ITM 541 - IT Project Management
Project Proposal

SUPERNET GROUP COMPANIES Knowledge Management System for on going Projects

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"It is unwise to be too sure of one's own wisdom. It is healthy to be reminded that the strongest might weaken and the wisest might err."

--Mahatma Gandhi--

1. Introduction

Knowledge management is as old as the existence of human beings. Intelligence, the human mind, the constructive and qualitative exploitation of knowledge for the achievement of desired goals are the qualitative difference of humans in the natural environment. So this archetype of existence is a crucial resource. Especially in the business organizations the management of this resource is a multifaceted phenomenon.

According to several researchers the phenomenon of knowledge management is investigated by describing distinctive phases that elaborate knowledge exploitation. In a business environment these activities have to support a wider web of interrelationships, politics and attitudes. The other facet is the fact that knowledge exploration promotes the realization of a reusable knowledge artifact. Past experiences, expertise, proficiency, competence - skills, capabilities and embedded knowledge of all kinds - are only a few examples of resources that in their integration promote the meaningful constructing structure element of knowledge.

In any organization, past experience plays a key role in improvement and management. How effectively past experience can be leveraged depends on how well this experience is captured and organized to enable learning and reuse. Systematically recording data from projects, deriving lessons from it, and then making the lessons available to other projects can enhance this reuse.

An organization is a cohesive entity that has some mission or defined goals. The organization or the person in it performs some tasks to achieve these goals. Knowledge helps perform these tasks better, faster, cheaper. The main goal of knowledge management is to help reduce cost, reduce cycle time, or improve quality through the effective use of knowledge. In an organization which is in the business of software development, as the main assets are the intellectual capital, knowledge management is particularly important [**Rus and M. Lindvall**]. Knowledge can be external, i.e. which is produced by people outside the organization. This type of knowledge resides in books, journals, magazines, etc.

Knowledge can also be internal, i.e. the knowledge that is created primarily within the organization, largely through experience and experimentation. Generally, the goal of knowledge management within an organization is to manage the internal knowledge of the organization creation of which uses external knowledge. Leveraging experiential knowledge is the focus in the experience factory model [**Basili and Rombach**], and is envisaged at the higher levels of the capability maturity model [**Wheeler and Chambers**].

In this project we also focus on the management of internal knowledge, particularly the knowledge that is useful in project management, i.e. use of which can make project management more effective. Suppose in a software organization, there is a superior level project manager exist who consistently executes projects successfully, whose estimates are generally on target, and who seems to avoid the fighting mode most of the time. Clearly, this project manager has acquired the knowledge to properly perform the various tasks associated with project planning and execution through experience.

Clearly, the organization will want this experience to be available to other project managers so they can also execute projects successfully. One way to achieve this is to have the super project manager available as a "consultant" to other project managers. This approach is not scalable. Having knowledge reside with an individual also has other undesirable side effects. The goal of knowledge management is to preserve and leverage experience of individuals, such as this super project manager, for the benefit of all project managers. Hence the basic objective of knowledge management is to compile and organize internal knowledge such that it resides in systems and is available for use by project managers.

Consequently, the key elements of knowledge management are collecting and organizing the knowledge, making it available through some knowledge infrastructure, and then using the knowledge to improve the execution of projects. The center piece of a knowledge infrastructure for project management is the processes and related process assets. Processes describe how different tasks are to be executed and encapsulate the knowledge the organization has for efficiently performing that task. Process assets are documents that aid in the use of processes. Besides process and process assets, metrics knowledge from past projects is invaluable for new projects – both for planning and project monitoring. Hence, another key element in knowledge infrastructure for project execution is the process database which keeps the summary of the past projects. Process assets and process databases capture the key elements but still leave some things un-captured. Hence a system to capture the rest of knowledge that may be of use is needed. In this project we will go over three elements of knowledge infrastructure. These elements are based on how they are supported at **Supernet Group Companies.**

We were handling the project whit these questions. It was our starting point.
What is the value of our company's knowledge? Do we manage our company's knowledge efficiently & effectively? Did we build the best system for Knowledge Management? Did we monitor their usage? Are we more interested in managing our knowledge than a "Knowledge Management System"?

These are the first steps of awareness on the way of the knowledge management system that the system will increase efficiency through our current knowledge.

