

Dissertation Report on
Knowledge Management System for Delhi School of
Management, from Research perspective

Submitted By:

Sudipta Roy

DTU/2K12/MBA/65

Under the Guidance of :

Prof. P K Suri

H. O. D. Delhi School of Management, DTU

DELHI SCHOOL OF MANAGEMENT

Delhi Technological University

Bawana Road Delhi 110042



CERTIFICATE FROM THE INSTITUTE

This is to certify that the Project Report titled “**Knowledge Management System for Delhi School of Management, from Research perspective**”, is a bonafide work carried out by **Mr. Sudipta Roy** of MBA 2012-14 and submitted to Delhi School of Management, Delhi Technological University, Bawana Road, Delhi-42 in partial fulfillment of the requirement for the award of the Degree of Masters of Business Administration.

Signature of Guide

Signature of Head (DSM)

Seal of Head

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DECLARATION

I, Sudipta Roy, student of MBA 2012-14 of Delhi School of Management, Delhi Technological University, Bawana Road, Delhi-42 declare that Dissertation Project Report on “**Knowledge Management System for Delhi School of Management, from Research perspective**” submitted in partial fulfillment of Degree of Masters of Business Administration is the original work conducted by me.

The information and data given in the report is authentic to the best of my knowledge. This Report is not being submitted to any other University for award of any other Degree, Diploma and Fellowship.

Signature: *Sudipta Roy.*

Name: [Sudipta Roy](#)

Date: [13/05/2014](#)

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List of Abbreviations

KM- Knowledge management

DSM- Delhi School of Management

USP- Unique Selling Proposition

KMS- Knowledge Management System

SRC- School Research Committee

DRC- Departmental Research Committee

URC- University Research Committee

CoP- Communities of Practice

CaPD- Computer-assisted plagiarism detection

PDS- Plagiarism detection systems

CbPD- Citation-based plagiarism detection

Abstract:

Knowledge management (KM) is an essential consideration in any higher educational institutions (HEIs) to ensure that knowledge flows efficiently between the people and processes. A crucial aspect of KM in HEIs that has not been addressed adequately is the unstructured nature of knowledge management and varying degrees of conformance to KM mechanisms in the functional domains. The paper aims to suggest a knowledge management and Knowledge sharing framework for DSM and evaluate the KM mechanisms in order to reiterate on the urgent need for knowledge management support in DSM. The evaluation of the framework indicated the nascent nature of knowledge management in DSM. The evaluation also indicated that KM in DSM is highly unstructured and occurs in dissimilar activities of the institutions. The practical implications of KM initiatives in DSM include the enhancement in the overall effectiveness and efficiency. A KM system should be integrated into the institution's processes and work environment to upgrade the quality of education through efficient sharing of knowledge.

The focus area of this project is the sharing of research and White papers among the internal as well as external stakeholders. So, after designing the proposed framework, Stakeholder analysis is done separately for different modules. This analysis consists of detail study of sharing mechanism presently existing in DSM, through questionnaire survey and Interviews. The life cycle and activities of Research Scholars in DSM is thoroughly studied, while proposing the system. In the proposed Framework, lay out of both the front-end and the back-end architecture is represented and discussed pictorially. Finally few recommendations are given for the implementation and efficient working of the system.

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1. INTRODUCTION

Knowledge Management, (KM) is a concept and a term that arose approximately two decades ago, roughly in 1990. Quite simply one might say that it means organizing an organization's information and knowledge holistically, but that sounds a bit wooly, and surprisingly enough, even though it sounds overbroad, it is not the whole picture. Very early on in the KM movement, Davenport (1994) offered the still widely quoted definition: "Knowledge management is the process of capturing, distributing, and effectively using knowledge."

This definition has the virtue of being simple, stark, and to the point. A few years later, the Gartner Group created another second definition of KM, which is perhaps the most frequently cited one (Duhon, 1998): "Knowledge management is a discipline that promotes an integrated approach to identifying, capturing, evaluating, retrieving, and sharing all of an enterprise's information assets. These assets may include databases, documents, policies, procedures, and previously un-captured expertise and experience in individual workers."

Both definitions share a very organizational, a very corporate orientation. KM, historically at least, is primarily about managing the knowledge of and in organizations. The operational origin of KM, as the term is understood today, arose within the consulting community and from there the principles of KM were rather rapidly spread by the consulting organizations to other disciplines. The consulting firms quickly realized the potential of the Intranet flavor of the Internet for linking together their own geographically dispersed and knowledge-based organizations. Once having gained expertise in how to take advantage of intranets to connect across their organizations and to share and manage information and knowledge, they then understood that the expertise they had gained was a product that could be sold to other organizations. A new product of course needed a name, and the name chosen, or at least arrived at, was Knowledge Management. The timing was propitious, as the enthusiasm for intellectual capital in the 1980s, had primed the pump for the recognition of information and knowledge as essential assets for any organization.

Perhaps the most central thrust in KM is to capture and make available, so it can be used by others in the organization, the information and knowledge that is in people's heads as it were, and that has never been explicitly set down.

Explicit, Implicit and Tacit Knowledge

In the KM literature, knowledge is most commonly categorized as either explicit or tacit (that which is in people's heads). This characterization is however rather too simple, but a more important point, and a criticism, is that it is misleading. A much more nuanced and useful characterization is to describe knowledge as explicit, implicit, and tacit.

Explicit: information or knowledge that is set out in tangible form.

Implicit: information or knowledge that is not set out in tangible form but could be made explicit.

Tacit: information or knowledge that one would have extreme difficulty operationally setting out in tangible form.

The classic example in the KM literature of true "tacit" knowledge is Nonaka and Takeuchi's example of the kinesthetic knowledge that was necessary to design and engineer a home bread maker, knowledge that could only be gained or transferred by having engineers work alongside bread makers and learn the motions and the "feel" necessary to knead bread dough (Nonaka & Takeuchi, 1995).

The danger of the explicit-tacit dichotomy is that by describing knowledge with only two categories, i.e., explicit, that which is set out in tangible form, and tacit, that which is within people, is that it then becomes easy to think overly simplistically in terms of explicit knowledge, which calls for "collecting" KM methodologies, and tacit knowledge, which calls for "connecting" KM methodologies, and to overlook the fact that, in many cases, what may be needed is to convert implicit tacit knowledge to explicit knowledge, for example the after action reports and debriefings described below.

2. Industry and organization Profile

2.1 Higher Education Scenario in India:

The main strength of the Higher Education System in India is that it is well structured; it covers nearly all disciplines and offers programs at a very low cost to the students. It has largely met the skilled manpower requirement of the economy in the past and has the potential to meet the future needs too. It is generally self-reliant and has received international recognition for the quality of some of its output. The system has had extensive support from the Government and provides open access to the meritorious with little discrimination and full freedom of thought and action. The faculty is generally well qualified, and the approved teacher / student ratio is fairly high.

The apparent weaknesses of the system include lack of quality assurance, obsolescence in curricula and teaching methodology, poor infrastructure and technology support, political interference, lack of autonomy in decision making (both academic and administrative), absence of a global perspective, a failure to attract and retain the talented to the teaching profession, disinterested students, and an overall shortage of financial resources. Both external and internal efficiencies of the system are poor leading to enormous wastage. There are no incentives to utilize the system to its full potential and mobilize additional resources. Institutions are isolated with little interaction with employers, community, other academic and R&D institutions, and even within themselves.

2.2 About DSM

Delhi School of Management (DSM) was established in 2009 with Delhi College of Engineering (DCE) acquiring a University status, being officially renamed as Delhi Technological University (DTU) through a legislature passed by the Delhi State Assembly. DSM envisages at making distinctive future managers keeping with the

tradition of DCE (and now DTU) of excellence education established for the engineering discipline.

DSM envisages at developing distinctive future managers, keeping up with the tradition of DCE (and now DTU) by providing excellent world class education. DSM was established with a vision of inculcating a penchant for innovation, research, and experimentation in the aspiring managers. DSM aims at extending the seven-decade long legacy of DCE by incubating and developing techno-managers, who are adept at identifying pertinent and critical business problems and apply their technical skills and competencies in solving those issues.

In order to train its students to face the challenges of an information and knowledge driven work environment, DSM provides them with the **Triple E: Education, Experience and Exposure**. DSM strives to inculcate in its students the managerial competence through specialized knowledge and skills, while simultaneously empowering their minds through quality teaching, consultancy, and other professional services in order to fulfill its role of a vibrant and model institution capable of imparting quality education in the area of Management Studies. DSM envisions at developing a knowledge society by providing equitable access to the masses and broadening the span of their participation in the areas of higher education.

The USP of DSM's MBA program is its **dual specialization**. First two semesters focus on developing a strong foundation and right attitude by teaching general subjects of Management. Next two semesters provide the choice of one specialization each from the Technical and Functional area of Management.

2.3 Requirement of KMS in DSM

Delhi School of Management is one of the fast growing Management Educational institutions in India and every day it is increasing its horizon to provide services to the society. Being a newly set up institution, it is under developing phase of its internal infrastructure. Sharing knowledge among the internal as well as external stakeholders is a big constrain for this institution. Traditional hard copy based repository system is not

efficient enough to manage the present knowledge resources of the institution and that will also make the system sluggish. So, a digitized knowledge repository is an essential need for this institution. The whole system can be segmented under several parts, which are necessary but may not be sufficient and always there will be scope to add modules in the system.

Research Work is one of the areas where sharing is an essential part of learning. It has been seen frequently, that same research topic is chosen by different students and scholars, but there is no sharing or exchange of thoughts among them. Even a junior student, while doing any research, is not able to know that probably the same kind of work is already done by any of the previous batch students. This reduces the pace of growth.

