Knowledge Era: Knowledge Management in Multinational Company – Role of KM in Project Management Scenario

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Abstract
Human society passed various stages like hunting and gathering society, peasant society, Industrial society and post- industrial society. Post – industrial society is recognized as 'Knowledge Society'. Knowledge is more valuable product than any other goods in knowledge society. Today information is in the finger tips with the advent of Information and Communication Technology (ICT). Information gathering, storage and dissemination are the basic features of knowledge society. Due to the crucial role of knowledge 21st century is recognized as 'Knowledge Era'. Information gathering, storage and dissemination to the right people are the central poles of Knowledge Era. Knowledge management is widening its area and it is one of the key task in multinational companies. Project Management has been growing as a discipline for decades. From basic task of planning to modern complexity management, it has evolved with the society. Today, project management is integrated in many companies and governmental organisms with strategy, via the portfolio or program management, and with the other departments, like manufacturing, human resources, legal and financial. It is a question of managing multiple products, multiple projects with interrelated resources from one or many companies, under the multiple constraints of the customers, the legal environment and the financial and market objectives. This paper presents the results of study into Knowledge Management (KM) performed at one of the multinational company called Perot Systems Consulting and Application Solutions (CAS) India (Bangalore and Noida).
Keywords: Knowledge Era, Knowledge Management, Project Management, Knowledge Creation

1. Introduction

Human society passed various stages like hunting and gathering society, peasant society, Industrial society and post- industrial society. Post – industrial society is recognized as 'Knowledge Society'. Knowledge is more valuable product than any other goods in knowledge society. Today information is in the finger tips with the advent of Information and Communication Technology (ICT). Information gathering, storage and dissemination are the basic features of knowledge society. Due to the crucial role of knowledge 21st century is recognized as 'Knowledge Era'. Information gathering, storage and dissemination to the right people are the central poles of Knowledge Era. Knowledge management is widening its area and it is one of the key task in multinational companies. Project Management has been growing as a discipline for decades. From basic task of planning to modern complexity management, it has evolved with the society. Today, project management is integrated in many companies and governmental organisms with strategy, via the portfolio or program management, and with the other departments, like manufacturing, human resources, legal and financial. It is a question of managing multiple products, multiple projects with interrelated resources from one or many companies, under the multiple constraints of the customers, the legal environment and the financial and market objectives.

2. Objectives of the Project

- ❑ Understand the importance of knowledge Management in Project Management scenario
- ❑ To know how Knowledge Management practices helping for the project delivery
- ❑ Understand the people mindset about Knowledge Management System
- ❑ To understand what are the Knowledge Management practices playing effective role in Project delivery
- ❑ How Knowledge Management is supporting to increase the Quality of projects
- ❑ Evaluate the existing Knowledge Management System
- ❑ How Knowledge management supporting to the Innovation in an organization

3. Methods used for the Project

This is a six months project and used many tools to get success in this project. I did a survey using set of Questionnaire, it had 12 useful questions to understand how Knowledge Management System (KMS) playing effective role in project excellence. And it helped me a lot to understand what are the KM practices playing effective role for the project success and how they are supporting to improve the quality of the projects. I took couple of interviews with project managers and also used observation method. Absolutely a person who is working in Knowledge Management he/she should has the theoretical knowledge of Knowledge Management. But there is a big gap between the KM theory and KM practice. "The real Knowledge Management practice is learning by Doing".   So I involved in various KM practices at Perot Systems CAS for the successful completion of this project.

4. Project and Project Management

4.1 Project

A project is a temporary endeavor undertaken to create a unique product or service. Temporary means that the project has an end date. Unique means that the project's end result is different than the results of other functions of the organization.

4.2 Project Management

Project management is the application of knowledge, skills, tools and techniques to a broad range of activities in order to meet the requirements of the particular project. A project is a temporary endeavor undertaken to achieve a particular aim. Project management knowledge and practices are best described in terms of their component processes. These processes can be placed into five Process Groups: Initiating, Planning, Executing, Controlling and Closing. In other words Project Management is the discipline of organizing and managing resources (e.g. people, time) in such a way that the project is completed within defined scope, quality, time and cost constraints.

5. About Perot Systems

On June 1, 1988, Ross Perot—son of cotton broker Gabriel Ross Perot, U.S. Naval Academy graduate and veteran, one-time top IBM salesman, widely acknowledged as the founder of the IT services industry—met with eight associates at the breakfast table of the Perot home to take the first step in what many would later describe as a great adventure: the founding of Perot Systems Corporation. The founders brought diverse industry, technical, and management expertise to the table—but even more so, they brought a common desire to build a company dedicated to delivering results for customers, based on the core values of personal and professional integrity.

First Steps

Later that same day, the associates flew to Washington, D.C., where they had established operations at the L'Enfant Hotel, eager to begin work on a proposed long-term contract to improve efficiencies at the U.S. Postal Service. However, when the USPS withdrew from the proposal under competitive and political pressures, the founders set their sights on other potential customers, using their extensive industry contacts to solicit business. In those start-up days, small task orders and business process engagements helped pay expenses and meet payroll. One early customer was McGraw-Hill, Inc., which contracted digital printing and letter handling to the fledgling corporation. Shortly afterward, MCI signed on as Perot Systems' first major long-term commercial customer. Within the first year, Perot Systems established headquarters in Dallas, and the founders not only continued to recruit new customers, but also aggressively recruited individuals with exemplary technical skills and customer-service talent to join the team. Soon the new venture grew to more than 100 associates.

In 1989, a breakthrough contract created Perot Systems' first outsourcing agreement. The deal with insurance holding company ICH presented daunting challenges, as the contract specified that a data center be operational within 90 days. Working long hours, the Perot Systems team not only met the deadline but established a site, installed equipment, and had processes up and running in just 56 days—a full 34 days ahead of schedule. That data center experience proved beneficial a year later, when NationsBank hired Perot Systems to consolidate part of a complex three-bank merger by supervising the migration of separate information systems into a single new data center in Dallas. In 1991, Perot Systems established a niche in the manufacturing industry through a Detroit-area company that later merged into TRW Automotive. Thus began a continuing relationship with automotive and manufacturing customers.

Global Expansion and Public Offering

In 1992, Perot Systems opened a London office, beginning an expansion into Europe and, eventually, into Asia and the Pacific Rim. The first significant European customer was Europcar, a leading global rental car company. Since

then, Perot Systems has transformed the vehicle rental industry in both Europe and the United States with technology that includes curbside check-in and centralized fleet tracking.

