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Development plan of knowledge management in international mobility process

Case: Seinäjoki University of Applied Sciences International office

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THESIS ABSTRACT

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The primary aim of this thesis is to examine the present situation of knowledge management in the mobility process and find out possible ways of developing it.

In this thesis, respondents working with the international affairs were interviewed; their responses were analyzed and related to theory.

Qualitative approach was implemented as the methodology. According to theory, knowledge is an asset that can give an organization competitive edge. On the other hand, knowledge creation is an expensive activity. One of the reasons organizations form knowledge creation collaborations is to share resources that are needed to create knowledge.

The study found more differences than similarities in respect to the theory provided. It was discovered that the organization has already implemented an information system as regards mobility process; they have mainly focused on the management of explicit knowledge (planning, organizing and providing access to a knowledge base) rather than creating an avenue for transforming tacit knowledge of the experienced staff members to explicit knowledge.

In conclusion, a software for managing knowledge is proposed in the development plan for Seinäjoki University of Applied Sciences.

Keywords: Knowledge management, customer relationship management

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Finally, I will like to thank Almighty God for the wisdom granted for this thesis to be accomplished.

Abbreviations

CIMO	Central for International Mobility
CRM	Customer relationship management
ICM	Intellectual capital model
KM	Knowledge Management
OCS	Organizational Control Structure
SeAMK	Seinäjoki University of Applied Science
UAS	University of Applied of Science
CKO	Chief Knowledge Officer

Figures

Tables

TABLE OF CONTENTS

1 INTRODUCTION

Seinäjoki University of Applied Sciences International office comprise of the following positions: President, manager of international affairs, project manager, coordinator of international affairs, coordinator of international affairs and communication, and finally all the international coordinators in different faculties.

Meetings are held monthly in order to create ideas, develop them and disseminate them. Knowledge is an asset that can give an organization competitive edge. However, knowledge creation is an expensive activity. One of the reasons organizations form knowledge creation collaborations is to share resources that are needed to create knowledge.

One of the most difficult tasks facing the field of knowledge management today is the definition of knowledge itself. The knowledge-based view of the firm endorses the importance of creating, managing and using knowledge for an organization's competitive advantage. Although attempts have been made to agree on a comprehensive definition, the inherent nature of the concept of knowledge probably makes it difficult for researchers to arrive at a plausible definition.

Developing knowledge-based theory of the firm raises the issue: What is knowledge? Since this question has intrigued some of the world´s greatest thinkers from Plato to Popper without the emergence of a clear consensus, which is not an arena in which we choose to compete. In terms of defining knowledge, all we offer beyond the simple tautology of 'that which is known' is recognition that there are many types of knowledge relevant to the firm. A definition of knowledge that originates from traditional Greek epistemology is that knowledge is a "justified, true belief". This definition calls for a belief that a certain tenet is true and unless such belief is justified, there is no knowledge. Alternately, according to Davenport and Prusak (1998), they give a working definition of knowledge as follows:

"Knowledge is a fluid mix of framed experience, values, contextual information and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers.

In organizations, it often becomes embedded not only in documents or repositories but also in organizational routines, processes, practices and norms.” (Davenport & Prusak 1998, 5)

1.1 Research purpose and research questions of thesis

The primary aim of this thesis is to research on the present situation of knowledge management in the mobility process and possible ways of developing it. To understand a fact how they manage knowledge, if knowledge management is encouraged and how staffs are being motivated to manage and share knowledge within the organization. Some questions have been drafted according to these prominent authors, (Nonaka, Tsoukas and Vladimirou’s 1997, Bixler, Davenport 1998, Ruggles, Skyrme & Amidon 1999, Oluic-Vukovic 1997, Snowden 1998). These questions below will get us to a point where the purpose of this thesis will be realized.

- Knowledge acquisition

How do the employees in International Affairs acquire their information and knowledge in respect to mobility process? Q1

- Knowledge utilization

In what way or how do the employees in the international affairs make use of their acquired knowledge? Q2

Who do you disseminate this information to, what information, is there any problems?

- Knowledge adaptation

How do you adapt to the new information gotten, is there any problems adapting and what kind of problems depending on technology, process, persons and attitudes? Q3

- Knowledge dissemination

Is knowledge being shared in the institution on this mobility process, if yes, then how? Q4

Who is responsible for that, is there any problems, which kind of problems?

- Knowledge generation

How do you utilize the realized information to create new knowledge Q5?

How do you generate this new knowledge?

- Development plan

How do you think information dissemination could be developed in the mobility process?

The way knowledge is being generated could be developed in the mobility process, in what way please?

Knowledge adaptation could be developed and in what way could this be?

How could the use of knowledge be developed in the mobility process?

How could the process of acquiring knowledge be developed?

(Davenport and Prusak 1998, 5)

1.2 Research method

The methodology of this piece of work will be based on qualitative analysis. In order to get the main fact, questions for interview will be gathered together for the main staff of International Affairs and all the international coordinators, the response of the interview will be presented and discussed upon. The present situation will be known through this interview and development plan will be pondered upon based on the theory in the literature review. In chapter three, the research methodology will be presented and elaborated upon.

The figure below gives a vivid and precise explanation of how the thesis will be outlined.

1.3 Thesis outline

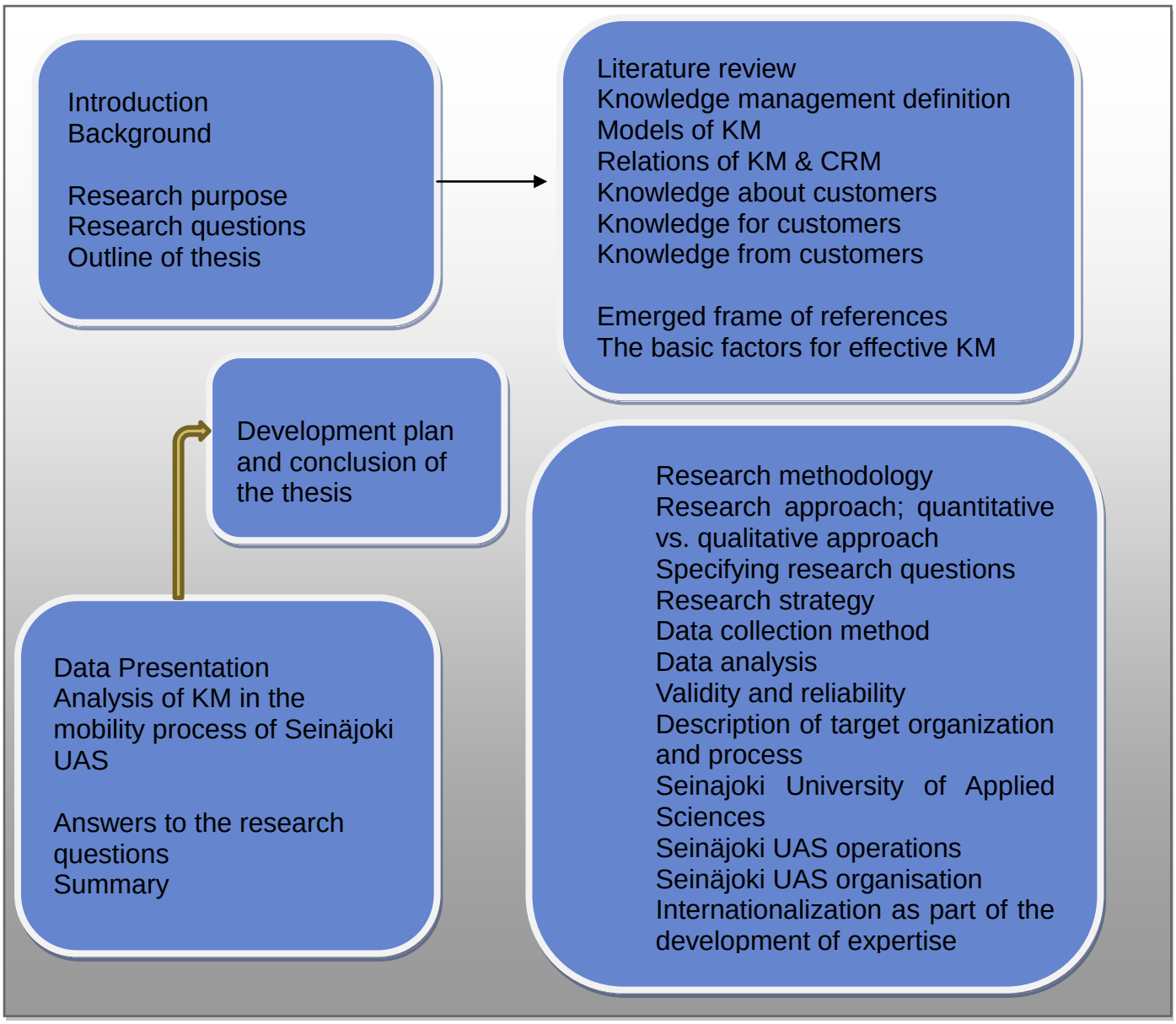

Figure 1. Thesis outline

The first chapter of this thesis will introduce the Seinäjoki UAS and the purpose of the thesis. The second chapter links the first chapter with the illustration of how customer relationship marketing is related to knowledge management, with the explanation of literature review and frame of references. The third chapter will explain the research methodology and how data would be collected and analyzed. Data will be presented and analyzed in chapter four, and chapter five will involve the development plan and the conclusion of the thesis.

2 LITERATURE REVIEW

In the second chapter of this thesis, theories related to this topic will be discussed. In the literature review about knowledge, there have been several debates about the theory ‘Knowledge’, what Information is about and data. A lot of literature on knowledge classifies it into two major categories: Explicit and tacit knowledge. Explicit knowledge can be defined as the things that are clearly stated and defined on the other hand, tacit knowledge can be defined as things are that are not expressed openly, other than obscure (Choo 2000, Bloodgood and Salisbury 2001, Carvalho and Ferreira 2001, Herschel et al.,2001)

Hitherto explicit and tacit knowledge are the most broadly accepted and elaborated knowledge classification (Nonaka 1994, 14) Explicit knowledge is accurately and properly articulated and codified in documents and databases of corporate procedures and best practices (Alter 2002) Tacit knowledge is the practical wisdom possessed by experts that is not easy to gain, nonetheless repeatedly demonstrated in contexts as varied as factories floors, research laboratories, army basis, and corporate board rooms. (Crowley 2000, 205)

An additional major peculiarity of knowledge is cultural knowledge (Blackler 1995; Snowden 2000; Choo 2000) Cultural knowledge is expressed as the assumptions, beliefs and values of people (Choo 1998). Nonetheless, many other classifications have also emerged, but they are all an extension of these basic classifications.

Clearer understanding is feasible by looking at Blacker’s (1995) study in which he mentioned five classifications of Knowledge, which are embrained, embodied encultured, embedded and encoded:

Embrained knowledge is the knowledge that is reliant on conceptual skills and cognitive abilities. Cognition is the human capacity to perceive, interpret, and reason about environment and conceptual environmental or organizational stimuli and meta-cognition is the capacity to think about thinking (Carayannis 1999). This is the intangible knowledge or personal insight, models, systems thinking, and shared visions in a common account of organization thinking.

Embodied knowledge is the action oriented and is likely to be only partly explicit. Such knowledge is acquired by doing and is entrenched in specific contexts. This is expressed as “practical thinking” or intimate knowledge of a situation rather than abstract rules. (Carayannis 1999)

Encultured knowledge refers to the process of achieving shared understandings. Cultural meaning systems are intimately related to the process of socialization and acculturation. Such understanding are likely to depend strongly on language and thus to be socially constructed and open to negotiation. (Carayannis 1999)

Embedded knowledge is the knowledge that resides in systemic routines. Embedded knowledge is analyzable in systems terms, in the relationship between, for instance, technology, roles, formal procedures, and emergent routines. (Carayannis 1999)

Encoded knowledge will be identified as information expressed by signs and symbols. To the traditional form of encoded knowledge, such as books, manuals, and codes of practice, have been added information encoded and transmitted electronically. (Carayannis 1999)

However, information encoded by decontextualised, abstract symbols is unavoidably highly selective in the representations it can express.

Peter Drucker (1990) described knowledge, somewhat than capital and labor as the only significant resources in the knowledge society. Currently knowledge has become one of the serious driving forces for business success. Organizations are becoming more knowledge concentrated; they are hiring “minds more than hands” and the needs for leveraging the value of knowledge are greater than ever.

Quinn (1992) depict that the economic and producing power of a modern corporation lies in its intellectual and service capabilities instead of its hard assets. Quinn likewise points out that the value of most products and services now depends on “knowledge based intangibles” such as technical know-how, product design, marketing presentation, understanding customers, personal creativity and innovation. This observation is an addition to that of Toffler (1990) who considers

knowledge to be the source of power and no longer just an adjunct of money and muscle but instead the key element of power.

Alternatively, pressure of success is forcing organizations to become more dynamic in their operations and adopt innovative approaches to be competitive (Arnison and Miller 2002). Constantly in e-business knowledge has become a strategically important resource, the way organizations interpret new skills and learning capabilities is becoming a key role in organizations (Sanchez 2001).

Even though there is acknowledgment that the knowledge society and knowledge economy have arrived that knowledge is the key business assets, organizations are still in the early stage of understanding the implication of knowledge management. (Rowley 1999)

The recent advances in the up-and-coming field of computer and high speed communications have increased the organization interest in the topic of KM but still every organization and company has its own definition of knowledge and how it should be gathered, categorized and made accessible to employees.

The things that work for one company will not work for another the reason being that organizational knowledge is so subjective. The one size- fits-all mentality, coupled with the tendency to focus on technology rather than people and process, has obscured with the benefits that KM can bring, according to Shir (2002). It does not help that knowledge means different things and often involves different kinds of technologies at different organizations.

2.1 Knowledge management definition

Diverse definitions of KM have been published. But by synthesizing the explanations of KM term from the literature (Allee, 2001; Bassi, 1997; Beckman, 1999; Gordon, 2000; Martin, 2000; Mayo, 1998; Nonaka & Takeuchi, 1995; Nonaka & Konno, 1998; Parlby, 1998) to name a few, KM can be expressed as the process of collecting and identifying useful information (i.e. knowledge

acquisition), transferring tacit knowledge to explicit knowledge (i.e. knowledge creation or transfer), storing the knowledge in the repository (i.e. organizational memory), disseminating it throughout the organization (i.e. knowledge sharing), making it easier for employees to retrieve it (i.e. knowledge retrieval) exploiting and advantageously applying knowledge (i.e. knowledge leverage).

Numerous organizations nowadays are putting a great deal of emphasis on the discipline of knowledge management. They often develop tools, systems, and awareness amid employees that capturing and sharing knowledge is an essential organizational practice. (Nonaka & Konno, 1998)

Knowledge management creates significance when knowledge is shared and reused. While KM is a systematic approach, many KM practices and strategies can be implemented without establishing a formal KM program. And regularly this is the best approach. (Nonaka & Takeuchi 1995)

The aim of KM is not to manage all knowledge, other than to manage the knowledge that is most essential to the organization. It entails applying the collective knowledge and abilities of the whole workforce to attain precise organizational objectives. It entails getting the right information to the right people at the right time, and helping people create and share knowledge and act in ways that will visibly develop individual and organizational performance. (Bose 2002, 89)

Knowledge management three major components of discipline (Bose 2002, 90):

People – who create, share, and use knowledge .and that collectively comprises the organizational culture that cultivates and inspires knowledge sharing.

Processes – the methods to acquire, create, organize, share and transfer knowledge.

Technology – the mechanisms that store and provide access to data, information, and knowledge created by people in various locations.

The figure below illustrates the three major components that are cogent for successful knowledge management venture

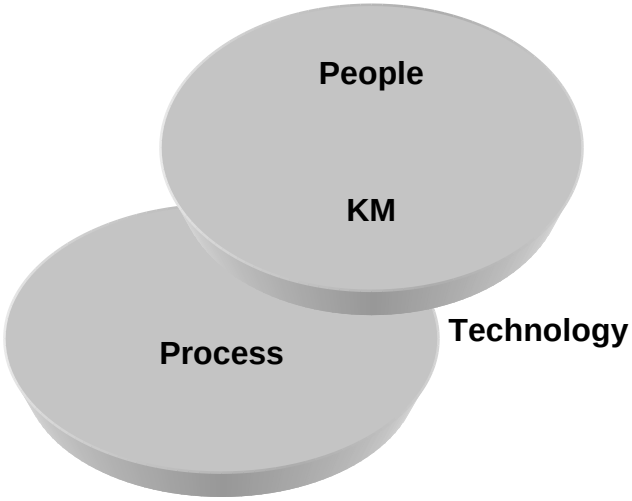

Figure 2. KM three major components

2.1.1 The people component

At the same time as all three elements are necessary for a successful knowledge management venture, the people component is the most prudent. General success is reliant upon people's willingness to share their years of accrued knowledge in order that others can reuse it. The eagerness to share is deeply reliant upon building an atmosphere of trust. Trust, or lack of it, can make or break a KM effort. (Bose 2002)

Smaller organizations – those with fewer than 150 employees – find it easy adapting to KM than their larger counterparts. In general employees in smaller organizations share information more easily because they seems to know more

co-workers, contact is easier and more regular, and is most frequently face-to-face. In this environment, there is a stronger sense of trust and relationship with each other; as a result knowledge sharing is better made easy. In larger organizations, knowledge sharing is more complicated for the reason that people are more proper to organize into small groups that tend to gather their communications among themselves.

Employees across the organization are less probably to know each other; trust is often harder to build among strangers. This indication does not imply that KM is impossible in larger organizations. Relatively the organization must work toward creating an atmosphere that promotes knowledge management as an organizational principle and stresses the significance of sharing information within organizational boundaries. Processes and technology become more prudent in larger organizations.

Ability to be able trust the source of information is vital. A well-respected member of the organization is likely to be looked up to first for information, based on his or her expertise, rather than a newer or younger employee. In addition, researches have shown that, in general, people will contact their co-workers before checking into a database or calling technical support staff when they need knowledge. (Bose 2002)

The accomplishment of KM ideas depends upon people's willingness to share knowledge and use the knowledge of others. The frequently held conviction that knowledge is power can demoralize knowledge sharing. A lot people are unwilling to share knowledge because of the fear of relinquishing their power. This can translate into professed lower marketability, job threat, and loss of organizational status. Low morale, divergence, and distrust also act as barriers to people's willingness to share. Lastly, people always want credit for their ideas. If they deduce they will not be acknowledged, they will be more unwilling to share information. (Bose 2002)

Managers must be familiar to the organizational dynamics and act properly to ensure that lack of enthusiasm is minimized. Organization must build an

atmosphere that encourages and rewards KM. Some organizations acknowledge employees who have shared precious knowledge at an appreciation function or in some other public venue.

2.1.2 The process component

Organization build and put into practice processes to acquire, create, organize, share, and transfer knowledge. These processes are:

- Performing knowledge audits to establish and situate the knowledge that is needed
- Creating knowledge maps to permit quick access to knowledge
- Creating communities of practice or concern to share tacit knowledge
- Collecting best practices and lessons learned to share knowledge
- Managing content to keep knowledge current and guarantee that the knowledge being retained is significant
- Telling stories to convey knowledge
- Encouraging learning to facilitate the transfer and use of knowledge

2.1.3 The technology component

Most organization chooses to store and manage their information through computer and telecommunications means. Mainly because it encourages easy access, reduces time with the effort, and accurately saves space.

