Collaboration refers to the identification, exchange, development, and usage of knowledge.
3. Competence addresses all aspects of individual and collective competencies in an organization.
4. Orientation is composed of all search, navigation, and administration functions required in the areas of content, competence, and collaboration.

The architecture for integrated KMS distinguishes between different dimensions of integration. The elements of the architecture described above should be integrated along the four key dimensions:

1. Integration with the culture is the central dimension of integration. It is aligned to norms, values, and paradigms that need to be reflected when configuring an integrated KMS.
2. Vertical integration between the three layers firstly indicates that KM processes should be in line with the KM strategy and, secondly, that the configuration of the strategy and process layer influences the design of the system layer.
3. Horizontal integration refers to the integration between the four pillars of the architecture. It can be achieved on the system layer as well as on the process layer level.
4. Integration of the KM processes and roles in the KMS finally means that "the KMS should be designed in order to support employees in the execution of their roles [...] within business and support processes as well as related KM processes" [27], [5].

2.3. The measurement system of Riempp’s integrated KMS architecture

The implementation of this vision of Riempp’s architecture for integrated KMS can be allegorized on the basis of a basic KM process model consisting of the following four steps:

1. Create knowledge transparency (about the knowledge that already exists in an organisation, knowledge managing processes, and respective IS).
2. Promote knowledge exchange.
3. Control knowledge development.
4. Ensure knowledge efficiency [27].

Within step 4, the target achievement of the previous steps should be verified by taking quality improvements as well as time and cost reductions into consideration. In order to fulfill this requirement, the architecture provides a measurement system on the strategy layer. The achievement of specific KM goals can be verified by means of key performance indicators (KPIs) and respective index values (IVs). The KM strategy similarly refers to the four pillars of content, collaboration, competence and orientation, as well as to the culture of the organization. The KM goals, KPIs and IVs are subordinate to the KM strategy and mostly only refer to single pillars or to the culture (see figure 2).

Figure 2. Detailed view of the strategy layer ([27] modified)

Riempp defines a total of 78 KPIs which, according to an integrated and holistic view, refer to the different dimensions of integration within the architecture [27] (see http://www.ebs.edu/index.php?id=HICSS42 for an overview of the KPIs). This means that Riempp’s KPIs verify the integrational success or successful integration of KMS.

To conclude this section, three meaningful examples that illustrate how well these KPIs reflect integration and verify integration success are briefly described [27]:

KPI 22 ("Clear competence management goals") is an example of how a KPI verifies the success of vertical integration with the competence management goals formulated by the KM strategy and the KM processes constructed accordingly.

KPI 14 ("Information objects are ideally stored in an integrated, database-based, information memory, which is applicable across all platforms") is an
example of the verification of successful horizontal integration on the system layer. For example, an information object can be generated (content pillar) and used in a collaboration room (collaboration pillar) afterwards.

KPI 1 (“Convenient integration of information objects in task execution”) illustrates how a KPI verifies the integration of the KM processes and roles in the KMS.

3. KM/KMS success and critical success factors

3.1. Foundations

Success is basically understood as the achievement of goals, with goals defined as prospective aspired states. In the business management context, profit usually constitutes the supreme goal. This single goal does, however, not provide sufficient guidance for an organization to grow and develop. It ultimately needs to accommodate a spectrum of goals, including the goals of KM initiatives [26], [14].

The achievement of objectives and the aligned successful completion of a KM initiative result in KM success. Jennex et al. define KM and KMS success as “a multidimensional concept. Each includes capturing the right knowledge, getting the right knowledge to the right user, and using this knowledge to improve organizational and/or individual performance. KM success is measured using the dimensions of impact on business processes, impact on strategy, leadership, and knowledge content” [19].

This paper takes the position that KMS success has a direct effect on KM success, making the terms interchangeable in the rest of the article.

Success factor research explicitly focuses on analyzing factors that influence success by defining performance metrics to make the influence of these factors measurable and comparable [29]. The term success factor traces back to Daniel [10], who used the perception for the first time in the IS context. It was afterwards broadened by Rockert to business-related aspects:

“Critical success factors thus are, for any business, the limited number of areas in which results, if they are satisfactory, will ensure successful competitive performance for the organization. They are the few key areas where things must go right for the business to flourish. If results in these areas are not adequate, the organization’s efforts for the period will be less than desired” [28].

3.2. The Jennex/Olfman KM success assessment framework

KM/KMS success measurement is crucial from an organizational as well as an academic perspective, as the evaluation of KM initiatives is essential to understand how KMS should be built and implemented. Several KM/KMS success/effectiveness models have been proposed in order to support the successful execution of KM initiatives and ensure KM/KMS success.