Another important issue is sharing of the results and analysis of surveys, which are done either as a part of the curriculum or voluntarily, by students, research Scholars and faculties. These results can be one of the biggest sources of information as well as secondary data repository for future analysis, not only by the students, but also by the relevant industries.

At present there is nothing which is not available over the internet, but searching and collecting information or knowledge is time consuming, because systematically and orderly maintained resources are very less in number. Getting access to a good collection of research papers is very expensive. So, under these circumstances, the proposed system is conceived and a realizable framework along with its Lay Out diagram is presented in this report.

2.4 Life cycle of a Research Scholar in DSM

Short listing for admission process of regular Research Scholar in DSM is either through Net/JRF qualification or through written examination and then panel interview is conducted to select final pool of candidates. The part time Phd applicants should have minimum 2 years work experience after completing post-graduation. The topic of

Research is finalized through SRC and DRC (Departmental Research Committee) meeting minutes published.

Allocation of guide

The HoD on receipt of the research proposal submitted by the student, place it in the SRC. The SRC after thorough discussion decides upon the allocation of Guide/ Co-Guide to the respective candidate and constitutes the DRC. The constitution of DRC is intimated to the student.

The candidate in consultation with the Guide / Co-Guide shall be required to submit a synopsis of research work for Ph.D degree programme. The synopsis shall be presented in a seminar organized in the department where members of DRC and faculty members, students shall be present. Any modification in the synopsis proposed in the seminar shall be incorporated and the final synopsis shall be made ready for provisional registration.

Course Work

The course work shall be treated as pre Ph. D preparation and must include a course on Research Methodology which may include Quantitative methods, Computer Applications and Literature Review in relevant fields. The subject for course work is recommended by the DRC for approval of SRC. The progress of work of each scholar is assessed at the end of each semester by the DRC. The research scholar needs to give a presentation before the DRC for comments and feedback. Then the progress report is sent to SRC that sends the same with its recommendation to URC (University Research Committee) for grant of permission for enrolment of the scholar for the next semester.

Registration

On successful completion of the course works, the scholar needs to prepare a detailed Research Proposal on the approved research area. The research proposal duly signed by the guide(s) shall be routed through DRC to SRC. The research scholar shall present the proposal before the SRC and defend it before an open seminar to be attended by

faculties and research scholar of the school. If found suitable, then SRC recommends the scholar for final registration to URC.

DRC/SRC Meeting Minutes

After every meeting, DRC and SRC, consisting of members from Faculties and Students, publish a detailed report for all the concerned research scholars. This DRC/SRC meeting minutes consist details about the proposed guide for individual Research Scholar, recommendation of the research topics, Approval of final thesis report of research scholars, awards given for extra ordinary performance by research Scholars, Change of the guide, approval of long term leave from project etc.

2.5 Activities done by Research Scholars in DSM

Presently, in DSM, researchers have to perform several duties and responsibilities, related to academics as well as office or Administration works of DSM. After a depth interview with researchers, few of their activities are identified, like:

Academic Activities:

- As an integral part of their phd course, they have to search and identify research papers from the Internet, and discuss with their guides. They have to read and understand the papers, which is a part of their literature review.
- They have to meet their guides, to show their progress about their study and to discuss their progress about the topics. These meetings are done whenever necessary not necessarily after a certain interval or periodically.
- The submission of any report is done either through Hard-bounded copy or researchers need to go with their laptop to show to the guide. Communication through email is also done sometimes but not always.
- Researchers sometimes need to take classes, on behalf of their guide, for MBA students. This activity is also assessed many times as a part of their Phd course.

Administrative/Office Activities:

- Researchers need to perform office works during the Admission process of New MBA students.
- Few events of DSM are organized by Researchers along with regular MBA students.
- During Mid-semester Examination, researchers have to work as invigilators.
- Few office works of their guide, like collecting and organizing Assignments, Project reports, Hard copy of term papers of MBA students, are performed by Researcher scholars.

3. Objective:

- To conduct a survey and collect responses from different stakeholders of DSM about the present status of sharing of research works among students, Research Scholars and faculties
- To perform a qualitative analysis of the present status, identifying major stakeholders and their accessibility.
- Suggesting an implementable frame work along with detailed interactions among its sub-units.

4. Scope of the Project:

This project is focused on the sharing of Research papers and White papers prepared by the Students, Research Scholars and Faculties. Presently status of sharing mechanism is studied on the basis of responses given by regular batch students, research Scholars and regular faculty members.

5. Theoretical framework

5.1 What does KM really consist of?

The most obvious point is the making of the organization's data and information available to the members of the organization through portals and with the use of content management systems. Content Management, sometimes known as Enterprise Content Management, is the most immediate and obvious part of KM.

In addition to the obvious, however, there are three undertakings that are quintessentially KM, and those are the bases for most of what is described as KM.

(1) Lessons Learned Databases

Lessons Learned databases are databases that attempt to capture and to make accessible knowledge that has been operationally obtained and typically would not have been captured in a fixed medium (to use copyright terminology). In the KM context, the emphasis is typically upon capturing knowledge embedded in persons and making it explicit. The lessons learned concept or practice is one that might be described as having been birthed by KM, as there is very little in the way of a direct antecedent. Early in the KM movement, the phrase typically used was "best practices," but that phrase was soon replaced with "lessons learned." The reasons were that "lessons learned" was a broader and more inclusive term and because "best practice" seemed too restrictive and could be interpreted as meaning there was only one best practice in a situation. What might be a best practice in American culture might well not be a best practice in Indian culture. The major international consulting firms were very aware of this and led the movement to substitute the new term. "Best Practices" succeeded by "Lessons Learned" became the most common hallmark phrase of early KM development.

Nothing of course is totally new and without something that can be viewed as a predecessor. One such possible antecedent was the World War II debriefing of pilots after a mission. The primary purpose was to gather military intelligence, but a clear

secondary purpose was to identify lessons learned, though they were not so named, to pass on to other pilots and instructors.

The military has become an avid proponent of the lessons learned concept. The phrase the military uses is "After Action Reports." The very simple concept is: don't rely on someone to make a report. There will almost always be too many things immediately demanding that person's attention after an action. There should be a system whereby someone, typically someone in KM, is assigned the responsibility to debrief, separate the wheat from the chaff, create the report, and then ensure that the lessons learned are captured and disseminated.

The concept is by no means limited to the military. Larry Prusak opines that in the corporate world the number one KM implementation failure is that so often the project team is disbanded and the team members reassigned before there is any debriefing or after-action report assembled. Organizations operating in a project team milieu need to pay very close attention to this issue and to set up an after- action procedure with clearly delineated responsibility for its implementation.

The implementation of a lessons learned system is complex both politically and operationally. Many of the questions surrounding such a system are difficult to answer. Who is to decide what constitutes a worthwhile lesson learned? Are employees free to submit to the system unexamined? Most successful lessons learned implementations have concluded that such a system needs to be monitored and that there needs to be a testing and approval mechanism before items are mounted as lessons learned. How long do items stay in the system? Who decides when an item is no longer salient and timely? Most successful lessons learned systems have an active weeding or stratification process. Without a clearly designed process for weeding, the proportion of new and crisp items inevitably declines, the system begins to look stale and usage and utility falls. Deletion, of course, is not necessarily loss and destruction. Using stratification principles, items removed from the foreground can be archived and moved to the background but still made available.

All these questions need to be carefully thought out and resolved, and the mechanisms designed and put in place before a lessons-learned system is launched. Carelessness can easily lead to failure and the tarring of subsequent efforts

(2) Expertise Location

If knowledge resides in people, then one of the best ways to learn what an expert knows is to talk with that expert. Locating the right expert with the knowledge you need, though, can be a problem. The basic function of an expertise locator system is straightforward: it is to identify and locate those persons within an organization who have expertise in a particular area. Such systems were commonly known as "Yellow Page" systems in the early days of KM. In recent years, the term expertise locator or expertise location has replaced yellow pages as being rather more precise.

There are now three areas which typically supply data for an expertise locator system, employee resumes, employee self identification of areas of expertise, typically by being requested to fill out a form online, or by systematic analysis of electronic communications from and to the employee. The latter approach is typically based on email traffic but can include other social networking electronic communications such as Twitter and Facebook. Commercial packages to match queries with expertise are available. Most of them have load-balancing schemes so as not to overload any particular expert. Typically such systems rank the degree of presumed expertise and will shift a query down the expertise ranking when the higher choices appear to be becoming overloaded. Such systems also often have a feature by which the requester can flag the request as a priority, and the system will then try to match higher priority requests with higher presumed (calculated) expertise rank.

(3) Communities of Practice (CoPs)

CoPs are groups of individuals with shared interests that come together in person or virtually to tell stories, to share and discuss problems and opportunities, discuss best practices, and talk over lessons learned. Communities of practice emphasize the social nature of learning within or across organizations. Similarly, organizations find that when

workers give up a company office to work online from home or on the road, the natural knowledge sharing that occurs in social spaces must be replicated virtually. In the context of KM, CoPs are generally understood to mean electronically linked communities. Electronic linkage is not essential, of course, but since KM arose in the consulting community from the awareness of the potential of Intranets to link geographically dispersed organizations, this orientation is understandable and inevitable.

The organization and maintenance of CoPs is not a simple or easy undertaking. There are several key roles to be filled, which are described as manager, moderator, and thought leader. They need not necessarily be three separate people, but in some cases they need to be. For a CoP some questions that need to be thought about are:

- Who fills the various roles of: manager, moderator, and thought leader?
- How is the CoP managed?
- Are postings open or does someone vet or edit the postings?
- How is the CoP kept fresh and vital?
- When and how (under what rules) are items removed?
- How are those items archived?
- Who reviews the CoP for activity?
- Who looks for new members or suggests that the CoP may have outlived its usefulness?