In 1995, the Perot Systems Healthcare Group was established when Tenet Healthcare Corporation, formed through the acquisition of Perot Systems customer American Medical International by National Medical Enterprises, contracted Perot Systems to merge the two companies' IT systems and business processes and create an integrated technology environment. And in 1996, an IT outsourcing contract with global securities and investment banking firm UBS brought Perot Systems its first marquee financial services customer, along with substantial growth in both revenue and human resources.

On February 1, 1999, Perot Systems priced its initial public offering of stock at $16 per share, and on February 2, the stock began trading on the New York Stock Exchange under the symbol "PER." The company achieved another milestone that year, as revenues exceeded $1 billion.

Brief history of Perot Systems

1988   Founded by Ross Perot, creator of the IT services industry, and a group of eight hand-picked IT and business experts

1989   Signed first commercial customer, MCI WorldCom

1994   Signed first healthcare customer, Tenet Healthcare Corp.

1996   Established global applications development strategy through India operation

1999   Started public trading on NYSE under symbol "PER"

1999   Reached $1 billion in annual revenue

2002   Entered U.S. federal government market

2003   Broadened our global delivery model by acquiring strong BPO company in India

2004   Named Peter Altabef as President and Chief Executive Officer

2005   Reached $2 billion in annual revenue

2006   Named #2 most admired IT services company by Forbes

2007   Named as an Application Outsourcing leader in Forrester AO Wave   research

Vision and Values

Today, Perot Systems is a Fortune 1000 corporation with more than 22,000 associates and 2006 revenues of $2.3 billion. Its vision is to become the most admired technology and business services company in the world. And each day, we build on that vision through our associates' expertise and a consistent professional integrity that forges lasting relationships with our customers through mutual trust and respect. Its goal is always to deliver real, measurable results for our customers. Since its beginning, the values that our founders established as guiding principles have been fundamental to Perot Systems' success. Those values—conducting oneself with personal and professional integrity, valuing and encouraging associates, listening to and serving customers, and always operating in the center of the field of ethical behavior, never on the sidelines—distinguish not only Ross Perot, but the company he founded as well.

6. Business area of Perot Systems
- Financial Services industry
  - Banking Insurance
  - Capital Markets
- Healthcare
  - Pharmaceutical/Life Sciences
  - Payer
  - Provider

Strategic Industries and Markets
  - Travel Transportation and Logistics,
  - Government,
  - Consumer
  - Product Engineering Services

7. The initiation of KM for Project Management (PM)

Project management has been growing as a discipline for decades. From basic task planning to modern complexity management, it has evolved with the society. Today, project management is integrated in many companies and governmental organisms with strategy, via the portfolio or program management, and with the other departments,

like manufacturing, human resources, legal, financial. It is a question of managing multiple products, multiple projects with interrelated resources from one or many companies, under the multiple constraints of the customers, the legal environment and the financial and market objectives. In this context, knowledge is a key point for improvement and performance. Namely, projects are temporary, which means that they start and they finish. When they start, it is better to be able reuse previous experience, in order to repeat best practices or to avoid common tricks. When they finish, it is better to be able to save or to share these best practices and tricks.

But, the reality is different, the pressure on the project members does not allow them to take so much time as required to put on paper their experience. Secondly, the information is not instantly available as the project begins. The actual structures for knowledge sharing have often a problem of context description, which allows the project manager to match his project with previous ones. Namely, even if the project has the same objectives, for instance, that another one, this will not mean that experience of previous project will be useful for the new one.

8. Questions/Challenges for knowledge management in projects

- ❑ How can we efficiently and effectively keep knowledge from ongoing projects? What is useful, value-adding, and what must not be saved?
- ❑ What is the role of structures, like Project Management Offices, in this experience sharing process?
- ❑ A human network is better than a database, but how can we organize and maintain a performing network for knowledge and experience sharing? How can we avoid the perverse effects, like experts who hide their skills in order to not be solicited too much?
- ❑ As forecasts are always wrong, how can we improve them by using experience? Can we make more reliable estimates, curves, and targets?
- ❑ One of the most valuable resource in each project Management Scenario is Time Management. How can KM cut down the employee's time and increase the Quality of the project with minimal cost.

9. Knowledge Management @ Perot Systems - Consulting and Application Solution (CAS)

The Knowledge Management (KM) journey in Perot Systems Consulting and Application Solution (CAS) started in 2006 with a comprehensive audit within the organization aimed at identifying KM requirements in the CAS organization. Over 27 KM audits were conducted across Verticals, Communities and Horizontals to ascertain the information, knowledge needs and accessibility issues across verticals/units and roles. Based on these audits, the goals and strategy for implementing KM in the CAS organization in a phased manner were defined. The KM initiative in CAS is christened as K-EDGE with a slogan of "Learn, Share and Grow".

The KM initiative is designed to impact specific areas in the CAS organization and will be rolled out in phases. The CAS KM strategy is aimed at the following:

- Developing Knowledge Framework
- Building Knowledge Infrastructure
- Making Knowledge visible
- Establishing a culture of Knowledge Intensity

9.1 KM Goals @ Perot Systems CAS

Each KM System has certain goals. The Perot Systems CAS KM performance goals are to improve the following:

- Profitability: Through Re-use, leveraging of synergies, sharing of knowledge
- Revenue Streams: Better cross-selling and up-selling
- Associate Satisfaction: R&R of knowledge work; environment of trust and openness
- Customer Satisfaction: Knowledge continuity
- Reduce Attrition and Impact: Meaningful work and knowledge retention

9.2 CAS KM initiative 4 Phase approach:

The Knowledge Management initiative at Perot Systems CAS started in the year 2006, in a 4 phased approach in order to meet the business goals of the organization. The 4 phases are as follows:

9.2.1 Phase I   - Audit & Identify Requirements (Q1 -2006)

- **KM Audits**

   Perot Systems Knowledge Management team successfully did 27 audits across Verticals, Communities, Horizontals over 70 audience.