Jennex and Olfman developed a model assessment framework based on comparing existing KM/KMS success models to KM/KMS success factors. It determined the degree to which the models have a theoretical foundation, as well as whether the models could be applied to both approaches (the one based on process and tasks, as well as the one based on infrastructure and generic systems) in order to implement a KMS [16].

In the following two sections, the main results of Jennex and Olfman’s research will be highlighted.

3.2.1. KM/KMS success factors

The current KM literature contains reams of studies and research work that address and deal with KM/KMS success factors. Jennex and Olfman constructed a critical success factor (CSF) framework by reviewing the existing literature. Several studies that focus on KM/KMS success were found and a total of 78 KM initiatives or organizations were investigated. They identified success factors that were mentioned in the literature, combined them into composite CSFs, and ranked the composite CSFs according to the number of authors mentioning the factors [16].

The outcome was a set of 12 KM/KMS CSFs. CSFs SF1 to SF4 are considered the key CSFs, as they were mentioned in more than 50% of the investigated success factor studies [16]. Table 1 lists the set of CSFs in their rank order (SF1 to SF4 are highlighted by the dotted frame).

3.2.2. KM/KMS success models

Theoretical or process-orientated success models classify success in a broader context in order to also encompass causal connections, indirect impacts, and back coupling. Current KM literature mentions several success models, for example, the KM Value Chain of Bots/De Bruijn [6], the KM Success Model of Massey, Montoya-Weiss and O’Driscoll [23], the Lindsey KM Effectiveness Model [21], the KMS
Success Model of Maier [22], and Cooper’s Evolutionary Model for KM Success [8]. Additionally, Jennex and Olfman themselves present a KMS Success Model [17] that is based on the DeLone/McLean IS Success Model [12]. The 12 CSFs of Jennex and Olfman (presented in the previous section) can be applied to the various success models to a greater or lesser extent. The Jennex Olfman KM success model is considered the best fit and will be used in the rest of this paper.

### Table 1. The 12 success factors of Jennex and Olfman [16], [17]

<table>
<thead>
<tr>
<th>ID</th>
<th>Success Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF 1</td>
<td>Integretion/implementation of an integrated KMS, including: setup, fine-tuning, configuration, and knowledge management.</td>
</tr>
<tr>
<td>SF 2</td>
<td>A knowledge strategy that identifies users, sources, processes, storage, strategy, knowledge and links to knowledge for the KMS.</td>
</tr>
<tr>
<td>SF 3</td>
<td>A common enterprise-wide knowledge structure that is clearly articulated and easily understood.</td>
</tr>
<tr>
<td>SF 4</td>
<td>Mentoring and commitment of users, aiming at appetite and training.</td>
</tr>
<tr>
<td>SF 5</td>
<td>An organizational culture that supports learning and the sharing of knowledge.</td>
</tr>
<tr>
<td>SF 6</td>
<td>A knowledge management strategy that includes the allocation of resources, leadership, and training.</td>
</tr>
<tr>
<td>SF 7</td>
<td>A knowledge base that is established across the organization, ensuring the use of knowledge in a meaningful and integrated manner.</td>
</tr>
<tr>
<td>SF 8</td>
<td>The use of knowledge management in the decision-making process.</td>
</tr>
<tr>
<td>SF 9</td>
<td>The management of knowledge across the organization.</td>
</tr>
<tr>
<td>SF 10</td>
<td>Effective processes and systems that incorporate knowledge capture and usage.</td>
</tr>
<tr>
<td>SF 11</td>
<td>The use of knowledge management technology.</td>
</tr>
<tr>
<td>SF 12</td>
<td>The integration of knowledge into the organization.</td>
</tr>
</tbody>
</table>

### 4. The relevance of integration for KM/KMS success

#### 4.1. A comparison of success factors and key performance indicators

The Jennex/Olfmann KM success model meets the requirements of both the KM approach based on tasks and processes and the one based on infrastructure and generic systems, which is the crucial and vital principle of an integrated KMS.

![Figure 3. Classification of KPIs into the architecture for integrated KMS](image)

![Figure 4. Graphical illustration of the key performance indicator assignment](image)
The success model also has a theoretical basis – the DeLone/McLean IS Success Model [12]. Finally, the Jennex/Olfman success model allegorizes the KMS CSFs the best. It is suggested that one reason for the close fit between the CSFs and the Jennex/Olfman success model is that both KM approaches are addressed. In other words, it supports the integration of both perspectives. This again suggests that integration aspects and KM/KMS success are interlocked.

