A knowledge management model for firms in the financial services industry

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Abstract: The financial services industry faces many demanding challenges. Firms within this industry are predominantly knowledge-based, as are most of the industry’s products, processes and services. The application of knowledge management represents a clear opportunity for financial services firms to confront challenges. However, no industry specific knowledge management model for financial services exists. The contribution of this paper is to develop such a model. A multi-level model is constructed by building upon and integrating the Resource-Based/Knowledge-Based Views (RBV/KBV) of the firm, knowledge strategy, methods, knowledge domains, and communities. Based on case study research, a set of guidelines is then proposed to aid in the implementation of the model. The model and guidelines offer new opportunities to become more efficient and effective in financial firms.

Keywords: resource-based view of the firm; knowledge-based view of the firm; knowledge strategy; knowledge domains; communities and networks.

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1 Introduction

Although the necessity to create new knowledge has resulted in calls for knowledge management (KM) in the financial services industry (Willke, 2001), no financial services industry-specific KM models exist in the literature, in spite of professional bodies such as *Wissensmanagement – Das Magazin für Führungskräfte* (see Held, 2009) dedicating a complete section on the importance of a financial industry-specific KM model. In addition, authors mainly discuss a specific topic within a financial services organisation, thus narrowing the focus to an operational instead of a strategic view, e.g., innovation management (Heimer, 2001) or risk management (Strulik, 2001).

The financial service industry provides knowledge-based products and services (Grant and Venzin, 2009; Shih et al., 2010). In addition, Butler et al. (2007) stress the importance of process optimisation, while Alavi and Leidner (2001) underline organisational processes and their constant optimisation as important targets of KM. In this respect, Jones (2003) reveals in his study about KM at UK Financial Services Agency (FSA) that also business reengineering is closely tied to KM.

The knowledge required for banking operations is often more complex than in other industries (Shih et al., 2010). Only those banks that constantly achieve first mover advantages – via the creation of new knowledge and innovation – might be able to transform these into sustainable competitive advantages (Gardner, 2009; Roberts and Amit, 2003). Thus, creating the flexibility and responsiveness to create new advantages at a faster rate than competitors – often referred to as ‘dynamic capabilities’ (Todorova and Durisin, 2007; Easterby-Smith and Prieto, 2008; Bogner and Bansal, 2007; Zollo and Winter, 2002) – is one key concern within the financial services industry (Grant, 1991).

Today’s financial services industry faces many demanding challenges:

- higher levels of uncertainty due to technological changes
- strong national and international competition, resulting in the demand for customer-oriented product and service-innovations as well as new distribution channels
• mobility of skilled workers and the possibilities of modern information and communication technologies
• regulatory changes
• threats to profitability (Grant and Venzin, 2009; Shih et al., 2010; Skinner, 2007).

In particular, the levels of uncertainty due to almost constant changes in technology and regulations are probably higher within the financial services industry than in any other (Boot and Marinc, 2008). These challenges coupled with shareholders’ focus on the income/cost ratio requires a constant search for more efficiency and effectiveness, although higher efficiency – especially amongst foreign financial services firms – does not automatically lead to increased profits (Sturm and Williams, 2004).

For these reasons, KM and k-based strategies as an integral part of strategic management become more and more important for the financial services industry (Grant and Venzin, 2009; Safizadeh et al., 2008). Thus, a bank has to be especially careful when it comes down to the core competencies required to operate successfully in the market – both now and in the future (Boot and Marinc, 2008). The importance of knowledgeable employees in such an unstable and fast-paced world is steadily increasing; these employees and the firm’s overall capabilities therefore have to be regarded as a real asset in terms of competition and profitability (Koubek, 2000; Brown and Kleiner, 1997; Zineldin, 1996).

Going through management literature, best practices and academic literature on how to establish a KM initiative successfully within the financial services industry, the reader will arrive at the following questions: How do the corporate strategy of the company and KM fit together? Which of the models, frameworks, methods and best practices dealing with KM are the right ones? Finally, which organisational components are necessary to support KM, without having to reorganise and turn the existing organisational structure upside-down? The contribution of this paper is to respond to these challenges by developing a KM model on a financial services corporation level.

In Section 2 of this paper, the literature on KM is reviewed including definitions, the Resource-Based View (RBV) of the firm, the Knowledge-Based View (KBV) of the firm, knowledge domains, and communities and networks. In Section 3, the empirical research approach is briefly explained. Section 4 combines the knowledge gained in Section 3 with the theoretical concepts of Section 2 in order to arrive at a KM model for the financial services industry. Based on these findings, a set of implementation guidelines is proposed. The paper is concluded in Section 5 and provides guiding figures and illustrations in Section 6.