- **KM's Performance Goals**

   Main Goals in this phase are:
   - Increase Profitability: Re-Use
   - New Revenue Streams: Better cross-selling and up-selling

- Associate Satisfaction: R&R of Knowledge Work,
- Customer Satisfaction: Knowledge continuity
- Reduce attrition and effects: Meaning full work, Knowledge retention

9.2.2 Phase 2 - Near Term "Winning the Market" (Q2&3 – 2006)

- **80-20 formula**
  - 80% Sales & Sales Support Focused
  - *Target users: Sales, BDG, RRC, Senior Managers, CCG, Legal/Finance/RMO*
    - Build a Content Library for RRC and Sales
    - Provide a Collaborative Content Space for New Opportunities
    - Launch Sales CoPs with focus on: Pain points, strategies for generating new leads, conversion, cross/up-selling for existing clients, new domains
    - Winning the Market" (Q2, Q3 2006)
- **80-20 formula**
  - 20% Delivery Focused
  - *Launch and Sustain CoPs: Practice & Technology CoPs*
  - *KM rollout in Large Accounts*
    - Account & Project level Content Management
    - Account level knowledge sharing session or newsletters
  - *Others*
    - 1-day conference on project sharing ("Knowledge Fair")
    - Cultural foundations
    - Project Portals
    - Events – e.g. Code Olympics
    - Social Networking
    - CoPs & Social Networking
- **Communities of Practice (CoP's)**
  - Practice CoPs launched
  - Project Management, ITIL, Testing
  - 16 sessions across 6 weeks
  - With over 300 associates in participation
  - PMP Study Groups at Noida and Blore
  - Sales & Technology CoP's to be launched soon

KM Technology Platform

- **Feature Requirements document ready**
- **Evaluated Market Options**
  - Tier 1 Products
  - *Demos from Documentum, Humming Bird, FileNet*
  - *Very costly in purchase model*
  - *Will work out cheap in Partnership or SI model*
    - Tier 2 Products
  - *Lack mature architecture*
  - *Doubts on support and future enhancements*
- **In-house Option**
  - Share Point Solutions
  - *Limited to Content and Portal Management*
  - *Weak on Collaboration and KM functionality*
    - Evaluating other options that can be delivered in-house
  - *Hybrid platform – Share Point + other tools*
  - *Explore usability of Open Source Technologies & Freeware Tools*

PSC Connect

- **Delphi connect**
  - Leveraging Delphi Expertise
  - Participated in Delphi Conference and Workshop
- **Other KM Initiatives Connect**
  - Connected with other units/groups in PSC that are currently implementing or planning to initiate KM
  - Leverage their ideas/plans in our initiatives

     −   Explore possibility of joint investment on KM Technology Platform

Branding KM in CAS

- **Create a branding for KM@CAS**
  - − Give a deep connecting name to the initiative
  - − Go public with charter and purpose
  - − Props like Banners/Badges/Diaries/Table top items etc.
  - − Positive Word of Mouth through influential CoPs
  - − Knowledge Events/Fairs/Contests/Workshops
  - − A published Reward and Recognition scheme for Knowledge contributors
  - − Newsletters

9.2.3 Phase 3 - Medium Term "CAS wide KM" (Q4 2006-Q4 2007)

    The Medium Term objectives are:

- o Rollout across all verticals/horizontals
- o Significant impacts beyond basic usage, workflow
- o Enterprise-wide CoPs
- o Cross-project, cross-vertical best practices
- o Surveys, questionnaires

### 9.2.4 Phase 4 - Knowledge Organization (2008 and ahead)

- o KM maturity models
- o Superior estimation, delivery
- o Innovative culture
- o MAKE award!

Support Required

- Executive support for Study groups in CoPs
- Support from Technology Team to create Knowledge portal
- Knowledge Worker parameters into KRAs for Manager level and above

### *9.3 Knowledge Management Practices at Perot Systems CAS*

    Perot Systems Consulting and Application Solutions (CAS) handling many short and long term projects. Knowledge Management practices playing an effective role to meet the project excellence and increase the quality of the projects. It's providing a very good platform to reduce project managers valuable time, creating open discussion forums to discuss and solve the project problems, share Best Practices, Lessons learnt from closer project, customer relationship etc across the organization. Described below are some of the major Knowledge Management initiatives being currently pursued at Perot Systems Consulting and Application Solutions (CAS).

Figure 1 - KM Practices @ Perot Systems CAS
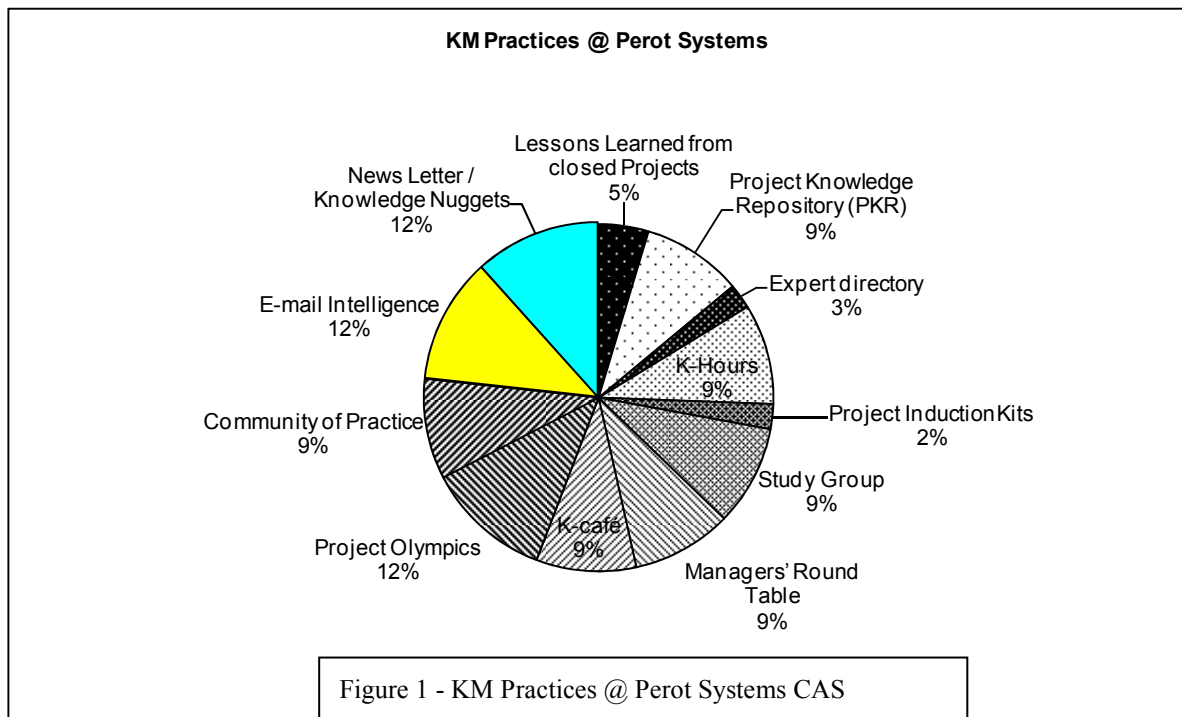
9.3.1 Knowledge Championship Program

It is an unimagined task to manage the knowledge of the whole organization with only by KM team. Knowledge champions (otherwise known as KM Champions, Knowledge Activists, Knowledge Stewards, Knowledge Coordinators, KM Representatives) perform an important role in distributing KM messages and activities consistently across an organization.