5.2 The Stages of Development of KM

Looking at KM historically through the stages of its development tells us not only about the history of KM, but it also reveals a great deal about what constitutes KM.

First Stage of KM: Information Technology

The initial stage of KM was driven primarily by IT, information technology. That first stage has been described using an equestrian metaphor as “by the internet out of

intellectual capital”. The concept of intellectual capital provided the justification and the framework, the seed, and the availability of the internet provided the tool. As described above, the consulting community jumped at the new capabilities provided by the Internet, using it first for themselves, realizing that if they shared knowledge across their organization more effectively, then they could avoid reinventing the wheel, underbid their competitors, and make more profit. The first use of the term Knowledge Management in the new context appears to have been at McKinsey. They realized quickly that they had a compelling new product. Ernst and Young organized the first conference on KM in 1992 in Boston (Prusak, 1999). The salient point is that the first stage of KM was about how to deploy that new technology to accomplish more effective use of information and knowledge.

The first stage might be described as the “If only Texas Instruments knew what Texas Instruments knew” stage, to revisit a much quoted aphorism. The hallmark phrase of Stage 1 was first “best practices,” to be replaced by the more politic “lessons learned.”

Second Stage of KM: HR and Corporate Culture

The second stage of KM emerged when it became apparent that simply deploying new technology was not sufficient to effectively enable information and knowledge sharing. Human and cultural dimensions needed to be addressed. The second stage might be described as the “If you build it they will come’ is a fallacy” stage—the recognition that “If you build it they will come” is a recipe that can easily lead to quick and embarrassing failure if human factors are not sufficiently taken into account.

It became clear that KM implementation would involve changes in the corporate culture, in many cases rather significant changes. The changes in corporate culture needed to facilitate and encourage information and knowledge sharing can be major and profound. KM therefore extends far beyond just structuring information and knowledge and making it more accessible.

As this recognition unfolded, two major themes from the business literature were brought into the KM fold. The first was Senge’s work on the learning organization. The

second was Nonaka's work on "tacit" knowledge and how to discover and cultivate it. Both were not only about the human factors of KM implementation and use; they were also about knowledge creation as well as knowledge sharing and communication. The phrase of Stage 2 was "communities of practice." A good marker of the shift from the first to the second stage of KM is that for the 1998 Conference Board conference on KM, there was for the first time a noticeable contingent of attendees from HR, human resources, departments, and by the next year, 1999, HR was the largest single group, displacing IT attendees from first place.

Third Stage of KM: Taxonomy and Content Management

The third stage developed from the awareness of the importance of content, and in particular the awareness of the importance of the retrievability of content, and therefore of the importance of the arrangement, description, and structure of that content. Since a good alternative description for the second stage of KM is the "it's no good if they don't use it" stage, then in that vein, perhaps the best description for the new third stage is the "it's no good if they try to use it but can't find it" stage. The phrases emerging for the third stage are enterprise content management and taxonomies. At KMWorld 2000 a track on Content Management appeared for the first time, and by the 2001 KMWorld Conference, Content Management had become the dominant track. In 2006, KMWorld added a two-day workshop entitled Taxonomy Boot Camp, which still exists today.

5.3 Information Architecture

Information architecture in the KM context is the structuring and organizing of information (explicit knowledge) so that it can be easily managed and retrieved. It also covers the design of information presentation on an intranet, portal or website. The scope of information architecture therefore covers:

- **Categories of content:** such as document types. Examples: reports, news items, articles, proposals, product descriptions, organization charts.

- **Information attributes:** These are typically associated with specific content types and might include status, format, version number and so on. In technology terms, such attributes are embodied in metadata.
- **Location of information:** Where should different types of information stored - which hard-copy repositories, which databases, which computer systems and applications?
- **Labeling and naming:** Selecting the terminology for headings and category labels that will be widely understood throughout the organization. Also file naming conventions for shared computer folders and files
- **Taxonomies and thesauri:** Building on high level labels, one or more thesauri can be developed as the preferred vocabulary for use within an organization. Generally more useful (since language is ever changing) is a taxonomy, a hierarchical 'tree of knowledge'. This provides a structure for organizing and retrieving content by subject. This is a vast subject by itself with divided opinions on whether taxonomies should be human or computer-generated or whether with powerful search engines they are needed at all!
- **Website navigation:** Providing menus and submenus on a website (typically an intranet) so that users can find their way around core content easily.

5.4 What is a “KNOWLEDGE AUDIT”?

The knowledge audit is the all important first major phase or step of a knowledge management initiative, and is used to provide a sound investigation into the company or organisation's knowledge 'health'. The audit is a fact finding, analysis, interpretation, and reporting activity, which includes a study of the company's information and knowledge policies, its knowledge structure and knowledge flow. The knowledge audit serves to help the audited unit to determine if it 'knows what it knows' and 'knows what it doesn't know' about its existing knowledge state. Conducting a Knowledge Audit also help it to unearth what it should know to better leverage knowledge for business and competitive advantage. This enlightenment sets the agenda for the knowledge

management initiative, programme, and implementation. It offers a detailed examination, review, assessment and evaluation of a company's knowledge abilities, its existing knowledge assets and resources, and of its knowledge management activities. A knowledge audit will help the audited company to determine what knowledge is being managed and how well it is being managed.

In short, knowledge audit is the process to identify knowledge produced by an organization, who produce and use it, how frequent is the knowledge used, and where is the knowledge stored. The audit helps to make the knowledge in the company visible. Knowledge Audit identifies the core information and knowledge needs and uses in an organization. It identifies gaps, duplications, flows, and how they contribute to business goals. It is an extension of knowledge management initiatives of various organizations and ensures whether their initiatives lead to the desired objectives of knowledge management. The Knowledge Audit will be both an examination and inventory of the knowledge that is contained, needed, available, missing, and applied in the company. The term 'knowledge audit' is in some ways a bit of a misnomer, since the traditional concept of an audit is to check performance against a standard, as in financial auditing. A knowledge audit, however, is a more of a qualitative evaluation. It is essentially a sound investigation into an organisation's knowledge 'health'. A typical audit will look at:

- What are the organisation's knowledge needs?
- What knowledge assets or resources does it have and where are they?
- What gaps exist in its knowledge?
- How does knowledge flow around the organisation?
- What blockages are there to that flow e.g. to what extent do its people, processes and technology currently support or hamper the effective flow of knowledge?

5.4.1 KNOWLEDGE AUDIT - WHY AND WHEN?

A Knowledge audit is a practical way of getting to grips with "knowing what you know". It identifies owners, users, uses and key attributes of core knowledge assets. It is often carried out in conjunction with a knowledge management assessment as a baseline on which to develop a knowledge management strategy. Indicators that a knowledge inventory would be worthwhile include:

- Managers and professionals feel the symptoms of 'information overload'.
- It is difficult to find quickly key information and knowledge needed to make key decisions
- Useful sources of information and knowledge are frequently stumbled across by accident
- Duplication of information gathering activities is taking place across different departments
- Questions are raised about the value of information systems or information management (library) investments.
- In organizations and industries with a strong R&D function

5.4.2 Steps of Knowledge Audit:

The term information audit is often used synonymously with knowledge audit. However, a true knowledge audit will take into account tacit knowledge as well as information (explicit knowledge). It is essentially an assessment of the knowledge needs and knowledge sources within an organization.

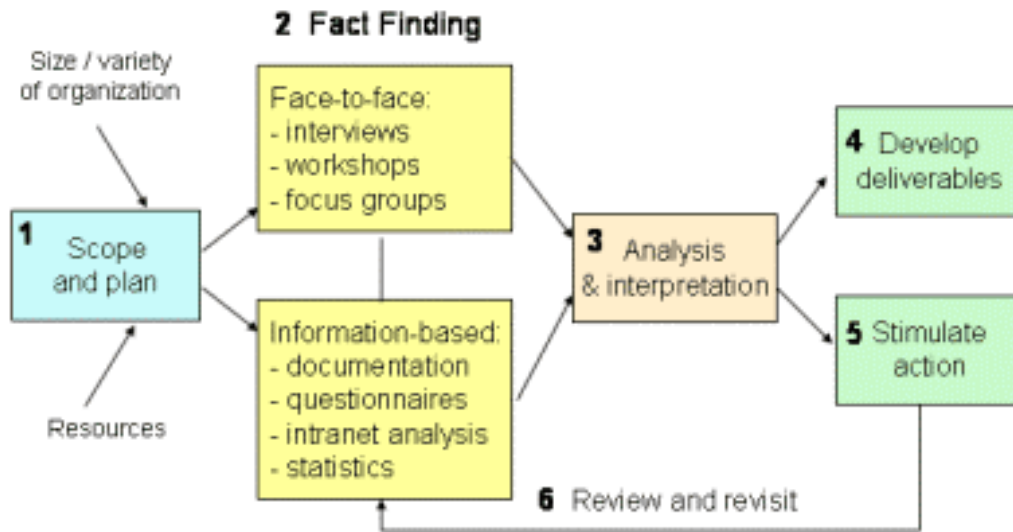


Figure 1: Steps of Knowledge Audit

1. Scoping and planning how wide and deep the audit should be; what areas to cover; how much effort to invest.
2. Fact-finding the core activity that involves collecting data on knowledge needs, accessibility and quality of knowledge, knowledge flows and blockages.
3. Analysis and interpretation identifying critical knowledge areas needing more attention, for example based on their overall importance versus their current usefulness; uncovering knowledge gaps and duplication.
4. Developing deliverables as well as a report, these may include lists and characteristics of knowledge resources and sources; the output of an audit feeds into a KM strategy and action plan.
5. Stimulating action simply reporting on the state of knowledge resources will not change them for the better; this stage is about integrating audit results into the the ongoing KM action plan.
6. Review and revisit an audit should not simply be a once-off exercise, but a process that is repeated, say annually, to review progress.