2 Literature review

2.1 Definitions of knowledge

Knowledge is multifaceted, multilayered (Kahin, 2006; Nonaka, 1994) and multidimensional by nature (Adair, 2004), leading to different, often controversial definitions (Adair, 2004; Akbar, 2003). The literature offers many different taxonomies and dichotomies (Becker, 2007; Duncan, 2006; Turner and Makhija, 2006; Orlikowski, 2002) that ignore the specificities of the individual firm, while at the same time
overstate the distinct differences between those dichotomies (Robertson et al., 2003). Unfortunately, academic discussions and the large amount of different definitions of knowledge are of little use for practitioners faced with questions regarding its management (Davenport et al., 1998). For Romhardt (1998), each dichotomy reflects solely the observer’s point of interest, his or her personal perspective rather than a truly objective point of view. Reinmann-Rothmeier (2001) goes even further when ascribing contra-productivity to these different definitions of knowledge inasmuch that adding to the confusion and the lack of acceptance among practitioners makes it more difficult to find a common language when talking about KM.

Knowledge that can easily be formulated or stored is explicit (Nonaka et al., 2006). Thus, it can be captured and codified rather easily (Hansen et al., 1999), making it well understood, reproducible, distributable (Tell, 2004) and easy to communicate to others (Cabrera and Cabrera, 2002). All explicit, articulated knowledge also involves a tacit act of knowing, which is quite different from what is articulated (Tell, 2004). Tacit knowledge – as well as knowing – is a combination of organisationally and personally embedded components interacting with and influencing each other (Thompson and Walsham, 2004). It is difficult to articulate in writing, as it includes personal experience, expertise and know-how (Hansen et al., 1999), leading to certain incommunicability (Spender, 1996). The problem of such incommunicability becomes clear when trying to store meaning (Spender, 1996) or codify action-based tasks like riding a bike, swimming or learning how to perform kung-fu (Orlikowski, 2002). This is exactly where Schultze and Stabell (2004) see some contradiction between knowledge – especially tacit knowledge – and its pro-active management; they see a “double-edged nature of knowledge”, which can be found in the two extreme corners of too little knowledge and too much. Where the first (not enough knowledge) is simply not sufficient to be competitive, the latter is a hindrance in its use (Schultze and Stabell, 2004), since not everybody needs to know everything at all times (von Krogh et al., 2001). Consequently, such an approach would simply be unrealistic, inefficient and highly costly.

Knowledge and trying to manage knowledge are two different propositions (Easterby-Smith and Prieto, 2008). In this respect, Schultze and Stabell (2004) offer most scholars’ recommendations to make tacit knowledge explicit. However, in order to gain a competitive advantage, knowledge must be hard to imitate and is tacit. Hence, the intention to make tacit knowledge explicit destroys its competitive value and is counterproductive (Schultze and Stabell, 2004).

2.2 Resource-Based View of the firm

For many scholars, the RBV is the leading theory of competitive advantage (Powell, 2001). The literature on the RBV includes contributions from many different perspectives such as organisational structures and cultures, managerial competence, technological capabilities and core competences. At the same time, as well as attracting a great deal of interest from strategic management scholars, the RBV is heavily prevalent in areas such as human resource management, operations management, marketing and management information systems (Lado et al., 2006). Hence, it is extremely difficult to find a unique body of literature for the RBV (Connor, 2002). These sometimes conflicting, sometimes interdependent theories within the RBV should not only be regarded as ‘healthy competition’, but also as a chance to turn the RBV “into a progressive research program” (Lado et al., 2006). It is exactly this diversity of perspectives, though, that reflects a key
strength of the RBV (Lado et al., 2006). For Easterby-Smith and Lyles (2005), diversity and specialisation in the field of KM are due to the speed of research and development conducted in this area; with little activity prior to the 1990s and most activity only after 1995, it is hard to retrieve a cumulative sense and build upon prior work in a systematic way.

Hamel and Prahalad (1996) argue that knowledge, know-how, intellectual assets and competencies are the main drivers in the information age. The RBV recognises the firm as a bundle of resources and capabilities, which form the basis for the firm’s current and future strategy (Grant, 1996) as opposed to any external drivers (Connor, 2002). While resources are the source of capabilities, capabilities are the source of competition (Grant, 1991). In addition, capabilities can be kept within the firm, even after replacing individual resources (Grant, 1991). However, not every resource and capability has the potential to become a competitive advantage. In order to generate a Ricardian rent, a resource or capability needs to be durable, difficult to identify and understand, imperfectly transferable, not easy to replicate, and in clear ownership of the firm (Grant, 1991). Barney (1991) argues that

- resources that are both rare and valuable may lead to competitive advantage
- if those resources are not imitable, substitutable or transferable, they may produce a sustainable competitive advantage.