There are three main areas where Knowledge Champions can make important contributions to the consistent implementation of Knowledge Management in any organisation:
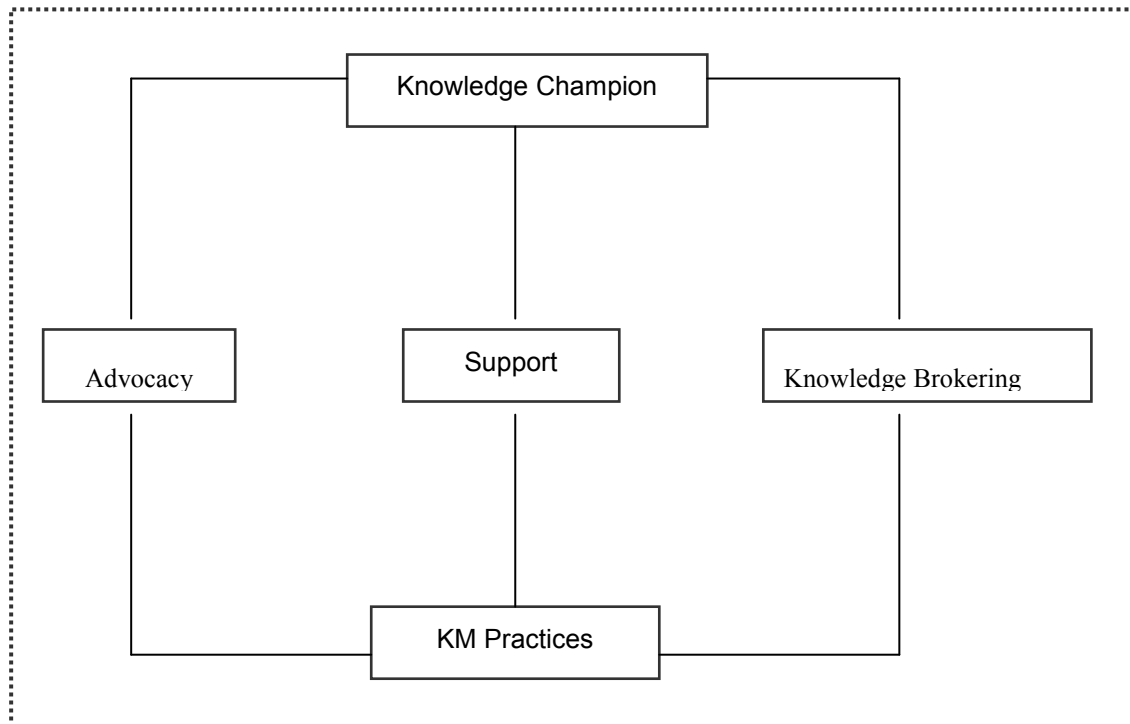
Advocacy – spreading the KM message

Support – acting as local departmental representatives for KM initiatives

Knowledge Brokering – linking their departmental colleagues to knowledge and information resources outside their immediate context

Typical activities under each category would be as follows:

Advocacy:
- Communicate KM messages from central KM team/ KM steering committee
- Encourage knowledge sharing and learning behaviours verbally and by example
- Lead KM awareness sessions, including KM briefings at department inductions / orientations
- Be a reference point for clarification and explanation of KM matters
- Gather and communicate feedback from colleagues to central KM team, collect stories about KM impact from within their department

Support:
- o Act as KM activity liaison officer between central KM team and department manager and colleagues
- o Play a role in KM projects at department level, coordinate and delegate KM activities, coach colleagues in KM-related duties
- o Provide feedback on usefulness/impact of KM initiatives at department level
- o Provide ideas and suggestions for new initiatives or improvements to KM services and tools
- o Represent department in KM initiatives planning and review, and/or KM needs analysis

Knowledge Brokering:
- Facilitate knowledge sharing sessions, learning and knowledge capture sessions such as after action reviews

- ▪ Network with other Knowledge Champions and people who have been identified as sources of experience / expertise; mentor and support new Knowledge Champions
- ▪ Identify major knowledge and information needs in own department and be alert to serendipitous discovery of resources that will address those needs
- ▪ Respond promptly to requests for help from colleagues or other departments
- ▪ Point colleagues in a helpful direction towards relevant resources or colleagues when they mention an information or knowledge need

Perot Systems CAS KM team selected few Knowledge Champions to indicate the maturity of a vertical, account, project or support group in implementing KM initiatives within the group.

Actions Implemented and In Execution

With the support of different project Managers, Team Heads and associates KM Core Team identified 42 KCs from across CAS organization. 12 from vertical level, 14 from large account level, 11 from various support groups and 05 onsite members.

Engaging with KCs to define immediate initiatives for their group. Key Initiatives:

K-Hours: knowledge Champions conducting the Knowledge sharing sessions across CAS. Aim is to leverage the experience of isolated stakeholders within the team**.** This is   an interactive knowledge sharing session, from simple thing to complex issues are discussing in K-Hours.   Practice initiated in 3 verticals,4 accounts and 2 groups. 53 sessions conducted in the month of Jan and Feb 2007 across various groups with Participation of over 1000 associates

Newsletters: Newsletters are Communications tool for a group, used to disseminate information to all members within the group. There are some groups coming out with newsletters:

> ➢ **Payer Sub Vertical**: Monthly Newsletter, audiences are Entire Payer segment (over 250 associates)
> ➢ **CAS Marketing Group** : Monthly Newsletter, audience are   Senior Management, Managers, all members of Sales, BDG, RRC including PS Corp associates (over 250 associates)

Expert Maps: An Expert & Expertise listing within the group to help associates with information on whom is an expert to reach out to for any support. It gives an immense of support the associates to solve their work problems. Expert Map also saving huge amount of time.   This Practice Initiated in 4 accounts and one Sub Vertical.