The means for people to gather unify, store, and access explicit knowledge is offered by technology. It likewise enables people to share their tacit knowledge

despite not being face to face. It can increase how accessible knowledge can be, reduce the time and effort to record and keep it current, and finally aid interaction with citizens, customers, and stakeholders.

Networks and computers are able to link people and store information that can be recovered quickly. Technology can be used to research and point the inquirer to a source for knowledge sharing. Chat rooms can likewise be useful because of the interactivity. The information inquirer can use the internet to discover research documents and obtain information on the path to gaining knowledge.

To sum it up, knowledge transfer is the process of sharing knowledge between one person and another. Knowledge must be conveyed and riveted or learned before another person can use it. If knowledge is not riveted, then knowledge is not transferred. To most effectively transfer knowledge, it is vital to have enthusiastic givers or providers and interested recipients.

2.2 Models of knowledge management

In general, models are used to captivate the vital features of real systems by breaking them down into practicable parts that are easy to comprehend and to use. Models are immensely associated with the domain they represent (Savolainen et al. 1995). That domain will describe their practicing communities, modeling languages and the associated tools used. "*A model is a simplification of reality*" (Booch et al.,1999). Real systems are huge things comprising of interconnected components working together in a compound manner. Models help people to value and comprehend such complexity by making it possible for them to look at each particular area of the system turn. Models are used in systems development activities to draw the blueprints of the system and models can help them comprehend these views in a unified manner.

Many models of KM can be found in the KM literature, the most commonly quoted among them are the ones developed by Wiig (1993), Nonaka (1994), Edvinsson and Sullivan (1996), Carayannis (1999) and Despres and Chauvel (2000).

Wigg's 1993 KM framework reposes on three pillars, which represent the major functions needed to manage knowledge. In practice, respectively, the functions consist of formal methodologies and informal approaches. These three pillars are: explore knowledge and its suitability; assess value of knowledge; and manage knowledge activity. This model has captivated some of the valuable issues that are theoretical and practical in the KM area. The phases associated in this model do not explain the purpose of each phase. For more explanation, the models says "handle, use and control knowledge", it does not say why or how to control this knowledge. How do we handle or control tacit or cultural knowledge? This model is generic in nature without seeing the differences in industry, organizational structure, culture, etc.

Nonaka's SECI model is the most broadly discussed theories in KM literature.

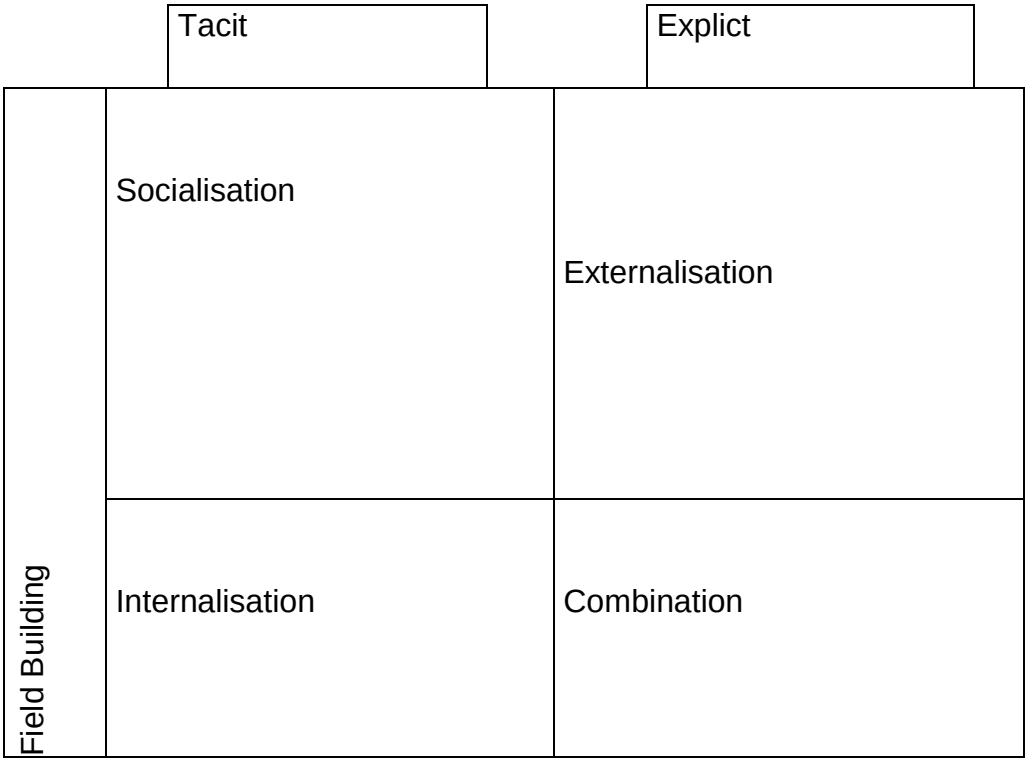

Figure 3 Nonaka's SECI model

The model was created from empirical proof gathered in case studies of Japanese firms (Honda, Canon, Matsushita, NEC, Sharp and Kao) and targeted to elaborate a new theory of KM.

At the basic of the model is the peculiarity between tacit and explicit knowledge, and the dynamics of the analysis of knowledge creation through cycles of socialization, externalization combination, and internalization (SECI) cycles created on the postulation that knowledge is created through conversion between tacit and explicit knowledge. From this postulation, Nonaka suggested four different modes of knowledge conversion from:

- Tacit knowledge to tacit knowledge; (Share experiences, spend time together).
- Explicit knowledge to explicit knowledge; (Community based electronic discussion)
- Tacit knowledge to explicit knowledge; (Acquisition, processing, sharing)
- Explicit knowledge to tacit knowledge. (Personal experience)

Nonaka clarified that the first is the result of socialization, second is the result of combination, third is the result of externalization and fourth is the result of internalization. The effort of Nonaka is helpful in providing understanding into an extensive range of issues related to knowledge creation process and a number of specific mechanisms used to manage knowledge to simplify that process.

Nonaka has been able to define in detail a number of mechanisms to facilitate the sharing of knowledge and the progression of learning at organizational level. Nonaka has visibly shown that relationship between the mode of knowledge conversion and their contribution to the conversion of individual into organization knowledge. Nonaka has offered in a simple manner the numerous dynamics of knowledge creation, distribution and management. Nonaka’s theory formed a basis for future developments and continual studies.

Nevertheless, some issues remain indistinct. For Nonaka’s work, the source of codified knowledge does not matter nor has no significance. It seems that it does not matter if the effort to acquire tacit knowledge from external source or internal

source is different (Dutrenit 2000). Firms do not seem to need external sources of knowledge; though it has been stressed in many later studies that external source (customers, market surveys, etc.) Of knowledge is an indispensable element for firms in KM (Davenport and Prusak 1998).

Nonaka used a narrow classification of tacit knowledge and several degrees of codification of tacit knowledge; again it has been proven by several researchers that conversion of tacit knowledge to explicit knowledge is possible to only a partial extent (Tsoukas and Vladimiou 2001, 93). Nanaka's SECI model is generic model that needs to be modified to fit into various industries, sizes and cultures to be able to put into practice.

The use of innovation management theory, Edvinsson and Sullivan (1996) developed the intellectual capital model (ICM) of a firm. This model recommends that the intellectual capital of a firm has four major elements, namely human capital, structure capital, complementary business assets, and intellectual property. The ICM model is designed to facilitate innovation in organizations to achieve competitive advantage. Its core character is to innovate and codify the knowledge, and to reuse for removing competitors' threat. The ICM model is primarily concerned with the management of resources for achieving innovation, and commercialization of innovation for fiscal benefits. They have magnificently identified and classified the resources into categories that lead to commercialisable innovations and those resources that helps develop service that add value to innovations. Though, the ICM model has unsuccessful failed to accomplish the classification of knowledge in an organization and to recognize the way to manage the resources for KM.

Considering this model, we are certain about what these resources can contribute; still we do not know how to make these resources contribute. The ICM model may be used for industrial concerns, but its appropriateness for an organization like SeAMK looks out of scope. Carayannis (1999), has given the organizational view spiral (OCS) and organizational knowledge network (OK Net) models to the KM literature. The OCS model expresses diverse knowledge states that are a function of two dimensions – knowledge (K) and met – knowledge (MK) and its consists of

consecutive “Knowledge cycles” where an individual or organization can transfer and navigate four stages of awareness or ignorance. The OK Net model is an investigational test bed or technology platform for designing and testing an organizational KM network for the support, monitoring, capturing, measurement, and enrichment of organizational cognition in an eight-stage process.

The details of the eight-stage process of KM are presented in Table 1 below

Table 1. Carayannis's eight-stage process of knowledge management Carayannis 1999,219

Stages	Steps	Descriptions
Stage1	Identify	Determine core competences, sourcing strategy and knowledge domain
Stage2	Capture	Formalize existing knowledge
Stage 3	Select	Assess knowledge relevance, value, and accuracy, Resolve conflicting knowledge
Stage 4	Store	Represent corporate memory in knowledge repository with various knowledge schemata
Stage 5	Share	Distribute knowledge automatically to users based on interest and work. Collaborate on knowledge work through virtual teams
Stage 6	Apply	Retrieve and use knowledge in making decision, solving problems, automating or supporting work, job aids, and training
Stage 7	Create	Discover new knowledge through research experimenting and creative thinking
Stage 8	Sell	Develop and market new knowledge based products and services

The OCS model is deeply rooted in cognitional learning theory, which the heights of learning undoubtedly demonstrate the true nature of learning process in the organization. Once the present stage of responsiveness of the organization has been mapped, it is possible to navigate the various stages to attain the desired stage. On the other hand, a key prerequisite is a database of interest/expertise profile on the human capital of the firm (knowledge/expertise maps/repositories) that supports the OK Net model. It is not made understandable how this is to be created; codification of explicit knowledge itself is a complex process, let alone tacit or cultural knowledge. An additional issue is determining the existing knowledge level of the firm to map it to a stage. This exercise needs expertise and

the process is lengthy. No guiding principle is provided as to how this can be attained. The entire model once put into practice may provide the firm with KM capabilities, but the early implementation looks like a complex matter. (Carayannis 1999, 219)

Despres and Chauvel (2000) developed a meta-model purposely based on four dimensions of KM, namely, time, type, level and context. Based on the time dimension, an event chain from a linear and structural perspective can be specified. At the same time as this depiction greatly simplifies the unified and multiple-casual nature of cognition, it appears to fit several of the issues addressed in this field. The most outstanding distinction with regard to types of knowledge is that of tacit and explicit. Hitherto, there is clearly little acknowledgement in the area that knowledge is multiplex other than singular. They proposed three levels of social aggregation to knowledge: Individuals, groups and organizations. They also found that a profound importance lies in the rarely realized reality that nothing has any meaning outside of a perspective.

This meta-model depicts in depth the various aspects of knowledge and confines the various discourses that exist in KM. It is likely to gain an excellent understanding of knowledge and the theoretical basis of KM. The model likewise fruitfully covers all that is pertinent in literature of KM. They have managed to build a theoretical framework which is essentially based on the results of other researchers; however, it has been very successful in inserting each concept suitably in connection with others and is totally meaningful. Nevertheless, such theoretical foundation was not followed up with an accomplishment model or accomplishment plan. This makes the meta-model good only for gaining a clear understanding of knowledge concepts and linked management issues but leaves the model less useful from an implementation point. The meta-model also ignores issues of industrial variations and culture. (Despres and Chauvel 2000)

2.3 Knowledge management physical systems

There are three kinds of physical systems which are necessary for KM to be core ability (Tiwana 2001). These are capturing tools, Communication tools, and collaboration tools. Figure 2.4 below demonstrates how these three tools support the KM activities.

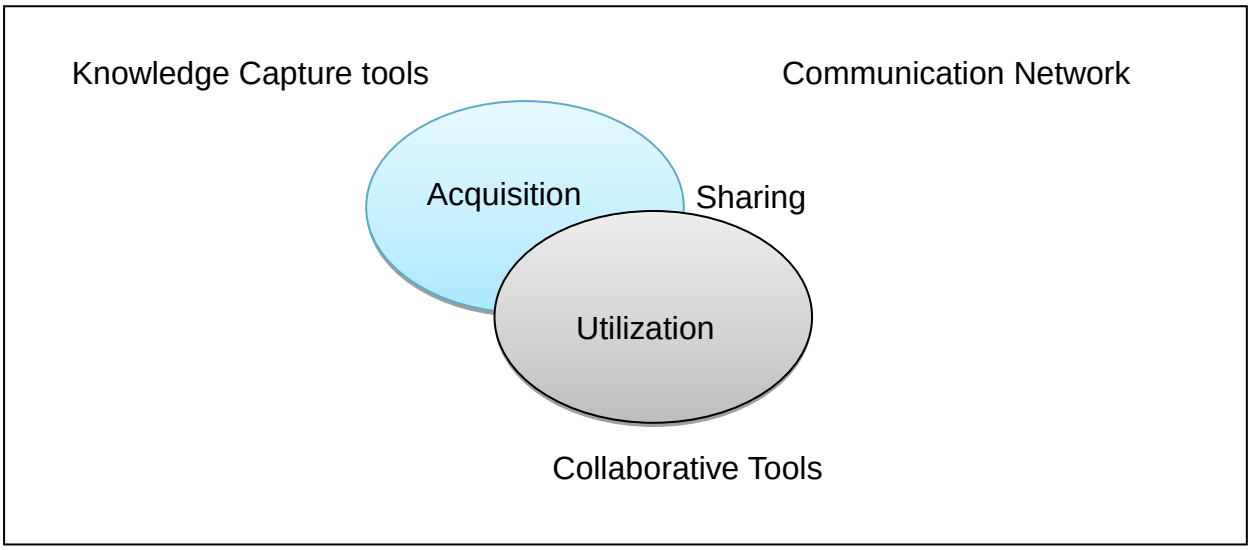

Figure 4. Knowledge management physical system

These tools assist in acquiring, codifying and storing structured and explicit knowledge.

Examples of the kinds of technologies are intelligent databases, note-capture tools, electronic whiteboards, and the associated DBMS. An additional set of technological tools that are exceptionally effective in acquiring knowledge, through importing external knowledge, or generating new knowledge out of existing knowledge, is intelligence tools (Tiwana 2002). Case-Base-Reasoning, such as, helps search a set of previous cases and chooses the one closest to the case at hand. Screening old cases may spark new ideas that can be applied to new cases. Collaborative Filtering generates fresh ideas and suggesting by drawing analogies amid the case at hand and the case in question. This specifies. *Data Web houses*

collective data across multiple sources and give decision makers the capability to run complex queries for high quality information (Hang et al., 2000)

2.3.1 Communication tools

One of the main tasks of communication tools is to ease viewing of documents irrespective of their formats, operating systems, or protocols. This is the main reason Intranets, which are platform-independent, are very important for communicating knowledge in the organization (Tiwana 2002). In these intranets or other dispersed networks, videoconferencing and multimedia capabilities should be placed into practice to capture the informal content of messages that could be misplaced forever or leave useless. Knowledge maps are paths of knowledge sellers' backgrounds, contact information, and expertise (Maryam & Leidner 2001. 107). This illustrates the significance of face-to-face communication essential for people to trust one another when sharing tacit knowledge (Swoyer 2000, 36).

2.3.2 Collaboration tools

Immediately communication tools have been positioned, places for concrete sharing of knowledge need to be established. Collaboration tools support knowledge creation and convey through informal talk and discussions (Tiwana 2002). For instance, Virtual Meetings, also known as web-conferencing, make possible for people in different locations to meet and share and view multimedia information, screens, files simultaneously. Document Collaboration tools permit team members to immediately adjust a document they are working on from workstations. Adjustment by any member is reflected in real-time. Information Communication tools allow users to hear and see other users, fundamentally allow a real-time chat. Groupware allows users to share access to email, diaries, calendars, and so on. Internal messaging as well as communication with the

outside world is also allowed. Reports and anecdotes can instantly be sent and shared by users. With interactive web pages, groupware likewise has a database environment which permits for version tracking and workflow. Lotus Notes, meanwhile, has the ability to duplicate data between workstations and servers to enables remote work that needs to be carry out on the road (Edwards 1998, 14).

2.4 Relations of KM & CRM

It's been proved by several writers that knowledge management is one of the significant factors for success of CRM in long-term. In the case of Seinäjoki University of Applied Sciences, their customers will be the students and the partner Universities. According to Newell (2000) the real importance to a company lies in the value they create for their customers and in the importance the customers deliver back to the company. Consequently, it is vital to mark that the importance does not lie in more information and in more sophisticated technology. The importance lies in the customer knowledge and in how the company makes use that knowledge to manage their customer relationships knowledge is the function of CRM.

Unfortunately, a small number of companies are transforming the information to customer knowledge and therefore they fail to spot the opportunity to provide value to their customer. Nevertheless, applied in a right way, CRM is the tool that adds to profit. If companies are transforming the customer data into knowledge and then uses that knowledge to build relationships it will create loyalty, followed by profits (Newell 2000).

CRM and knowledge management (KM) has been once considered completely different disciplines, with the two sharing little but possibly the same data warehouse hardware and an unclear understanding that both efforts were meant to advance business effectiveness and customer satisfaction. It has become clear, on the other hand, that the two disciplines were actually working toward identical goal, and that to deliver constant improvement to business clients, in this case,

they would have to start speaking the similar language. Both approaches center on allocating resources to encouraging business activities in order to achieve competitive advantages.

In order to build a good relationship with customers, it is essential to serve each customer in his ideal way, therefore requiring the management of ‘customer knowledge’ (Davenport et al., 2001). In this case, as for partner universities which could be taken as a customer, for you to satisfy them and serve them in a preferred way, you need to have a concrete knowledge about them beforehand. This brings us back to the issue of CRM. Beforehand, several teachers have been abroad, building this great relationship among partner Universities, but if there is no CRM data base for them to input their experiences, it is very certain that such relationship will suffer when they are out of the organization.

Several knowledge management approaches, as presented by KM models, view managing knowledge as independent of the supported business processes. Knowledge and its management are seen as essentially valuable, a view not commonly shared by the process owners who have to accept the costs of the supportive activities, but is measured by their capability to generate revenue and control costs. In numerous cases the latter is not measured in knowledge, other than in services or products (Demarest 1997, 375).

CRM processes usually involve not only transactional data, which can be automatically collected and stored in relational databases, but likewise a considerable amount of knowledge. Also, CRM processes are typically compound and only controlled to a certain extent. Therefore, they can be considered knowledge-intensive processes (Eppler 2004). In addition to developing an integrated view of CRM processes, it is consequently vital to address the management of knowledge runs from and to the customer across all communication channels in addition to enable the use the knowledge about the customers.

To attain their objective of serving the customer, organizations performing in CRM have to understand and address the customer’s processes. (Osterle “Enterprise in

the information Age", in Business Networking: Shaping Collaboration Between Enterprises, eds.: Osterle, et al., Springer 2001.) They then need three different types of customer oriented knowledge:

2.4.1 Knowledge about customers

They need to recognize the requirements of customers in order to deal with them. This is referred to as "knowledge about customers".

Knowledge in relation to customers is captured mostly by offer management, service management and, if existing, contract management. Major user processes of knowledge regarding the customer are campaign management and service management, since both processes personalize their services based on user criteria.