Hence, it is the uniqueness of a resource – regardless of whether it is humanly, physically or otherwise intangible – which is of competitive value and difficult for competitors to imitate. Mainly, when talking about the RBV, resources are understood in the meaning of human resources in terms of their skills, knowledge and behaviour, and organisational resources in the sense of control systems, processes and routines (Colbert, 2004).

The RBV can be subdivided into the task to generate and then sustain competitive advantage (Hatch and Dyer, 2004). In this respect, Grant (1991) offers a five-stage strategy formulation process from the analysis of the firm’s resources to the strategy definition and the identification of (future) resource gaps. In this context, Connor (2002) raises criticism of the reliance on ex post facto analysis of successful companies to provide proof for the concept of the RBV. As such, it is very hard in practical terms to predict and realise any strategic intangible assets a priori (Connor, 2002). Hence, the usefulness of the RBV is in its descriptive rather than explanatory nature, as it fails to recommend clearly to managers any necessary practical competitive advantage building strategies (Colbert, 2004; Connor, 2002). A similar issue is raised by Powell (2001) regarding the assumption of firm heterogeneity inasmuch that it is nothing more than an ‘analytic proposition’, as both perfect competition and the assumption of different but non-identical firms are neither empirical nor rational, but axiomatic. The denial of an analytic proposition does not result in empirical error (although, by definition, all analytic propositions are true) but in self-contradiction, which is simply absurd. Hence, for Powell, the RBV is inherently refutation-proof (Powell, 2001).

Many scholars have lifted the RBV from the status of ‘view’ to ‘theory’, which has helped in making its acceptance as a theory rather widespread (Priem and Butler, 2001). Nonetheless, although Priem and Butler (2001) acknowledge both its popularity and potential, they do not consider the RBV as a theory yet in its own right. In addition to the
above doubts, there is the dilemma of valuable resources being hard to identify and measure, while it is exactly those resources that are hard to imitate and the basis for sustainable competitive advantage (Lado et al., 2006). However, in the face of ‘conventional wisdom’, the empirical analysis of Spencer (2003) shows that sharing knowledge with competitors can lead to higher innovative performance. This view challenges especially the RBV, where openly sharing knowledge across a firm’s boundaries is not regarded as providing any sustainable advantage at all (Spencer, 2003). Consequently, certain circumstances exist under which a firm might be better off sharing its knowledge instead of protecting it from rivals (Spencer, 2003).

2.3 Knowledge-Based View of the firm

The ‘Knowledge-Based View’ (KBV) of a firm is a development of the RBV, limiting the source of competitive advantage to knowledge (Easterby-Smith and Prieto, 2008). Hence, developing a KBV at least partly follows RBV logic (Priem and Butler, 2001). Generally, for both perspectives, knowledge is an important factor, so one should consider them as complementary rather than exclusive views (Easterby-Smith and Prieto, 2008). Knowledge-based theories emphasise the content of activities (or what the organisation comes to know) and thus complement organisational theories which place an emphasis on structure. Together, the different frameworks provide a more complete picture of organisational performance than each could accomplish alone (Argote et al., 2003). According to Bogner and Bansal (2007), one significant gap within the RBV, which is accounted for within the KBV, is an understanding of the origination and development of rare and valuable resources. The distinction of the KBV as a process and the RBV viewing knowledge as a resource helps to focus on knowledge creation and the exploitation of such knowledge (Bogner and Bansal, 2007). Spender (1996) defines the KBV as the combination of knowledge understood as “creation and processing” and as a process of “interpretation and meaning”. In essence, the KBV regards knowledge as the key factor for sustained competitive advantage (Easterby-Smith and Prieto, 2008) and provides answers to the question on how to manage knowledge to create such competitive advantage and achieve superior performance (Turner and Makhija, 2006). Consequently, the identification and possession of valuable, rare, inimitable and non-substitutable resources is a necessary but insufficient condition for value creation. In a second step, those resources need to be evaluated, manipulated and placed at the firm’s disposal in order to create value (Sirmon et al., 2007).

Due to a number of contradictions among KBV scholars, Nickerson and Zenger (2004) conclude that there is currently no knowledge-based theory of the firm. Turner and Makhija (2006) add to this by declaring that there is still limited insight into how to manage different types of knowledge.