CAS Content Library: A content library is to help the Sales and Business Development Group access capability documents, presentations, proposals templates, standard responses & write-ups, methodologies, questionnaires, templates, deal pursuit process documents, useful articles, metrics and reports from a single location. This library is developed and maintained by the RRC group.

Log the Learning: Delivery groups set up a document for associates in the group to log their learning. This Initiated in 15   groups and an average of 10   learnings are logged in each group in a month.

Knowledge Tidbits: This is a Small knowledge or information sharing initiative.

Telecom News: A Bi-Weekly nugget of telecom news - Audience: Entire Payer segment (over 300 associates). Initiated recently with 15 releases.

DCS Today: A Daily nugget defining various terms in Finance Domain - Audience: Entire Payer segment (over 100 associates). Over 125 nuggets released.

Knowledge Audits: knowledge audit is a review of the firm's knowledge assets and associated knowledge management systems. Aim is to map the required versus actual artifacts essential for smooth delivery operations in a project. This practice also supporting to find out the associates knowledge gap, identifying the ways to fill the gap. Some times KM Team directly involving to fill the knowledge gap through organizing talk by internal and external experts - Implementing accounts: I) SHL BS II) SHL AD CS

Monitor implementation

  I.   Monthly KC Dashboard review in KC Councils

  II.   Engaging with KCs to define long-term goals for their group through quarterly KC Conclaves.

Key Initiatives Ahead: Define and release a KM Maturity Model for accounts and projects

9.3.2 Communities of Practice (CoPs) and Forums

Communities of Practice (CoPs) are groups of people in organizations that form to share what they know, to learn from one another regarding some aspects of their work and to provide a social context for that work.

Although the term "Community of Practice" is new, CoPs are not. Such groups have been around ever since people in organizations realized they could benefit from sharing their knowledge, insights, and experiences with others who have similar interests or goals.

Purpose of Perot Systems CAS CoP : is to create networks of associates within the organization who share a

common interest in a specific area of knowledge or competence and are willing to work and learn together over a period of time to develop and share that knowledge. In Perot Systems CAS some of the CoP's are playing an effective role for the organizational business success. Like project management CoP, sales CoP, ITIL CoP, software estimation CoP, Agile CoP are supporting project managers as well as associates to solve their project problems and increase the efficiency in respective business area.

CoPs & Forums in Execution

I. Project Management CoP :

Project Management Communities of Practice goal is to strengthen organizational Project Management Capability. The project Management CoP is an active group. There are 200 Managers in this group. Key Activities undertaken are :

- Identify recommendations to address the problems causing low motivation levels among the associates
- Study Group for PMI certification in Noida and Bangalore
- Updates from PMP Forum at Plano
- Knowledge Sharing sessions: Over 15 sessions till now on topics like Project Turn-Around Case Study, Six Thinking Hats, Say No to customers, etc.
  - ✓ **PM CoP: PM Best Practices Contest:**

Project Managers today deal with large and complex projects, with teams spread across the globe. Project management, more importantly, effective project management is becoming increasingly multifaceted. This increases the need of discovering and implementing the fastest possible methods of planning, scheduling and coordinating project management tasks. Keeping this in mind, the Project Managers' Community of Practice (CoP) launched the Project Management Best Practices initiative. The objective of this initiative is to compile the best practices that are already being followed in the projects.

As a result of this initiative, Perot Systems CAS KM team received 92 valuable contributions from Bangalore, Noida, APAC, US and EMEA Project Managers. After the screening by the jury, selected Best Practices will get a place of honor in the Project Management Best Practices handbook.

II. ITIL CoP

Charter is to develop the ITIL's ITSM capabilities in and optimally apply in Application Management Projects. There are 20 core members and over 500 audiences in this CoP.

Some activities Undertaken are:

- Create ITIL awareness (ITIL Momentum group)
- Organizing presentations on ITIL by External & Internal speakers
- 3 presentations in both campuses with over 400 associates in participation
- Sharing of ITIL implementation project experiences on a continuous basis
- ITIL Awareness campaign
- Supporting the ITIL implementation team and QOE team (ITIL Process group)**III. Sales CoP**

Aim is to get all the sales associates into a community where they can network, connect, share and exchange information, discuss challenges and connect with key delivery groups on new services & offerings available to sell.

IV. Software Estimation CoP

Intention is to create awareness & develop software capabilities in CAS.

There are 45 Members and practicing K-Hour sessions and Creation of Task Force Groups within CoP

V. Agile CoP : Agile software development is a conceptual framework for undertaking software engineering projects that embraces and promotes evolutionary change throughout the entire life-cycle of the project. There are a number of agile software development methods; most attempt to minimize risk by developing software in short timeboxes, called iterations, which typically last one to four weeks. Each iteration is like a miniature software project of its own, and includes all of the tasks necessary to release the mini-increment of new functionality: planning, requirements analysis, design, coding, testing, and documentation. While an iteration may not add enough functionality to warrant releasing the product, an agile software project intends to be capable of releasing new software at the end of every iteration. In many cases, software is released at the end of each iteration.

In Perot Systems CAS many employees are working with agile methodology, but still the methodology is new. The KM Team utilized this opportunity and formed a CoP for who are working on agile methodology. The agile CoP at CAS started in the month of **June 2007** and keeps happening at the end of each month.

Perot Systems CAS also has Technology CoPs – Java, .Net, Unix, and Requirements CoP.

3. External Interface

The main purpose is to bring in industry best practices into CAS.

K-Community: KM Core Team actively participates in the K-Community, which is an industry wide social network of KM practitioners. Sessions frequently hosted inside our campus.

SPIN: We are the official host for next one Year for Bangalore East Chapter SPIN Talks which are a series of Software Process Improvement Network talks by practitioners from across a the Industry

Industry Practice Networks

MoMos (Mobile Mondays), NASSCOM, QAI, CSI, etc..