5.4.3 The Deliverables

The output of an audit may be presented in various ways. Some of the commonly used ones are:

- A knowledge inventory - either in spreadsheets or a database identifying information sources, ownership and usage
- Knowledge maps - visual representations of domains of knowledge, such as depicted in a hierarchical knowledge tree
- 'Rich pictures' - visual schematics that represent knowledge within the context of business processes or decision-making
- Formal reports - perhaps on a division by division basis, highlighting key findings
- Frameworks - that depict the relationships between different stores and different types of knowledge.

When developing outputs the key think to bear in mind is "What kind of output will stimulate a positive response from the key stakeholders in the business?"

5.5 Software-Assisted Detection in text documents

Computer-assisted plagiarism detection (CaPD) is an Information retrieval (IR) task supported by specialized IR systems, referred to as plagiarism detection systems (PDS).

Systems for text-plagiarism detection implement one of two generic detection approaches, one being external, the other being intrinsic. External detection systems compare a suspicious document with a reference collection, which is a set of documents assumed to be genuine. Based on a chosen document model and predefined similarity criteria, the detection task is to retrieve all documents that contain text that is similar to a degree above a chosen threshold to text in the suspicious document. Intrinsic PDS solely analyze the text to be evaluated without performing comparisons to external documents. This approach aims to recognize changes in the unique writing style of an author as an indicator for potential plagiarism. PDS are not

capable of reliably identifying plagiarism without human judgment. Similarities are computed with the help of predefined document models and might represent false positives.

5.5.1 Approaches

The figure below represents a classification of all detection approaches currently in use for computer-assisted plagiarism detection. The approaches are characterized by the type of similarity assessment they undertake: global or local. Global similarity assessment approaches use the characteristics taken from larger parts of the text or the document as a whole to compute similarity, while local methods only examine pre-selected text segments as input.

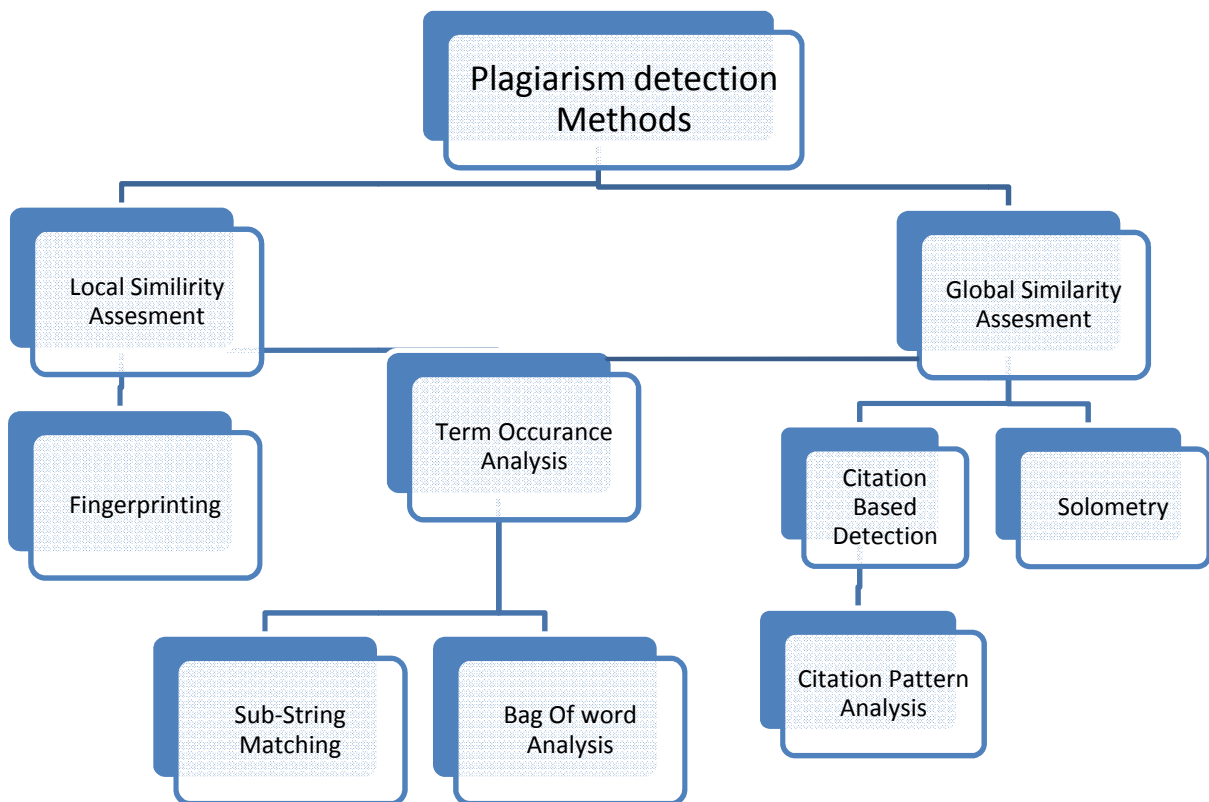


Figure 2: Classification of computer-assisted plagiarism detection methods

Fingerprinting

Fingerprinting is currently the most widely applied approach to plagiarism detection. This method forms representative digests of documents by selecting a set of multiple substrings (n-grams) from them. The sets represent the fingerprints and their elements are called minutiae. A suspicious document is checked for plagiarism by computing its fingerprint and querying minutiae with a pre-computed index of fingerprints for all documents of a reference collection. Minutiae matching with those of other documents indicate shared text segments and suggest potential plagiarism if they exceed a chosen similarity threshold. Computational resources and time are limiting factors to fingerprinting, which is why this method typically only compares a subset of minutiae to speed up the computation and allow for checks in very large collection, such as the Internet.

String matching

String matching is a prevalent approach used in computer science. When applied to the problem of plagiarism detection, documents are compared for verbatim text overlaps. Numerous methods have been proposed to tackle this task, of which some have been adapted to external plagiarism detection. Checking a suspicious document in this setting requires the computation and storage of efficiently comparable representations for all documents in the reference collection to compare them pair-wise. Generally, suffix document models, such as suffix trees or suffix vectors, have been used for this task. Nonetheless, substring matching remains computationally expensive, which makes it a non-viable solution for checking large collections of documents.

Bag of words

Bag of words analysis represent the adoption of vector space retrieval, a traditional IR concept, to the domain of plagiarism detection. Documents are represented as one or multiple vectors, e.g. for different document parts, which are used for pair wise similarity computations. Similarity computation may then rely on the traditional cosine similarity measure, or on more sophisticated similarity measures.

Citation analysis

Citation-based plagiarism detection (CbPD) relies on citation analysis, and is the only approach to plagiarism detection that does not rely on the textual similarity. CbPD examines the citation and reference information in texts to identify similar patterns in the citation sequences. As such, this approach is suitable for scientific texts, or other academic documents that contain citations. Citation analysis to detect plagiarism is a relatively young concept. It has not been adopted by commercial software, but a first prototype of a citation-based plagiarism detection system exists. Similar order and proximity of citations in the examined documents are the main criteria used to compute citation pattern similarities. Citation patterns represent subsequences non-exclusively containing citations shared by the documents compared. Factors, including the absolute number or relative fraction of shared citations in the pattern, as well as the probability that citations co-occur in a document are also considered to quantify the patterns' degree of similarity.

Stylometry

Stylometry subsumes statistical methods for quantifying an author's unique writing style and is mainly used for authorship attribution or intrinsic CaPD. By constructing and comparing stylometric models for different text segments, passages that are stylistically different from others, hence potentially plagiarized, can be detected.

6. Methodology and Data Analysis:

6.1 Data Collection

Data is collected mainly through questionnaire survey method. Separate questionnaires were prepared for faculties and students. Initially the questions in the faculty questionnaire were not well structured, so after getting feedback about the quality of the questionnaire, from faculty members, the final questionnaire was prepared, which was more precise and concise. Then a separate questionnaire was prepared for students and Research scholars. The main purpose of the questionnaire was to understand the present status of Knowledge sharing mechanism in DSM and to what extent, different stakeholders can be benefited by a digitized Knowledge Management System.

6.2 Collecting Observations and Data Analysis

Two separate questionnaires were prepared for the survey; one for faculties of DSM and another for Students and Research Scholars. Responses are taken from faculties by Offline method along with informal interviews, whereas Responses are taken from Students by online methods. More over informal interview were done with Experienced Research Scholars, to know about the life cycle, activities and the procedure for Phd registration of the Researchers.

6.3 Analysis of the Responses from Students and Research Scholars

Sample size of this survey was 40, out of which 68% respondents were from 2nd year batch, 22% were from 1st year batch and 10% were research scholar. Out of these respondents, only 23% have published their research papers.