2.4 Knowledge Management

KM can be described as the management of activities and processes increasing the effectiveness of knowledge and competitiveness through a better usage of individual and collective knowledge resources (Allan et al., 2004). Brown and Duguid (2000) stress the importance of effectiveness over efficiency within KM. The latter is more
concerned about costs and the speed of making knowledge available, whereas the former is hard to measure and mostly a matter of the perception of involved individuals (Sabherwal and Becerra-Fernandez, 2003). In practice, KM is often about the management of knowledgeable specialists and their contribution towards the objectives of the organisation (Collinson and Wilson, 2006).

Given the idiosyncratic character of a firm’s knowledge portfolio, its way of competing, its culture and therefore its underlying routines and processes, KM too is highly idiosyncratic. Each firm has to tailor its KM model to its individual needs to achieve optimum results (Lepak and Snell, 2003). In addition, a firm’s portfolio of knowledge cannot be regarded as static; indeed, it is dynamic over time. As such, today’s rare and unique resources might be of less value tomorrow (Barney, 1995). Breaking KM down into its main tasks, it can be defined as organising knowledge and making it available (wherever and whenever it is needed) to others (Sabherwal and Becerra-Fernandez, 2003; Scarbrough, 2003), with a main focus on creating, providing, sharing, transferring, using and protecting knowledge in order to improve organisational performance (Earl, 2001). Among these tasks, the most important core activities stated by over 150 companies are identifying, creating, saving, sharing and using knowledge (Allan et al., 2004). Turner and Makhija (2006) again underline the importance of these tasks by identifying the following four stages within KM:

- knowledge creation and acquisition
- the transfer of knowledge
- the interpretation of this knowledge
- the application of the knowledge.

2.5 K-domains

One of the key principles in the strategic management of knowledge is some way of structuring a firm into sub-units that focus on different areas of knowledge (Casselmann and Samson, 2007). Von Krogh et al. (2001) refer to this kind of structuring as the “concept of k-domains”. K-domains allow the application of different strategic goals in terms of knowledge transfer to and knowledge creation for each of the domains (Casselman and Samson, 2007). A KM strategy provides guidance on how to deal with knowledge and how to facilitate it on a daily basis (Easterby-Smith and Prieto, 2008). Where external environmental uncertainty is high, being explorative about new information and knowledge tends to be more important than exploiting existing knowledge. Hence, uncertainty needs to be compensated by exploration – not by increasing exploitation (Makino and Inkpen, 2005). Consequently, for a dynamic sector like financial services, a higher amount of k-domains dealing with exploration and innovation seems important.

2.6 Role of Information Technology and Information and Communication Technology

The role of information technology (IT) as well as Information and Communication Technology (ICT) in KM is fundamental for both practitioners and academic scholars (Edwards et al., 2005). ICT is often recognised as a driver of the knowledge-based
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society (Chong, 2006), and many firms’ KM initiatives rely on IT as an important enabler (Alavi and Leidner, 2001). Modern ICT overcomes many problems associated with distance, time and even technical incompatibility (Newell et al., 2001). Consequently, KM activities cover the entire IT spectrum: databases, corporate libraries, intranets, sharing, training programmes and virtual communities to name a few (Malhotra, 2005).

ICT used in order to support KM is often referred to as a ‘KM system’ (KMS). KMSs are IT-based systems supporting and enhancing the creation, storage/retrieval, transfer and application of knowledge (Alavi and Leidner, 2001). Advocates for ICT/KMS argue that it enables quick and global information sharing across an almost unlimited number of participants (Wasko and Faraj, 2005). Additionally, it has the potential to increase both the quality and frequency of knowledge creation and knowledge transfer (Alavi and Leidner, 2001) as well as knowledge application and integration (Alavi and Leidner, 2001). As such, organisations benefit from the usage of ICT, as valuable expertise flows at relatively little cost (Wasko and Faraj, 2005) positively influencing the level of structural social capital (van den Hooft and Huysman, 2009).

The importance to a firm of assessing and understanding its knowledge position and existing intellectual resources in order to formulate a KM strategy is emphasised by Alavi and Leidner (2001), who see this process as an important starting point for analysing and defining the role of information technology in facilitating KM. The appropriate portion of IT within a KM initiative is highly context-dependent; hence, there is a range of approaches (Edwards et al., 2005). According to Orlikowski et al. (1995), it is important to understand that any ICT has to be adopted to the firm’s idiosyncrasies, as otherwise it will be underutilised or even inappropriately utilised.