The extent to which the 12 CSFs and the Jennex/Olfman model account for integration aspects will be examined by comparing the 78 KPIs of Riempp’s measurement model to the 12 CSFs. Riempp has further classified his KPIs into one of the eight architecture interfaces (figure 3).

Each KPI of Riempp’s architecture was verified as to whether it could be allocated to none, one, or more than one of the Jennex and Olfman CSFs. A total of 76 of 78 critical KPIs could be assigned to one, and frequently to two or three of the Jennex and Olfman CSFs. Figure 4 illustrates this mapping graphically.

4.2. Discussion of conceptual findings

Based on this comparison of CSFs to KPIs, the following main findings can be derived:

1. There are definite interdependencies between the Riempp KPIs and the Jennex and Olfman CSFs. A more detailed analysis of the assignment results indicates that certain measures have to be executed in order to achieve the 12 Jennex and Olfman CSFs. These actions are in turn reflected in the 76 Riempp KPIs.

   On the one hand this means the 12 Jennex and Olfman CSFs can be broken down into 76 smaller KPI elements that represent the measures that have to be introduced. On the other hand, the 76 KPIs of Riempp’s architecture for integrated KMS can be accounted for by the 12 CSFs.

   In order to achieve, for instance, SF4 of Jennex/Olfman’s model (“Motivation and commitment of users, including incentives and training”), several of Riempp’s KPIs need to be embraced. Incentive systems have to be implemented (KPI 4), a simple transfer of knowledge between competences and searching employees needs to be ensured (KPIs 2, 5, 9, 28, 37), experts and KM roles have to engage themselves (KPIs 42, 49, 52, 55), training and further education need to conducted (KPIs 10, 20, 33, 51), and so forth.

   Going a step further, the comparison implies that the achievement of the 12 Jennex/Olfman CSFs results from the achievement of the 76 Riempp KPIs. Consequently, the 76 KPIs incorporating integration success need to be attained to achieve KMS success.

2. An extensive amount of Riempp’s KPIs can be clearly assigned to either SF1, SF2, SF3, SF4, SF5, SF8 or SF10. The KPIs that can be allocated to SF1 and SF10 (technical success factors) refer to horizontal integration, while those that can be assigned to SF2, SF3 and SF8 (strategic success factors) refer to vertical integration.

Table 2. Quantitative illustration of the key findings of the assignment

<table>
<thead>
<tr>
<th>ID</th>
<th>Description of the success factors of Jennex/Olfman</th>
<th>Assigned Key Performance Indicators of Riempp</th>
<th># of assigned Key Performance Indicators of Riempp</th>
</tr>
</thead>
</table>
| SF4 | Motivation and commitment of users, including incentives and training | KPI 4 | 1
| SF8 | Knowledge management as strategic approach | KPIs 10, 20, 33, 51 | 4
| SF1 | Technical infrastructure of the KMS | KPIs 1, 16, 22 | 3
| SF10 | Technical infrastructure of the KMS | KPIs 1, 16, 22 | 3
| SF2 | Integration of vertical interfaces | KPIs 2, 5, 9, 28, 37 | 5
| SF3 | Integration of horizontal interfaces | KPIs 2, 5, 9, 28, 37 | 5
| SF5 | Technical infrastructure of the KMS | KPIs 1, 16, 22 | 3
Finally, the KPIs allotted to SF4 and SF5 (cultural and personal success factors) apply comparably to horizontal integration, integration of KM processes and roles in the KMS, as well as to cultural integration. The other Riempp KPIs, those which could be assigned to SF6, SF7, SF9, SF11, and SF12, could not be grouped as precisely. However, all of the remaining KPIs also refer to the different dimensions of integration.

Based on these results, it can be stated that the 12 Jennex/Olfman CSFs correspond more or less equally to the different integration dimensions of Riempp’s architecture for integrated KMS.

Table 2 provides a more detailed view of the assignment of the relevant success factors to the different dimensions of integration. The first three columns of the table refer to the 12 Jennex and Olfman CSFs. Column 1 shows the ID of each success factor, column 3 describes each factor roughly, and column 2 illustrates how the Jennex/Olfman CSFs were grouped based on the outcome of the comparison (compare main finding 2).

The following columns of the table refer to Riempp’s architecture of integrated KMS. Column 4 shows which Riempp KPIs were assigned to which Jennex/Olfman CSFs and column 5 outlines the number of assigned factors. Finally, columns 6 to 9 indicate to which specific dimension of integration the single Jennex/Olfman CSFs and, hence, the assigned Riempp KPIs refer. The columns 6, 7, 8, and 9 basically legitimate the grouping of CSFs in column 2.