Knowledge regarding the customer has to be transparent within the company; nevertheless its dissemination beyond the border of an organization should be controlled, as the knowledge regarding the customer can frequently be directly transformed into competitive advantages. The improvement of such knowledge is also costly, because knowledge explication is taking time and awareness away from the core task, i.e., serving the customer. Interaction management offers possibilities of gaining knowledge about customers automatically via electronic media, the question of how much data about the customer an enterprise can convert into knowledge is the vital challenge when managing knowledge about the customer. In this case the interaction manager could be international coordinators, manager of international affairs or any link that can build a relationship between SeAMK and Universities abroad.

2.4.2 Knowledge for customers

Customers' needs should be matched with the services or products offered. All knowledge necessary here can be summarized under the term "knowledge for customers".

Knowledge for customers is mostly created in processes within the enterprise, such as research and development and production. An international affair is sensible for collecting this knowledge and refining it according to the customer requirements, in respect to students and partner universities. It is then disseminated to the other of CRM processes, mostly offer management, contract management and service management. CRM manages knowledge transparency and dissemination knowledge for customers. Sustaining the balance between comprehensibility and precision is the major challenge when managing such knowledge.

2.4.3 Knowledge from customers

Customers gain lots of experiences and insights when using a product or service. This knowledge is important as it can be used for service improvements. This "*knowledge from customers"* should be channeled back into an enterprise.

Knowledge from customers can be captured in comparable ways as knowledge about customers. Gaining knowledge from customers is based on the fact, that customers gain their own expertise at the same time as using a service and can be seen as equal partners, when discussing changed or developments. The major goal is not usually understood in the business world and its impacts poorly researched in academia (Garcia-Murillo. & Annabi, 2002)

In order to make use of this knowledge from "outside experts" as change agent it must be channeled into the back end processes of an enterprise, such as the research and development process. Nonetheless valuable knowledge from

customers is generally gained at the service points; an enterprise has to check its CRM processes for their capability of serving customers. To turn CRM away from their service goal in order to captivate higher amounts of knowledge from customers is a short sighted goal.

The entire three types of customers' oriented knowledge will be hereafter summarized under the term "customer knowledge". This model addressing CRM requirements center on managing customer knowledge. Additionally there are four main applications of KM which could be applied to one or more of CRM's core processes (sales, service and marketing). (Kathy Harris, Esteban Kolsky, James Lundy, April 2003)

Knowledge-base maintenance and access: For several enterprises, this is the first step into KM, and centers on the management of explicit knowledge (designing, organizing and proving access to a knowledge base). Knowledge-base applications are so broadly used in CRM that many enterprises think this is the only type of KM. These are also foundational applications for support, sales and marketing.

Expertise management: These applications center on leveraging tacit knowledge. They offer the ability to find and ask an expert and by this, to gain additional insightful and contextual knowledge than is accessible in a static document or data record. In CRM, this insight may perhaps show the difference in service level between an "answer" and a well-reasoned response.

Collaboration: Facilitating the creation of new knowledge frequently has higher business advantage than making better reuse or access to what is previously known. Technology cannot discover new things, but can develop the interaction of groups by making them to work with wider scope.

KM business applications: This concluding class of applications directly supports certain knowledge focused processes. Between the applications most relevant to CRM are e-learning and business intelligence.

2.5 Position of research related to literature

Through building a frame of references we can conceptualize the research question and answer to that. Based on the literature review and problem discussion presented in the previous chapters, the frame of references will comprise a base for analyzing the collected data which is connected to the elements of all research questions. Since there are quite a lot of theories mostly in a form of case study works and best practices within the area of knowledge management, focal point is also on the elements which are mentioned by previous researchers in general and can cover the purpose of this research in a suitable way.

2.6 Theoretical framework of thesis

Conceptual framework explains the mainly essential things to be studied. In this regard and based on the presented literature, theoretical observation and evaluations of the knowledge management, (Nonaka, Tsoukas and Vladimirou's 1997, Bixler, Davenport 1998, Ruggles, Skyrme & Amidon 1999, Oluic-Vukovic 1997, Snowden 1998). The subsequent research questions has been defined and developed based on research purpose mentioned in the first chapter.

A model anticipated by Oluic-Vulovic (2001) outlines five steps in the knowledge processing chain: *gathering; organizing; refining; representing; and disseminating*. This model covers almost a complete range of activities concerned in the organizational knowledge flow. It has a close resemblance of information life-cycle processes.

Foremost, the *gathering* step has been alienated into three different processes, each of which is distinctive from the other: discovery, acquisition, and creation of knowledge. Based on the Tsoukas and Vladimirou's model we center on knowledge acquisition in order to shape the frame for later references in data analysis chapter.

Acquisition involves conveying knowledge into an organization from both internal and external sources. The creation of new knowledge can be achieved in numerous ways. First, internal knowledge may be shared with other internal knowledge to create new knowledge. And secondly, information may be analyzed to create new knowledge. This is mainly adding value to information in order that it is able to produce action. An additional example of this knowledge creation process is competitive intelligence. Technologies are helpful at this stage because they can facilitate the creation of new knowledge through the synthesis of data and information captured from diverse sources (Oluic-Vukovic 2001).

Regarding SeAMK Intenational Affairs, sources of acquisition has no limits; it can be from intra, conferences, seminars, newspapers, SharePoint system, magazines, superiors, work-group meetings, colleagues, etc. The question basically addresses this specific issue of how SeAMK international affairs staffs obtain their required information and convert it to knowledge. So the first question could be shaped as:

2.6.1 Question 1: How do the employees in International Affairs acquire their information and knowledge in respect to mobility process?

A diversity of authors has projected theories, or models, of the way in which knowledge operation works. Paisley (1993, 223), for example, contrasts two models that he labels as the diffusion model, which give emphasis to the disseminator of information, and the information seeking model, that emphasizes the roles of users in seeking solutions. Wingens (1990, 29) remarks that one of the first main utilization studies in the field of sociology (Caplan, Morrison & Stambaugh. 1975) divided existing theories into three major categories: *knowledge-specific theories, policymaker constraint theories, and two- community theories,* According to Wingens and others, the latter theory, which centers on the gaps in culture, need , and belief between the two “communities” of researchers and users, remains “the mainly general theory to be found in utilization research”.

There are at least a number of main changes to consider as Paisley (1993, 225) notes, “Many of the troubles that challenge knowledge utilization have changed little ever since the 1960s and 1970s. On the other hand, the communications environment of knowledge utilization has changed significantly”. The rise of electronic communications, in particular the widespread use of personal computers, has prearranged rise to a number of new questions and issues about equity, access, and effectiveness. Additionally, perspectives about the process of knowledge utilization have moved in important ways. Edwards (1991) points out, “Today the complexities and the vibrant, transactional aspects of knowledge utilization have become more broadly recognized”

No particular theory or model has gained dominance. Actually, Wingens (1990, 30) affirms that: The state of the art of theory-building in knowledge utilization has lingered on a low level and is, at best, average. There is no intricate utilization theory, let alone one that has confirmed its explanatory power by empirical testing. Parenthetically the cycle of knowledge management is neither comprehensive nor successful if no efforts are made to make sure the use of stored and shared knowledge which means knowledge utilization.

Today’s demand is to deliver cost-effective support that is flawless and consistent to the customers or employees. In order to achieve this, we must capture the knowledge that exists in everyone’s head – earlier than those heads disappear! To convey a consistent, quality end user experience that develops the support organization’s image, insight and value proposition, we must utilize knowledge continually - before the employees’ throw up their hands in dissatisfaction. To convey against committed service levels, we must get the utmost return from deployed resources and investments – before the demand overstrains supply and causes discouraged customers and professionals.

So, the value proposition is to build knowledge that is functional and scalable; meaning the more people that use it - frequently – to solve their problems or answers their questions, the more important it is. How?

This second question would deal with this selection issue and we will try to seize an understanding of this choice to answer:

2.6.2 Question 2: How knowledge could be utilized in the international affairs of SeAMK in respect to the mobility process?

Being ready to develop a number of little facilities or software to customize and manage the day-to-day activities of the international affairs mobility process. This can be integrated into the current online systems, to provide a flawless solution for the users seems essential step for utilizing required knowledge.

The benefit of using the facilities and the storage software is that they capture the knowledge and information that has to do with the mobility process into small practical and customized interfaces that are rapid and easy to use.

This would lead to third question which describes the customization of knowledge in the mobility process.

2.6.3 Question 3: How knowledge could be adapted regarding the mobility process requirements?

Knowledge sharing is a compound process concerning the contribution of knowledge by the organization or its people, and the collection, assimilation, and application of knowledge by the organization or its people (Hendriks 2004; Huysman & De Wit 2002). Four key viewpoints on knowledge sharing are codification, personalization, community, and power.

Codification proposes that assured types of knowledge (explicit knowledge) can be codified and stored, and afterward retrieved, reconstructed, and assimilated by receivers (Hansem et al. 1999). Critics disagree, nonetheless, that explicit knowledge cannot represent the valuable tacit knowledge that’s receivers

frequently need (Tsoukas 2003) and decreases learning opportunities (Swan et al., 2002). In *personalization,* knowledge sharing is interactive (Hansen et al. 1999), facilitating significance negotiating and stimulating knowledge creation, knowledge integration, and learning (Koschamann 1999; Swan et al 2002). *Community* perspective, knowledge exists only in terms of the communities which produces shares and relate it (Wenger et al., 2002). A fourth perspective conceives knowledge sharing in terms of the *power* hence transferred. Shares may hoard knowledge so as to preserve status and position (cf. Husted & Michailova 2002; Hall 2004).

Plato's sight was that power should be shared according to the prevailing hierarchy so as to preserve the most suitable leaders (Quinn 1998). Nonetheless, Freire support non-discriminatory sharing in pursuit of social equality (Freire 1985). In organizations, management of power issues can decrease such filters and allow more democratic distribution of knowledge. A variety of information, communication facilities are accessible to support knowledge sharing – for example, portals, Intranets, SharePoint, email, Winha. Such technologies can provide access to stored knowledge, connect shares and receivers for sharing and collaboration, and likewise support business process development. An intranet is an instance of a popular knowledge technology, with receiver difficulties including search and navigation, low quality content, information/knowledge overwork, knowledge silos, and insufficient context (Edwards & Shaw 2004; Kautz & Mahnke 2003; Stenmark & Lindgren 2004).

Knowledge sharing entails the transfer of knowledge from one or more person to another. Knowledge sharing is often a major worry with knowledge management and is often addressed in the literature. Not only nearly all organizations abandon the idea that all knowledge ought to be documented, but they should also be ready to put into practice different methods for sharing different types of knowledge (Snowden 1998, 57).

Though knowledge can be acquired at the individual level, to be of use it must be shared by a community, often illustrated as a community of practice. For example, if there is only one person knowing organization rules and procedures, such rules

and procedures would be ineffective and meaningless. Alternatively, rules and procedures originate from communities and exist precisely to regulate group activities. Knowledge sharing is then vital when new employees arrive and others leave. The management of information does not really focus on information sharing and is more oriented toward the control, conservation, and retention of information. One can also argue that the effectiveness and the meaningfulness of information do not depend as much on its collective consumption or sharing: its individual consumption and application can be very effective from an organization point of view. In actual fact, too much distribution of information can lead to information overload which can paralyze all the activities.

The primary aim of knowledge management for International Affairs staff must be to effectively disseminate knowledge from central management, out to all departments and units. Of course this is more than just sending out information. Delivering the information is a thing, getting staff to act upon it is rather another. Thus the focus is on communicating knowledge, whereby the staff take on the efficient information and processes being disseminated.

As mentioned earlier a communications infrastructure can by far deliver information, it can also easily overload staff with a flood of information. With little available time, staffs are then not capable of keeping up. The knowledge should be disseminated in a form that is tailored for the specific needs of front-line staff which means brief, concise and clear communications.

The next research question would go into unfolding this important issue.

2.6.4 Question 4: How knowledge should be disseminated through people involved in mobility process in the International affairs?

Knowledge generation is closely interconnected with all the other roles. The process of knowledge generation draws lengthily from the existing knowledge base, i.e., transformation of explicit, tacit and cultural knowledge to new

knowledge. It is a function of previous knowledge as it is of received inputs (Wing 1993). When management tries to decide an issue by finding a solution, it results in knowledge generation. To find a solution, the management ought to have comprehensive knowledge of the problem. Equally, the solution may also be found by the employees of the international affairs, this is also considered a type of knowledge generation. Once a solution has been found and implemented successfully, the new knowledge can be made accessible organizationally by the management. Such practice will allow continual shift in the culture within an organization as new knowledge is diffused in an organization. This subject will be discussed by asking:

2.6.5 Question 5: How knowledge could be generated in the international affairs in respect to the mobility process?

In addition to above question which rise and extract from outer layer of the model (*tacit, explicit and cultural)*

There are diverse ways to generate new knowledge. At the personal and team level, it is often as a result of social interaction, i.e. through training, learning by doing, joint problem solving or brainstorming. At the departmental or organizational level, innovation processes are typically designed at creating new knowledge for products and services while improvement activities focus on internal processes and procedures.

Subsequently, as Wiig (1993) stated, knowledge generation is intimately interrelated with all other roles. The process of knowledge generation draws widely from the existing knowledge base, i.e., transformation of explicit, tacit, and cultural knowledge generation. To find a solution, the management ought to have thorough knowledge of the problem. Correspondingly, the solution may also be found by the staff of international affairs. Such practice will enable continual shift in the culture within an organization as a new knowledge is diffused in an organization.

Based on the Tsoukas and Vladimirou's model, knowledge in international affairs in respect to the mobility process could be generated as follows;

- Encourage employees to solve practical issues
- Encourage innovative behavior
- Implement reward systems for innovations and practical solutions
- Create a community of practice, space for brain storming and documentation

2.7 Emerged frame of references

In this section our emerged frame of references will present. The figure envisages the frame of references, showing the five related parts of knowledge management in the international affairs in respect to mobility process and their interdependency.

RQ1: Knowledge acquisition

- Recruitment procedures
- Train to impart IT and customer services knowledge
- Internal consulting or mentorship
- Periodical knowledge assessment and feedback
- Buddy training with experts
- Promote customer service or relationship building oriented culture
- Periodical pooling diary notes
- Encourage to acquire knowledge from external sources

Knowledge Storage and Retrieval Support

- ICT and Electronic Media: intranet and internet, KM software, knowledge databases, groupware, etc.
- Print Media: manuals, notes, magazines, news papers, journals, etc.
- Providing space for informal and formal gathering
- Internet cafes, learning rooms

RQ2: Knowledge utilization

- Job rotation
- Formal discussions
- Temporary team leader assignment
- Customer service advisor participate in solving practical issues.

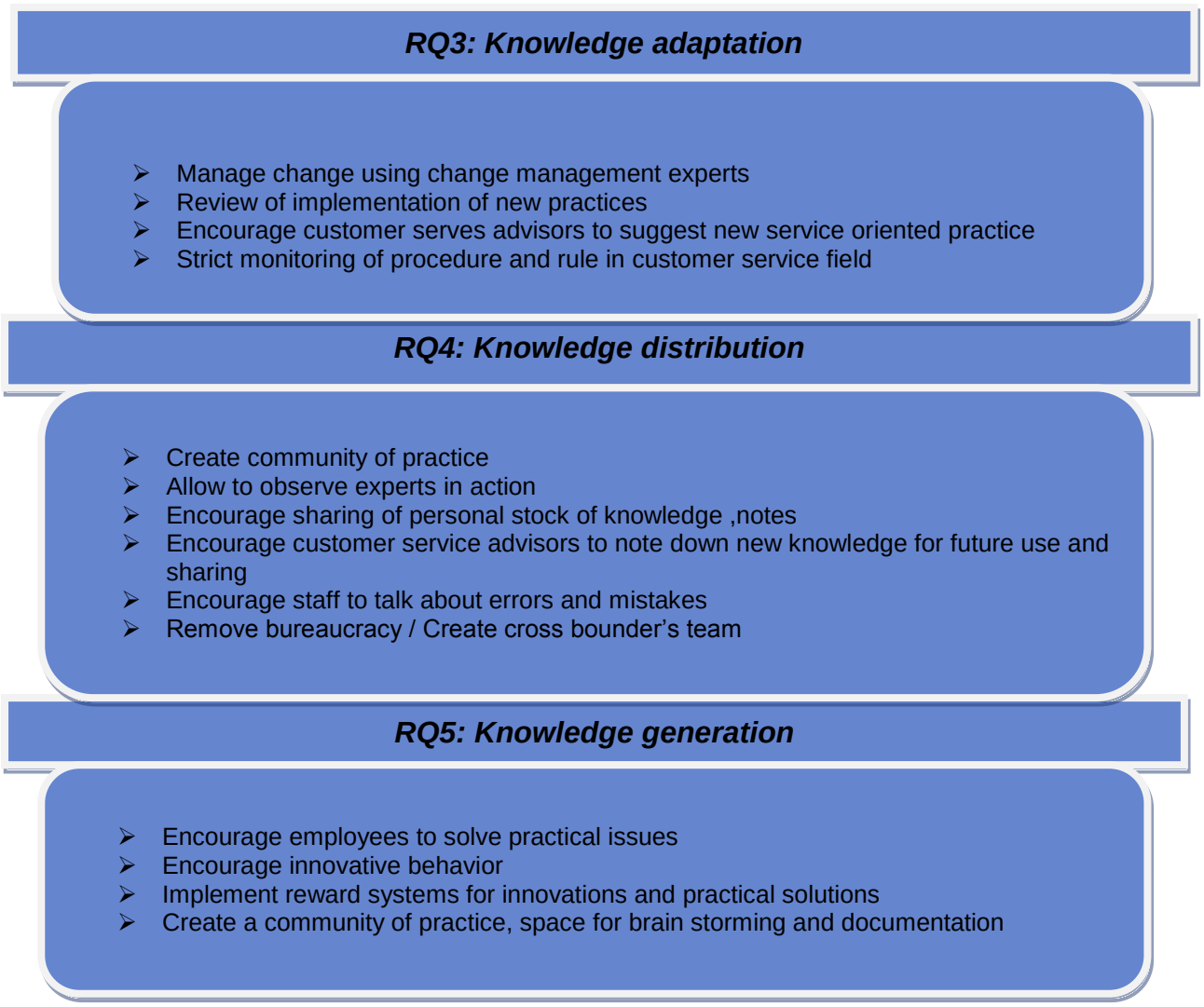

Figure 5. Frames of Reference

Additionally to above frame that aids for analyzing KM from activities perspective, other frames which could be considered as a reference, in order to give further depth to the research and allow the assessment to be done from different perspectives, are as follows;

Diverse level of social aggregation happens through three level; Individual, team or group and organizational. (Despres & Chauvel 2000).

Individual level	Group level	Organizational level
Interpretation and Sense making	Integration	Integration and Institutionalization

Figure 6. Organizational learning model (Despres & Chauvel 2000).

This frame gives the potential of analyzing the learning processes in participating companies. While the eventual aim is for knowledge management to be completely 'institutionalized' or in other words, so rooted in the way your organization does things, so intrinsic in people's day-to-day ways of working, that nobody even talks about knowledge management any more – they immediately do it.

2.8 The basic factors for effective KM

In order to have successful and possible outcomes of knowledge management, many factors may play essential roles. Nonetheless, some of those are out of control of the organization while some are internal and can be arranged. Capability to deliver desired service paradigms, capability to act timely, abilities of employees, innovativeness, work levels relations to strategy and direction, ability to create, ability to solve unexpected issues, effectiveness of enterprise systems, procedures and policies are some of those factors (Wiig 1999, 157).

2.9 The role of culture

Culture performs an important role in how KM function is being implemented in organizations (Smith & McKeen 2003). As McDermott (1999, 108) notes, four KM challenges domain involves human communications. These are technical, social, managerial and personal. The summation total of individual knowledge can be collective knowledge by developing a culture that values knowledge sharing and knowledge creation. It is acknowledged that organizational learning culture is important for knowledge creation (Bhatt 2000, 90).