9. 3.3 Knowledge Portals

The single means of access to corporate information and applications, which allows users to interact with one another and to connect to information with a collective understanding and experience. Access to information is realized through the sphere of knowledge. Perot Systems CAS knowledge Portal Purpose is to deploy a technology platform for supporting the KM initiatives in the CAS organization

9.3.3.1 Confluence:

SPDB (Software Project Databases)

SPDB hosts information about all projects as well as Organizational baselines. Access is restricted to Project Managers or above only. Data collected within SPDB is organized in the 3 tiers as depicted below:
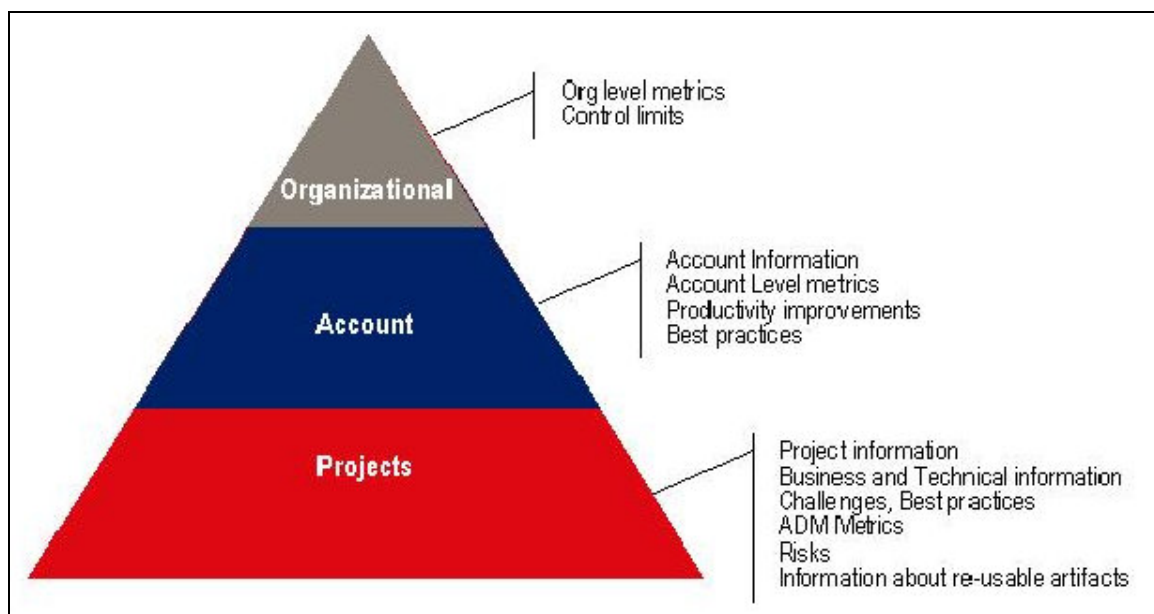
1) Organizational
2) Account level
3) Project level

Figure –2   Software Project Databases

Project Knowledge Management Spaces

Project teams can use knowledge spaces to assimilate knowledge gained during the project. The Project Manager or the owner of the knowledge space must oversee access to the knowledge space and quality and quantity of content. Project teams can utilize their knowledge space:

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❖ To maintain project information (Business and technical process).
❖ To transfer knowledge in transition.
❖ Can be used to Collaborate in distributed teams (on-site/offshore).
❖ Can be used during induction of new resources to the project.

9.3.3.2 Fusion: Fusion is on share point 2003 platform. This contains Practice & Project Knowledge Base, Sales Knowledge Base and Online Workspaces for Collaborative Deal Pursuit.

9.3.3.3 K-EDGE Portal : K-EDGE portal is on Share Point 2007 platform. K-EDGE portal is a centralised place where employees can collaborate, share and store their knowledge. Now this is the centralised knowledge portal

across Perot Systems CAS. This allows project managers and associates to store their project knowledge. When a new associate joins to the team this knowledge base is a good tool to train him. It also gives insight of the old projects. Project Knowledge base helps to the project managers to avoid the past project handling mistakes. Share Point also has the collaborative fetchers like wiki, personnel site (My site), announcements, alerts, discussion forums, ask the expert etc. These fetchers allow project members to interact with internal as well as external projects across Perot Systems CAS.

9.3. 4 Project Olympics

Project Olympics is the Knowledge Contest vehicle and framework in CAS.

❖ **Contest Framework allows**

❑ Timeline based artifact collation or creation
❑ Intrinsically motivated participants
❑ High visibility to the participants and winners
❑ Focus on artifacts that have high business benefits
❑ Multiple dimensions of participation: Contestants, Reviewers, Jury Members
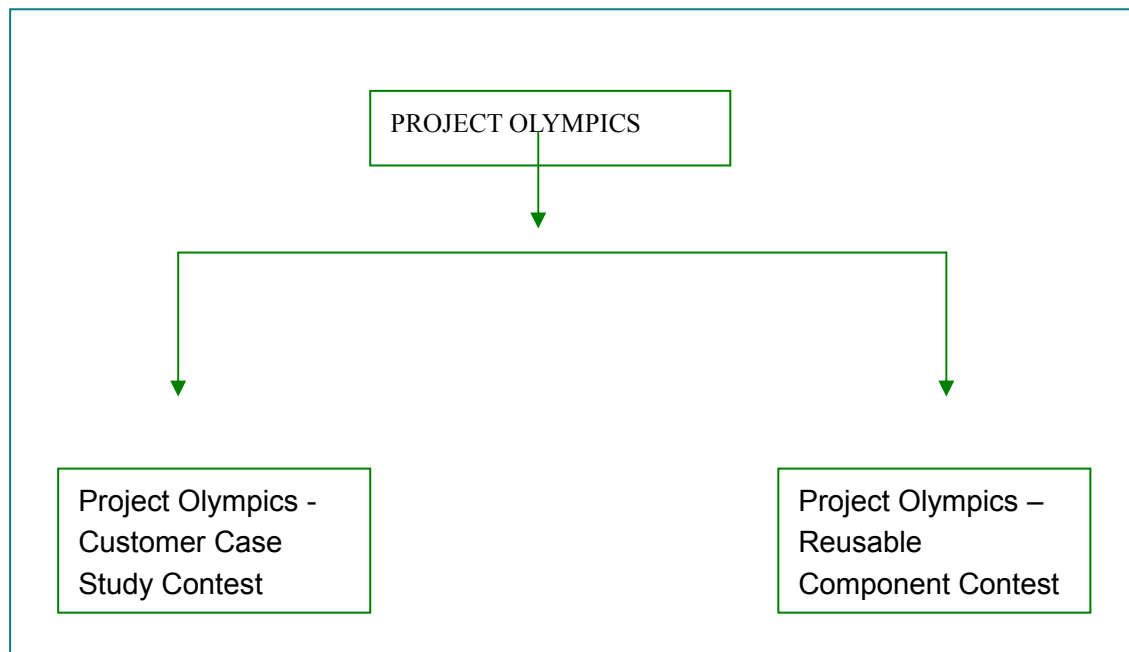
❖ *Contest in Execution*

Figure – 3 Project Olympics

➢ **Project Olympics - Customer Case Study Contest:** Launched in November 2006, the purpose of the contest was to create detailed case studies of currently running or past projects.