Finally, ICT affects workflows, communication and, as such, the way in which KM is practised (Newell et al., 2001). Properly used, ICT has the power to accelerate knowledge sharing capabilities in both time and space dimensions (Mohamed et al., 2006). Nevertheless, the success of IT in KM depends upon the idiosyncrasies of each individual firm. Hence, one size fits all approaches will not work, and ICT has to be part of a balanced and integrated set of components.

2.7 Communities and Networks

One major obstacle noted by Scarbrough (2003) when setting up a strategic, firm-wide KM framework is the absence of strong intra-organisational networks linking the different divisions. Realising that knowledge repositories are well suited to providing help for well-defined problems, but not for identifying non-obvious problem-solving ideas and/or poorly defined issues, Communities of Practice (CoPs) and communities of interest (CoIs) (Becker, 2007), as well as the concept of knowledge networks (Seufert et al., 2006; Wenger and Snyder, 2000), have gained importance. CoPs are groups “of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis” (Wenger et al., 2002) and can be characterised as lived, context-specific and task-oriented socialities where structural forms interact with human action (Thompson, 2005).
CoPs use a shared repertoire (common language, routines or tools), a mutual engagement and the understanding of members as a community with common goals (Wenger, 2000), where self-organisation is an important ingredient to their success (Amin and Cohendet, 2004; Adair, 2004). Thus, a community is a core locus of knowledge formation and knowledge exchange (Scarso et al., 2009), creating understanding, insight and creativity (Amin and Cohendet, 2004). As tacit knowledge can hardly be codified, the discussed concepts of personalisation (Hansen et al., 1999) and/or socialisation (Nonaka and Takeuchi, 1997) are inherently part of any community, assuring that knowledge is spread via personal interaction and communication.

Communities as well as networks have the power to generate high-quality performance, stimulate learning, retain talented employees and increase economies of scale and scope (McDermott and Archibald, 2010). A community can become a ‘Petri dish’ for new insights, innovation and the shape of a firm’s strategy (Wenger and Snyder, 2000). Communities and networks promote efficiency and effectiveness by, for example, avoiding duplication of effort on the one hand and increasing innovation on the other (Seufert et al., 2006). Thus, in the context of KM, they address a financial services firm’s concerns directly about sustained competitiveness. Hence, CoPs are a main cornerstone of the World Bank’s KM strategy (Wenger and Snyder, 2000).

Communities and networks also possess a negative side, as there is no “one best way” for them to function and poorly reflected solutions can lead to undesired outcomes (Scarso et al., 2009). Given the condition that neither of these forms are part of the primary organisation and the need of these forms to be – to a certain extent – self-organised groups producing mainly intangible values, it is difficult for management to judge their quality and output (Seufert et al., 2006). This argument is linked to the risk of becoming hostage of their history (Wenger, 2000) or “self-sealing groupings”, blocking external sources of knowledge (Ferlie et al., 2005), adopting too many static elements of the formal organisation and increasing homogeneity in experiences among the members over time (Holmqvist, 2003).

CoPs are sometimes viewed as counterproductive (Brown and Duguid, 1991), so it is vital that they are also ‘self-refreshing’ in terms of participants (Holmqvist, 2003), without having to integrate new members continuously (Un and Cuervo-Cazurra, 2004). As such, the determination to push its development through constant learning is vital for CoPs, as this helps to recognise knowledge gaps, remain open to emergent directions and be aware of new opportunities. This constant (self-) awareness assures that knowledge is not only shared, but also new knowledge is created in a cycle of formation and reformation based on their activities (Brown and Duguid, 1991); innovation takes place by uncovering formerly hidden possibilities (Wenger, 2000).

From an organisational perspective, the main advantage of various forms of communities is that they enable connecting individuals and (sub-) units, without having to restructure the whole organisation (Enkel et al., 2007). However, establishing CoPs to correct the primary organisation structure does, of course, involve a downside (apart from ever-present cost-benefit equations) – within any matrix organisation, one faces conflicting interests based on reporting structures to different units and/or managers, so CoPs members face the problem of what to report to whom and whom to ask for approval for what (Harris and Raviv, 2002). Too much structure and constraints, however, are a hindrance for CoPs (McDermott and Archibald, 2010). Parts of these structures include artefacts, documents, a common language, processes and routines,
all of which are important in operating and organising any (social) interaction within the CoPs. Thus, assisting CoPs in the development of such common structural elements is a key success factor (Thompson, 2005).

3 Research approach

This study has to be termed positivistic by nature, using a three-step sequential case study approach. Case studies are especially appropriate for practice-based problems where the knowledge of practitioners is of high importance for theory development (Cepeda and Martin, 2005). A major strength of case study research is its ability to use many sources of evidence such as documents, archival records and artefacts by using methods such as different forms of interviews and/or observations (Yin, 2008; Stake, 1995; Dooley, 2002).