2.9.1 Leadership

Knowledge is controllable only when leaders embrace and foster the dynamism of knowledge creation. Top management acts as the suppliers of “ba” for knowledge creation while “ba” can be well thought-out as a shared space that serves as a foundation for knowledge creation (Nonaka & Konno 1998, 45).

The concept of ba was firstly proposed by Japanese philosopher Kitaro Nishida (1992) then afterwards it was further developed by Shimizu. Professor Ikujiro Nonaka adapts this concept for the tenacity of expounding SECI model of knowledge creation.

In respect to the theory of existentialism, Ba is a context, which entails meaning. Therefore, ba can be reflected as a shared space that serves as a foundation for knowledge creation.

According to Nonaka, "Ba" can be expressed as a shared space for emerging relationships. This space can be physical (e.g. office, dispersed business space), virtual (e.g., email, teleconference), mental (e.g. shared experiences, ideas, ideals) or any mixture of them. Ba offers a platform for advancing individual and/or collective knowledge.

Lack of support from senior management, particularly visionary, moral and fiscal resources, KM efforts cannot be successful. Top management must understand that knowledge needs to be matured, supported, enhanced and be concerned of. What they should consider for enabling knowledge creation is to think in terms of systems and ecologies which can offer for the creation of platforms and cultures where knowledge can freely materialize (Nonaka & Konno 1998, 47).

2.9.2 Learning and participation

Learning cannot be inadequate to obtain facts and techniques. People learn through participation in communities of knowledge representing their particular perspectives, prejudices and practices. Knowledge work is dominated communication, deliberation, debate and negotiation. Knowledge is created practitioners see the sense of each other's thinking in communities who have interests (Lang 2001, 50). To ease learning, the culture of the organization have to cultivate a climate within which learning and knowledge are extremely valued, empowerment of individuals, motivation to questions are required. Leadership is vital for such a culture. Building trust to promote sharing and experiential learning of tacit knowledge is the responsibility of leadership (Stonehouse & Pemberton 1999, 133). For achieving KM benefits, a corporate learning strategy should grow (Coulson-Thomas 2000, 85)

2.9.3 Knowledge management strategy

A knowledge management strategy is plainly a plan that describes how an organization will administer its knowledge better for the benefit of that organization and its stakeholders.

A good knowledge management is closely associated with the organization's overall strategy and objectives.

One of the means for driving the success of KM is to have a patent and well-planned strategy (Liebowitz 1999). This provides the foundation for how an organization can organize its capabilities and resources to achieve its KM objectives. While several strategies for implementing KM have been recommended in the literature (O'Dell et al 1999; Liebowitz 1999; Soliman and Spooner 2000), an appropriate one should be well adjusted to the situation and context of the organization in hand. In order to attach more importance to a KM

strategy, it should support an essential business issue of an organization. There seems to be common agreement in the literature that it has to be linked or integrated with the enterprise business strategy (Zack 1999; Cook 1999; Maier and Remus 2002).

Closely related to the concept of strategy, is the improvement of a compelling and shared idea for pursuing KM. It is crucial that employees support this vision and believe that it will work. Additionally, patent objectives, purposes and goals need to be set and understood by everyone concerned. To further expand this, the value proposition of KM has to be visibly laid down in order to create a passion between management and employees to achieve it. In brief, all the above elements need to be carefully developed before a significant investment is made to commence a KM effort.

3 RESEARCH METHODOLOGY

The preceding chapter explained how the literature has been conceptualized in this study and presented a visual explanation of the emerged frame of reference. This chapter will cover the methodology used in this research. The selection of methodology is based on the research problem and affirmed research questions. Motivation and justifications for all adopted methodological choices will be given in each section.

3.1 Research purpose

When research problem has been known, the research objectives and questions started, it is essential to indicate how the research objective would be achieved (Walliman 2001).

According to Zikmund (2000), it is somewhat of an over generalization to state that every research follows the same path. Hence, he presents the phases of the research process in a cyclic manner.

Figure 7. Phase of research progression. (Zikmund 2000)

This study follows the research process stated by Zikmund (2000) which follows the circular pattern.

We have diverse ways to carry out research. Good number types of research can be categorized according to extent the researcher is aware of the problem before starting the investigation. (Yin1994). According to Zikmund (2000), and Wiedersheim-Paul and Eriksson (1999) we have three main classifications of research as regards to working with a research problem: exploratory, descriptive, or explanatory.

Exploratory study should be designed by stating a reason and stating the criteria to judge the exploration successful (Yin 1994). Zikmund (2000) states this type of research is conducted when the researcher is very unsure about the nature of the problem.

Descriptive research approach might also be used at the point when the study plan to explain certain phenomena from diverse viewpoints or states with given set of events. Trying to clarify or analyze a strategy that resulted in the particular action would classify a study as an analytical/explanatory study (Yin 1994). Zikmund (2000), states that this type of research requires sharply defined problems, despite the fact that the improbability about the future outcomes exists.

Mainly, this particular study would describe and explain how SeAMK manage their information and knowledge in the international affairs in respect to the mobility process. Although existing theories can be seen related to certain aspects of the investigated area, there are definite area which lack research, as a result, this study would be descriptive.

3.2 Research approach; quantitative vs. qualitative approach

The research approach is time and again either quantitative or qualitative (Patel & Tebelius 1987).

Selectivity and distance to the aim of research distinguish a quantitative approach whereas a qualitative approach is characterized by nearness to the object of research (Holme & Solvand 1991). The two approaches have their strengths and weaknesses and neither one of the approaches can be apprehended well than the other one. The best research method to use for a study is dependent on that study's research purpose and the complementary research questions. (Yin 1994)

A *quantitative* approach involves the search for knowledge that will measure, describe, and explain the phenomena of our certainty (Patel & Tebelius 1987). Quantitative research is often formalized and well structured. Quantitative research is frequently associated with the natural science mode of research; data is quantitative, obtained from samples and observations seeking for relationships and patterns that can be expressed in numbers rather than words. (Tull & Hawkins 1990)

Qualitative research is the search for knowledge that is ought to investigate, interpret, and understanding the phenomena by the means of an inside point of view (Patel & Tebelius1987). Furthermore, Yin (1994) states that qualitative methods are frequently related to case studies, where the intent is to receive thorough information and thereby achieve a deep understanding of the research problem.

Due to these explanations, this research is based on qualitative approach. The research questions created will provide answers that cannot be quantified or measured in numbers. Furthermore, as the purpose of this thesis is to achieve a better understanding of how SeAMK manage their knowledge in the international affairs in terms of mobility process, a qualitative study is the method that suits it best.

3.3 Research strategy

Through the center of attention at qualitative research as a general approach the focal point now turn to the research strategies available to collect the data. According to Yin (1994) he stated five primary research strategies, in the social sciences: experiments, surveys, archival analysis, histories, and case studies. Every of the strategy has its own advantages and disadvantages depending on three conditions:

- The type of research question posed
- The extent of control an investigator has over actual behavioral events
- The degree of focus on contemporary, as opposed to historical, events

Table 2. Research strategies

Research Strategy	Form of Research Question	Requires Control over Behavioral Events	Focus on Contemporary Events
Experiment	How/Why	Yes	Yes
Survey	Who/what/where How many/How much	No	Yes
Archival/Analysis	Who/What/Where How many/ How much	No	Yes/No
History	How/Why	No	No
Case Study	How/Why	No	Yes

In view of the fact that all of the question in this research are the “how” type questions so it makes the selected of the case study method a natural choice. The components of a knowledge management regarding mobility process issues in the international affairs i.e. Knowledge acquisition, utilization, adaptation, distribution

and generation, acts as the variables whole there are no control on how these may change with respect to different departments.

3.4 Data collection methods

According to Yin (1994) he proposed six sources of evidence that can be the focus of data collection for case studies: documentation, archival records, interviews, direct observations, participant-observation, and physical artifacts. Each of these will be briefly explained below

Documentation: The different types of documents are for example, statistics, registrations, official publications, letters, diaries, newspaper, journals, branch literature, and brochures. Documents are mostly used for collecting secondary data

Archival records: These can be, for example, service records, organizational records, maps and charts, survey data, and personal records. Archival records are often used in computerized form, also for collecting secondary data.

Interviews: The interviews mostly take the form of an *open-ended nature,* in which an investigator can ask key respondents for the facts of a matter as well as for the respondents' opinions about events. The interview can also take the form of a *focused* interview, in which a respondent is interviewed for a short period of time, an hour for example. Moreover, the interview can entail more structured questions, along the lines of a formal *survey*.

Direct observation: This can involve observations of meetings, sidewalk activities, factory work, classrooms, and the like. Observational evidence is often useful in providing additional information about the topic being studied. To increase the reliability of observational evidence, a common procedure is to have more than a single observer making an observation, whether of the formal or the casual variety.

Participant observation: Participant-observation is a special mode of observation in which the investigator is not merely a passive observer, instead the investigator may take a variety of rules within a case study situation and may actually participate in the events being studied**.** Yin1994, 85

Since this research is conducting as a qualitative case and not a quantitative case study, archival records cannot be considered as a source of evidence. Documentation, direct observations and participant observations are also lined out as possible sources of evidence of this study, owing to limitations regarding security and privilege. Additionally, there was the same limitation to use the technical operations, and therefore physical artifacts have not been considered as a source of evidence. For that reason this leaves the choices with just one sources of evidence, which were interviews.

3.5 Data analysis

Analysis is not only a matter of classifying, categorizing, coding or collection of data. Most essentially, it is about the restoration or representation of social phenomena (Coffey and Atkinson 1996). Material collected through qualitative methods is invariably unstructured and cumbersome. A high percentage of this data is based on text, consists of verbal transcriptions extracted from discussions an interviews as well as field notes or other written documents. The qualitative researcher has to give some logic and structure to this insurmountable data. As well as he/she should retain good hold of the original accounts and observations from which the data is drawn from (Ritchie and Spencer 1994, as referred by Huberman and Miles 2002).

Yin (2003) describes data analysis involves examining, categorizing, tabulating or otherwise recombining the collected data. All investigation should have a broad analytical strategy in order to determine what to analyze and why. Two general strategies are recommended. The researcher can either follow the theoretical propositions that lead to the case study or widen a descriptive framework to

organize the case study. When analyzing the data collected from the interviews, the aims were to find answers connecting to the earlier stated research questions.

3.5.1 Within-case analysis

According to Eisenhardt (as referred by Huberman and Miles 2002) analyzing data is the heart of building theory from case studies, however it is most difficult and the least codified part of the process. The value of within-case analysis is driven by one of the realities of case study research; a staggering volume of data. The volume of data is all the most discouraging for the reason that the research problem is often open-ended. Within-case analysis can assist researchers cope with this overflow data. This type of analysis entails detailed case study write-ups for each case. These write-ups are frequently simply pure descriptions, but they are central to the generation of insights. Because they help investigators cope before time in the analysis, process, with the often enormous volume of data. Nonetheless, there is no standard format for such analysis. In fact, there are probably as numerous approaches as the problems addressed and the researchers.

3.6 Validity and reliability

The most excellent way to measure the quality of the research is to check it on two basic criterion i.e. validity and reliability. Validity refers to how the research has been conducted within the outlined measures i.e. if it has measured what it was ought to measure. Chisnall (1997) as well explains validity as the way a specific research method measures what it is intended to measure. In order to guarantee the validity of this research study, the questions formulated in the interview guide by the help of the available literature mentioned in the second chapter of this study. For the data collection, it was made sure that the selected respondents play an essential management role within the organization and have proper knowledge about the topic. In view of the fact that the interviews were conducted based on face to face, sent before by email- in order to ensure they understand each question and have sufficient time for the interview. Furthermore, any unclear

answers and reflections that came from the respondents. Moreover, to enhance the validity it was made sure not to ask leading questions or to comment on the answers from the participants.

Table 3. Validity and reliability (Adopted from Yin 1994, 33)

Tests	***Description***
Reliability	Demonstrating that the operations of a study can be repeated with the same results.
Construct Validity	Establishing correct operational measures for the concepts being studied.
Internal Validity	Establishing casual relationships whereby certain conditions are shown to lead to other conditions, as distinguished from spurious relationships.
External Validity	Establishing the domain to which a study´s findings can be generalized.

Reliability is concerned with whether alternative researchers would disclose similar information conducting a similar study (Saunders, Lewis and Thornhill 2003).

According to Sekaran (2000), the reliability of a measure point out the extent to which the measure is without influenced and therefore offers consistent measurement and across time. Yin, (2003) point out that it is important to remember that reliability is not measured, it is estimated. There are two ways that reliability is usually estimated, test or retest and reliability.

Simply put, the idea behind test or retest is that you should get the equal result on the test 1 as you do on test 2. Concerning the test or retest issues, this study measured the responding organization with the use of interviews, which were intentional to seek out patterns of correlation. In order to make this study relatively reliable, the latest and most applicable theories have to be used to provide a brief

overview of the research problem, develop the research questions, and to design the interview guide. The theories used were presently and appropriate for the research study. Constant quality checks have been carried out at every stage of the research to ensure that the research is continued in the proposed way presented.

3.7 Description of target organization and process

3.7.1 Seinäjoki University of Applied Science

Seinäjoki University of Applied Sciences (Seinäjoki UAS) is a comprehensive regional institution of higher education that is maintained by the Seinäjoki Joint Municipal Authority for Education. Seinäjoki UAS started its operations temporarily as a polytechnic in 1992, and its functions were established permanently in 1995. Presently, the total staff of Seinäjoki UAS amount to 370, the full-time teachers' amount to 207, but full-time staffs total 119.9 with paid service operations staff in operation amounting to 43.1.

Additionally, there are 66 employees working in joint services. (Statistics compilation date 20 Sept. 2008) The employees who have completed their doctorate or licentiate degrees total 58, and 186 have received higher degrees in the applied sciences. (Statistics compilation date 20 Jan. 2008)

3.7.2 Seinäjoki UAS operations

Seinäjoki UAS offers tuition in seven areas of education in six localities. Research, development and service activities linked to instruction are carried out in the faculties concerned. The idea of the operations performed by Seinäjoki UAS is to sustain South Ostrobothnian entrepreneurship-based corporate and service activities requiring a sophisticated expertise. Seinäjoki University of Applied Sciences has relatively rapidly become an effective actor in the vital higher

education sector of the South Ostrobothnian region. It contributes a dynamic and responsible role in many international and national development projects as well as in the development of its own region.

Integral Seinäjoki UAS products include:

- University of applied sciences-based degree instruction: a total of 24 ratified degree programmes (for the year 2009) leading to an applied sciences (UAS) degree offering starts in 20 programmes in 2009.
- Higher UAS degrees: seven degree programmes for 2009 have been ratified for higher UAS degrees, with starts for 2009 in two programmes.
- Specialized studies in all fields of study
- Teaching in open university applied sciences in all fields of study
- R&D operations connected with teaching activities in all fields of study
- Services against payment, such as laboratory services, translation, market research services; outside-financed instruction given in all fields of study
- International on-the-job training
- International projects
- Foreign-language instruction and internationalization training

3.7.3 Seinäjoki UAS organization

The administrative internal part of the university is being coordinated by its Board and President. The president of the university likewise functions as the director of the Seinäjoki Joint Municipal Authority for Education as a whole.

In agreement with the development programme, the teaching and R&D-related operations are being realized as of 2008 in five functional units:

- School of Technology
- Business School
- School of Health Care and Social Work

- School of Agriculture and Forestry
- School of Culture and Design

Additionally, the Library of the University of Applied Sciences operates as an independent functional unit. The organizational structure and administrative system of Seinäjoki UAS, which came into force on 1 January 2008, are described in the university's organization chart (Figure. 3)

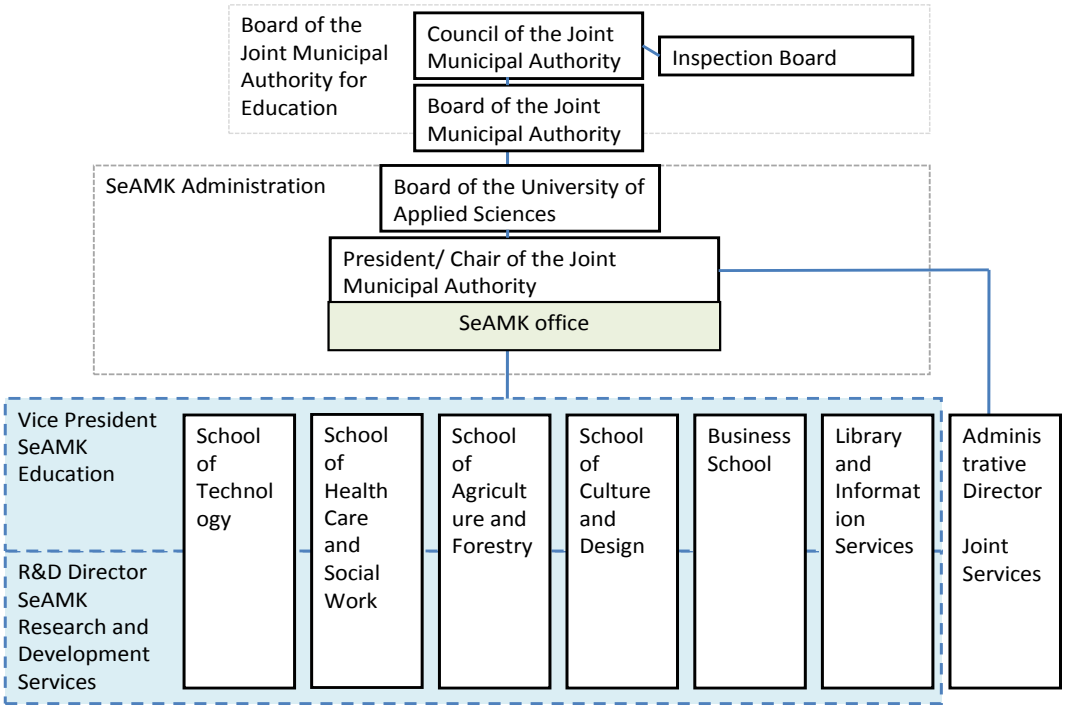

Figure 8. Organisation of Seinäjoki University of Applied Sciences. Seinäjoki UAS web pages, [Cited 27.11.2008])

3.8 Internationalization as part of the development of expertise

A well informative training has been organized for the staff in connection with internationalization e.g., internationalizing the degree programme, the new EU degree programmes

Additionally in support for mobility, personnel are supported in taking part in international research and development cooperation. The university's teachers and other specialists, works annually in international projects, usually together with their teaching work.

Furthermore, internationality is emphasized in, e.g., in the case of recruiting new personnel, the fact remains that foreign language is mainly emphasized in hiring at the university's Business Entrepreneurship Centre, cooperative ability, on the whole perspective on interactive relationships in business life, and experience that supports the task of teaching in work life. In teaching tasks, competence in the English language is required, and proficiency in German, Russian or French is often appreciated.

Yearly, information on the height of expertise between the staff is collected for the AMKOTA system and the personnel balance sheet. This mainly means it is possible to compile statistics on teaching staff competence for the official position concerned with the number of those who have concluded the pedagogical qualifications. The statistics are however utilized in planning the intensification of staff expertise. (SeAMK Quality Manual 7 November 2008)

4 DATA PRESENTATION

In this chapter, the empirical data collected from the organization which is involved in this study will be presented. The presentation will begin with the brief introduction of the mobility process itself and continues with the data collected from the staff.