- **Large Global Participation**
  - ❑ 119 Teams Registered (545 Associates)
  - ❑ 113 Synopsis Kits
  - ❑ 86 Full Kit Submissions
  - ❑ 45 Reviewers
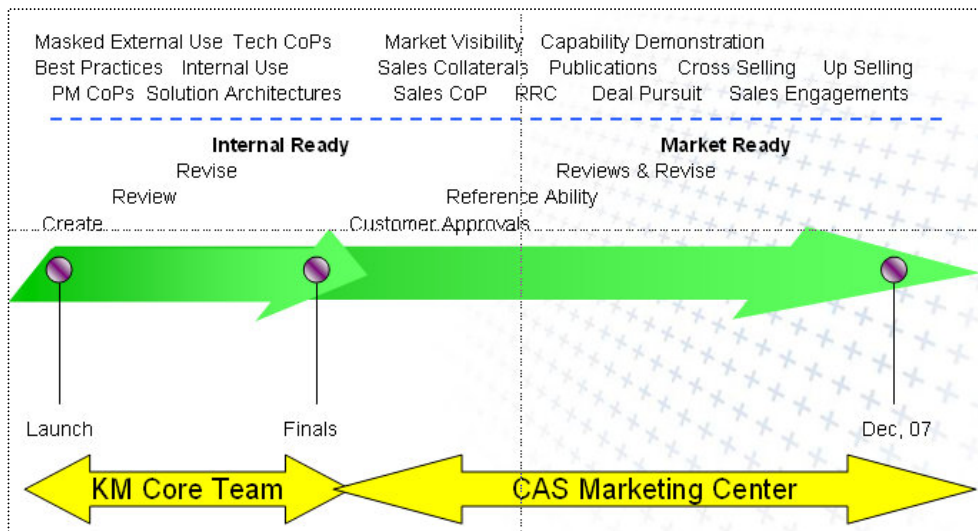 - ❑ 20 Jury Members
  - **Prizes Galore**
    - ❑ Dynamic Prize Kitty
    - ❑ More participation more in the kitty
    - ❑ Win-Win-Win-Win

Every participating team gets rewarded: Full Submits, Semi-finalists, Finalists, and Winners.

- **Other Awards**
  - ❑ Popularity Awards

- ❑ Best Innovation Award
- ❑ Best Technology Usage Award
- ❑ Best Written Case Study Awards
- ❑ Vertical Trophies
- ❑ Point Based System

Contest to be unveiled

➢ **Project Olympics – Reusable Component Contest:**

Reusable Component Contest purpose is to create/collate reusable components from currently running or past projects in CAS. The dictionary meaning of the word 'reuse': tr.v. re·used, re·us·ing, re·us·es -To use again, especially after salvaging or special treatment or processing (American Heritage dictionary).

In most of the employees, there is a deep-seated need to work more efficiently, get the same work done but with a lot less effort. It is possible where re-usability comes into picture. This allows employees to do other things with the time they have managed to save, in essence, increasing their productivity. There is a trend in the organization to re-use code at a project level. Interaction between team members allows information to flow freely, so everyone gets to know when a new component and feature is created. Taking this to the account and organization level is where a much larger benefit can be derived. The reason why Perot Systems CAS rolled out this contest! The plan is to collect as many reusable components as possible. All the collected components will be a part of the Reusable Components Catalogue. This catalogue will be centrally located, so that whenever associate need a component, they can locate it easily throughout the organization. This organization-wide practice will gradually make task easier. This can save 30 – 40% of the associates time, this way we can achieve in time project delivery, increase the quality of projects and also minimize the project handling cost.

9.3. 5 Managers Roundtables

Managers Roundtables is a bi-weekly event, which provides a forum for all Manager and Senior Management to present updates, interact in key aspects and discuss concern areas on a regular basis. Over 250 Managers in audience and over 15 sessions Conducted till now.

9.3.6 Email Intelligence Campaign

Email Intelligence Campaign is a daily lessons series on Business Email Etiquettes to improve the quality of email communication among associates in CAS. A Collaborative initiative between the KM and the L&D groups

Duration: A series of 30 daily lessons on email writing released via email to all CAS associates. Audiences are all associates in CAS, over 3500.

Structure: Daily Lessons from Monday thru Thursday, Weekly Recap & Exercise on Friday, In-class session in the end by Expert, Large Participation in Weekly Quiz and KM team got 1000 responses across 4 weeks.**9.3.7 Study Groups**

Here associates are encouraged to form smaller study groups among themselves. Purpose is to implement collaborative learning in a group of associates sharing a common desire to reach an academic or a certification goal.

Running/Completed Study Groups

PMP Study Group - Completed
- o   Nos. of sessions: 9
- o   Study Group Members: 60
- o   Total duration of sessions: 9 X 1.5 hrs = 13.5 hrs
- o   Nos. of associates registered with PMP: 20
- o   Nos. of PMP certified associates from the Study Group: 5

CSQA Certification – Ongoing
- o   Nos. of sessions: 20
- o   Study Group Members: 65
- o   Total duration of sessions: 20 X 2 hrs = 40 hrs

Planned Study Groups
- o   Testing Certifications
- o   Technology Certifications (Java, .Net, etc)

9.3.8 K- Café: K-Café is an informal knowledge sharing session. The focused groups for this practice are project Managers. The most valuable knowledge has been sharing during k-café, informal discussions. The Project Managers share knowledge and to learn from each other.   This learning and sharing takes place in an informal environment - no presentation, no preparation, no meeting rooms, and with a hot cup of coffee and some snacks! Thus an uninterrupted flow of easy idea exchange is maintained throughout the hour-long session. To ensure that the discussion goes on uninterrupted, there is a facilitator who sets the context for the participants to collectively explore possibilities and exchange useful information. This collaborative engagement leads to effective cross-pollination of thoughts and perspectives. This makes these informal knowledge sharing sessions, K-Cafés as they are called, a very good platform to discuss key issues involved in managing projects; scope, schedule, time, profitability and so on. Some of the sessions taken place and facilitated by management experts. Each of these sessions witnessed many fruitful discussions around topics ranging from timesheet entries and project profitability to efficient communication, people management, time management, customer management and quality management in projects. The participants shared their views and the Best Practices they have evolved over years of working in various projects.