There was a clear stress on interviews while using the case study approach. Interviewing is one of the most powerful methods used to gain understanding, as it is concerned with the ‘whats’ of any given situation (Fontana and Frey, 2005). This understanding is then, regarding the usage of communities, enriched by participatory observation and its concern about ‘how’ things are done (Stake, 2005). Both the ‘whats’ of interviews and the ‘hows’ of participatory observation are in line with Yin’s (2008) statement that case studies stress the importance of the ‘how’ and ‘why’ of a problem.

The first phase is used to acquire a holistic view about basic characteristics and a deeper understanding about macro-level “KM at financial services companies”, by means of open-ended electronic mail (e-mail) interviews. This phase has to be understood as a screening of appropriate candidate cases, which shall assure the correct collection of the final cases (Yin, 2008). In addition, this phase provides a first impression of the overall state of KM within the considered industry as well as within any single firm within the industry.

The second phase delves into well-chosen organisations based on the findings of phase one, by means of in-depth interviews. This phase forms the core part of understanding how KM is currently practised within German-speaking financial services companies.

Thirdly, the method of participatory observation is used to obtain a detailed picture of what is thought of as a very important part of well-functioning KM – communities (Brown and Duguid, 1991, 1998; Zander and Kogut, 1995). While the greater context is the organisation itself, it is important to gain a deeper insight into how communities work, as they are understood as a vital yet dynamic substance in KM strategies. Such insight can best be received

- at the group level
- by means of participatory observation.

This phase was guided by the aim to identify:

- the effectiveness of a working group sharing knowledge
- how a working group creates new knowledge/how problems are solved
the stages of knowledge transfer in terms of a lifecycle, until all members are brought to the same information and knowledge level.

With regards to multi-phased qualitative research within the KM domain, a similar approach (two-phased, one informing the other case study research with different participants from different hierarchical levels and departments), was used by Werr and Stjernberg (2003) in their study exploring management consulting firms as knowledge systems. A similar methodological approach to the exploratory effort was undertaken by Davenport et al. (1998) in order to understand how companies manage knowledge. Finally, it is not uncommon to enrich in-depth interviews with a subsequent participatory observation phase (Andriessen, 2007; Sandberg, 2005; Schulz, 2008), as moving from in-depth interviews to participant observation is only a small step (Fontana and Frey, 2005).

The overall research framework can be illustrated as showed in Section 6.1; the participants are to be found in Section 6.2.

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Differentiation and innovation are copied easily by competitors especially within the financial services industry, leading to fast-follower tactics and ‘me-too’ strategies (Gardner, 2009; Skinner, 2007). Thus, creating the flexibility and responsiveness to create new advantages at a faster rate than competitors is one key concern within the sector (Grant, 1991). The mix of technological, regulatory and competitive challenges, which are subject to rapid change, increases the necessity to apply KM actively in order to stop core competencies turning into core rigidities (Zollo and Winter, 2002). In addition, knowledge matures over time – what used to be hard to express or almost impossible to codify becomes widespread, easily accessible and rather basic knowledge (Hansen et al., 1999). From time to time, certain resources might devaluate from strategically important to an actual weakness due to changes within an industry (Barney, 1991). Consequently, the methods applied to capture and transfer such knowledge change over time, and changing methods influence the overall KM strategy, too. Hence, just as a certain dynamic underlies the financial services industry, so does any KM strategy and, thus, any KM model. Any KM model needs either to include or to be supported by organisational structures, as they are important carriers for sharing and creating knowledge (Un and Cuervo-Cazurra, 2004). It is the overall ‘fit’ between knowledge, organisational units of knowledge and relationships between those units that is relevant (Argote et al., 2003). Therefore, the creation of a KM model providing both the overall fit as well as the necessary flexibility to account for the ever-changing financial services industry is a core issue of this study.

An appropriate KM model for the financial services industry needs to be based on a definition of know-how, since different definitions may lead to different activities within the model (Schultze and Stabell, 2004). On a strategic level, knowledge definition shall be based on Zack’s (1999) strategy-oriented taxonomies of knowledge, in order to
establish k-domains around advanced knowledge and innovative knowledge. Once these k-domains are in place, a different definition of knowledge needs to be applied to capture, transfer and create it within each of the k-domains.