4.1 Mobility process

Mobility could be illustrated as a fact of life as both students, teachers and staff members move from one country or territory to another – and try to find a way to continue their education or their careers with as little interruption and difficulty as possible.

There are diverse mobility processes in SeAMK. In the quality assurance hand book, there are main processes in the area of international activities; there are ten activities of international mobility. Mobility of student is part of it. In this area, there are processes of the incoming and outgoing of student, guests from abroad, interns, teachers, researchers and other staff members. It is described that in each faculty they have the same practices when working with incoming and outgoing student, likewise teachers are staff members.

In regards to the purpose of this research there will be a strong focus on the student and the staff mobility process.

4.1.1 Student and staff mobility

Student and staff mobility is promoted by Seinäjoki University of Applied Sciences.

Seinäjoki University of Applied Sciences has mainly 150 partner institutions in Europe with over 30 in other continents (Asia, America, Africa, and Australia);

collectively in 44 different countries. Statistic has shown that 20 % of the students of Seinäjoki UAS go abroad during their studies and an average exchange study or practical training period abroad lasts for 5 months. Furthermore, 50 % of these outgoing students go abroad within European Union programmes and 20 % go outside Europe.

According to SeAMK, it was shown that in 2008 the most popular destinations for outgoing students of Seinäjoki UAS were Spain, USA and Germany. The largest groups of incoming students came from Germany, Lithuania and France.

Yearly, about 200 teachers from Seinäjoki University of Applied Sciences travel abroad to teach at the partner universities and about 100 teachers from the partner institutions come to Seinäjoki UAS. In the case of academic exchange, it mainly works on the basis of reciprocity. This has earned Seinäjoki University of Applied Sciences the First position in the aspect of teachers and staff member mobility.

4.2 Description of knowledge management in the mobility process of Seinäjoki UAS

In this chapter, the response from the questions administered to the respondents is going to be presented and later analyzed in the subsequent chapter.

4.2.1 Knowledge acquisition

The Manager of international affairs, the international affairs team and the international coordinators were interviewed. According to the respondents at the organization, continuous and quality cooperation with the partner universities has been utmost and strongest strategy for internationalization.

Respondents made it known that knowledge could be acquired from diverse sources depending on their relevance. It was specified according to staff

members, they get information and knowledge from SharePoint, Center for International Mobility (CIMO), intranet, organizations, through colleagues, meetings, seminars, other sources outside the organization and finally they all belong to deferent work group where information and knowledge is being acquired.

Knowledge and information needed by staff members are being stored into this different programs, the mainly used is SharePoint and Intra, the respondent mentioned that most of the knowledge needed by staff member regarding mobility process are being imputed into intra, making it easy for them to access at any given time, they likewise mentioned that different workgroup has been one of the most successful way of acquiring knowledge by the staff members. Information could be easily acquired from colleagues but not the silence knowledge lying in them, stated by one of the respondents. As for acquiring knowledge from colleagues, there are no learning rooms and space for formal and informal meeting meant for transferring of private experience and knowledge acquiring time and room has not been set up yet. In their response they mentioned that all the information needed by student in regards to the mobility process has been stored in Intra for their use and few of the respondents has an opinion that the information in Intra as not been updated in a while.

4.2.2 Knowledge utilization

When inquired about the way knowledge is being utilized in the organization, as respondents replied they initially stated extracting information from the SharePoint and Intra as regards to mobility process. They stated that information is being sent to staff members and students via emails or if they are being consulted by the students.

In addition, new staffs always start their job under the guidance of one experienced staff member in order to utilize all the knowledge and experience of the previous staff, but this process always last approximately for a week.

4.2.3 Knowledge adaptation

In response to knowledge adaptation, they based adaptation on the problem they are facing as regards knowledge sharing. They stated that the problem is always when they have new people working in the international affairs, orientation is often important, and luckily most of the international coordinators have been working for more than 10 years.

One of the problems they are faced with is that there is no main software for storing information for the international affairs. A program like *Sole Move software* and most UAS have started using it. But in SeAMK Winha is mainly used and this problem could be said to be related to technology problem. And one of the respondent opinions is that there should be a national software program, mainly because they have the same process in this mobility process activity.

4.2.4 Knowledge distribution

While responding to the issue of information and knowledge distribution, the general response was that information is being disseminated through email to students and staff member as well. It was noted by the respondents that they sometimes disseminate information by mouth to the staff members, it was not mentioned if they share knowledge or experiences by this same emails or word of mouth. But similarly they often mention information dissemination than knowledge distribution.

4.2.5 Knowledge generation

The respondents mentioned that knowledge generation is virtually the work of each staff member in order to work with ease in their office. According to respondent's idea their capability to create knowledge from collected information and to take action upon the basis of the organization, moreover, to generate cogent knowledge they have to invest in different software and hardware platforms.

Respondents also stated that individuals may learn from informal source as by other place but it does not bring them any organizational advantage. No reward systems for whatever knowledge staff achieves have been set so far. They stated that "we know we are making great performance and competitive advantage is reliant upon both the ability of our staff members and teachers to use the knowledge, we can provide them and continually improving strategic use of information to gain insights into the new issues which make uncertain environments, but still we have not applied any knowledge creation atmosphere". Speeding rates of change and extreme difficulty require that the International affairs staffs completely asses and visibly understand the prospective opportunities and competitive threats that are persistently created. Therefore, one of the organizational keys to keep its market share is to facilitate knowledge creation and use of information by generating insights from the volumes of information.

Summary of within-case analysis of SeAMK international affairs

The table on the next page highlights each knowledge management components related to mobility process functionality (i.e. acquisition, utilization, adaptation, distribution and generation) in respect to SeAMK international office relating it with the theories defined in the previous chapters. It can be observed that the institution has started managing information but not exactly knowledge, the institution chose certain students and teachers care process along with implementing some IT projects.

Table 4. Within-case analysis of SeAMK international affairs

<table>
<tr><th colspan="3">Knowledge acquisition</th></tr>
<tr><td rowspan="2">• Recruitment procedures
• Train to impart IT and customer services knowledge
• Internal consulting or mentorship
• Periodical knowledge assessment and feedback
• Buddy training with experts
• Promote customer service or relationship building oriented culture

Knowledge storage and retrieval support
• ICT and electronic media: intranet and internet
• KM software, knowledge databases, groupware, etc.
• Print media: Manuals, notes, magazines, newspapers, Journals, etc.
• Providing space for informal and formal gathering Internet cafes, learning rooms</td><td>Covered</td><td>• Recruitment procedures
• Train to impart IT and customer services knowledge
• Internal consulting or mentorship
• ICT and electronic media: Intranet and internet
• KM software, knowledge databases, groupware, etc
• Print Media: manuals, notes, magazines, newspapers, Journals, etc.</td></tr>
<tr><td>Uncovered</td><td>• Periodical knowledge assessment and feedback
• Promoting customer service oriented culture
• Periodical pooling diary notes
• Encourage to acquire knowledge from external sources
• Providing space for informal and formal gathering Internet cafes, learning rooms</td></tr>
</table>

<table>
<tr><th colspan="3">Knowledge utilization</th></tr>
<tr><td rowspan="2">Job rotation
Formal discussions
Temporary team leader assignment
Customer service advisor participate in solving practical issues.</td><td>Covered</td><td>Customer service advisor participate in solving practical issues.</td></tr>
<tr><td>Uncovered</td><td>Job rotation
Formal discussions
Temporary team leader assignment</td></tr>
<tr><th colspan="3">Knowledge adaptation</th></tr>
<tr><td rowspan="2">Manage change using experts
Review of implementation of new practices
Encourage customer serves advisors to suggest new service oriented practice
Strict monitoring of procedure and rule in service field</td><td>Covered</td><td>Strict monitoring of procedure and rule in service field management experts</td></tr>
<tr><td>Uncovered</td><td>Review of implementation of new practices
Encourage suggestion of new service oriented practice
Manage change using experts</td></tr>
</table>

<table>
<tr><th colspan="3">Knowledge dissemination</th></tr>
<tr><td rowspan="2">Create community of practice
Allow to observe experts in action
Encourage sharing of personal stock of knowledge ,notes
Encourage customer service advisors to note down new knowledge for future use and sharing
Encourage staff to talk about errors and mistakes
Remove bureaucracy / Create cross bounder’s team</td><td>Covered</td><td>Create community of practice
Allow to observe experts in action</td></tr>
<tr><td>Uncovered</td><td>Encourage sharing of personal stock of knowledge ,notes
Encourage customer service advisors to note down new knowledge for future use and sharing
Encourage staff to talk about errors and mistakes
Remove bureaucracy / Create cross bounder’s team</td></tr>
<tr><th colspan="3">Knowledge generation</th></tr>
<tr><td rowspan="2">Encourage employees to solve practical issues
Encourage innovative behavior
Implement reward systems for innovations and practical solutions
Create a community of practice, space for brain storming and documentation</td><td>Covered</td><td>Encourage employees to solve practical issues</td></tr>
<tr><td>Uncovered</td><td>Implement reward systems for innovations and practical solutions
Create a community of practice, space for brain storming and documentation
Encourage innovative behavior</td></tr>
</table>

The within-case analysis table above was drawn mainly to give a clearer explanation about the knowledge management activities in SeAMK, what was covered and what was uncovered. Each table with a sub-heading pin point every area that necessarily should be covered, for successful knowledge management flow.

4.3 Case analysis for Seinäjoki UAS

In this section the data will be analyzed within each situation by evaluating with the previous theories mentioned in the conceptual frame of references. The data will be analyzed and it will follow the same structure as the research questions.

4.3.1 Knowledge acquisition in Seinäjoki international affairs

Based on Oluic-Vukovic (2001), knowledge acquisition is one of the three different processes which come under the *gathering* knowledge process chain. Based on their theory “gathering” step, it has been alienated into three different processes, each of which is discrete from the other: discovery, acquisition, and creation of knowledge. The international affair uses both local network/intranet, manual and papers to help staffs acquire whatsoever knowledge they need related to their job.

The advantage of being in the qualified people is on reducing the cost of time and money for training the new staffs and on the other hand this type of new employees could bring new knowledge and experience to be used with other staff members.

The organization is interested to utilize its software system for information gathering in order to enable staff members and students acquire such information easily and conveniently.

4.3.2 Knowledge utilization in Seinäjoki international affairs

As proposed by Paisley (1993) there are two models for knowledge utilization; diffusion model, which emphasizes the disseminator of information, and the information seeking model, which give emphasis to the roles of users in seeking solutions. Alternatively Tsoukas and Vladimirou’s model show the following items which are important for knowledge utilization in the international affairs.

- Formal discussions
- Temporary team leaders assignments (Different work groups)

Organization considers knowledge gained from the available software used for information storage as the objective to satisfy student or the staff members in a better way.

For the fact that knowledge utilization will increase the staff member's performance but in contrast to the model of Tsoukas and Vladimirou (2001) no job rotation, and the leaders assignment applies in organization for more knowledge utilization and the only item that has been taken seriously by the staff members is attending different work group meetings.

4.3.3 Knowledge adaptation in Seinäjoki international affairs

According to Tsoukas and Vladimirou's theory (2001), which knowledge customization regarding the relevancy of the role and routine could be applied in the following condition, international affairs uses its software platform to adapt information they need to convert and customize them into relevant knowledge to mobility process purposes.

When we talk about the area of knowledge adaptation which was expressed by the staff members show that all the adaptation is occurring individually and there is no specific rule to force the staff members to customize the information.

Due to the fact that some organization uses some consultants and experts in the field of business and management process in other sections that works for change management , it can be in accordance to the frame of references that some kind of change management for better adaptation of knowledge and information take place in SeAMK as well.

4.3.4 Knowledge sharing in Seinäjoki international affairs

As Hendriks (2004) and Huysman & De Wit (2002) portrayed in their theory knowledge sharing is a complex process involving the input of knowledge by the organization or its staff, and the compilation, assimilation, and application of knowledge by the organization or its staff. Four key perceptions on knowledge sharing are codification, personalization, community, and power.

In accordance with Snowden (1998) knowledge sharing involves the transfer of knowledge from one (or more) person to another one (or more). Knowledge sharing is repeatedly a key preoccupation with knowledge management and is habitually addressed in the literature. The organizations did not only abandon the idea that all knowledge should be documented, but they should similarly be ready to implement diverse methods for sharing different types of knowledge.

Coming to the first area of knowledge sharing based on Tsoukas and Vladimirou's mode. Seinäjoki UAS international affairs have not prepared any facility for knowledge dissemination by formal community. Information and knowledge could be diffused by local network or intranet but no rewarding systems exist to hearten every person to share their personal knowledge and experience through notes, photocopies and so on.

Study shows that the organization rarely concerns technological factors for information sharing and has not invested on people in terms getting more staff to work in some strategic places that has to do with knowledge management and the organization culture very much.

4.3.5 Knowledge generation in Seinäjoki international affairs

When interview was made, it was made known that staff members were encouraged to solve practical issues and by doing this much knowledge is generated via this process which would be an added advantage for the staff. Furthermore, the result indicated that staff members are rarely encouraged exhibit

an innovative behavior mostly because of the bureaucratic situation in the organization, which according to theory will not get any organization very far. Firms should always note that knowledge generation is always coming from brainstorming and practical issue solving meetings is always a bed rock of the success of the organization.

4.4 Summary of the analysis

As was stated in the literature review and frame of reference, Despres & Chauvel (2000), defined diverse levels of social aggregation at three levels; Individual, team or group and organizational.

In their model they affirm that organizational knowledge creation should be seen as a process whereby the knowledge apprehended by individuals is augmented and incorporated as part of an organization's knowledge.

In this regard, international affairs staff members acquire, learn and develop a unique knowledge base that differs from the other staff particularly in the first two to four weeks. This knowledge base is developed by a combination of information available from training courses, computer system, meetings, seminars, conferences, procedure manuals, company rules and regulations, personal notes, photocopies, etc. Then they utilize what they have gained to serve students and partner universities (customers). They convert this information into knowledge by relaying them into action. They interpret the information to match the requirements of the situation and also the customer's response. This factual situation proves that knowledge is gotten from information as information gotten from data. By recurring use, staff members internalize this knowledge and discover faster and more proficient ways of serving the customer, resulting in spontaneous knowledge (Tsoukas and Vladimirou, 2001). They not only remember the location of the information, but also generate short cuts and personal notes for future use which link the term sense-making. Consequently, staff members; rely profoundly on their personal notes, photocopies, leaflets, etc. apart from using the formal information system provided by the organization.

In the second level of knowledge transfer, staff members share their information informally within the same team during breaks and other leisure activities. This informal information sharing does not involve the top managers who are most experienced in every ramification and eventually goes unnoticed at the management level. Therefore, what was noticed is that there is no integration in its real sense happening and if there were ways of sharing this knowledge in a formal way, it will be possible to integrate this important knowledge into the everyday activities in order to hasten up the learning process and also future usage retrieval. It is apparent that knowledge level helps the organization to accomplish quality customer service in a shorter period; furthermore it can help to keep them as documents for future retrieval. Conclusively it will help other staff members to strongly keep the good relationship with the partner universities and organizations.

5 DEVELOPMENT PLAN AND CONCLUSIONS

In this section the development plans will be presented. The conclusions will assist in responding to the purpose of the thesis. Nevertheless, the conclusions drawn from this study are only derived from the staff member of Seinäjoki international affairs and the inputs from the respondents are based on their perceptions, and hence the conclusions cannot be treated as undeniable.

5.1 Development plan for KM

The research has evolve around an area that has been phrased as one of the most progressive in terms of its adoption by firms racing for gaining competitive advantages in the market.

The concept of knowledge management is not new as mentioned in the previous chapter, but merging the usage with a learning institute organization is what is relatively new. This study deals with this combination in a large but focused area, it is considered to contribute to the theory surrounding knowledge management and relate it to the organizational practice in the international affairs of Seinäjoki University of Applied sciences. The fitness of the theories involved in this research is presented in the analysis part. Much of the theories on the subject cover the collected data, but some considerations raise questions.

The investigated organization had a view on KM by laying more emphasis on the technology while keeping their organizational environment open for most informal interaction between people. In this regards as it showed in terms of knowledge transformation is acting well while in organizational learning process they are not faultless. This mode indicates a larger development of the KM in the organization. This is not mentioned in the theories, and thus considered as a contribution to this study from other external theories.

Additionally, the development of ICT and KM tools needs a given strategy in obtaining and controlling the growth of information storage. There is a risk of the

attainment of a critical level, where the organization loses the overview on the flow and structure of knowledge.

If not, there are risks that staff members decrease their use of them and the risk of abandonment in the end. This is nothing brought up in the theory, but significant to notice.

A further point is that most of the authors have the opinion that what works for one company might not work for another because organizational knowledge is so subjective. The one size- fits all approach is not ideal, coupled with the tendency to focus on technology than people and process. Thus the idea that reaching to the point implementing a predefined KM method and following the same model even in the same industry constantly leads to success is a big mistake in terms of KM implementation.

It was stated that Seinäjoki UAS is in number one position according to statistics in respect to teacher exchange, which is one type of mobility. Staying at number one position takes good strategy. Teachers go abroad to lecture, attend conferences and build up relationships with partner universities and organizations. Therefore there should be a database system where all reports and the experience of these teachers should be stored. This way, most teachers going to the same location can learn from such knowledge, and consequently, the relationship with these partner universities and organization will be maintained.

5.2 Proposed software for knowledge management

This thesis focuses on how to develop knowledge management in SeAMK international office. Therefore this Interspire software is proposed to solve the present challenges on ground, of course there is numerous knowledge management software used nowadays, but this particular one has been chosen because of the great features it has to offer. Furthermore, I am not focusing on the technicalities of this software, but laying more emphasis on the features and how it could develop the present situation.

5.2.1 General features of Interspire software

Knowledge management software offered by Interspire

Knowledge management software aims to locate, capture and share Information with the team in the international affairs.

Interspire Knowledge Manager gives the opportunity to share information from the school website or Intranet with an *enterprise-grade knowledge base*, reducing customer support, improving staff productivity and get rid of time wasted sourcing for information across different systems such as shared folders and paper documents

It is already used by over 2000 small businesses, universities, non-profits and enterprise organizations, Interspire Knowledge Manager can be used for:

Reduction of in-bound customer support: The web-based self-help interface makes it easy for customers to find answers to their own problems instead of putting forward emails or calling the support department. Your knowledge base can also be incorporated into the organization’s contact/support forms to offer instantaneous answers to customer's questions as they type, reducing support even further. In respect to Seinäjoki University of Applied Sciences, their customers are the student and the partner Universities. This option will reduce much stress of responding to email. Students rarely read emails, but if all they need to know based on the mobility process is stored, this supporting software will assist to know these things without any further consultations

Sharing company’s documents and procedures: If the staff members are in one physical locality or one hundred, Interspire Knowledge Manager makes it effortless for them to share, search, rate and print company documents, procedures and more. Disregard email or network fileservers - now each person has access to the similar single version of a document from the same location

Eradicate staff training time. Through the provision of new staff members with a list of company-wide policies, procedures and how-to guides to read in the knowledge base of the SeAMK UAS, they can be up and running quicker. It decreases staff training time drastically and give new staff members a "hands on" approach to learning.

The Interspire software features

Staff, customers and partners can access information within SeAMK UAS or over the Internet and Interspire knowledge manager's powerful group-based permission architecture makes it easy to share knowledge with only the people or groups you select.