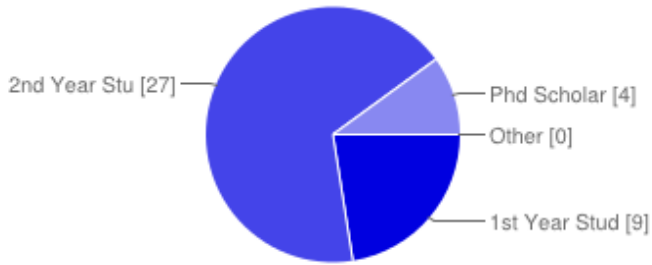


Figure 3: Break up of samples of the survey

77% of the respondents have submitted their papers in DSM, and out of these the most predominant methods of submissions were either through emails or Hard bounded copy. Only few respondents have chosen the “Share Drives/ Google groups” as a mode of submitting research papers

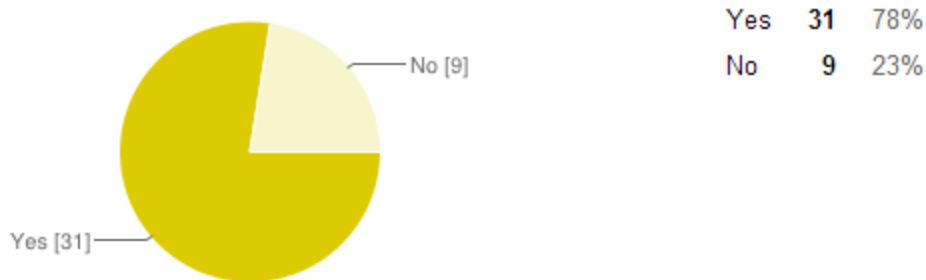


Figure 4: Whether respondents have submitted or not

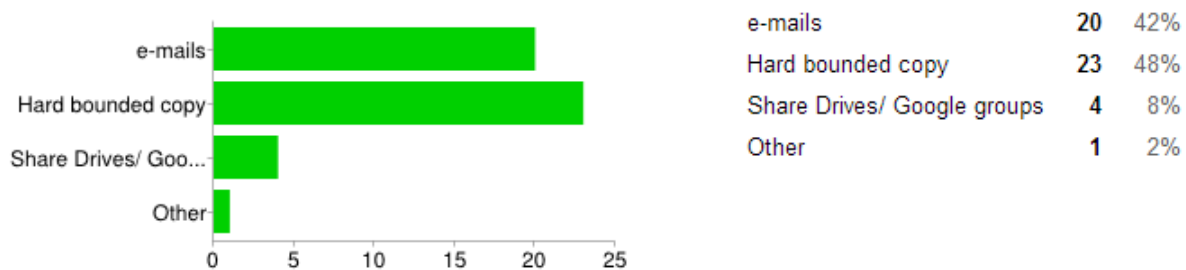


Figure 5: The mode of submission of Research/White papers

As per the responses of the faculty questionnaire, 5 factors were put in the student questionnaire, to get responses about “why research work is important according to the respondent” in the form of likert scale (1 to 5). The average of the total 40 responses are taken, which shows that most important reason of the importance of research work is “Enhancing knowledge” and second most important factor is “Academic Assessment”.

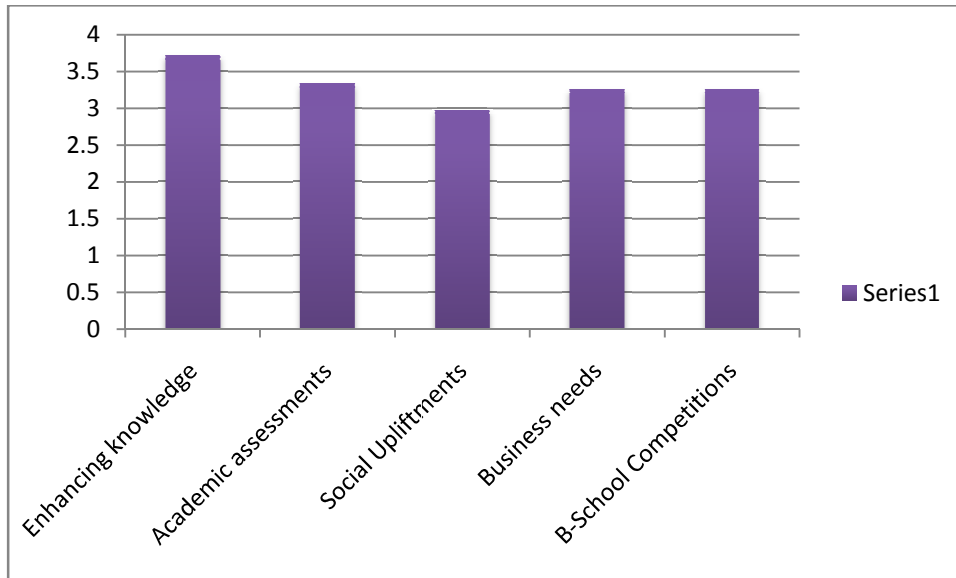


Figure 6: why research work is important

Respondents were asked to Evaluate 4 selected methods of sharing the Research Papers, in 1 to 5 likert scale. Then simple average of all responses is taken. The factor acquiring highest average value is considered as the most Efficient and effective method of Sharing. As shown in the figure below, “Submitting to the centralized repository” is considered as the most efficient method and “Submitting to the individual faculty” is the most inefficient method of sharing the Research/White papers. From these results, the objective to build the framework for a centralized digitized knowledge management System is also re approved to build confidence to proceed with this project.

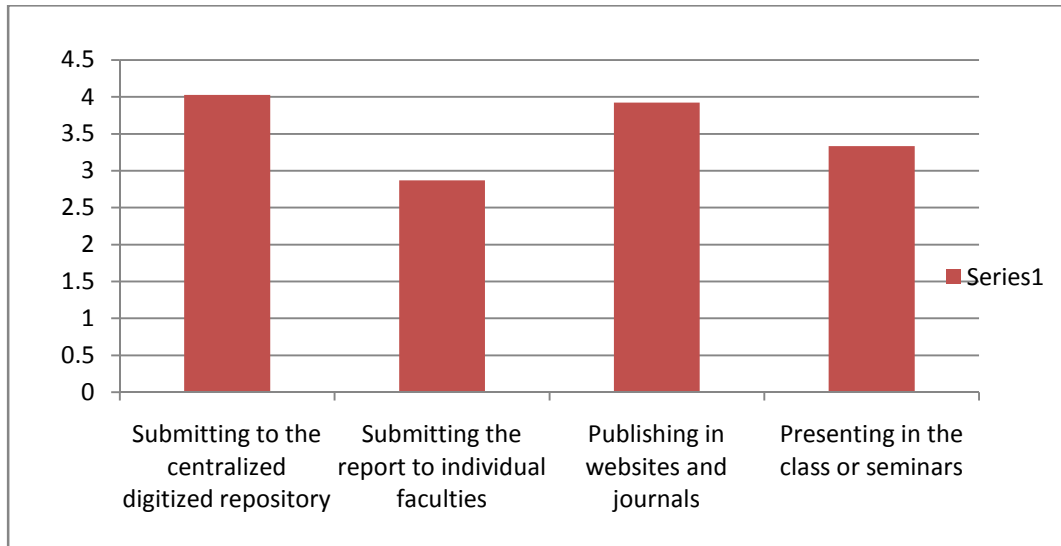


Figure 7: The most efficient method of sharing the Research Papers

Plagiarism checking will be an integral part of the Research repository. So, in response to the awareness about the Plagiarism Software, 80% respondents are aware about this Checking software.

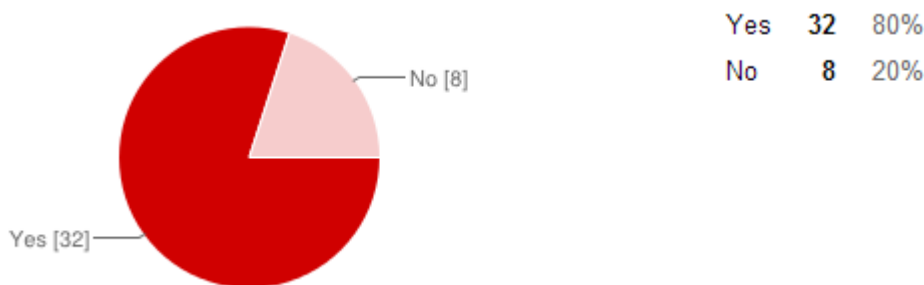


Figure 8: Are the respondents aware about Plagiarism?

Moreover to build this type of system, active support and direct contribution is needed from the users. 65% respondents said directly “Yes” and 28% are in neutral situation and only 8% said “No” in response to the direct contribution of the proposed system. So, this is definitely a positive sign and reflects less psychological inertia among the internal users.

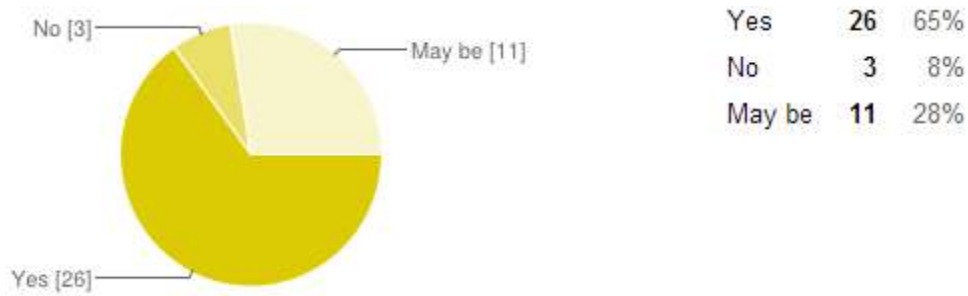


Figure 9: Are the respondents ready for contributing to the Portal

In response to know the present status of the availability of Knowledge Sharing mechanism, 97.50% respondent said that presently there is no mechanism available for sharing the knowledge.