2. Knowledge Collection Methodology

We will use Zachman's knowledge discovery method at our project. So what is it that we want to know? Journalism can give us a clue. The traditional dimensions of any news story are "what?", "how?", "where?", "who?", "when", and "why?" John Zachman has pointed out that these translate into the following:

Things of the business (What)
What are the things of significance to the organization about which it wants to know something? What resources (physical and intellectual) exist?

Processes (How)
What does the company do? What should it be doing? How does it work?
Distribution and geography (where) – Where does the company do business? How do people, materials, money, and information travel from place to place?

The organization (who)
What is the company's organization? This whole change in orientation towards knowledge management is having profound effects on the organization. What does this mean?

Events, agents, responses (when)
What role does time play in the company's operations? What events cause things to happen? Who responds and in what ways?

Motivation and Business rules (why)
What are the company's objectives, and how are they translated into business rules?

The company's body of knowledge is composed of all of these, mixed together in various ways. Some modeling techniques are available to address some of them, but no model has yet completely captured them all.

3. Definition of the Project

In this project we will define and use the three key approaches for organizing and using past experience and how managers are employed in Supernet Group Companies for ongoing projects with top-down manner organized processes.

3.1. Scope of the Project

3.1.1. Project Objective Statement

This projects objective achievement is to provide the process infrastructure which encapsulates the past experience in the form of processes and supporting templates and checklists and also the process database that contains metrics from past projects with the body of knowledge system that is used to record experience of people in problem solving in a variety of areas.

We will conduct a high-quality, knowledge management system for managing the project with in 6 months at a cost not to exceed $80.000.

31.2. Deliverables

- Defined stages of our knowledge
- Specified engineering and project management tasks
- Defined life cycle process project knowledge system
- Prepared supporting processes
- Defined processes on projects, guidelines, checklists, and templates
- The relationship between processes, guidelines, checklists, and templates
- The System of process reengineering through the knowledge
- The process database as repository of process performance data generating reports Screen for process database
- Prepared relationship process database and closure analysis.
- Internal knowledge research center (INRC).

During the project:

- Progress reports to evaluate the project health.
- Risk Management reports for critical paths and strategy
- Critical Path and measurement reports.

3.1.3. Milestones

Phase 1 – "05 September to 04 November "

- Definition stages of our knowledge
- Specification of engineering and project management tasks
- Developed life cycle process project knowledge system
- Documentations of supporting processes (The Configuration Management and review process)
- Defined processes on projects, guidelines, checklists, and templates
- The relationship between processes, guidelines, checklists, and templates
- The System of process reengineering through the knowledge

Phase 2 – "05 November to 10 January "

- Develop the process database as repository of process performance data generating reports Screen for process database
- Develop the relationship process database and closure analysis.
- Develop the Internal knowledge research center (INRC).

3.2. Work Breakdown Structure

Though it is difficult to approximate the structural time and resource assignments for the invention project, we would try.

Here is the structure;

- Academically Research * It takes most time
- Develop the life cycle process project knowledge system
  - Understand the processes
  - Prepare the Evaluation
  - Draw the Cycle

- We will define the stages of our knowledge
  - Overview: A brief description of the stage
  - Participants: All the participants that take part in executing the various activities in the stage
  - Entry Criteria: The pre-requisites that must be satisfied before this stage can be started
  - Inputs: All the inputs needed to execute the stage
  - Activities: List of all activities (sometimes also important sub-activities) that are performed in this stage
  - Exit Criteria: The conditions that the outputs of the stage must satisfy in
  - order to consider the stage as completed
  - Outputs: All the outputs of the stage
  - Measurements: All the measurements that must be done during the execution of the stage
  - Special Verification
  - References of knowledge

- We will specify the engineering and project management tasks
  - What measurements to take
  - What outputs should be produced
  - Find the engineering tasks
  - Find the project management tasks

- Preparing supporting processes like the configuration management and review process
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- Develop the project monitoring tool. "This will use knowledge management system"
  - Connect with the Configuration management
  - Connect with review process system

- Defining the processes on projects, guidelines, checklists, and templates
  - Define the processes with estimation of efforts
  - Define the guidelines

- Define the checklists of activity and reviews
- Define the templates includes structure of the output process.