9.3.9 KM Publications :

Knowledge Management (KM) publications aim is to create awareness, visibility and share information across the organization via multiple, focused periodic publications.

Currently Running Publications

Knowledge Nuggets: A weekly mailer discussing best practices, etiquettes, etc.. Audience are Varies as per relevance of article (300 to 1000)

KITE (Knowledge Integration, Transfer and Exchange) : A monthly newsletter for the Knowledge Champions community discussing success stories, internal news, book reviews etc related to Knowledge Management. Audience are Senior Management, Managers, Knowledge Champions, TIC (700 approx.)

DEALScape: A monthly knowledge sharing release on best practices in the deal pursuit practice from the Risk Management Office in CAS. Senior Management, Managers, BDG, TIC etc (**200** approx) are the main audience.

PSC-Radio CCG:

9.3.10 Motivate Knowledge Behaviors :

 A reward and recognition scheme for good knowledge behaviors is to breed move good behaviors.

Knowledge Contributor: For Knowledge Contributors
- ❑   Spot Awards, Max 10 awards per quarter, Book Store Gift Voucher of Value INR 1000/-
- ❑   Certificate - With K-Edge Logo, Perot Systems Logo and handwritten signatures.

Best Knowledge Champion: For a Knowledge Champion or any associate who has championed a KM initiative end-   to-end.
- ❑   Qtrly Award, Max 2 Awards per quarter, Sponsorship for a seminar (INR 10,000/-)
- ❑   Certificate - With K-Edge Logo, Perot Systems Logo and handwritten signatures

Knowledge Leader of the year:
- ❑   For a Knowledge Championship or any associate who has led multiple end-to-end KM initiatives across the year.
- ❑   Yearly Award, One award per year, Cash Prize INR 25,000 / Sponsorship for international seminar.
- ❑   Certificate & Memento - With K-Edge Logo, Perot Systems Logo and handwritten signatures.

PSC Connect

Purpose is to connect with various groups in PSC to exchange information, knowledge and practices as well as

create Enterprise wide Visibility for KM activities.

Delphi Group connect
- ❑ Leveraging Delphi's KM Expertise
- ❑ Participate in Delphi Conferences and Workshops
- ❑ Source works from Writers/Authors in Delphi

PSC Marketing Group
- ❑ Leveraging Sales related Expertise
- ❑ Involve PSC experts in Reviewer and Jury in the Project Olympics Customer Case Study Contest
- ❑ Funnel back the case studies for conversion to market ready material for use in marketing and sales scenarios.

PMP Forum Plano
- ❑ Leveraging Enterprise PMP Expertise
- ❑ Connect the PMP Study Groups in CAS to the Global PMP Forum in Plano.

Other Connects
- ❑ Connect with other units/groups in PSC that are currently implementing or planning to initiate KM
- ❑ Leverage their ideas/plans in our initiatives

9.3.11 Knowledge Repository: A repository is a central place in which an aggregation of data is kept and maintained in an organized way, usually in computer storage. KM team has a good centralized knowledge Repository, which is capturing all KM practices information.

10. KM v/s Return On Investment (ROI)

KM may not show Return On Investment (ROI) directly, but it supports to the organizations to save the resources. From top to lower level management employees are agreeing that knowledge management practices reducing huge amount of time, time is nothing but money for the corporate workers. Many times we don't know where to get the appropriate knowledge, will kill huge amount of money and time. People working in-group and they themselves don't know 'who knows what?' a knowledge management system (KMS) will remove these barriers and fill the knowledge gap, save time and money. It can keep the associates in an innovation edge, directly KM supporting to meet the business goals of a company.

11. KM v/s Innovation

Many companies producing the same product or service and innovation is the only way to survive in the market. Knowledge Management aim is to collaborate, create, capture, store, share and reuse knowledge to achieve organizational objectives. Collaboration tool helps to the employees to solve their work problems. "Ten mind sit to the discussion will come out with eleventh idea". CoP and forums are stepping stone of innovation.'One fine day companies will not run with out innovation' and 'knowledge is the life blood of innovation'.

12. Outcome of the Project

1. Knowledge Champions initiative is a good practice, but the real fact is selected champions don't have time to dedicate for the KM practices. And these champions are moving from the company very shortly. There is an immense need to select new KC's time to time. Mandatory to distribute the Knowledge Champions Guide Book.

2. Organizational knowledge culture is just started, still there is a deep need to encourage people to share the knowledge and make people to realize the importance of knowledge.

3. Knowledge should keep flowing in an organization. But always we can't expect people to come together and share the knowledge; especially in project management Scenario associates are always in stress, for them managing time is a challenging task. In this case there is a necessity to encourage people to share their knowledge through technology.

4. Innovation is the only way to survive in the market for long time. Knowledge Management System needs to create the innovation mindset in the organization.

5. Most of the KM practices are concentrated on project managers and teem leads, also equally important to focus few practices on project associates.

6. In Knowledge Management Office (KMO) perspective there is a need to track the KM activities happening in each team or project.

7. Project managers and associates facing the problem of Project Management explicit knowledge resources. So it's an indispensable to acquire the knowledge resources like e-Journals, e-Books, Databases, audio – video materials   etc.

8. Need to concentrate on Knowledge storage for future use.

13. Conclusion

21st century is recognized as 'Knowledge Era' due to the crucial role of knowledge. Information gathering, storage and dissemination to the right people are the central poles of Knowledge Era. Knowledge management is widening its area and it is one of the key task in multinational companies. Project Management is a fastest growing area and people who are involving in project management are always in stress. In each project, each resource is restricted. So there is an immense necessity to save the resources like time, money and human resource. How to cut down the project workers time? How to solve project-handling problems? How to find and fill the knowledge gap? How to minimize the resources and maximize the revenue?, are critical issues to Knowledge Management System.

A Knowledge Management System is playing an effective role in Project Management Scenario, but still there are some challenges like creating Knowledge sharing culture, innovation through KM and Return on Investment (ROI). Although it's my pleasure to mention that Project Managers, Team Leads and project associates are agreeing that KM is a sharp tool to save resources, practice like reusable components saving 30% to 40% of the associates time and time is nothing but money for employees. Communities of Practice and forums are playing key role while solving project execution and handling problems, Best practices are the fillers to company's revenue. Knowledge sharing sessions are supporting to the innovation.

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