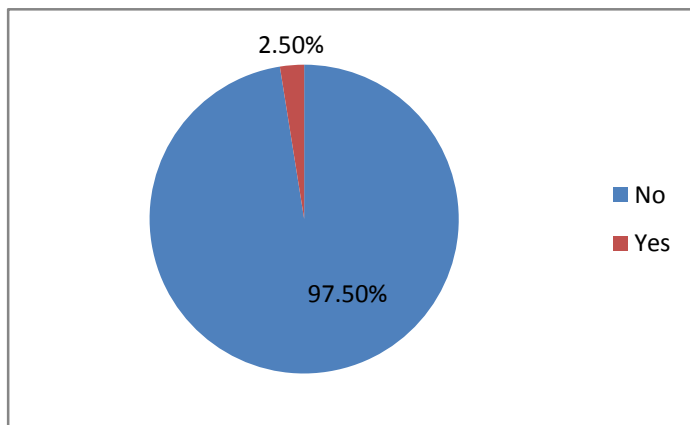


Figure 10: present status of the availability of Knowledge Sharing mechanism

7. Framework Design of the Proposed Research Repository:

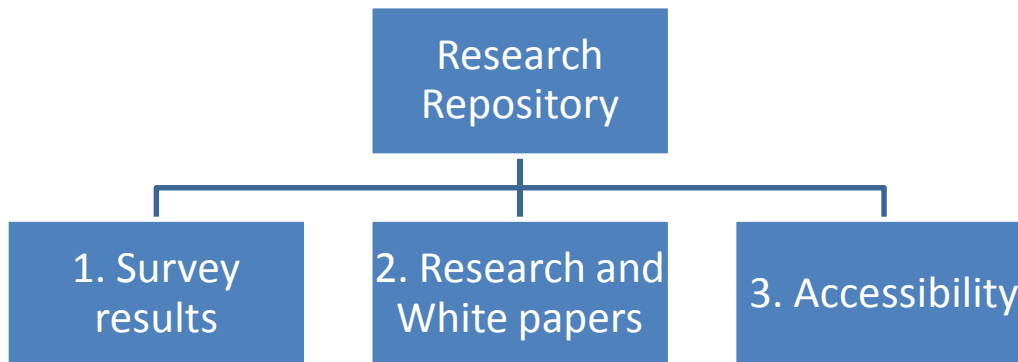


Figure 11: Components of Research Repository Framework

7.1 Survey Results

In this segment results and analysis of surveys conducted by Students, Research Scholars and faculties will be shared. This segment can be utilized as a secondary source of data for future researchers. It can be made compulsory for the students to enter data.

Stakeholder Analysis:

Stakeholders are categorized into two types, Internal and External, based on their relation with DSM:

Internal Users:

They are the stakeholders who are directly a part of DSM. Four categories of Internal users:

- i. Students
- ii. Research Scholars
- iii. Faculties
- iv. Administrator

Students and Research Scholars will have the right to Upload, View and Analyse. Faculties will have the right to Upload, View, Analyse and Approve. The results uploaded by the students and research scholars, will be approved by the designated faculty. Administrator will have the right to modify and delete.

External Users:

External users are categorized into 3 types:

- i. Industry
- ii. Other departments
- iii. Guest/Other users

External users can only view the analysis of the results. They will be able to access the analysis only, not the data.

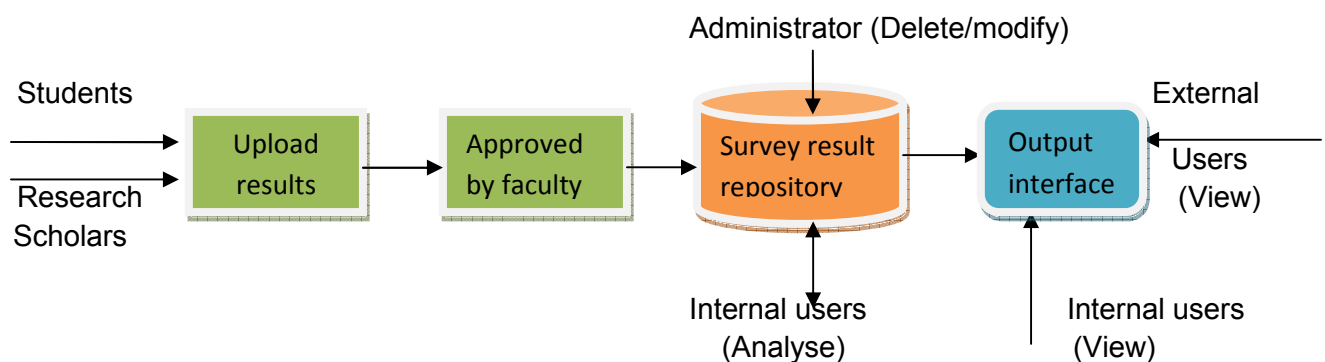


Figure 12: interaction of several stake holders with Survey Result Repository

7.2 Research and White Papers:

The most important part of the research repository is managing all the Research and white papers, submitted by internal users, i.e. Students, Research Scholars and faculties. They can upload their research/White papers, which will be approved by the faculties and will be kept in the research repository. There will be Plagiarism checking system in server end.

After the file being uploaded in some pre specified formats (like: doc, pdf etc), the back end server will check the genuinity of the content through plagiarism checking software.

After this checking, if the report is found genuine, it will go for the approval from the faculty/Guide, otherwise it'll ask the uploader to recheck the content and to re-upload. The faculty will check the report and if approves, then the file will be stored in the Repository, otherwise, if rejected by faculty, it will ask the uploader to re-upload or to contact with the concern faculty.

Flow chart of Uploading and Approval Process:

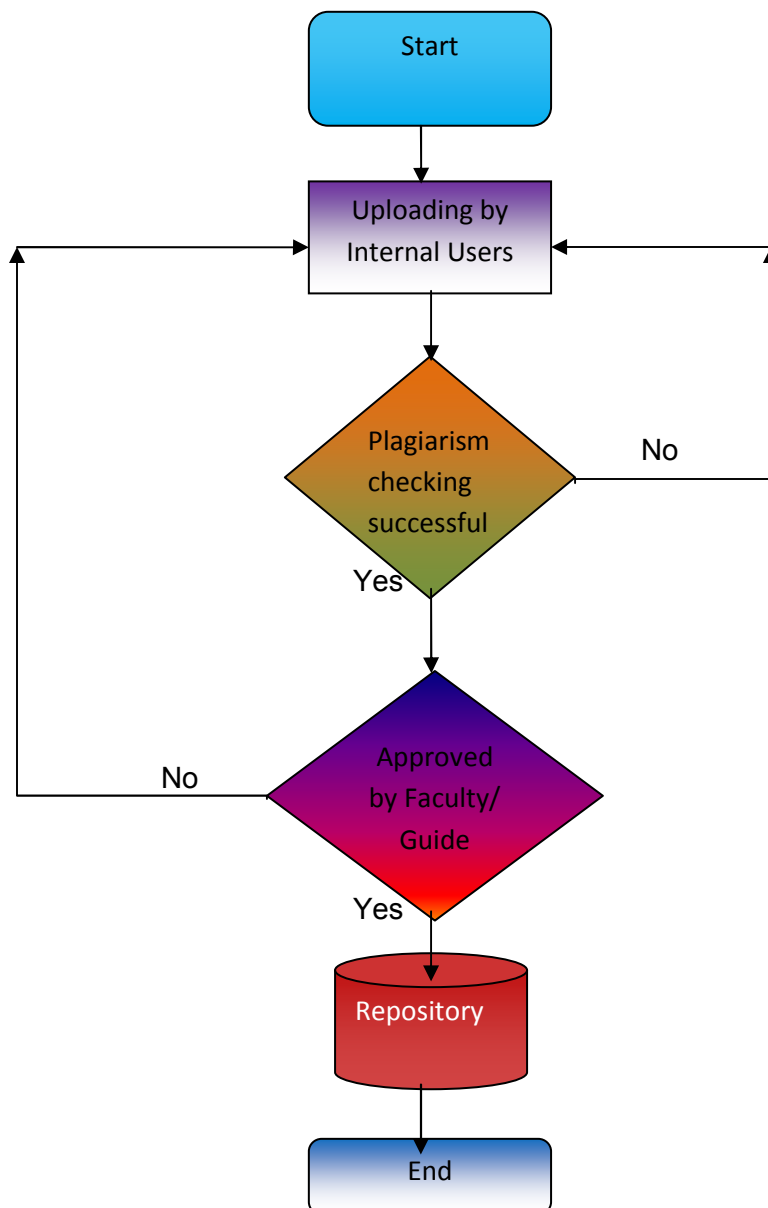


Figure 13: Flow chart of Plagiarism Check and Faculty Approval process

Structure of the database table:

The backend database table will consist 9 attributes, shown in the following table. Queries can be run by Report Id, Uploader ID, Date of Uploading, major area, Sub Area and Topic name. This table will be linked with the user id table of the Knowledge Management Portal, through Uploader ID as a foreign key. Report Id will be the primary key of this table.

<u>Report ID</u>	<u>Uploader ID</u>	<u>Date of uploading</u>	<u>Major area</u>	<u>Sub Area</u>	<u>Topic Name</u>	<u>Size (in Kb)</u>	<u>Format (like: doc, pdf etc)</u>	<u>Name of Faculty/ Guide</u>

Figure 14: Structure of the database table of back end researchers/white paper database

Stakeholders Analysis:

Stakeholders are categorized into two types, Internal and External, based on their relation with DSM:

Internal Users:

- i. Students
- ii. Research Scholars
- iii. Faculties
- iv. Administrator

Internal users can upload as well as download the papers for their academic uses, after logging in to the system. There will be a “Text Box” for Feedback and suggestion from the users at the bottom of the page of individual report. Reminder will be sent to the user to enter the feedback and suggestion about the report. There will be mechanism to show the count of the download of that particular report.

External Users:

- i. Admission Seekers

- ii. Industry
- iii. Other departments
- iv. Guest/other users

External users, before log in, can only be able to view the abstract of the report. To download the report, they need to log in to the system and they have to “like” the page in Facebook, so that any update can automatically be communicated to them. Admission Seekers can find out their research area and what is the present status of research in that particular area in DSM. External users can Put their suggestion and feedbacks, but can't modify or upload any documents. They can contact to the concern student and faculty members for their inputs.