- The System of process reengineering through the knowledge
  - Draw the illustrates

- Develop the process database as repository of process performance data
- Generating the reports screen from process database

  - Draw the relationship between process database, Process Capability and closure analysis
  -
- Develop the Internal knowledge research center (INRC).
  - Design a form of articles to organize different topics
  - Design a screen for lessons learned
  - Design a screen for best practices

4. Organizational Plan

The entire work load is on the Supernet IT staff but the manager will include the plan in case of RFP. Visionary help and supervision is necessary from Mr. Muhittin ORAL. You may decrease the team member size or dedication level but this will decrease the overall performance of the project and also may influence to it to fail due to time constraints.

You may find the structural organization plan at attached file:
Supernet - Knowledge Management System for on going Projects - PLAN.mpp

➢ Assigments

Supervisor :
Mr. Muhittin Oral

Executive Board:
Vedat Öndaş

Project Leader:
Halil Civaner

Team Members are:
Özgür Demirci
Behzat Üstüner
Harun Saltık
Sari Widenius

5. Time and Resource Plan

You will find all the project members time spending plan below.

Muhittin Oral: Meeting time from 13.00 to 13.30 every Saturday if necessary. 30 minute per week at Saturday meetings.

Vedat Öndaş: 2 hours a day, 5 days a week
*1 hour during the weekday
*1 hour at evening
Total *10 hours per week

Dedicated members will spend 8 hours a day, 5 days a week on this project.

Here are dedicated members:

Halil Civaner
Özgür Demirci
Behzat Üstüner
Harun Saltık
Sari Widenius

➢ Reports

Following reports provided by MS Project and attached.

- ✓ Microsoft Office Project - Budget Report.mdi
- ✓ Microsoft Office Project - Cash Flow.mdi
- ✓ Microsoft Office Project - network diagram.mdi
- ✓ Microsoft Office Project - Project Summary.mdi
- ✓ Microsoft Office Project - Resource Usage.mdi
- ✓ Microsoft Office Project - Task Usage.mdi
- ✓ Microsoft Office Project - Top Level Tasks.mdi
- ✓ Microsoft Office Project - Unstarted Tasks.mdi
- ✓ Microsoft Office Project - Who Does What When.mdi
- ✓ Microsoft Office Project - Who Does What.mdi

6. Conclusion

In the end, it is worth pointing out something that perhaps is quite obvious. The knowledge captured in various systems is dynamic and keeps changing. In the enterprise world, the change is even more rapid. Hence, maintaining the knowledge and keeping it currently enhancing it, adding more useful knowledge and removing information that is not of use is a task that has to be undertaken within the organization. In other words, knowledge management is not free. However, the gains from the use of knowledge captured in these systems should pay many times more than the cost of setting and maintaining these systems.

I we look at the Supernet Group Companies we see the corner of entrepreneurship. The groups have 8 companies and they are all small size companies. Small size means more effort, more work and more unstructured then enterprises. These negative points may become advantage for us to large enterprises as long as we set up the knowledge management system for ongoing projects, even when we start the new projects because all the executives in the company have extensive

experiences of the business world. We just need to use the knowledge to setup for company spirit and manage the culture. This project will power us to do that.

We as a team will go to ask these questions to ourselves.

We will question, what makes up a good team?
We are saying, qualified individuals; commitment of members; and communication among players as we know these are simply the foundation of any group activity.

Narrowing the focus a little further, what makes a successful project given a good team?
We will prepare clearly defined goals, access to resources, and a supportive environment.

How does this change what is required of the team and the project?
We will say that it changes none of the requirements. It does, however, make the requirements more difficult to arrive at because of reduced communication channels.

As we know the technologies made available in the past five years merely add broadband to once narrow channels. This broadband not only increases the amount of data that can be transferred, but improves the richness of communication.

Manheim & Medina propose that virtual behaviors are influenced by :
1) The nature of the work,
2) Management of critical supporting work processes,
3) Organizational context
4) Geographical context,
5) Communications support,
6) Other environmental contextual factors,
7) Individual characteristics.
LINPAC and Stamps more simply state that "The best collocated teams use principles incorporated by the most successful virtual teams: a clear purpose, a focus on people, and concentration on the links that connect them." ("Dispersed Teams Are the Peopleware for the 21st Century").

In the end my project team will be successful because we emphasized the necessary components of project teams. We succeed if I and the members will take a step back and ask ourselves, "With this new twist on project teams, what is required of my group and me?" It requires an absolute commitment to project management methodologies. We will go to put forth the extra effort to overcome communication barriers

7. References

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