The starting point for both a knowledge-based SWOT analysis and a knowledge-based strategy definition is the firm’s existing resources and capabilities (Grant, 1991). With respect to k-domains and the distinction between exploitation and exploration, only the constant generation of new knowledge directed at new products and services has the power to be a source of long-term competitive advantage (Seufert et al., 2006). The use of k-domains especially allows for a disaggregation into manageable knowledge components and the application of different strategic goals in terms of knowledge transfer and knowledge creation for each domain.

Once the k-domains have been established and their overall target (exploitation or exploration) set, knowledge communities have to be introduced. The advantage of knowledge communities and/or knowledge networks is that they are not a new form of organisation, but an additional, cross-divisional, dynamic layer within the existing organisation (Seufert et al., 2006). Communities as well as networks have the power to generate high-quality performance, stimulate learning and increase economies of scale and scope (Cohendet, 2006), as they promote efficiency and effectivity by, for example, avoiding the duplication of effort on the one hand and increasing innovation on the other (Seufert et al., 2006). In addition, CoPs do not require extensive external management to lower any monitoring costs (von Krogh, 2005). Thus, communities and networks in the context of KM address exactly a financial services firm’s concerns about sustained competitiveness.

Different forms of communities exist, and for the purpose of a strategic KM model it is proposed to institutionalise CoPs to group common practitioners, CoIs, people with a common interest, knowledge networks and experts with a well-defined k-domain across the firm (Enkel et al., 2007), in order to assure that local and isolated knowledge is routed into the different forms of communities and out to the organisation again. In particular, interaction between these communities has the potential to stimulate learning and increase economies of scale and scope (Cohendet, 2006). Only then can a formal organisational structure support the KM model. Since a given set of communities only covers a given, predefined set of k-domains (Cohendet, 2006), it is important to reappraise the defined k-domains periodically and reapply a knowledge-based SWOT – leading to a possible revision of the KM strategy.

A financial services industry-specific KM model (as shown in Section 6.3) is proposed and explained as follows.

The starting point for any KM initiative has to be a proper evaluation of the firm’s inner and outer worlds regarding the values of and capabilities concerning knowledge, which have to be brought in line with overall strategic management. Only then can a KM strategy be derived that comprises a firm-specific working definition of knowledge. Combining the KM strategy with the definition of knowledge leads to the selection of certain KM methods fitting certain k-domains. This model has to be strengthened by the usage of communities and networks, along with the appropriate commitment regarding the usage of IT/ICT.
Communities assure the cross-linking of ‘knowledge islands’ in order to stimulate usage of knowledge across the firm and to overcome knowledge barriers (Seufert et al., 2006). It is important to interweave any form of community with others (Amin and Cohendet, 2004). Thus, the value of knowledge sharing can further be increased by linking groups that are structurally diverse in the sense of different locations, functions, reporting structures and tasks to be completed (Cummins, 2004). Hence, communities are an important means in countering the obstacle of strategic KM efforts lacking strong intra-organisational networks that link the different divisions (Scarborough, 2003). One of their main benefits is not having to reorganise or constantly realign the existing organisation, as communities can be understood as a secondary organisational element.

Based on both literature review and empirical research the following guidelines are proposed:

General issues:

- It is important for practitioners to get a broader and at the same time deeper understanding of overall KM concepts and KM methods, in order to exploit fully their potential.
- Although it is fine and actually necessary to apply KM methods restrictively, these methods still need to be grounded in the overall KM strategy and not applied in isolation.
- Trying to lock tacit knowledge away in databases does not support its diffusion, but rather adds to the disappointment of those in search of knowledge, providing knowledge and maintaining and supporting the technical infrastructure.
- Nevertheless, explicit knowledge can very well be stored in databases, especially if its content is kept up-to-date and is easily accessible. In this respect, a well working and well-accepted intranet solution does not necessarily have to be supplemented by a dedicated KM solution (as the former is sufficient, as long as it serves the purpose of capturing and transferring explicit knowledge only).
- However, often knowledge is neither tacit nor explicit, but includes both aspects at the same time. Therefore, a combination of providing documentation, but at the same time face-to-face interaction with an expert has the power to transfer both tacit and explicit elements of an expert’s knowledge.
- Modern ICT offers an interesting and promising means to share tacit knowledge, as the knowledge provider is no longer in need of blindly capturing anything any knowledge seeker might be asking for.

Strategy:

- Although a k-based SWOT is not always practiced in financial services firms, its high potential and value are not doubted and, hence, should be part of any firm-wide KM initiative.
- KM, including any definition of knowledge, has to be defined in line with the firm’s strategy and aligned with its value chain.
• Although it is necessary to apply KM methods restrictively, these methods still need to be grounded in the overall KM strategy, and not applied in isolation.

**KM-relevant knowledge lifecycles:**

• Knowledge and KM are subject to a knowledge lifecycle, i.e., what used to be tacit and rarely available within the organisation can become either irrelevant or simply widely known in the (sometimes nearby) future.

• Given that a knowledge lifecycle exists, it is mandatory not only to apply KM methods flexibly and dynamically, but also to align periodically the KM efforts of an organisation top-down. Hence, existing definitions of knowledge might have to be revised just like the overall KM strategy, which in turn might influence the usage of certain KM methods in certain areas.

• Even if definitions and the overall KM strategy remain unchanged, it might still be necessary to adjust the usage of certain KM methods based on a shift from formerly highly tacit knowledge towards explicit knowledge.

• The concepts of communities and k-domains especially are part of knowledge lifecycles, too.

**Communities:**

• CoPs are the right place to share and generate knowledge. It takes a certain amount of time as well as a stable team before CoPs perform at their best.

• CoPs are not an appropriate way of saving time, but they do increase quality and avoid mistakes and failures when dealing with a specific task.

• CoPs need to be provided with the freedom to make decisions; nevertheless, it is often not appropriate to let each member of the community become part of the decision-making process on equal terms.

• CoPs need to be equipped with the necessary trust (in their decisions) and should not be controlled too much from outside.

• The emergence of temporary subgroups, following the “specialists within a team of specialists” approach, seems unavoidable, but can be used to the benefit of the community to enhance further the quality of any outcome.

**K-domains:**

• K-domains are most valuable for strategically important knowledge. Hence, for basic knowledge and for knowledge where the future value is uncertain, CoIs and CoPs are the preferred choice.

• Although k-domains as well as the concept that communities and exploration vs. exploitation tendencies are intertwined and may tend to be almost inseparable, it is important to create a (working) definition and apply any such congruent definition throughout the firm.
5 Conclusion

“If KM is the solution, then what is the problem?” (Sambamurthy and Subramani, 2005). On a short-term basis, the problem is how to compensate for the uneven distribution of knowledge within an organisation by actively managing it (Fong and Choi, 2009), in order to increase the effectiveness and efficiency of a firm’s operations (Peteraf and Barney, 2003). Those firms not respecting or actively managing knowledge are most at risk of losing market advantage (Kahin, 2006).

As this study revealed, KM methods are used more often than expected (by the researcher and the researched companies alike!). The fact that academic literature is often unknown to practitioners, but nevertheless applied in practice, indicates that academic approaches towards KM are not that far away from practice. This implies that it is actually not simply practitioners applying academic approaches ‘by chance’, but rather academic literature being highly influenced by what is practised.

A major concern is for firms to understand and use existing methods

• more from a KM perspective
• bundling these isolated methods towards a KM framework and/or
• spreading these methods company-wide.

It is up to the academic community to bridge this knowledge gap, not only to increase overall acceptance amongst practitioners, but also, mainly, in order to increase the benefit of those practitioners actually applying (academic) models and definitions. Consequently, from a methodological point of view, stressing qualitative research in KM in order to develop new theories, instead of testing existing ones by quantitative means, is still appropriate. The need for yet more practicable KM models is at least partly backed by some scholars in the field, e.g., based on criticism regarding the general undifferentiatedness of existing solutions and models (Becker, 2007; Birkinshaw and Sheehan, 2002; Gault, 2006), the necessity for designing information systems in accordance with the nature and types of the firm’s organisational knowledge (Alavi and Leidner, 2001) or the need to define knowledge in a more appropriate manner for practitioners (Reinmann-Rothmeier, 2001).

The model proposed within this thesis is grounded on empirical evidence gained during this study. Furthermore, it receives support from other financial firms’ statements regarding KM strategy, as it supports a financial services firm’s strategic operational priorities, focusing on issues and challenges faced by the firm, supports innovation and adds value to the firm in order to enhance effectiveness, as it explores opportunities for synergy as well as cost-effectiveness (ADB, 2008). In addition, it accounts for the fact that, especially within the banking industry, the strategy is often limited by existing organisational structures (De Laurentis, 2005; Yildirim, 2005).

The KM model developed in this paper counters both the issues of the scholars and the needs of practitioners by starting to close the gap within KM literature. Nevertheless, the success of these components depends upon the proper consideration of the idiosyncrasies of each individual firm and a periodical review of the right interaction of the model components. Hence, one size fits all approaches will not work.
6  Figures and diagrams

6.1  Empirical case study-based research design (see online version for colours)

6.2  Anonymised participants (see online version for colours)
6.3 Knowledge management model for the financial services industry
(see online version for colours)

References


A knowledge management model for firms in the financial services industry