7.3 Accessibility:

Accessing the content of the portal is crucial for the proper sharing and utilization of the resources. Two type of log-in:

- i. Direct Log-in
- ii. Log-in through Social networking sites

Users can generate registration id by a onetime registration process which will create an account in the Knowledge Management Portal. This account can be used to access all segment of the portal. User confirmation will be done through sms verification in the mobile number given by the user.

In the registration process, two types of users will be there, Internal User and External User. Users have to choose the option accordingly. Internal users need to provide their University ID number in the registration process. Three separate options will available for internal users: Student, Research Scholar and Faculty. Based on the type of users, their accessibility and mode of operations will be different.

For external users, there will be another mode of log in, through Social networking Sites (like: Facebook, LinkedIn etc) credentials. External users can read the executive

Summary without logging in, but to download the file, they will need to log in by either of the modes and have to like the facebook page of the portal.

The portal can be accessed through web applications as well as android application in latest mobile devices (like: Smart Phones, tablets etc). So, android application of the portal can be developed, for better accessibility.

8. Lay out of the Knowledge Portal

The proposed Knowledge portal will be of two parts based on the user type, i.e. Internal and External users. In this report, the Demo of the front End of the Internal Users is discussed, which is most important for Students, research Scholars and faculties of DSM.

The **first page will be “Log In page”**, where an option to “log in As:” will be at top Right of the page. At present 4 options are thought, which are Student, Faculty, Research Scholar and Administrator, as shown below. New users need to register to generate Log in ID and Password. Already registered users can Log in through their registered ID and Password. There will be option for retrieval, if any user forgot his Log in ID or Password, through email and mobile verification mechanism.

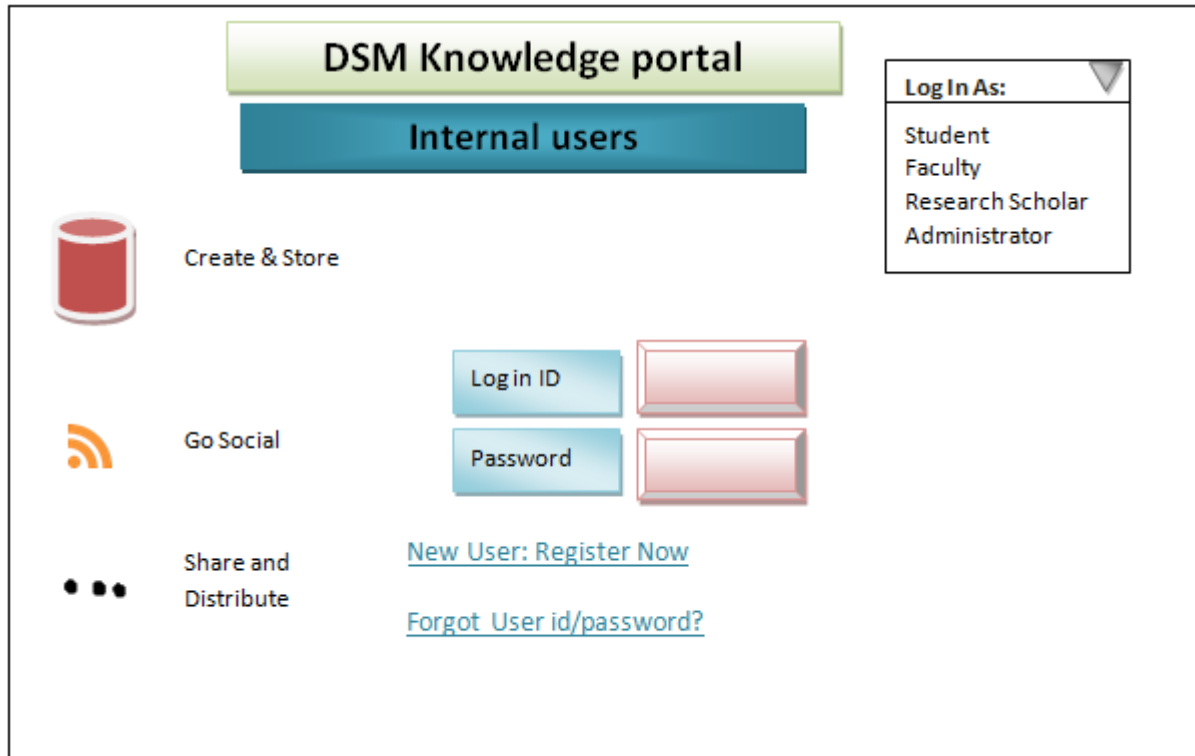


Figure 15: Lay out of the Knowledge Portal: Log In page

After successful log in, the user will be redirected to the **Default Home page of the portal**, which is shown below. Except the default option i.e. “About DSM”, there will be several options like, “e-Education & Study Materials”, “Administration”, “Placement Help”, “DSM initiatives”, “Students & Alumni details”, “Research”, “Discussion forum” and “Life @ DSM”. More attributes can be added in future, if necessary. In the right side of the page there will be “Important Updates and Announcements”, which will consist of all types of updates about DSM and this Portal. This will be “live” in nature and contents will scroll automatically. Bottom of this tab, there will be “Cloud Tags”, which will consist several key words and jargons. Tags are usually single words, and the importance of each tag is shown with font size or color. This format is useful for quickly perceiving the most prominent terms and for locating a term alphabetically to determine its relative prominence. When used as website navigation aids, the terms are hyperlinked to items associated with the tag. At the bottom of the web page, there will be useful Links of Other Universities and MBA institutes. There will be also the Site Map, registration, Feedback and Contact information links as well. At the bottom right corner, there will be “Visitors Count”.

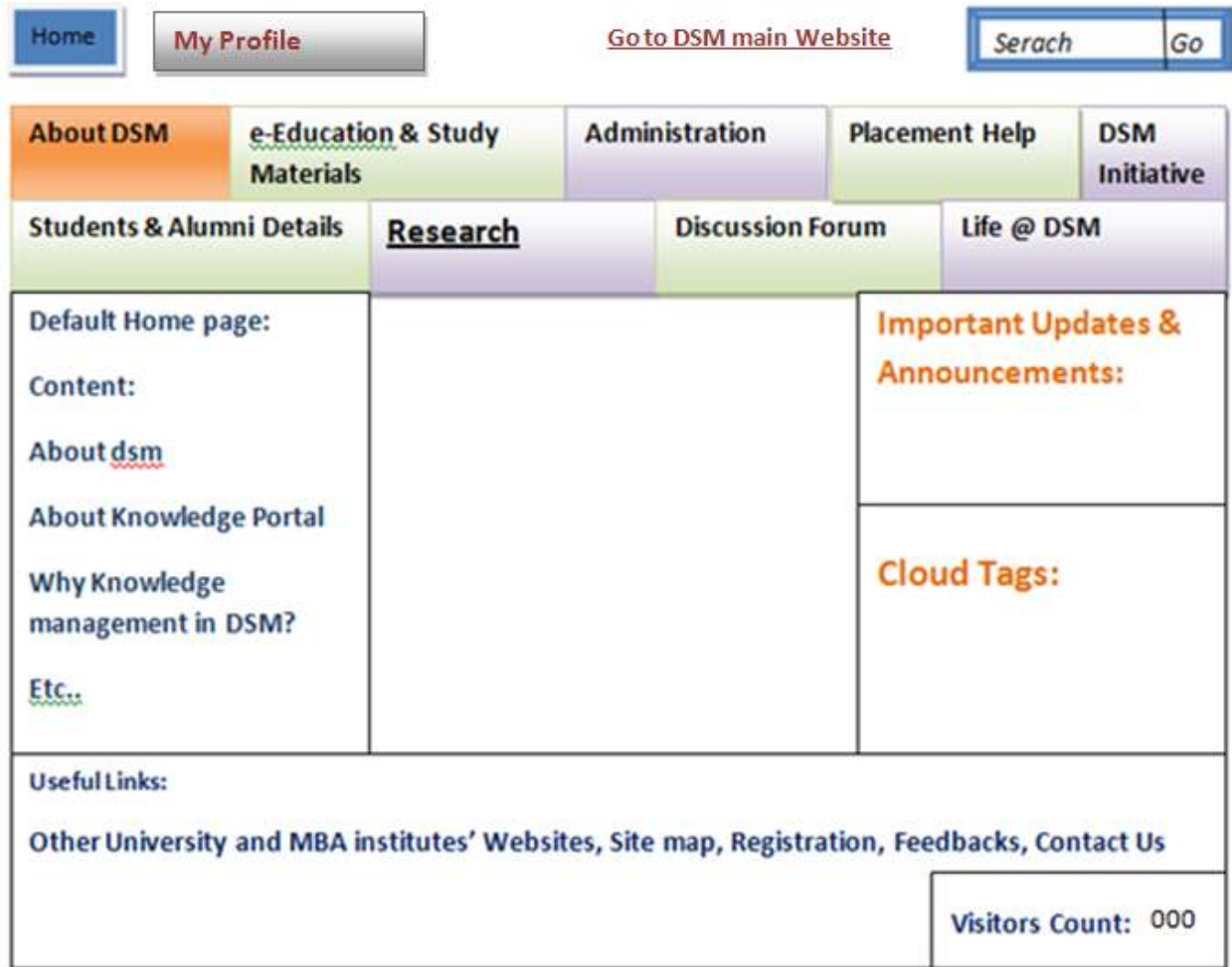


Figure 16: Lay out of the Knowledge Portal: Default/Home page

After choosing the Research option, as shown highlighted in the figure below, the **Research page** will be redirected. In this page, based on the user type, the permissible operations will be displayed on the right side. Taking an example of student user the Demo page is shown below, where, options for “Upload”, “Download”, “View” and analyse is kept. For the case of Faculty Login, there will be another option of “Approve”. Users can also see their “Recent Activities”. In the middle portion, users can “Find Research Works by Topics” as well as sub topics. After selecting any Topic, all the sub-topics under this will be displayed, as in the picture, Example of topic “Human Resource” is selected, and several sub topics are also shown below. In the right of the page, there will be three tabs, “Find Survey results and Analysis”, “latest research Updates” and “Upcoming Research news”. At the bottom, there will be useful Links of

Other Universities and Institutes. There will be also the Site Map, registration, Feedback and Contact information links as well.