The results of the comparison show that achievement of the 12 Jennex/Olfman CSFs results from an achievement of the 76 Riempp KPIs. The logical conclusion is that organizations need to cope with Riempp’s KPIs in order to attain KM/KMS success. The fact that the KPIs of Riempp’s architecture for integrated KMS largely indicates integration success leads to the following basic assumption: Integrated KM determines KM/KMS success.

### 4.3. Observations from an international consulting company case

This case study was conducted in the context of a merger between two international consulting firms. A KM initiative was launched within the scope of the post-merger integration activities. The primary focus of the initiative was the introduction and announcement of new KMS functionalities and tools, as well as the integration and adjustment of existing KM structures.

The measurement and evaluation of the success of the initiatives are ideally suited to verify the assumption that integrated KM determines KM/KMS success. The verification process consists of two consecutive steps:

Firstly, the achievement of Riempp’s KPIs was verified by means of a structured survey and a structured interview. The survey consisted of 41 questions, mainly focused on cultural, personal, and strategic success factors. The questionnaire was distributed to 50 employees directly involved in the KM initiative and 17 analyzable questionnaires were returned (a return rate of 34%). Yes/no questions and five-point Likert-type scale items were used to obtain feedback on the achievement of CSFs. After an exhaustive analysis of the participants’ answers, the authors decided that a critical success factor was achieved if more than 50% of the participants demonstrated acceptance (in respect of a yes/no question), or if the median of responses was at least three (in case of a scaled question).

The structured interview was conducted with the chief technology architect of the acquired company. It consisted of 25 questions and focused on technical success factors. The interview guideline only consisted of yes/no questions, which basically determined the existence or non-existence of technical conditions, functionalities, and tools. The nature of these questions allowed us to choose a single person as an interview partner.

The survey as well as the interview dealt with those of Riempp’s KPIs that can be assigned to CSFs SF1, SF2, SF3, SF4, SF5, SF8 and SF10 – the ones that can be described as being either a technical, strategic or cultural and personal success factor. The main results of the first step are summarized in table 3.

<table>
<thead>
<tr>
<th>Success factor ID (Jennex/Olfman)</th>
<th># of assigned KPIs of Riempp</th>
<th>Attainment degree (in %)</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF 1</td>
<td>16</td>
<td>87 %</td>
<td>SF achieved</td>
</tr>
<tr>
<td>SF 10</td>
<td>22</td>
<td>82 %</td>
<td>SF achieved</td>
</tr>
<tr>
<td>SF 4</td>
<td>18</td>
<td>83 %</td>
<td>SF achieved</td>
</tr>
<tr>
<td>SF 5</td>
<td>12</td>
<td>75 %</td>
<td>SF achieved</td>
</tr>
<tr>
<td>SF 2</td>
<td>7</td>
<td>0 %</td>
<td>SF not achieved</td>
</tr>
<tr>
<td>SF 3</td>
<td>5</td>
<td>0 %</td>
<td>SF not achieved</td>
</tr>
<tr>
<td>SF 8</td>
<td>3</td>
<td>0 %</td>
<td>SF not achieved</td>
</tr>
</tbody>
</table>

Table 3. Attainment degree of the success factors of Jennex/Olfman’s model
The results lead to three assumptions:
1. The technical success factors were achieved due to horizontal integration on the system layer.
2. The cultural and personal success factors were achieved due to horizontal and cultural integration, as well as to the integration of the KM processes and roles in the KMS.
3. The strategic success factors were not achieved due to a lack of vertical integration across the three layers.

These three assumptions were validated by five semi-structured interviews with the initiators and key managers of the KM initiative. This constitutes the second step of the case study. The results and insights of the first step were investigated and discussed in more detail.

All questions focused more or less equally on the following factors:
(1) Technical aspects (especially regarding the integration of the KMS into the corporate portal).
(2) Personal and cultural aspects (especially regarding the horizontal integration of KM processes, the integration of the KM processes with the KMS, and the operational and organizational structure).
(3) Strategic aspects (especially regarding the transparency and communication of the KM strategy and KM goals, as well as the knowledge structure).

The elementary and most meaningful results of the verification of the three assumptions are discussed below:

1. Horizontal integration on the system layer was achieved by integrating the IT infrastructure along the four horizontal pillars (content, collaboration, competence, and orientation) of Riemppp’s architecture. Data storages are integrated with each other per pillar, thus allowing the standardization of diverse applications. On the application level, integration basically appears in the complexity of internal and external applications. An integrated regulation framework can be ensured by a standardized and continuously used taxonomy, which also forms the basis for a pillar of comprehensive indexing in order to allocate an overall search function. A complex portal solution is available and KM functions and applications, as well as the corresponding content are deeply integrated. The integration of portal applications mainly refers to an integrated search for content, competences and collaboration rooms, as well as the aligned use of search engines. The presentation level of KMS is realized by the use of the graphical user interface of the company’s portal, whose uniform configuration ensures an integrated working environment for its users.
2. The cultural and personal success factors refer to the motivation and commitment of users, as well as a company’s predominant organizational culture. These factors were achieved due to horizontal integration on the process level, cultural integration, as well as the integration of KM processes and roles in the KMS. In respect of motivation and commitment, it is noteworthy that all employees participate in KM activities voluntarily, but show a high intrinsic motivation. The company’s knowledge competencies and KM experts are also highly motivated and engaged. They regularly present themselves as “role models” in diverse communities. In this context, the enormous freedom of scope for creation, collaboration, documentation, and reflection needs to be mentioned. All of these points can be ascribed to the processes and roles’ successful integration with the KMS and company’s culture. Various training and further education measures (physical training, as well as audio and web cast sessions) were introduced in the beginning of the post-merger integration phase to support these developments. Another positive aspect was the active usage of content management functions and competence directories by authors, competencies, and searching employees, as well as the satisfactory assessment of the feedback opportunities between these employees. This was ensured through a satisfactory horizontal integration on the process level.
3. The strategic success factors focus on the overall knowledge strategy, the knowledge structure in an organization, and the aligned articulation of KM goals. The achievement of these success factors failed due to the lack of vertical integration across the three layers (strategy, process and system layer) of the architecture. The KM topic was not tightly integrated into the overall change management process of the post-merger integration activities. No comprehensive information policy, concrete authorization system, or employee incentive system have been introduced. There was also no clear and definite objective for the KM areas’ content, competence and community management. The KM goals are not consistent with the overall organizational goals and the understanding of the KM and KMS’ meaning, aims, and objectives needs to be communicated more clearly throughout the company.

Summarizing the investigation, it can be stated that the attainment or failure of the success factors depends on the degree of integration. The basic assumption has therefore been strengthened.

The necessity for an integrated and holistic view is outlined by the case study – horizontal integration, cultural integration, and the integration of KM processes and KM roles into the KMS support the usage and frequency of use of the KMS, but do not
ensure that the KMS is used in the most effective and efficient way.

In order to control the usage of KMS to strengthen the organization’s performance and the achievement of strategic goals, a company’s overall strategy and goals need to be aligned to KM strategy and KM goals. In terms of vertical integration, KM strategy and goals need to be transparent and clearly communicated so that all employees “act in concert and walk into the same direction.” Hence, the described KM initiative can be evaluated as unsuccessful. The technical and cultural conditions required for success were established, but the strategic aspects were largely disregarded.

5. Conclusions, limitations, and further research

The overall goal of this paper – to analyze and investigate the connections and interdependencies between KM success and an integrated and holistic perspective on KM – has been achieved. The CSFs of Jennex/Olfman’s model were identified as widely accepted factors as they are, firstly, based on the cognitions of accredited and valued KM publications and studies referring to a total of 78 KM initiatives. Secondly, they can be applied to all elemental KM success models. The 78 KPIs of Riempp’s model focus on different dimensions of integration and evaluate successful KM in terms of integration success.

In summary, the literature review and comparison of CSFs and KPIs show that it is feasible to focus on achieving Riempp’s KPIs, thus concentrating on integration. Ultimately, this approach will lead to an achievement of the 12 Jennex/Olfman CSFs and ensure KM initiatives’ success.

The results support the assumption that in order to achieve KM success, which – as defined by Jennex, Smolnik, and Croasdell (section 3.1) – is understood as a multidimensional concept, all elements of the integrated KMS architecture need to be addressed in a structured and integrated approach.

The case study supports these findings. KMS are indeed used intensively by employees. However, due to a lack of transparency regarding the KM strategy and goals and a lack of vertical integration, the KMS are not used totally efficiently in terms of an improvement in the company’s performance. A broad consideration of all the integration dimensions is necessary to execute KM initiatives successfully.

It would be tempting to conclude – and not “only” to assume – that integrated KM determines KM success. In order to do so, more real-life cases need to be conducted. This can be regarded as a limitation of the findings in this article, as well as an area for further research work.

Additionally, effort should be made to develop an “integrated KM success model.” The framework can either focus fully on Riempp’s architecture for integrated KMS or on selected aspects. In respect of the framework’s configuration, an absolutely new model could be developed, or an existing model – for example, the Jennex/Olfman success model – could be extended appropriately.

References