To reduce customer support: Staff members of SeAMK will have less work to do mainly because this software is completely a web-based self-help system, customers can store their own favorites list. In the features, there is a popular search terms which make it easy to find help fast. Built-in feedback loops help the staff improve knowledge items based on customer input, active response system integrates into any website form, customers can easily search knowledge items and attachments (Microsoft Office and PDF), and RSS feeds allow customers to instantly see new knowledge items and glossary of terms to define technical words for customers. All these and more, makes work easier for staff members.

Reduction of staff training time: In order for SeAMK to be able to reduce staff training time or possibly no training at all, this software offers great features whereby the organization can upload company procedures and documents (Microsoft Office or PDF) which are instantly indexed and searchable, assign related knowledge items for further reading/self-training, limit users to categories such as Sales, HR or development only, knowledge items can be printed or exported to adobe PDF format for saving, Integration with LDAP for single sign on (SSO) support, popular search terms make it easy to find help fast, categories can be password protected and restricted, there is built-in feedback loops help your

managers improve training material over time and finally customizable with SeAMK logo and color scheme

Organizations that make use of Interspire knowledge management software

Most valued and large companies, universities and government organizations in the world make use of Interspire's knowledge management software to share knowledge, reduce customer support and cut staff training costs. Below are the universities that use this software:

- Murdoch University
- University of the Sunshine Coast
- University of Notre Dame
- Clayton State University
- Indiana University
- Columbus State University
- Ashford University
- South University

5.2.2 Major functionalities of the Interspire software

In this chapter, comprehensive explanation of how this software would be beneficial to the development plan of knowledge management in SeAMK will be elaborated upon. There are eighteen features itemized in this chapter.

1. Publish

Ways and how to publish is one of the spectacular features of this is software. The figure below gives vivid details of the description

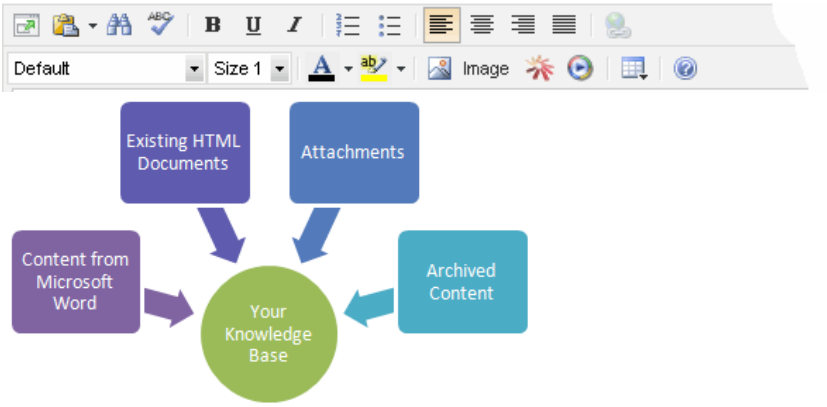

Figure 9. Easy WYSIWYG authoring

Using Knowledge Manager, our industry-leading WYSIWYG authoring tool, it's easy to publish content to the knowledge base of SeAMK UAS International Affairs. With Microsoft Word-like functionality, you can:

1. Create rich text
2. Insert links
3. Upload, resize and insert images
4. Create lists
5. Insert tables
6. Add forms
7. Spell check content inline
8. Change text and highlight colors
9. Add rich media (movies and flash)

Re-use content from Microsoft word

Staff members do not have to re-type existing content. Using the editor's Paste from Word button, they can easily re-use content from existing documents, reports, articles and guides created in Microsoft Word. Content from Microsoft word is stripped of pointless Word-related tags, and looks identical to how it did in Microsoft Word.

Cross-browser authoring

All contents can be authored in Microsoft Interspire Explorer or Mozilla FireFox on Windows, Mac, or any Linux variant. Content created is then stored in an optimized MySQL database so it can be sourced, retrieved and updated extremely fast at any time.

Upload and attach files to articles

Easily attach multiple files to any article, without having to mess around with an FTP program. The files can then be downloaded directly from your knowledge base.

Custom fields

They can create custom data values that can be assigned to articles and sourced for.

2. Workflow

Flexible workflow rules

The Interspire Knowledge Manager's built-in workflow system gives an opportunity for content administrators to define and implement their own content publishing processes and permissions. By creating workflow rules on a per-category basis, content administrators can receive email notifications when an article is added and/or changed.

Changes to an existing article can be seen side-by-side and optional approval/disapproval emails can be sent forth automatically to content contributors giving them a notice on the status of their knowledge item. Complete LDAP integration and support for multiple content administrators per category makes it easy to setup structured knowledge publishing processes for the staff members, without having to setup several new user accounts.

3. LDAP integration and authentication

Use SeAMK's existing LDAP server to manage user integration and authentication.

Figure 10. Single sign on with LDAP Integration

The Interspire knowledge manager Enterprise edition includes complete support for LDAP integration and authentication with these LDAP providers:

- Microsoft Active Directory
- Novell eDirectory
- Posix Account RFC2307
- Open LDAP
- Samba

- Posix Account PFC2307BIS
- Other LDAP Servers

LDAP integration is configured from the settings page in the Interspire knowledge manager control panel.

In addition to integration, user account details can be synched and LDAP groups can be mapped with Interspire knowledge manager groups for role-base permissions, as shown in appendix 2 is the screenshot figure for a larger view.

4. Feedback

The staff members can make use of keep in the loop with various user feedback mechanisms. Administrators, contributors and users - All in a loop

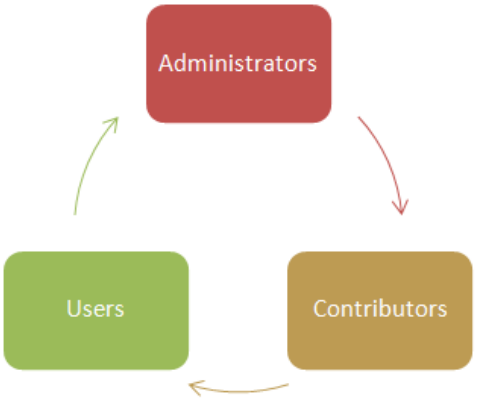

Figure 11. Feedback mechanisms

The Interspire knowledge manager is incomparable in the number of feedback mechanisms it comprises by default. Accept comments on articles allow users/visitors to give articles thumbs up and thumbs down rankings, see why a user rated an article unconstructively, and even allow anonymous article submission using the integrated workflow system.

Article comments

While browsing the knowledge base of SeAMK, users can quickly and easily leave comments on specific articles. These comments can be set to auto-approve and displayed instantly, or to pending so they require approval by an administrator

before they appear. To get rid of comment spam and automatic submissions, the Interspire Knowledge manager implements various industry standard CAPTCHA techniques that can likewise be disabled from the control panel.

Thumbs up/thumbs down ratings

All the staff members of SeAMK can easily get instant feedbacks on articles using Interspire Knowledge Manager's "thumbs up/thumbs down" rating system? If someone rates an article as thumbs down, they can give a cogent reason why they do not like the article. All feedback is saved so you can improve your articles based directly on user feedback.

- Ratings with feedback text help to:
- Improve content quality
- Remove confusing/ambiguous text
- Find and fix spelling/gramatical errors
- Keep knowledge base visitors in the loop

For clearer and larger view, you can see appendix 3

User submitted articles

The Interspire Knowledge Manager can also double as a contact form. Feedback from the contact form can either be emailed to a specified email address, or saved in the system as a user submitted article. These articles can then be transformed into real articles in your knowledge base with just one click. See appendix 4

Figure 12. Article update notification

Users can subscribe to be informed via email whenever an article is restructured. They will receive a short email with a link to view the updated article in your knowledge base. The emails are sent automatically when a change is made to an article.

5. Attachments

It is very easy for any staff member to publish files and documents together with their articles.

Upload multiple attachments easily

Staff members in the institution do not need to dabble around with FTP uploading to attach files to articles. They can simply browse for them on their computer or network when creating an article and click Save. They can likewise upload multiple attachments to an article, and it is easy to remove or update attachments at any time.

Any file type can be uploaded, and the following file types are indexed automatically and can be searched:

- Microsoft Word (any version)
- Microsoft PowerPoint (any version)
- Adobe PDF
- Image files such as GIF, JPEG (EXIF meta data)

Attachments are stored in the attachments folder of SeAMK´s knowledge base, in a sub folder based on each article's ID. This makes it easy to move the knowledge base between servers/web sites or replicate it if necessary.

Multiple files can also be attached to an article in any format, including:

- Microsoft Word and office documents
- Images and photos
- Adobe PDF's
- MP3 files
- Financial documents from Quicken, MYOB, etc

6. Publish dates

Since SeAMK usually works with deadline, they can publish time-sensitive content with start and/or expiry dates

A time you need to publish information only between specific dates, only from a particular starting date, or until a certain date in the future. Interspire Knowledge Manager makes it easy to publish time-sensitive content with the capacity to specify start and end dates for every article.

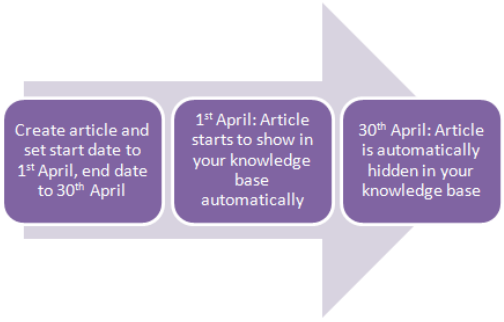

Figure 13 Date publishing

Article start and end dates are useful to publish:

- Upcoming events, such as meetings, which only need to be listed until the meeting date
- Policies which will be implemented from a specific date in the future
- Policies which expire on a specific date
- Information related to projects with a finite development timeline

Once an article has expired and is removed from your knowledge base, it will not be listed and cannot be found in search results. It will still appear in the control panel, in any case.

Reduce online enquiries with automatic answers to common questions. They can turn Contact Form into a Self-Serve Support System

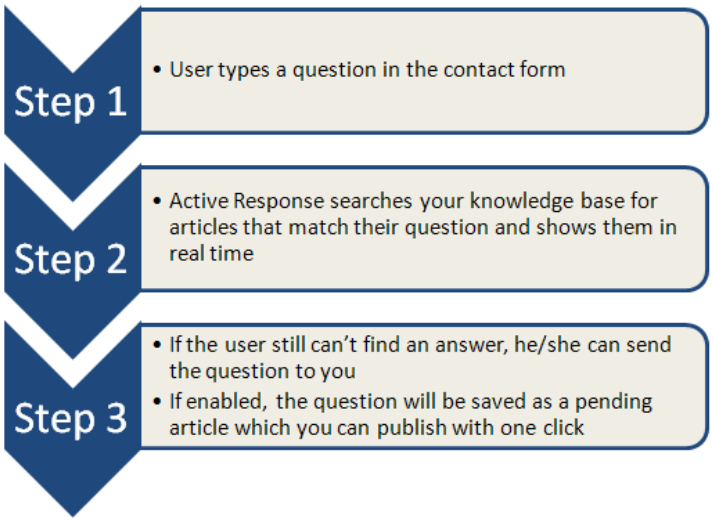

Figure 14. Active response

Immediately "connecting" any contact form on SeAMK´s web site or intranet (or the built-in contact form) with her knowledge base, the users can get instant answers to questions that they would often send you via email. The Active response system acts as a middle man between two users, and reduces the number of emails that are sent through any contact form on the school´s website.

Below is a simple explanation of how it functions;

Someone wants to ask a question, so they fill out the contact form on the school website or the contact form which is built-into the knowledge base.

Using interspire's proprietary smart query technology, articles in the knowledge base that match the question are found, and are displayed on the page without refreshing (using AJAX XML retrieval). At this point the user can read the answers to see if they answer his/her question. See appendix 5

If their question still isn't answered, they can click Send Message to send an email to the webmaster including their question or comment. If allowed, this question will also be saved in the control panel as an imminent article, which can be published to the knowledge base with one click.

7. Quick add & edit

Staff members can add and update articles while they browse the knowledge base of the institution.

Add and update articles in real-time while browsing

The Interspire knowledge manager's quick add/edit features give you the chance to add or make changes to existing articles from your knowledge base in real-time. With access controlled totally by group and/or workflow right, users can add an article to a category or make changes on the fly while exploring through.

You will only see the quick add/edit links when browsing your knowledge base if you are logged in with appropriate permissions. Changes can be set to go live immediately or need approval from a content administrator, in which case an email will be sent notifying them of the new/modified knowledge item.

8. Search

With interspire software staff members can search through thousands of articles using powerful full-text search capabilities.

Lightning fast, accurate search results

The entire searches in the knowledge base of SeAMK will run on MySQL’s full-text system, provides extremely fast and incredibly accurate search results. Each article is a search result is ranked based on its relevance, and results are sortable based on ID, title, author, number of views, number of comments, rating and date.

The Interspire Knowledge Manager has been optimized to handle huge amounts of articles – tens of thousands to be accurate. The MySQL database in which articles are saved is optimized using indexes, relationships and appropriate field lengths, making data retrieval (especially for searching) as fast as possible. Interspire Knowledge Manager scales tremendously well.

Frontend searching

The users, staff members and partners benefit from Interspire Knowledge Manager's fast and perfect search competences as soon as they carry out their first search. Search results are formatted in a like way to Google or Yahoo search, thus there is no learning curve - simply type some text in the search box and hit Search. See appendix 6

Smart Search Suggest

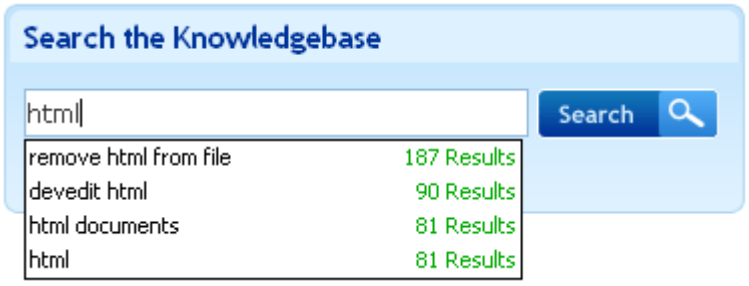

Figure 15. Frontend searching

All searches are saved in the system, permitting Interspire knowledge manager's smart search suggest technology to display appropriate search suggestions to users as they type. Each previous search lists the search term used, in addition to the number of search results. The search propositions can be clicked to see the results explicit to that suggestion. Search propositions help users who need answers to their questions, but might not be sure where to start. The searches recommend box can also be integrated into your existing web site or intranet portal in a few minutes.

Advanced search

Experienced users will find Interspire Knowledge Manager's advanced search options interesting. Not only can you control searches based on categories, staff members can also filter by article ranking and search based on custom field values. See appendix 7

Backend searching

Administrators and content contributors can locate articles easily using Interspire Knowledge Manager's powerful backend search system. See appendix 8

Obviously there's the simple keyword-based search, but staff members can also search on a numerous of variables, including keywords, categories, number of views, last updated date, rating and visibility.

Search predilections are persisted which makes it easy to update an article and jump back to the search results without having to re-type search options.

9. Syndicate

Staff members can distribute knowledge base articles using built-in RSS syndication. There is open access to information in a common format for easy delivery. See appendix 9

RSS (Really Simply Syndication) has exploded as a common file format for sharing data. Interspire knowledge manager allows them to incorporate articles from your knowledge base into other web sites, intranet systems, and even legacy systems by providing multiple, easily accessible RSS feeds for:

- Every category
- Most popular articles list
- Recent articles list

The standard RSS icon shows throughout the knowledge base in different areas, and makes it not only easy for staff members to distribute the content of the knowledge base, but also persuade users and visitors to add your RSS feed to their favorite feed reader, such as Google reader.

Themes

Staff members can choose an included theme or integrate into the existing web site/intranet. See Appendix 10

SeAMK¨s knowledge base is an extension of your company - so why not customize it?

Interspire knowledge manager ships with a collection of professionally designed, XHTML compliant themes out of the box, but it's straightforward to integrate the knowledge base with an existing web site too.

All themes have been expansively tested in modern web browsers, including Mozilla FireFox, Microsoft Internet Explorer and Apple's Safari for maximum viewing delight. From the control panel, they can switch between themes with a single click using the built-in theme browser.

They can yet create your own templates - simply uses one of the on hand templates as a starting point. All templates contain simple HTML and CSS only. They do not contain PHP code.

30 second integration with your existing website/intranet

If the institution has an existing web site and wants to incorporate the school´s corporate branding and colors along with the knowledge base, Interspire knowledge manager makes it easy:

- Choose the embedded template
- Specify the location of your existing top and bottom template files
- Click save

That's it. The knowledge base will now look like the rest of the school website. Companies such as random house publishing, SingleHop and SoftLayer rely on their integrated knowledge base every day, powered by Interspire knowledge manager and wrapped in their presented web site template, as shown below in the figure:

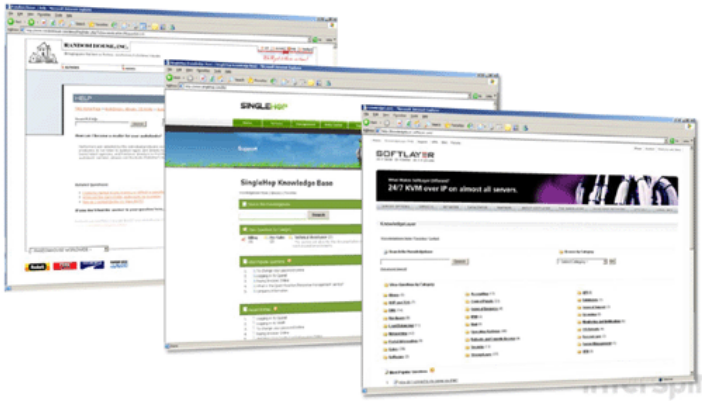

Figure 16. Themes

Users

Numerous staff members can all contribute, with different permissions for each.

They can create and administer user accounts easily.

Using Interspire knowledge manager's built-in groups system, it is easy to generate and allocate users to different groups based on the role they will play in view of the knowledge base.

Each user account has its own separate login id and password, making it simple to disable user accounts as necessary. Administrators can make user accounts in seconds, and the user-based filtering system makes it simple to find users if the institution have dozens, hundreds or even thousands of user accounts.

Assign Users to Multiple Groups

Users can fit in to multiple groups basically by selecting the groups they should be part of when adding/editing a user. If a user belongs to multiple groups, his/her permissions from the multiple groups will be combined.

Category-Level Viewing Restrictions

It's easy to limit users to one/multiple categories when viewing the knowledge base. Staff members can either create a group with limited category viewing

permissions, or password protects categories. If a user tries to view a category to which they do not have right of entry, they will either be asked for a password or asked to login, depending on how the limit is setup.

Created Unlimited Groups

There is no boundary on the number of groups that can be created. Staff members have exact control over how users interact with the knowledge base, depending on which groups they are a member of. It is easy to switch users' permissions - simply by changing which group(s) they belong to.

Per-group user tally

Observe precisely how many users are assigned to each group from the knowledge base's control panel. This makes it easy to trim your groups list and move users to/from groups as requisite.

10. Print

Staff members can view articles online and off, with printer-friendly versions just a click away.

Print an article - without printing everything else on the page

Several people find it stressful to read long articles on their computer screen. Interspire knowledge manager's print-specific article template allows them to print an article in an efficient, simple format - without any of the surrounding content being printed at the same time.

The printed version of an article as well includes a link at the top of the page so it is trouble-free to go back and view the online version of the article afterward. See appendix 11

11. PDF Export

Staff members can export an article to a PDF document right from within the knowledge base.

Export your articles as PDF documents with no bother

Export any article to an adobe PDF document with a distinct click. The PDF is generated on the fly and can be saved, emailed or printed as required. The PDF includes the title, content and link to article for easy indication. See appendix 12

12. Email

Staff members can send an article to anyone via email.

Encourage participation and share articles via email

Staff members can send anybody a link to an article in the knowledge base. By clicking the email this page link, enter details and the details of the person the email is going to, and send. An email will be sent and the staff members can likewise track how many times each article has been emailed. See appendix 13

13. Backups

Make regular backups of the knowledge base without being a system administrator.

Backup your database and configuration settings by clicking a button

Interspire knowledge manager's incorporated backup system allows them to download archived copies of the knowledge base straight from the web browser. They can as well backup the configuration settings. All backups are as well stored remotely. If they are familiar with crontab or Windows task scheduler, they can also setup scheduled backups. See appendix 14

14. Related Articles

It encourages content exploration using automatic related articles discovery.

Provide a total picture of knowledge by connecting related articles

Knowledge can be disseminated across multiple articles. Using Interspire knowledge manager's related articles system, staff members can manually spot a list of related content for each article, or they can use the incorporated content linking feature to have Interspire knowledge manager will find and build a list of related articles automatically.

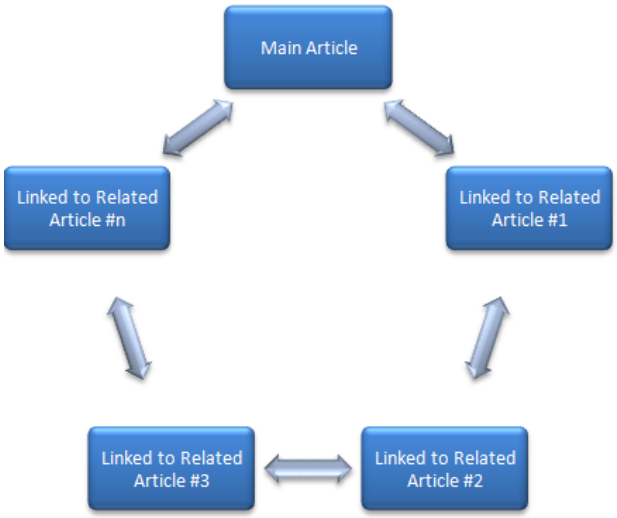

Figure 17. Related articles

15. Custom Fields

Create custom variables and assign them to articles as required. Using custom fields to enhance articles

See appendix 15

Custom fields are user-defined variables that can be allocated to articles. Custom fields can be searched and offer additional depth and filter options to articles in the knowledge base.

When creating an article, staff members can allocate custom fields they have created from the advanced options tab. The custom fields are then displayed along with the article in the knowledge base.

Persistently, articles need more than simply content. Using custom fields, they can totally customize Interspire knowledge manager to SeAMK´s specific needs. Whether staff members are a software developer, accountant, school, or any other type of corporation, community group or team, custom fields provide an additional level of filtration to users of the school´s knowledge base. This basically fit into SeAMK's need.

Searching Custom Fields

More experienced users will find Interspire knowledge manager's advanced search options interesting. Not only they can limit searches based on categories, they can also filter by article rating and search based on one or more custom fields. See appendix 16

16. Statistics

Get a complete overview of how the knowledge base is being used.

Introduction

A crucial part of having a knowledge base is user/customer adoption - how frequently are users reading articles, which articles are they reading and what are they searching for? Interspire knowledge manager's full statistics and reporting options give a top-down view of how the school knowledge base is being used.

Article statistics

The staff members see reports on most viewed articles, most popular articles, most discussed articles, and view article ratings. The article summary dashboard provide them with a general idea of how articles in the knowledge base are performing, and includes summarized versions of article hits and ratings, positive and negative votes, etc - as seen below. See appendix 17

Using Interspire knowledge manager's data views, they can narrow down to see exactly which articles are being read and rated. On the flip side, they can see which articles are performing poorly - both by rating and by feedback. They can

read users feedback on why they rated an article negatively and make changes as required.

User statistics

User involvement is significant to the successful adoption and continual usage of a new knowledge base. Interspire knowledge manager provides a broad range of user statistics with most active users, author popularity and comments-per-user, making it easy to see which staff members are contributing inertly to the knowledge base, and which are not. See appendix 18

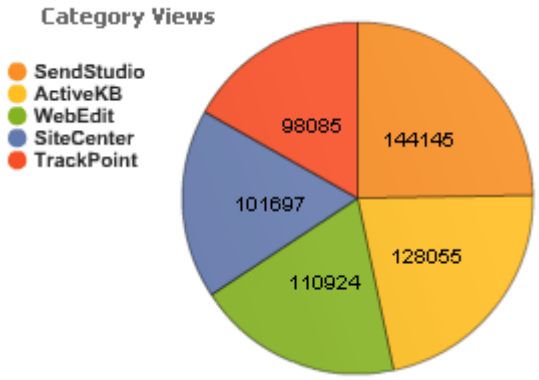

Figure 18. Category statistics

Categories permit to group related articles together so they can be navigated by users of the knowledge base.

From the category statistics page you can see which categories are attracting the most hits, in addition to category structure statistics for instance how many root and sub categories (Interspire knowledge manager supports an unlimited number of nested categories, so staff members can organize their articles precisely as required) the knowledge base contains, etc.

Search statistics

See precisely which terms users of the knowledge base are searching for. Arrange search terms by most to least well-liked and vice versa. See which search terms produced no results and why. Every search is tracked, stored and obtainable for analysis from the Interspire knowledge manager statistics dashboard.

17. Import

Migrate existing knowledge to Interspire knowledge base easily. See appendix 19

Import articles from anywhere

If staff members are moving the existing knowledge base to Interspire knowledge manager, they will be satisfied to know that it includes a bulk import feature.

Plainly export or group your existing knowledge into a comma separated values (CSV) file, run the import wizard, they can sit back and relax. The articles will be imported into the category or categories they select automatically.

No need to fiddle with database dumps or FTP programs.

18. Groups

Segment users into groups based on permissions and access levels.

Two Group Types: Frontend and backend

Assign users into groups based on how they use knowledge:

Frontend: Users in a group marked as frontend can view the knowledge base and staff members can limit which categories they have right of entry to.

Backend: Users in a group marked as backend can adjust the knowledge base however they are bound by right, which can be used to permit them to create an article for example, without being able to delete articles or change settings.

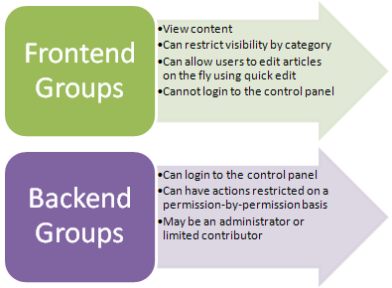

Figure 19. Frontend and backend group

Assign users to multiple groups

Users can fit in to multiple groups simply by selecting the groups they should be part of when adding/editing a user. If a user belongs to multiple groups, his/her permissions from the multiple groups will be merged. See appendix 20

Category-level viewing restrictions

It's easy to restrict users to one/multiple categories when viewing the knowledge base. Staff members can either create a group with limited category viewing permissions, or passwords protect categories. If a user tries to view a category to which they don't have access, they will either be asked for a password or asked to login, depending on how the restriction is setup.

They can as well make the entire knowledge base able to be seen to the public, either on the intranet or website.

Created unlimited groups

There is no limit on the number of groups they can create. They have accurate control over how users interact with the knowledge base, depending on which groups they are a member of. It is easy to switch user’s permissions - simply by changing which group(s) they belong to.

Per-group user tally

See precisely how many users are allocated to each group from the knowledge base's control panel. This makes it easy to trim the groups list and move users to/from groups as required.

Interspire web pages. [Internet document] [Cited 2010]

5.3. Conclusions

The study found out that the companies use existing information to create the necessary knowledge in diverse ways. In accordance to Wiig's theory, transformation of explicit knowledge is happening through the organization by international affairs that review and revise the current processes and information. Tacit knowledge transformation into explicit knowledge will happen through the process of externationalisation. The significance of technology facilities that were mentioned in the theories of Tsoukas and Vladimirou were found to be realized by the organization as well, but because of some difficulties regarding the cultural issues, no rewarding process exist to encourage the staff to work on collected information in order to create new knowledge. (Tsoukas and Vladimirou 2001)

Knowledge management software usage accomplishes up to 30% savings on customer support and increases up to 50% decision-making quality, staff alertness, and company reaction speed to changes of market needs. The figure below illustrate how a good software should work

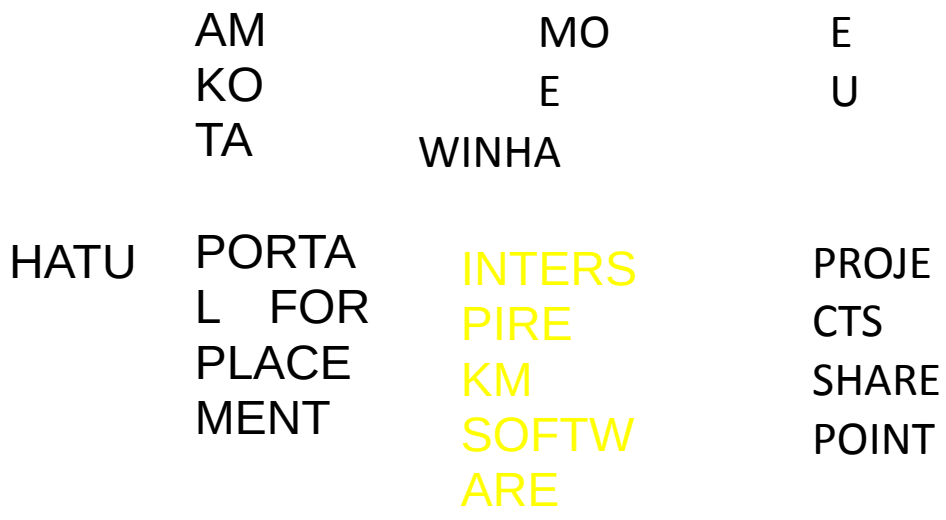

Figure 20. The KMS Framework Proposal

Knowledge management systems (KMS) refer to a class of information systems applied to managing organizational knowledge. Explicitly, they are IT-based systems developed to support and improve the organizational processes of knowledge creation, storage/retrieval, transfer, and application. Despite the fact that not all KM initiatives involve an implementation of IT, and reprimand against an emphasis on IT at the outlay of the social and cultural facets of KM are not uncommon (Davenport and Prusak 1998; Malhotra 1999; O.Dell and Grayson 1998), many KM initiatives rely on IT as an important enabler.

As IT does not apply to all of the issues of knowledge management, it can support KM in sundry ways. Examples include finding an expert or a recorded source of knowledge using online directories and searching databases; sharing knowledge and working together in virtual teams; access to information on precedent projects; and learning about customer needs and behavior by analyzing transaction data (KPMG 1998), amid others. Indeed, there is no single role of IT in knowledge management just as there is no single technology encompassing KMS.

A mutual weakness in information systems is the more emphasis laid on information technology at the expense of well-defined knowledge management roles and responsibilities. Absolutely, for information systems to succeed, SeAMK must administer a set of roles and skills to the work of capturing, distributing and usage of knowledge. There are lots of calculated and technical task to be performed and it is quite unlikely to think that SeAMK can easily throw KM activities on top of its existing positions.

However Zach offer a precise reflection about KM roles and skills, Davenport and Prusak analyzed it deeper. The previous affirms that KM needs to create a new organizational role, the CKO (Chief Knowledge Officer) which have to execute: Advocating KM, educating the organization, knowledge mapping and integrating organizational and technological resource. (Zach 1999)

Quite the reverse, Davenport and Prusak offers more comprehensive description about the new aspect of CKO. Apart from the above mentioned activities, according to them CKO have to:

- Handling relationships with external providers of information and knowledge (for example academic partners and all sorts of relationship based agreements)
- Offer acute input to the process of knowledge creation and use around SeAMK and facilitate efforts to improve such process
- State key categories of information and knowledge that SeAMK would address
- Measure and handle the worth of knowledge, either by conventional financial analysis or by 'anecdote management'
- Principal the development of knowledge strategy, focusing the SeAMK´s resources based on the type of knowledge it needs to manage most, and the knowledge processes with the largest gaps between need and present capability.

Furthermore Zach does not distinguish the role of knowledge manager with the role of CKO. Specifically he states that CKO can similarly be called knowledge manager and many organizations likewise cluster these responsibilities for KM into knowledge or expertise centers, each being responsible for a particular body of knowledge. In its place Davenport and Prusak see the knowledge manager and the CKO as two diverse roles. Actually they affirm that the CKO also manage the organization's professional knowledge manager, giving them the sense of community, creating professional standards and managing their careers.

From the Davenport and Prusak opinion, the knowledge manager has to execute the following function:

- Developing project objectives;
- Assembling and managing teams;
- Determining and managing customer explanation;
- Monitoring project budgets and schedules;

- Identifying and resolving project problems.

Additionally Davenport and Prusak acknowledged another two roles: the knowledge- oriented personnel, the KM workers. The former is expressed as line workers who must also manage the knowledge of their own jobs. For example, planning managers, business analysts, design and manufacturing engineers, marketing professionals, and even secretaries and clerks are the most important managers of knowledge. They all need to create, share, search out, and use knowledge in their daily routines. The latter may be expressed as people who extract knowledge from those who have it, put it in structured form, and maintain or improve it over time (also called knowledge integrators, knowledge engineer and knowledge administration). Respectable knowledge workers could be a combination of 'hard' skills (structured knowledge, technical abilities, and professional experience) with 'softer' characters (a sure sense of the cultural, political and personal aspects of knowledge). (Davenport and Prusak 1998)

The information systems should not be solely depended upon without the full management by a CKO.

Still, I will conclusively say that any information systems that has been built to manage knowledge need and ought to be managed by a CKO, for more efficiency and for the purpose of the software to be justified.

Knowledge is manageable only when leaders grip and promote the dynamism of knowledge creation. Top management must understand that knowledge needs to be nurtured, supported, enhanced, and cared for. What they should think about for enabling knowledge creation is to think in terms of systems and ecologies which can provide for the creation platforms and cultures where knowledge can freely emerge (Nonaka & Konno 1998)

Conclusively, for the organization to maximize the full capacity of Interspire KM software, I would rather suggest that SeAMK invest more in people by employing additional staff for the top management whose duties are associated with traveling back and forth internationally. This additional staff could be involved in personal

assistance and will always document every activity related to knowledge management.

In respect to Interspire KM software how SeAMK staff members respond to technological change is a good indicator of its inner drive for excellent versus mediocrity. Great companies react with thoughtfulness and creativity, driven by an obligation to turn unrealized potential into results; mediocre companies react and lurch about, motivated by fear of being left behind.

One of the staff members of SeAMK once told me that Finland is usually a late comer in most things; I hope this will not be the case concerning this software so that the reason for this thesis will be justified. Moreover it was likewise said that most finnish organizations are like a big boat, very hard to turn, which simply means that, it is always hard for them to make a quick decision on development plans. I hope this will not be the case after the general evaluation of this thesis contents.

More development plan to be considered for further discussion

Diverse schools in Europe are trying to accomplish internationalization and likewise be involved in international projects. Apparently, these are unquestionably things that are becoming more common and famous nowadays in schools, compared to some years back.

There are numerous ways on how these international projects should or could be executed; this of course will lead to several stages of participation in the process and the idea of internationalization. Ways countries and schools carry out international project differ from each other and these differences makes them distinct in their region and area of concentration.

I will precisely illustrate these ideas in a simple context, having in mind while reading this that different schools have their own field of concentration and cultural differences in operations.

International project should be a school task with the utmost support and involvement of the international coordinators. It should by no means, be a task of a

single person in the institution. The student should be actively involved in this sort of international project which will eventually meet up with the school´s goal of getting internationalized.

It is always important to establish a work group for such projects and the international coordinators can surely be the team leader.

The student will and must surely need their parents support. Parents should be enlightened about these international projects and get them involved by showing them how important these projects are to the growth of the school and the personal growth of their children as a citizen of the world

Finally the whole school community´s support will be highly appreciated; they should be kept informed about what is going on in the project, either through the school web page, through Ilkka newspaper, Samolainen and whatever media possible.

International projects should be inculcated into the school's curriculum and must be part of the school´s goal.

We have outstanding students that are very vast in knowledge, swift in thinking and excellent in delivery, why are we not making use of these students? After graduation or before their graduation, their potentials need to be explored and made use of. There are people walking in the school with mighty dreams unexplored, these set of students could lift up the name of the institution to a greater height.

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APPENDICES

- Respondents
- LDAP Integration and Authentication
- Thumbs Up/Thumbs down ratings
- Active response
- Frontend searching
- Advanced search
- Backend searching
- Syndicate
- Themes
- Print
- Export your articles as PDF documents with no bother
- Encourage participation and share articles via email
- Backup your database and configuration settings by clicking a button
- Custom Fields
- Searching custom fields
- Article statistics
- User statistics
- Import
- Assign users to multiple groups

APPENDIX 1: Respondents

Manager of International Affairs: Helli Kitinoja

Coordinator of International Affairs: Sanna Valkosalo

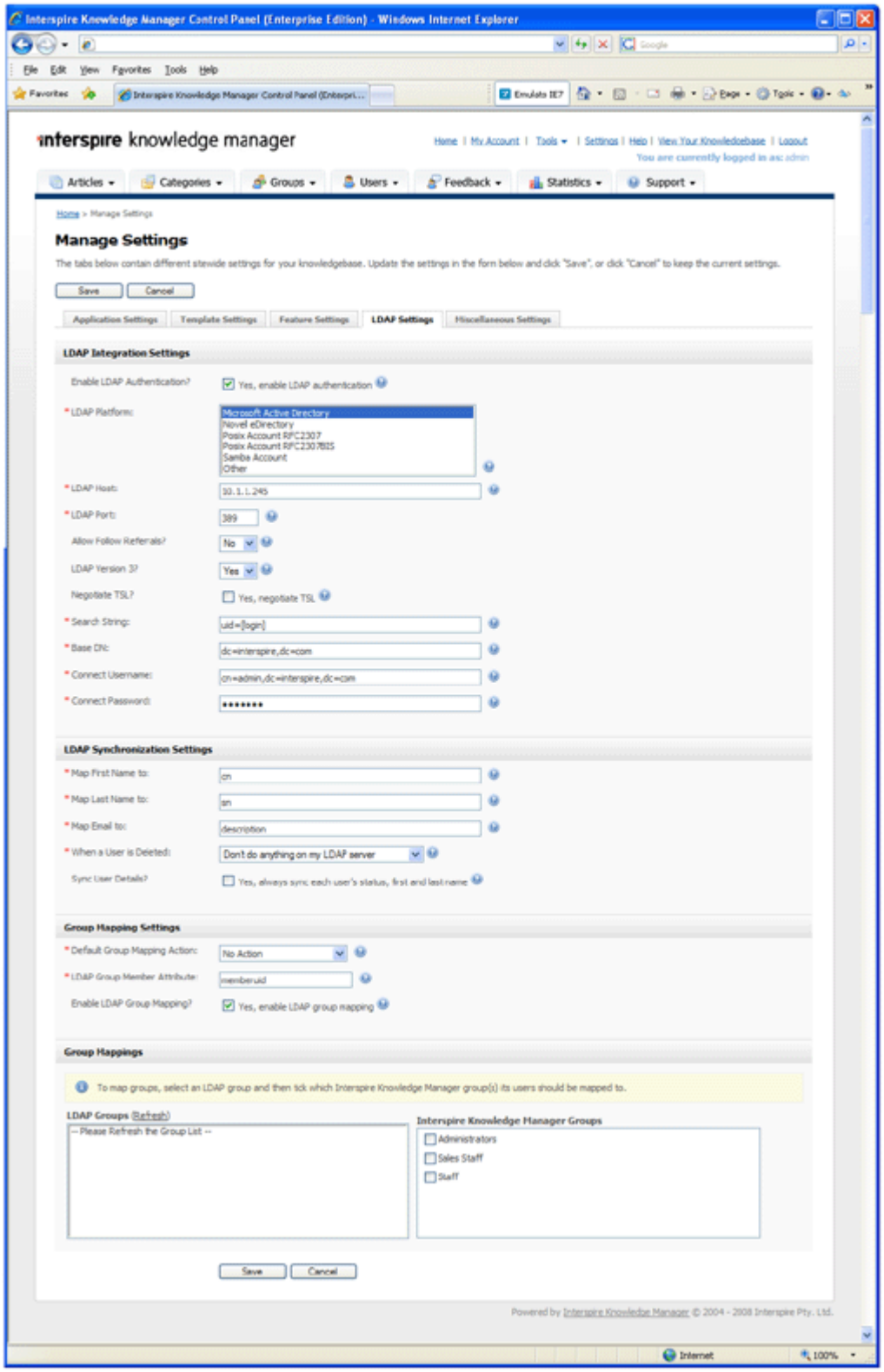
Coordinator of International Affairs and Communications: Maria Loukola

Project Manager: Anne Maria Makela

International Coordinator

- Ritva Leppänen
- Marjo Arola
- Helinä Mesiäislehto-Soukka

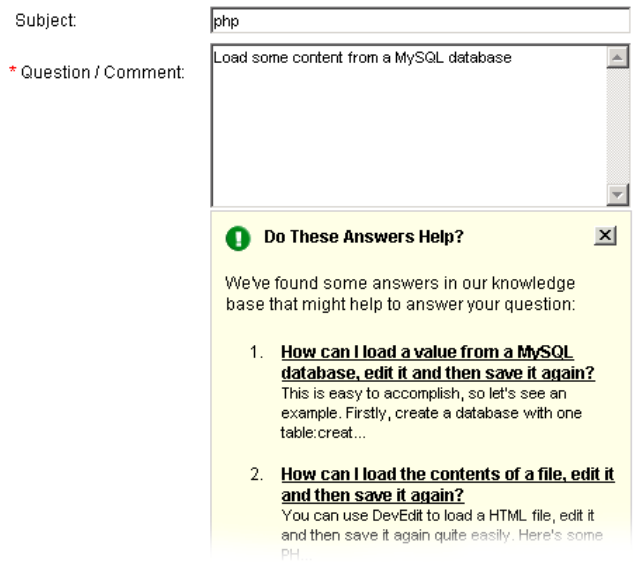
APPENDIX 2: LDAP Integration and Authentication



APPENDIX 3: Thumbs Up/Thumbs down ratings

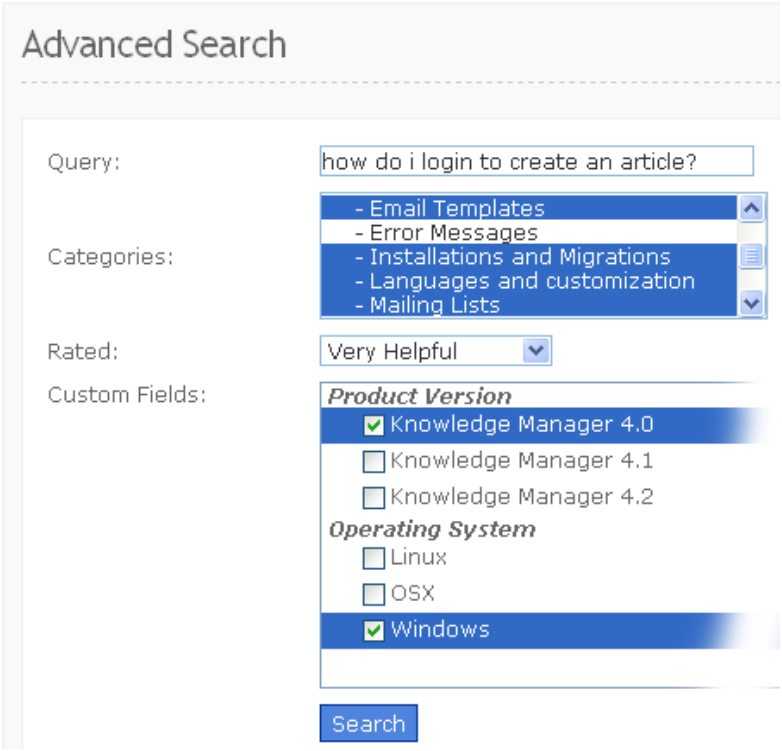
APPENDIX 4: User submitted articles

APPENDIX 5: Active response

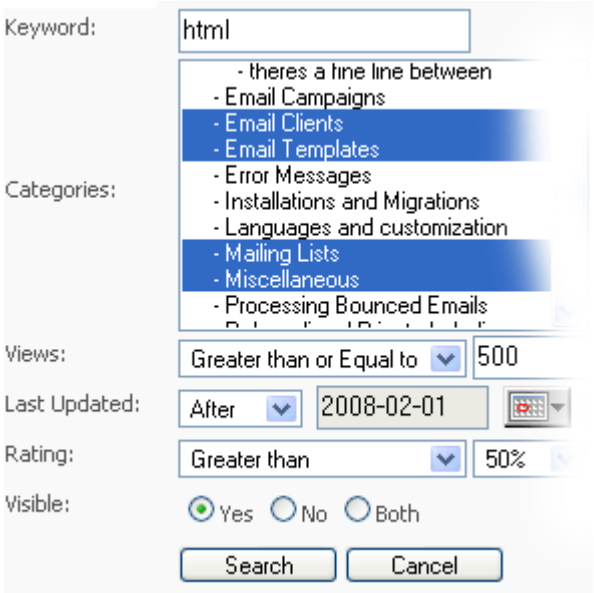


APPENDIX 6: Frontend searching

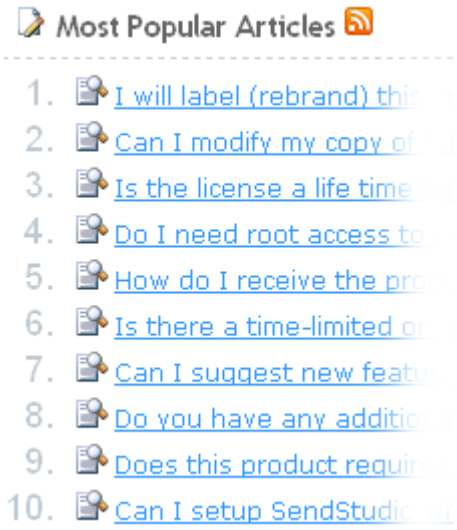
APPENDIX 7: Advanced search



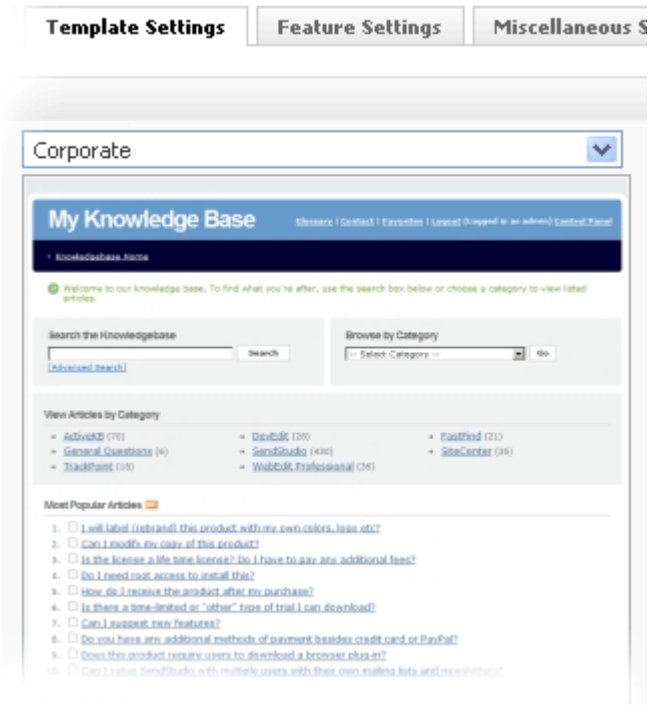
APPENDIX 8: Backend searching



APPENDIX 9: Syndicate



APPENDIX 10: Themes



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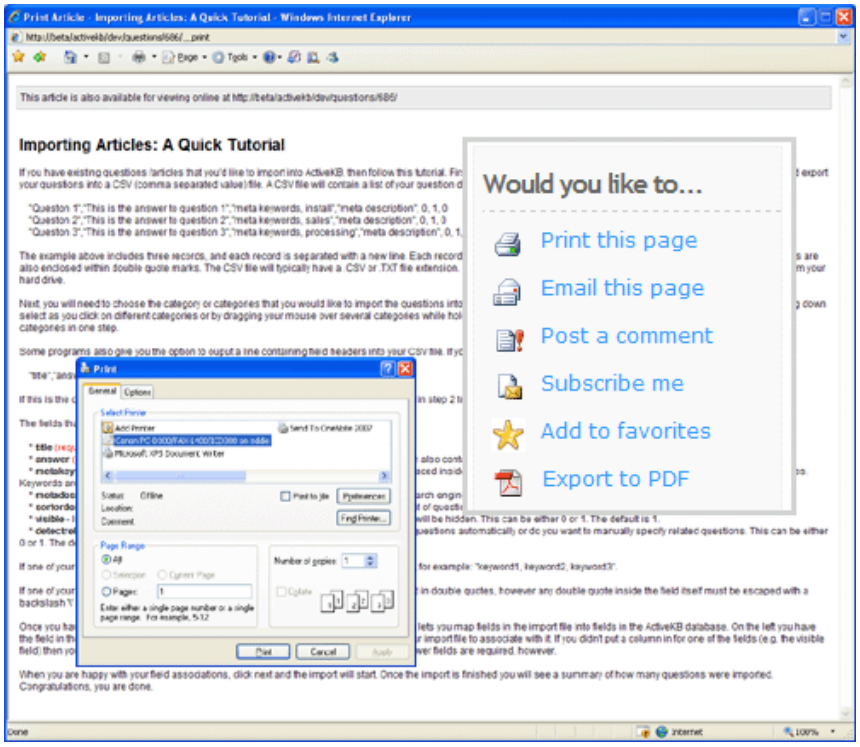
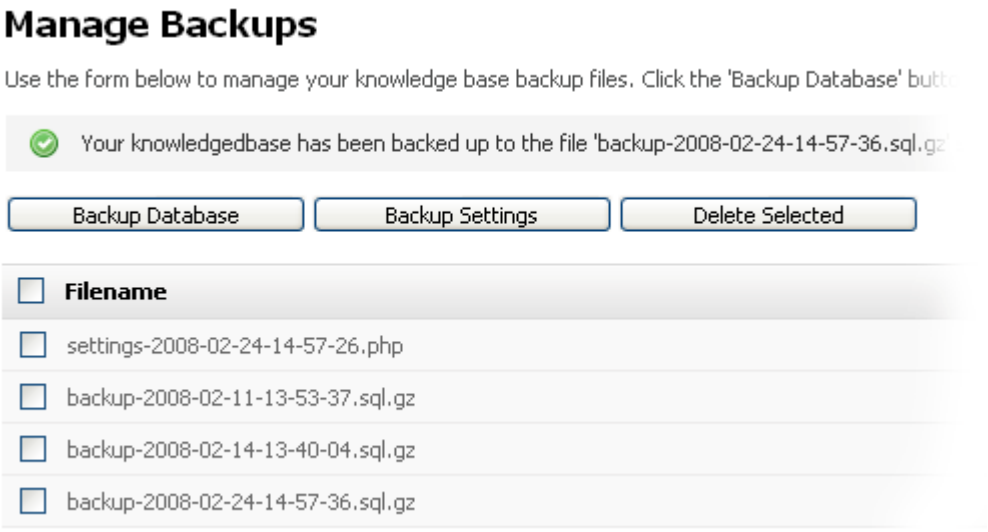


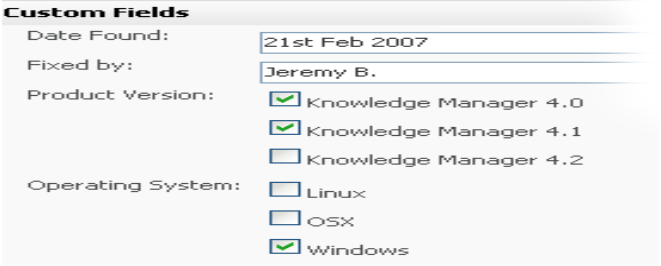
APPENDIX 12: Export your articles as PDF documents with no bother

APPENDIX 13: Encourage participation and share articles via email

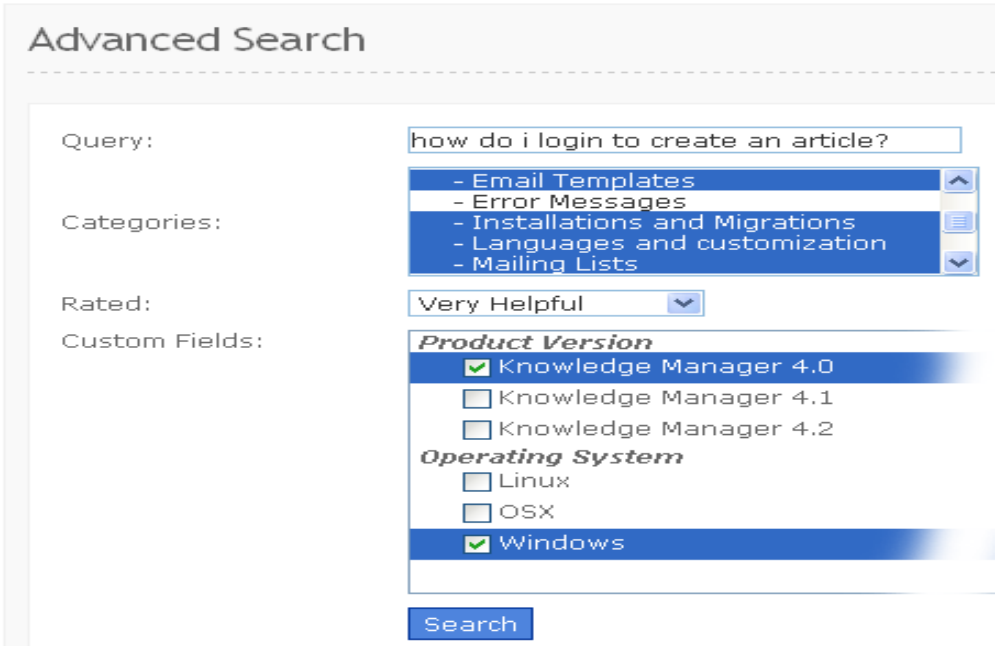
APPENDIX 14: Backup your database and configuration settings by clicking a button



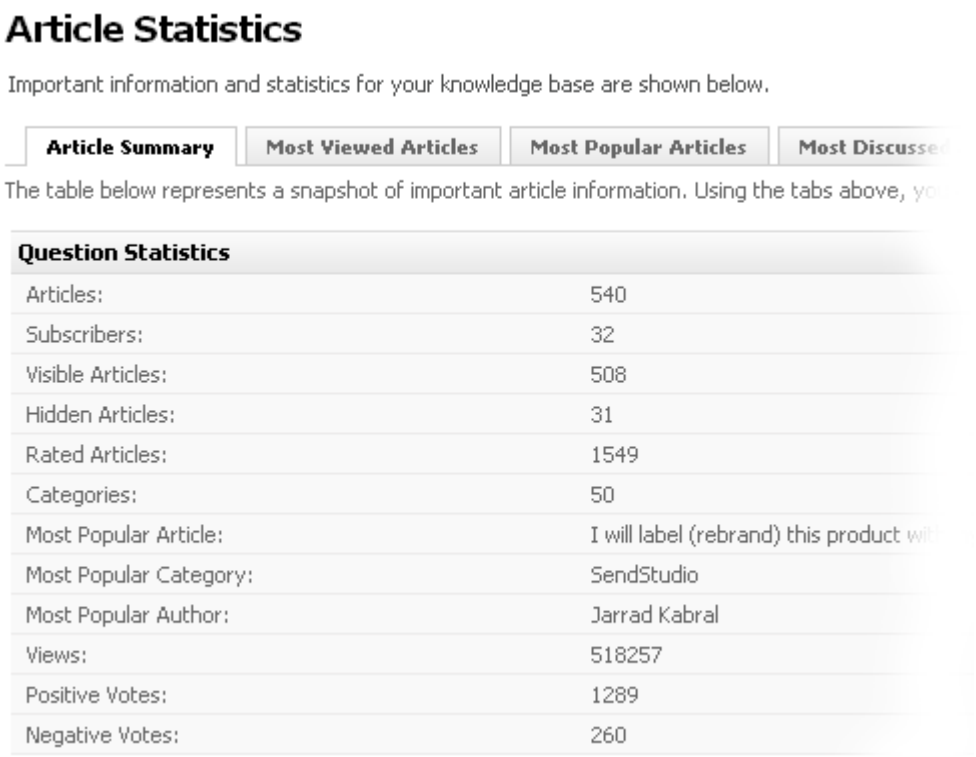
APPENDIX 15: Custom Fields



APPENDIX 16: Searching custom fields



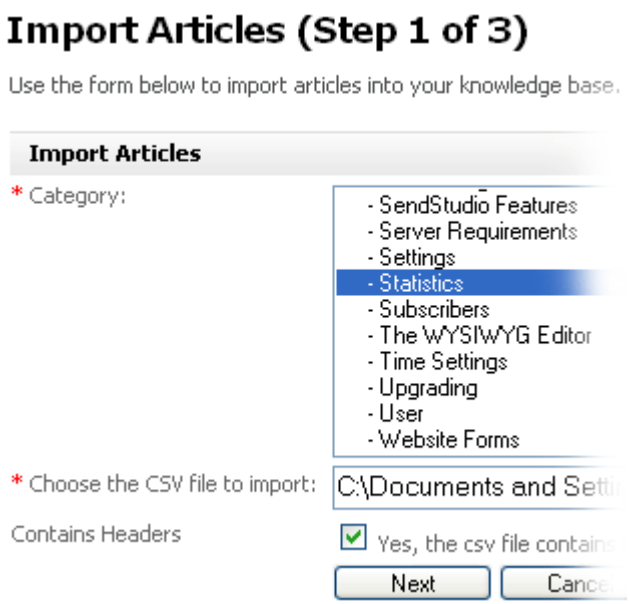
APPENDIX 17: Article statistics



APPENDIX 18: User statistics

Username	Email	Posted Articles	User Score
Jarrad Kabral	jarrad@interspire.com	268	342138
Scott Tedmanson	scott@interspire.com	163	79660
Allan Shone	allan@interspire.com	74	60310
Rodney Amato	rodney@interspire.com	24	29624
Fulvio Oliveira	fulvio@interspire.com	7	1554

APPENDIX 19: Import



APPENDIX 20: Assign users to multiple groups