Home	My Profile	Go to DSM main Website		<input type="text" value="Search"/>	<input type="button" value="Go"/>
About DSM	E-Education & Study Materials	Administration	Placement Help	DSM Initiative	
Students & Alumni Details	Research	Discussion Forum	Life @ DSM		
Upload: <ul style="list-style-type: none"> ➤ Research Paper ➤ White Paper Download: <ul style="list-style-type: none"> ➤ Research Paper ➤ White Paper Survey Results: <ul style="list-style-type: none"> ➤ View ➤ Upload ➤ Analyze Recent Activities	Find Research Works By Topics: List: marketing, Finance, IT-Systems, Human Resource , Supply Chain & Operations, Knowledge Management etc Sub Topics: Organizational Behavior, Industrial relations, talent management, Appraisal management, Conflict Management ...etc.	Find Survey results and their Analysis	Latest Research Updates: What's New,		Upcoming Research news.
Useful Links: Other University and MBA institutes' Research Portals, Feedbacks & Suggestions, Contact Us					

Figure 17: Lay out of the Knowledge Portal: Research page

9. Conclusion and Recommendations:

This study was conducted to examine the present knowledge sharing among academics in the knowledge-based institution like DSM. Knowledge sharing is vital to the success of knowledge management practices in all organizations, inclusive of universities. Effective knowledge sharing is essential for the organization to benefit from the knowledge its employees have generated.

Through this project, a digitized mode of Knowledge Sharing Mechanism is proposed and this can play the key role in the future growth of Delhi School of Management. The overall system consists several parts, many of which may not be directly related to the Knowledge Sharing, but those will definitely going to smoothen the dissemination of knowledge either directly or indirectly. While conducting the Knowledge Audit, Responses are taken from all type of internal users. Their responses were given importance while executing the project. It is being observed that presently there is no such mechanism for Knowledge sharing among faculties as well as students. Research and White papers show the quality of Research and Developmental work going on in any Institution. So, if we be able to manage these papers efficiently, external users from Industries, Other university Scholars and new admission seekers will be motivated to utilize these resources and as a result the brand value of DSM will be upgraded. Internal users will also be benefited by these, as there will be less repetition of similar projects.

In managing the valuable knowledge asset, organizations always seek help from technology to build sophisticated database and IT infrastructure to capture and store knowledge. However, if internal users are reluctant and not willing to share and pass along the knowledge across the organization, the effort of knowledge management will fail.

In a nutshell, knowledge sharing is a people-process. More consideration should be given to understand how individuals react to internal as well as external factors in making their decision as to whether to participate in the sharing activities. It should be

made a practice rather than a duty to share his Tacit knowledge in explicit form through this platform, so that everybody is benefited by this initiative.

Being a young university in the country, DTU has attracted many young, self motivated and enthusiastic students, scholars and faculties. So, in future this concept of Knowledge Sharing can be infused into the University, where DSM can take the leading role in the implementation process. The participation in the KMS matters can be kept as one of the semester-end performance evaluation. Contribution to this online sharing system will be therefore “involuntary” to some extent. DSM will be unique in the sense that it enforces a system of “compulsory” participation while other universities basically emphasizing on formulating an attractive rewards system to encourage knowledge sharing.

Moreover to implement this successfully, the administration of the institute needs to be pro active and sensitive to the demand of the contemporary trends. Sticking with old age concepts will harm the rapid growth of the institution.

10. Limitation of the Study

- The study is dealing with only DSM, which is a part of DTU. So, DSM has to work within the official framework of DTU. So the objective to build a Dedicated Knowledge management System might be facing a lot of procedural bounding while it will be going to be implemented. In that sense these study may looks like an ambitious project.
- The research suffers from quality of composition of sample, because all the respondents are directly a part of DSM. For better understanding the present situation in Knowledge Sharing in Other institution, requires a comparative study between DSM and other management institutions, which will require more pilot study and preliminary survey before the final work to be done.
- The online respondents were reluctant in filling up the questionnaire adequately. In spite of several reminders, total response count is little small as far as such type of

survey is concern. In this project, our scope is limited to DSM only. So as large as the size of the sample, the result will be more perfect.

- Time was a constraint in conducting further analysis. As this project is completed within stipulated one month time period, some more research, which could have been helpful for the project, couldn't be done, due to lack of time. But this leaves lot of opportunities to learn and to work for the future researchers.
- Initially, while interacting with faculties, detailed information couldn't be asked due to the presence of some sensitive questions and as a consequence, questions were modified and kept simple, open ended and optional.
- As we all are human, we always have some biasness, either consciously or unconsciously. Biasness of the respondents toward DSM somehow influences the outcome the survey results.

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2. <http://en.wikipedia.org/>
3. <http://www.dsm.dce.edu/>
4. <http://www.kmworld.com/Articles>
5. <http://www.KnowMap.com>
6. <http://www.icaai.org>
7. <http://www.indiasmartgrid.org>
8. <http://web.mit.edu/research/>
9. <https://knowledge.citixsys.com/>

12. Annexure

12.1 Faculty Questionnaire:

Objective: To study prevalent method of knowledge sharing and drive facts from analysis to improve upon it.

1: How the records of lesson plans, student attendance, internal assessment and assignments are presently being maintained?

- Manual Record
- Online portal containing all records
- Other Methods, please Specify _____

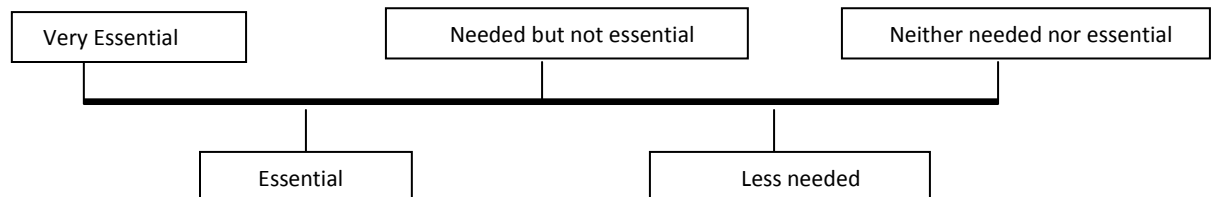
2. As per your opinion, what is the best method for sharing guidelines, norms, notifications, Exam results etc?

- Chain Method (Inform 1 and ask him/her to inform further)
- Through emails, facebook or Whatsapp
- Through a central information repository through automated notification delivery system.
- Other, Please specify, _____

3. How you allocate your time during a normal working day in following activities?

Particular	Time spent(%)
Academic activities	
Non- Academic activities	

4. On the scale, please specify the need for an IT enabled knowledge sharing platform for Delhi school of Management.



5. As per your opinion to what extent the present system is supporting the sharing of your knowledge and experience:

a. With the "Internal Users" (i.e. Students, faculties, Research Scholars).

1. No sharing	2. Small Extent	3. Moderate	4. Large Extent	5. Very large Extent
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b. With the “External users” (i.e. Other Departments, Industries and others)

1. No sharing	2. Small Extent	3. Moderate	4. Large Extent	5. Very large Extent
---------------	-----------------	-------------	-----------------	----------------------

6. As per your opinion, what is/are the most convenient way/s of sharing research/white papers among faculty members students and Research Scholars?

- Through e-mails
- Hard bounded copy
- University portal /institute Share Drives
- Any other mode, please mention: _____

7. What are the areas in which you want to do some research work in future? (put serially)

8. Why research work is important according to you?

- Knowledge Enhancement
- Academic Assessment
- Improvement of the society
- Business needs
- Competition Events
- Others: _____

9. Are you aware about “Plagiarism Software”?

- Yes
- No

1.1 If yes, have you ever used it for checking reports submitted by students?

- Yes
- No

1.2 Do you want to use it for checking “copy-paste” contents of the reports submitted by the students?

- Yes
- No

2. Would you like to contribute by sharing your knowledge and experiences?

- Yes
- No
- May be

12.2 Student's Questionnaire:

Objective: This survey is done for the project on managing the Research Works in DSM as a part of its new Knowledge Management System

1. You are a: *

(Mention you corresponding year/course)

- 1st Year Student
- 2nd Year Student
- Phd Scholar
- Other:

2. Have you published any of your Research Papers? *

(During the tenure in DSM)

- Yes
- No

3. Have you submitted any Research/White papers in DSM? *

- Yes
- No

3.1 If yes, then what was/were the mode/s of submission?

You can choose multiple options

- e-mails
- Hard bounded copy
- Share Drives/ Google groups
- Other:

4. Research work is important, according to you, for: *

Rate the parameters on the basis of priority. (1= Lowest priority & 5= Highest priority)

	1	2	3	4	5
Enhancing knowledge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Academic assessments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Social Upliftments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Business needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B-School Competitions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Evaluate the following methods of sharing the Research reports: *

On the basis of effectiveness. '1'- Lowest effectiveness & '5'- Highest effectiveness

	1	2	3	4	5
Submitting to the centralized digitized repository	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Submitting the report to individual faculties	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Publishing in websites and journals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Presenting in the class or seminars	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Are you aware about “Plagiarism Software”? *

- Yes
- No

7. Would you like to contribute to the Knowledge Management System of DSM (in future)? *

By taking some developmental role or by providing valuable content

- Yes
- No
- May be

8. Presently is there any knowledge sharing mechanism with faculties and other students in DSM? *

- Yes
- No

8.1 If Yes, please specify: