Rationale of Study
The purpose of research is to inform action. Research must always be of high quality in order to produce knowledge that is applicable outside of the research purview with implications that go beyond the group that has participated in the research. Furthermore, the results should have implications for policy and project implementation. The study seeks to contextualize its findings within the larger body of research and to evaluate how a Research Scorecard can facilitate the accelerated journey of research.

One problem that often plagues progress in research is the slow translation of it into practice. Oftentimes, a disconnection exists between the researchers who create the evidence base and those who are positioned to implement the research findings. The underlying problem is in “the way in which the production of evidence is organized institutionally with highly centralized mechanisms, whereas the application of that science is highly decentralized. This social distance prevails because scientists are more oriented to the international audiences of other scientists for which they publish than to the needs of practitioners, policy makers, or the local public. Thus, as researchers, it is imperative to take steps to overcome this barrier. Publishing the study may be one initial step to make the research known to the global community. Other proactive measures can be taken to encourage the uptake of evidence-based interventions.

Hence, whatever is the outcome of research has to have practical applicability and it is to be carried out in line with the needs of the benefits of the recipients. Furthermore, a researcher can send the results of the study to local officials, policy-makers, and community leaders for feasibility and practicability checking.

Therefore, in this paper we make an attempt to formulate and design a Research Scorecard of prime importance with which the quality of research work carried out can be analyzed and evaluated and accordingly the practical applicability can be assessed.

1.0 Introduction
Doing research in business management is vital as it helps a business plan for the future, based on what may have happened in the past. When carried out successfully it can help a company make informed plans on how to become more viable in its sector.

If something has been unsuccessful, for instance, having carried out effective research may help a business avoid future failure. Carrying out research may also help a company decide whether now is the right time to expand into another city or whether it should apply for a new loan. It also helps a business determine whether a procedure should be changed or if more needs to be done to meet the needs of the customer base.

Research in business management may come in different forms, depending on what a company is hoping to achieve. For example, if the company is intending to launch a new product on the market, it can do some market research to see if it would be a good idea. Certainly, seeing what works and what doesn’t will help a business owner have the knowledge to make informed decisions in specific areas of business.

Some business experts agree that looking to the future of business is very much about looking at the past. The two are interlinked and by carrying out research you are more likely to see a positive
outcome in your chosen objective. In business, making ill-informed decisions may be very precarious as there may be too much money at risk or a company’s reputation may be put at stake.

Research into business management can either be carried out by an individual or by a team by looking at historical research reports or it could even be outsourced. Regardless of how it is carried out, the benefits for the future of the business will be very clear to see. Business management research is generally carried out both in industry and academia. Most of the IIM Knowledge Workers of our country are involved in research either in terms of consultancy or in terms of guiding fellow programmes in management.

2.0 Characteristics of Good Research Institutions

We believe that all high quality research institutions/universities share the characteristics discussed below.

Briefly stated, these characteristics are:

- A Clearly stated and well defined Research Policy by the institution/organization
- High quality leadership
- An intellectual climate that encourages scholarship
- Research infrastructure
- Facilities in which teaching and research can be performed effectively
- Research funding
- Funding for operations and instruction
- High quality faculty committed to research and teaching
- High quality graduate students who want to learn to perform research or function with advanced expertise

It is desirable, but not essential, to have a high quality undergraduate student body as well. As discussed later in this paper, however, there may be circumstances in which it would be wise to establish a graduate-only institution.

2.1 Faculty

No single aspect of a good research institution is more important than having a high quality faculty devoted to both teaching and research. To achieve that, its faculty search and selection processes must be aimed directly at that goal. Search committees should look and advertise broadly to ensure that almost all qualified candidates around the world are likely to learn of the position, whether it be junior or senior. The position should be defined sufficiently broadly so that there is an appreciable sized pool of very good candidates.

Those institutions with a tradition of hiring faculty only from among their own graduates lose out in two ways:

(a) They fail to obtain the services of better people from other institutions and
(b) They lose an important source of new ideas and techniques brought by outsiders.

The selection processes should identify the very best candidates in a truly just and careful manner. They must be free of nepotism, cronyism and the like. Those appointed or promoted to tenure positions should have proven their research capabilities through publications that have significantly influenced their scholarly fields. Sheer numbers of paper should be insufficient. Instead, the contributions must be real and important.

Similarly, the candidates should have demonstrated high-qualities teaching capabilities. The processes by which junior faculty are promoted to tenure are critical quality control mechanisms for research universities. There is no automatic or quasi-automatic promotion to tenure in first-rate research universities. Generally, well under one-half of the untenured faculty receives tenure. The remainder
leaves the institution, rather than occupying positions that could be held by those with greater capabilities.

The process for assessing the contributions of those being considered for promotion to tenure must also be rigorous and fair. Scholars outside the university should participate in the assessment of the research contributions. The junior faculty should have adequate time, five or six years, to prove their research capabilities.

2.2 Student Quality
High quality faculty tends to attract high-quality students. Research universities/institutions should take advantage of this and be selective in their admissions to ensure that the students, and particularly the doctoral students, are of high quality. This is important because students are major participants in the research at these universities. If the research is to be successful, the students must be intellectually gifted and prepared to devote considerable energy and time to it. In addition, students learn a great deal from each other. That mutual learning process is most effective when all of the students are bright and eager. The presence of very good students also makes it easier to hire high-quality faculty.

In many cases, however, it is only possible to continue to attract high-quality students if there is appropriate employment for them after the completion of their studies. Those developing new research universities should take this into account.

2.3 Intellectual Climate
If research universities are to be truly successful, they must exist in an atmosphere of intellectual freedom. The university must have an intellectual climate that is truly tolerant of diverse views and open to new findings. It must ensure that neither ideology nor dogma hinder intellectual exploration and exposition. The faculty themselves must, for the most part, determine their own scholarly research directions. They must be able to publish the outcomes of their research freely. Only under such conditions will the university be able to attract and retain the very best scholar-teachers and doctoral students. Only under such conditions will the university host the research that will advance the society and economy effectively.

2.4 Facilities for Research and Teaching
It is vital that a research institution have facilities that are consistent with the types of research and teaching to be performed. Effective education of doctoral students requires libraries (increasingly digital these days), seminar rooms, classrooms and teaching laboratories of reasonably high quality. Of even more importance are the laboratories in which research is to be performed.

In almost every university, space is of high importance. There should be a space allocation system that is fair and perceived to be fair. It should be allocated in a manner that allows junior faculty to develop programs that are independent of the senior faculty.

2.5 Operations Funding
Research institution should not obtain its operations funding completely from tuition. Universities established by government usually receive significant allocations for funding operations, instruction and capital improvements. These are supplemented by tuition, gifts and, in some cases, endowment. Private universities do not generally receive the allocations from government bodies. Instead, non-research income is a mix of tuition, gifts and endowment.

2.6 Research Funding
Research is expensive and requires adequate funding. Various funding mechanisms are employed throughout the world:
- funding in a block grant to the university
- funding in block grants to departments or large subgroups
- funding to individuals or small groups
We strongly favor the process in which most research funding is provided by an outside agency, or agencies, in competitive, peer-review processes to individuals or small groups (as opposed to block grants to departments or institutions). The process of selecting those who would receive funding should be based on a fair and unbiased selection process that assesses the merits of the proposal and the proposer. While faculty often dislikes writing proposals, the process serves a very important function for them. It forces them to determine what is the most important and achievable research that they might perform. Such a determination is an extremely valuable, but often overlooked, aspect of high quality research. The peer review process also tends to ensure that the agencies’ money is well spent and that research of high quality and importance is performed.

It should be noted, however, that some universities construct, maintain and improve large facilities for use by many scientists. In this case, block funding is an appropriate and valuable funding mechanism. If young people are to be attracted into the system, junior faculty should be able to compete directly for research funding. One of the great attractions of the United States to young researchers from other countries is that they have the freedom to propose and perform research independently. Too often in other countries, the research programs of the younger faculty are dictated by more senior faculty.

2.7 Infrastructure
Often overlooked is the importance of university/institution infrastructure to support research as it plays a key role in ensuring that right resource is available for the right person at the right time.

2.8 Undergraduate Education
Most research universities also educate undergraduates. Typically, these institutions attract outstanding students who can benefit from the intellectual sophistication of the faculty. The contact of the students with faculty heavily involved in research leads some of those students to pursue research careers themselves.

2.9 Leadership
As implied above, the establishment and maintenance of a first rate Research University/Institution is a major undertaking. It requires visionary leadership that is committed to the educational and research goals. It requires leadership, as well, that is capable of managing a complex organization in which the faculty provides much of the intellectual leadership and in which, consequently, power is spread diffusely through the institution. Despite the goals of some who establish it, a new university is unlikely to yield major scholarly or economic advances in its early years. The leadership must have the political capability to withstand outside impatience and guide the institution’s evolution towards great intellectual strength.

Making knowledgeable people perform is not a matter of making them work harder or more skillfully. Hence, the roles of leadership are:
- To formulate a Research Vision, which is more articulated by nature than it is dreamt of.
- To ensure sustenance in Research Excellence.
- To hone and tone the Research Appetite with the body of knowledge.
- To formulate the Research Policies which are smart, transparent and futuristic.

The roles of the Functional Heads or the Directors:
- To facilitate the knowledge workers by creating a research environment like a sterling operation theatre, which will understand the deepest research desires and aspirations of the incumbents so as to foster and nurture them to have practical and applicable deliverables,
- To imbibe research skills to them so that they come out with their research talents and convert them into feasible and practicable deliverables,
- To trigger the research hunger.
• To prioritize the research areas.
• To formulate the sample research policy.
• Benchmarking research.
• To instill a research culture.

To motivate the research scholars to utilize the research avenues, like: Journals and Periodicals, Technical tools, Calendar of Events, Categorization of Conferences, attending Research workshops etc.

3.0 Exploring the best practices in Management Research
People and organizations all over the world are looking for more effective, less expensive, innovative ways to get work done. Government is certainly no exception. For every innovative idea in your organization, you can be almost certain there are a kindred idea, and some relevant experience, somewhere else. Knowing about, understanding, and learning from these related endeavors can give you a head start on your own initiative.

In simplest terms, research into current practice is an organized attempt to learn from the experience of others. Any problem facing an agency, no matter how complex it may seem, is likely to have occurred elsewhere, be it in the public, private, or nonprofit sector. Identifying and evaluating the solutions developed by these other organizations is a crucial step in project planning. These experiences can shed light on what works-and what doesn't-in the earliest stages of your project development. The process by which you formulate your questions, identify likely sources of expertise, and probe for frank advice is what we call "current practices research."

The next step is to separate mistakes the researcher shouldn't replicate from successes he would like to emulate. In other words, zero in on effective or so-called "best" practices and look deeper into the characteristics that led to success and he should not discard the less-than-successful stories. They often have as much or more to teach as the ones with happy endings.

Conducting current and best practices research is critical to developing a full understanding of a problem and all of its components from multiple and varied perspectives. The time, the researcher spends in reading and talking to people who have solved or tried to solve similar problems is likely to provide useful insights into underlying causes, strategies for change, and problems to expect along the way.

Current and best practices research is usually inexpensive and a good investment of time. Unfortunately too many organizations skip it because they hold one or more false assumptions about their work. Do any of these sound familiar?

• There is no agency anywhere in the world like mine.
• This problem is totally unique and historically unprecedented.
• There is only one way to deal with this problem.
• We know more about this problem than anyone else.

It is very unlikely that any of these statements is true. In fact, it is quite the opposite. Over time, each professional develops his or her own method for conducting current and best practices research. There is no one best way to conduct the research; it is more a question of finding the method that works best for you and your research area. However, conducting current and best practices research generally involves three basic steps: formulation of the question, gathering preliminary information, and conducting in-depth interviews. Here are a few tips from regarding ways to approach these three stages.
Step 1: Formulate the question

Current practices research usually starts with the formulation of a clear question. Here are two suggestions for this first step:

- Take a few minutes to think about the problem or goal. Try to break it into key elements or sub-topics. Write down a series of words or phrases describing the topic and elements using different synonyms. This vocabulary expansion exercise will be particularly useful for doing an Internet search or a literature review.
- Scope out the topics. Think of issues typically associated with the particular topic. Specify things that are NOT part of the research goals. The researcher will then gain a more comprehensive picture of the issue that has some reasonable limits.

The matrix below might be helpful to use in this first stage.

<table>
<thead>
<tr>
<th>FORMULATION OF THE RESEARCH QUESTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Problem or General Topic</td>
</tr>
<tr>
<td>Element 1</td>
</tr>
<tr>
<td>Element 2</td>
</tr>
<tr>
<td>Element 3</td>
</tr>
</tbody>
</table>

Step 2: Gather preliminary information

After reflecting on the question and its scope, the research process can start. This may involve hopping on the Web, heading to the library, or picking up your phone. In this phase, the researcher can use the most cost-effective methods early (like a library search) and the more expensive ones (like interviews) later when he has narrowed the field to a few good prospects.

Here are a few suggestions for this phase:

- The researcher can take a few minutes to think of people he knows who may have information about the questions he is researching. He can think of the conferences he has attended, recent contacts he has made, the people in his personal e-mail address book, etc. he can send e-mail messages or call the people he thinks may know something themselves or may be able to direct him to someone else who does.
- He can check with organizations that conduct best practices themselves to see if they have anything on the issue he is researching. He can look at associations linked to the program area of your issue, i.e. professional associations that focus on government accounting, or social welfare, or environmental protection. He can even think of states, localities, or federal agencies with good reputations in the area of interest and check their Web sites or contact them. They might have implemented innovative solutions that he can learn from.
- He can conduct a broad Internet search and start with some of the major search engines using different keywords and word combinations. This is where that vocabulary expansion comes in handy. Once he has searched a topic, he can narrow his results by searching within the search results or formulating a more advanced query.
- He can search the Internet to identify similar organizations solving similar problems. He can give it a try to take these examples apart to see if the way he is thinking fits with the example, to verify that he is on track. He can then compare the example with the issue he is dealing with. Finally, he can think about the technologies or management methods that might be useful in his project and search for organizations that are known to use them successfully. The key underlying concept here is "leverage."
This kind of investigation is designed to leverage his research effort with known experience from a variety of other places.

The following matrix can be used when the researcher is developing this strategy:

**WHERE TO LOOK FOR LEVERAGE**

The researcher can use the search results to identify knowledgeable people he should talk to. Most sites include contact information. Then contact these professionals by e-mail or phone.

<table>
<thead>
<tr>
<th>WHERE TO LOOK FOR LEVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Same Problem</td>
</tr>
<tr>
<td>Different Problem but Promising Method or Technology</td>
</tr>
<tr>
<td>Same Kind of Organization</td>
</tr>
</tbody>
</table>

The researcher should not forget to search within the discussion groups of main search engines (such as Alta Vista) which provide this option to see if questions around his areas of interest have been debated within these groups.

- He can look for a listserv corresponding to the subject he is researching.
- He can conduct a literature search.
- He can visit the reference desk of his local library and enlist the help of a reference librarian.

There are likely to be a number of online and traditional resources that will lead him to publications of interest. He can have a look at articles and corresponding bibliographies, pertinent to his research.

Sometimes a good article can be a starting point as it may lead the researcher to gather more materials on the topic.

**Step 3: Interview selected people in-depth**

This kind of research is incomplete if it does not involve interviewing knowledgeable people identified during the information gathering stage. Written material tends to highlight the positives and gloss over the negatives of most stories. Consequently, it is very important to talk to people involved in the projects that interest you to get an insider's view. Fortunately, most public managers are very willing to share their knowledge with colleagues. It may be more difficult to identify and contact someone in the private sector, but it is worth a serious effort. The staff person (or team) conducting current and best practices research must not only have good research skills, but also good interviewing skills. Often, people assigned to conduct current and best practices research delay interviews as they often feel they need to know the topic thoroughly before they can talk to someone about it. This is not necessary and it will delay the learning process-it is better to ask recognized experts about what they know than try to become an expert yourself.

A researcher conducting the current and best practices research should:

- Feel comfortable talking to people and asking for help and advice.
- Be able to describe the project accurately, but briefly.
- Be able to identify the right person to talk to. If the person he is talking to does not seem knowledgeable enough, asking to be directed to someone who knows more about the issue will save time and frustration on both sides.
- Ask targeted questions: "What do you know about? Who in your organization knows about? Can you tell me more about how you?"
Know how and when to ask difficult questions (usually about problems and failures).
Have a standard method for documenting the interview results.

4.0 Practical Research Framework for Management Faculty

Central Research Excellence Framework
Through Central Research Excellence Framework (CREF) the idea of a developed and sustained dynamic and internationally competitive research sector can be conceived which will make major contributions to economic prosperity, national wellbeing and the expansion and dissemination of knowledge across the globe.

Characteristics of CREF:
- It will provide authoritative and comprehensible ratings of research excellence in all disciplines.
- It will inform the ‘central funding bodies’ to allocate grant for research.
- To provide useful information and benchmarks about research excellence – both for the public and for institutions.
- To provide accountability for public expenditure on research in higher education.

The CREF will assess research excellence through a process of expert review. It will be based on the institution’s submitting evidence of their research activity and outcomes, to be assessed by expert panels.

Aims of the CREF

The CREF will aim to:
- To drive up quality across the higher education research base and in all forms of research.
- To support and encourage innovative and curiosity-driven research, including new approaches, new fields and interdisciplinary work.
- To reward and encourage the effective sharing, dissemination and application of research findings and the productive interchange of research staff and ideas between institutions, business, public and third sector organizations.
- To reward and encourage institutions that deliver benefits to business, the economy and society by building on excellent research.
- To produce and publish quality assessments that are comprehensible, produced by a transparent process, benchmarked against international standards and which identify the very best higher education research wherever this is carried out.
- To support better management and sustainability of the research base.

5.0 Case Preparation and Case Writing – An Integral Part of Research

Case study research excels at bringing us to an understanding of a complex issue or object and can extend experience or add strength to what is already known through previous research. Case studies emphasize detailed contextual analysis of a limited number of events or conditions and their relationships. Researchers have used the case study research method for many years across a variety of disciplines. Social scientists, in particular, have made wide use of this qualitative research method to examine contemporary real-life situations and provide the basis for the application of ideas and extension of methods. Researcher Robert K. Yin defines the case study research method as an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used (Yin, 1984, p. 23).
Critics of the case study method believe that the study of a small number of cases can offer no grounds for establishing reliability or generality of findings. Others feel that the intense exposure to study of the case biases the findings. Some dismiss case study research as useful only as an exploratory tool. Yet researchers continue to use the case study research method with success in carefully planned and crafted studies of real-life situations, issues, and problems. Reports on case studies from many disciplines are widely available in the literature.

This paper explains how to use the case study method and then applies the method to an example case study project designed to examine how one set of users, non-profit organizations, make use of an electronic community network. The study examines the issue of whether or not the electronic community network is beneficial in some way to non-profit organizations and what those benefits might be.

Many well-known case study researchers such as Robert E. Stake, Helen Simons, and Robert K. Yin have written about case study research and suggested techniques for organizing and conducting the research successfully. This introduction to case study research draws upon their work and proposes six steps that should be used:

- Determine and define the research questions
- Select the cases and determine data gathering and analysis techniques
- Prepare to collect the data
- Collect data in the field
- Evaluate and analyze the data
- Prepare the report

**Step 1. Determine and Define the Research Questions**

The first step in case study research is to establish a firm research focus to which the researcher can refer over the course of study of a complex phenomenon or object. The researcher establishes the focus of the study by forming questions about the situation or problem to be studied and determining a purpose for the study. The research object in a case study is often a program, an entity, a person, or a group of people. Each object is likely to be intricately connected to political, social, historical, and personal issues, providing wide ranging possibilities for questions and adding complexity to the case study. The researcher investigates the object of the case study in depth using a variety of data gathering methods to produce evidence that leads to understanding of the case and answers the research questions.

Case study research generally answers one or more questions which begin with "how" or "why." The questions are targeted to a limited number of events or conditions and their inter-relationships. To assist in targeting and formulating the questions, researchers conduct a literature review. This review establishes what research has been previously conducted and leads to refined, insightful questions about the problem. Careful definition of the questions at the start pinpoints where to look for evidence and helps determine the methods of analysis to be used in the study. The literature review, definition of the purpose of the case study, and early determination of the potential audience for the final report guide how the study will be designed, conducted, and publicly reported.

**Step 2. Select the Cases and Determine Data Gathering and Analysis Techniques**

During the design phase of case study research, the researcher determines what approaches to use in selecting single or multiple real-life cases to examine in depth and which instruments and data gathering approaches to use. When using multiple cases, each case is treated as a single case. Each case’s conclusions can then be used as information contributing to the whole study, but each case remains a single case. Exemplary case studies carefully select cases and carefully examine the choices available from among many research tools available in order to increase the validity of the study. Careful discrimination at the point of selection also helps erect boundaries around the case.

The researcher must determine whether to study cases which are unique in some way or cases which are considered typical and may also select cases to represent a variety of geographic regions, a variety of size parameters, or other parameters. A useful step in the selection process is to repeatedly refer
back to the purpose of the study in order to focus attention on where to look for cases and evidence that will satisfy the purpose of the study and answer the research questions posed. Selecting multiple or single cases is a key element, but a case study can include more than one unit of embedded analysis. For example, a case study may involve study of a single industry and a firm participating in that industry. This type of case study involves two levels of analysis and increases the complexity and amount of data to be gathered and analyzed.

A key strength of the case study method involves using multiple sources and techniques in the data gathering process. The researcher determines in advance what evidence to gather and what analysis techniques to use with the data to answer the research questions. Data gathered is normally largely qualitative, but it may also be quantitative. Tools to collect data can include surveys, interviews, documentation review, observation, and even the collection of physical artifacts.

The researcher must use the designated data gathering tools systematically and properly in collecting the evidence. Throughout the design phase, researchers must ensure that the study is well constructed to ensure construct validity, internal validity, external validity, and reliability. Construct validity requires the researcher to use the correct measures for the concepts being studied. Internal validity (especially important with explanatory or causal studies) demonstrates that certain conditions lead to other conditions and requires the use of multiple pieces of evidence from multiple sources to uncover convergent lines of inquiry. The researcher strives to establish a chain of evidence forward and backward. External validity reflects whether or not findings are generalizable beyond the immediate case or cases; the more variations in places, people, and procedures a case study can withstand and still yield the same findings, the more external validity. Techniques such as cross-case examination and within-case examination along with literature review helps ensure external validity. Reliability refers to the stability, accuracy, and precision of measurement. Exemplary case study design ensures that the procedures used are well documented and can be repeated with the same results over and over again.

**Step 3. Prepare to Collect the Data**

Because case study research generates a large amount of data from multiple sources, systematic organization of the data is important to prevent the researcher from becoming overwhelmed by the amount of data and to prevent the researcher from losing sight of the original research purpose and questions. Advance preparation assists in handling large amounts of data in a documented and systematic fashion. Researchers prepare databases to assist with categorizing, sorting, storing, and retrieving data for analysis.

Exemplary case studies prepare good training programs for investigators, establish clear protocols and procedures in advance of investigator field work, and conduct a pilot study in advance of moving into the field in order to remove obvious barriers and problems. The investigator training program covers the basic concepts of the study, terminology, processes, and methods, and teaches investigators how to properly apply the techniques being used in the study. The program also trains investigators to understand how the gathering of data using multiple techniques strengthens the study by providing opportunities for triangulation during the analysis phase of the study. The program covers protocols for case study research, including time deadlines, formats for narrative reporting and field notes, guidelines for collection of documents, and guidelines for field procedures to be used. Investigators need to be good listeners who can hear exactly the words being used by those interviewed. Qualifications for investigators also include being able to ask good questions and interpret answers. Good investigators review documents looking for facts, but also read between the lines and pursue collaborative evidence elsewhere when that seems appropriate. Investigators need to be flexible in real-life situations and not feel threatened by unexpected change, missed appointments, or lack of office space. Investigators need to understand the purpose of the study and grasp the issues and must be open to contrary findings. Investigators must also be aware that they are going into the world of real human beings who may be threatened or unsure of what the case study will bring.

After investigators are trained, the final advance preparation step is to select a pilot site and conduct a pilot test using each data gathering method so that problematic areas can be uncovered and corrected. Researchers need to anticipate key problems and events, identify key people, prepare letters of
introduction, establish rules for confidentiality, and actively seek opportunities to revisit and revise the research design in order to address and add to the original set of research questions.

4. Collect Data in the Field
The researcher must collect and store multiple sources of evidence comprehensively and systematically, in formats that can be referenced and sorted so that converging lines of inquiry and patterns can be uncovered. Researchers carefully observe the object of the case study and identify causal factors associated with the observed phenomenon. Renegotiation of arrangements with the objects of the study or addition of questions to interviews may be necessary as the study progresses. Case study research is flexible, but when changes are made, they are documented systematically. Exemplary case studies use field notes and databases to categorize and reference data so that it is readily available for subsequent reinterpretation. Field notes record feelings and intuitive hunches, pose questions, and document the work in progress. They record testimonies, stories, and illustrations which can be used in later reports. They may warn of impending bias because of the detailed exposure of the client to special attention, or give an early signal that a pattern is emerging. They assist in determining whether or not the inquiry needs to be reformulated or redefined based on what is being observed. Field notes should be kept separate from the data being collected and stored for analysis. Maintaining the relationship between the issue and the evidence is mandatory. The researcher may enter some data into a database and physically store other data, but the researcher documents, classifies, and cross-references all evidence so that it can be efficiently recalled for sorting and examination over the course of the study.

Step 5. Evaluate and Analyze the Data
The researcher examines raw data using many interpretations in order to find linkages between the research object and the outcomes with reference to the original research questions. Throughout the evaluation and analysis process, the researcher remains open to new opportunities and insights. The case study method, with its use of multiple data collection methods and analysis techniques, provides researchers with opportunities to triangulate data in order to strengthen the research findings and conclusions. The tactics used in analysis force researchers to move beyond initial impressions to improve the likelihood of accurate and reliable findings. Exemplary case studies will deliberately sort the data in many different ways to expose or create new insights and will deliberately look for conflicting data to disconfirm the analysis. Researchers categorize, tabulate, and recombine data to address the initial propositions or purpose of the study, and conduct cross-checks of facts and discrepancies in accounts. Focused, short, repeat interviews may be necessary to gather additional data to verify key observations or check a fact.

Specific techniques include placing information into arrays, creating matrices of categories, creating flow charts or other displays, and tabulating frequency of events. Researchers use the quantitative data that has been collected to corroborate and support the qualitative data which is most useful for understanding the rationale or theory underlying relationships. Another technique is to use multiple investigators to gain the advantage provided when a variety of perspectives and insights examine the data and the patterns. When the multiple observations converge, confidence in the findings increases. Conflicting perceptions, on the other hand, cause the researchers to pry more deeply. Another technique, the cross-case search for patterns, keeps investigators from reaching premature conclusions by requiring that investigators look at the data in many different ways. Cross-case analysis divides the data by type across all cases investigated. One researcher then examines the data of that type thoroughly. When a pattern from one data type is corroborated by the evidence from another, the finding is stronger. When evidence conflicts, deeper probing of the differences is necessary to identify the cause or source of conflict. In all cases, the researcher treats the evidence fairly to produce analytic conclusions answering the original "how" and "why" research questions.
Step 6. Prepare the report

Exemplary case studies report the data in a way that transforms a complex issue into one that can be understood, allowing the reader to question and examine the study and reach an understanding independent of the researcher. The goal of the written report is to portray a complex problem in a way that conveys a vicarious experience to the reader. Case studies present data in very publicly accessible ways and may lead the reader to apply the experience in his or her own real-life situation. Researchers pay particular attention to displaying sufficient evidence to gain the reader’s confidence that all avenues have been explored, clearly communicating the boundaries of the case, and giving special attention to conflicting propositions.

Techniques for composing the report can include handling each case as a separate chapter or treating the case as a chronological recounting. Some researchers report the case study as a story. During the report preparation process, researchers critically examine the document looking for ways the report is incomplete. The researcher uses representative audience groups to review and comment on the draft document. Based on the comments, the researcher rewrites and makes revisions. Some case study researchers suggest that the document review audience include a journalist and some suggest that the documents should be reviewed by the participants in the study.

From the above discussion it can be argued that Case Writing and Case Analysis is definitely a part of research which can be considered as a pillar of research.

6.0 A Quest for Excellence – Formulation of a Research Scorecard

Research is invaluable to a faculty to investigate issues concerned with management and technology as it affects organizational strategy, structure and systems and to provide appropriate solutions to the problems. Good management institutions are taking initiative to promote research amongst the Knowledge Workers, so that they can develop their skills further in imparting quality teaching to the students, in terms of case studies and other exercises and also for their self-development. The Knowledge Workers in such institutions are engaged with research programs offered by renowned universities and academic institutions. The very purpose is to identify the research aptitudes of the individual Knowledge Workers and providing them necessary assistance to develop further, so as to link it with performance based incentive.

The objective of the Research Policy formulated by the Director, research, is to provide opportunity to the Knowledge Workers to carry out research in various disciplines so that they can deliver in teaching and learning to the fullest possible extent and they can utilize it for self-development. So far the research is carried out in the following major areas:

a. Services Marketing
b. Strategic management
c. Financial management
d. TQM
e. Banking and Insurance
f. Micro finance
g. Derivatives
h. Strategic Human Resource Management
i. Rural Marketing and others

Procedure Outline

A faculty member can assigned with the task of a research coordinator, who plays the role of a facilitator in this process.
Pre-requisites

a. Briefing of the basic concepts of research.
b. Arranging sessions on research methodologies and the research tools for the Knowledge Workers by external and internal experts.
c. Fortnightly individual meeting with the Knowledge Workers to identify the development.
d. Encouraging the Knowledge Workers for publication of their research articles in national and international journals.
e. Motivating the Knowledge Workers to make use of the industry academia collaboration.
f. Assignment of research points to the Knowledge Workers for Intellectual Capital Generated.
g. Taking feedbacks from the Knowledge Workers.
i. Communicating the weightage given to journal and conference publications and the information related to refereed journals.

Level of Impact:
Such initiatives ensure a research atmosphere where a faculty member is exposed to research activities gains the familiarity as to how to do research. The Knowledge Workers are encouraged by the coordinator through the Director and Head of the Department to perform the following activities:

a. Presenting papers in National Conference/Seminars.
b. Presenting papers in International Conference/Seminars.
c. Publication in National Journals.
d. Publication in International Journals.
e. Attending workshops on Case Analysis and Case Method of Teaching.

The registration fees for attending these are reimbursed by the Management as a part of motivating them. At the end of the year these information are communicated to the management for consideration of increments or promotions as part of Career Advancement Scheme. The registration fees for attending these are reimbursed by the Management as a part of motivating them. At the end of the year these information are communicated to the management for consideration of increments or promotions as part of Career Advancement Scheme.

Time allocation of faculty between Teaching, Research and consultancy:
The following is the distribution of time of a faculty, utilized in a working month, between teaching and research and consultancy. While this distribution of time is more directional in nature, it would be in the discretion of the Director/Principal of the Institution to judiciously allocate the time to achieve the desired research objectives, without compromising on the academic demands of the students.

Monthly Allocation of Time – Teaching & Research

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Cadre</th>
<th>Arrange Monthly Working Hours</th>
<th>Average Monthly Teaching Plus Preparation</th>
<th>Average Research Hours</th>
<th>Average Consulting Hours</th>
<th>Admin Hours</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Director</td>
<td>154</td>
<td>32</td>
<td>30</td>
<td>20</td>
<td>72</td>
<td>154</td>
</tr>
<tr>
<td>2</td>
<td>Professors</td>
<td>154</td>
<td>48</td>
<td>30</td>
<td>15</td>
<td>61</td>
<td>154</td>
</tr>
<tr>
<td>3</td>
<td>Associate/Assistant Professors</td>
<td>154</td>
<td>96</td>
<td>20</td>
<td>10</td>
<td>28</td>
<td>154</td>
</tr>
<tr>
<td>4</td>
<td>Lecturers</td>
<td>154</td>
<td>128</td>
<td>12</td>
<td>-</td>
<td>14</td>
<td>154</td>
</tr>
</tbody>
</table>
Guidance on the quantum of Research output – cadre wise:

While ensuring that research effort is evenly distributed, this policy bears in mind the focus to be given more particularly with reference to the level of the hierarchy of faculty, relevant experience – both Industrial and Academic, and the length of service of such faculty. Hence the following guidance is drawn out to define the research output of faculty in Management education- cadre wise.

### Research & Publications: Cadre wise Research Focus (Annual)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>National</td>
<td>Inter - National</td>
<td>National</td>
<td>Inter - National</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Director</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Professors</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Associate/Assistant Professors</td>
<td>2</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Lecturers</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### Reimbursement of expenses/sanction of OOD for faculty involved in research:

Management of such management institutions will be pleased to announce a policy for deputing staff to Seminars and Conference. Employees of such institutions will be deputed to Seminars & Conferences to motivate them and to update their knowledge and skills from the corporate world and other centres for higher learning. The concerned recommending authorities may follow the below mentioned guidelines:

<table>
<thead>
<tr>
<th>CASES</th>
<th>DEPUTATION</th>
<th>SUPPORT Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case 1</td>
<td>Deputation to a <strong>Conference / Seminar</strong> where there is no course fee / delegate fee</td>
<td>OOD should be given.</td>
</tr>
<tr>
<td>Case 2</td>
<td>Deputation to attend a <strong>relevant Seminar/Conference</strong></td>
<td>OOD and only the delegate fee can be paid.</td>
</tr>
<tr>
<td>Case 3</td>
<td>Deputation to attend a relevant Seminar / Conference and <strong>present an accepted paper</strong></td>
<td>OOD and delegate fee + 50% of the travel cost is paid.</td>
</tr>
<tr>
<td>Case 4</td>
<td>Invited Speaker / Key Note Speaker to Conference or Seminars</td>
<td>Depending on the benefits offered by the Organizers.</td>
</tr>
</tbody>
</table>

- Up to the rank of **Asst. Professor** - 50% of the 2nd Class AC Train Fare is allowed.
- From **Professor** and above - 50% of Air Fare is allowed.
- For Directors/Principals - Actual Air Fare

*Note: Travel by Air for any category of employee will be at the sole discretion of the Management only*
For deputation to present papers in International Conferences involving travel abroad, the concerned employee is expected to get the sponsorship from the organizers of the conference of AICTE/DST.

All other expenses connected with the conference or seminar has to be borne by the employee.

In all cases, the employee should produce invitation from organizers and the letter of acceptance of paper by the organizers of the conference. Prior recommendation and approval by the concerned HOD/Principal/Head of Institution and Management is mandatory before attending the conference.

The employee shall share with the department colleagues about learning and experiences from the conference through a presentation, and submit the same to Management. The Handouts, CD’s and any course material given in the Conference/Seminars has to be handed over to the department Library.

### Tracking/record keeping of Research progress by Knowledge Workers:
The following system of tracking is introduced, and will be followed by all individual Knowledge Workers:

#### INTELLECTUAL CAPITAL GENERATION – CUMULATIVE RECORD

<table>
<thead>
<tr>
<th>Name of the Faculty:</th>
<th>Designation:</th>
</tr>
</thead>
<tbody>
<tr>
<td>S. No.</td>
<td>Type &amp; Title</td>
</tr>
<tr>
<td>A</td>
<td>Book Summary/Review</td>
</tr>
<tr>
<td>B</td>
<td>Newspaper/Magazine Articles</td>
</tr>
<tr>
<td>C</td>
<td>Conference Presentation/Publication</td>
</tr>
<tr>
<td>D</td>
<td>Journal Articles</td>
</tr>
<tr>
<td>E</td>
<td>PhD Status</td>
</tr>
</tbody>
</table>

#### INTELLECTUAL CAPITAL GENERATION – QUARTERLY RECORD

<table>
<thead>
<tr>
<th>Name of the Faculty:</th>
<th>Designation:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Status*</td>
</tr>
<tr>
<td>A. Book Summary/Review</td>
<td>Quarter 1</td>
</tr>
<tr>
<td>B. Newspaper/Magazine Articles</td>
<td></td>
</tr>
<tr>
<td>C. Conference Presentation/Publication</td>
<td></td>
</tr>
<tr>
<td>D. Journal Articles</td>
<td></td>
</tr>
<tr>
<td>E. PhD Status</td>
<td></td>
</tr>
</tbody>
</table>
Guidelines for Recording Research Work
The following broad guidelines may be borne in mind by a researcher, and shall meticulously follow the directions in recording each research work:

A. Book Summary/ Review
Title of the Book, Name(s) of the Author, Publisher, Date.

B. Newspaper/ Magazine Article
Title of the Article, Name of the Newspaper/ Magazine, Date.

C. Conference Presentation/ Publication
Title of the Paper, Name of the Conference, Venue, Date.

D. Journal Article
Title of the Article, Name of the Journal, Issue, Volume.

E. PhD Status (If registered)
Title, University, Guide, Year.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Type of Contribution</th>
<th>National Individual</th>
<th>International Individual</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Book Summary</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Book Review</td>
<td>2.5</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>Unpublished Non Research Conference Papers</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>Non Research Conference Papers Published in Conference Proceedings</td>
<td>2.5</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>Non Research Conference Papers Published in Edited Book</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>Unpublished Case Presented in Conference Papers</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>Case Published in Conference Proceedings</td>
<td>2.5</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>Case Published in Edited Book</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>9</td>
<td>Unpublished Research Conference Papers</td>
<td>2.5</td>
<td>5</td>
</tr>
<tr>
<td>10</td>
<td>Research Conference Papers Published in Conference Proceedings</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>11</td>
<td>Research Conference Papers Published in Edited Book</td>
<td>3.5</td>
<td>7</td>
</tr>
<tr>
<td>12</td>
<td>Newspaper Article</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>13</td>
<td>Magazine Articles</td>
<td>3.5</td>
<td>7</td>
</tr>
<tr>
<td>14</td>
<td>Edited Books (Including one mandatory contribution)</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>15</td>
<td>Research Report</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>16</td>
<td>Case study Only: 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Research Paper in (Indian Journal)</td>
<td>10</td>
<td>NA</td>
</tr>
<tr>
<td>18</td>
<td>Research Paper in (Approved list of Indian Journal Earning Credit point)</td>
<td>12.5</td>
<td>NA</td>
</tr>
<tr>
<td>19</td>
<td>Research Paper in (Indian Journal listed in Cabell's Directory)</td>
<td>15</td>
<td>NA</td>
</tr>
<tr>
<td>20</td>
<td>Research Paper in (International Journal not listed in Cabell's Directory)</td>
<td>NA</td>
<td>25</td>
</tr>
<tr>
<td>21</td>
<td>Research Paper in (International Journal listed in Cabell's Directory)</td>
<td>NA</td>
<td>30</td>
</tr>
<tr>
<td>22</td>
<td>Original Text Book (PG Level)</td>
<td>20</td>
<td>40</td>
</tr>
<tr>
<td>23</td>
<td>Original Text Book (Graduate Level)</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td>24</td>
<td>Original Reference Book</td>
<td>25</td>
<td>50</td>
</tr>
</tbody>
</table>

[Note: 1. International would mean that Organizers/Publishers are International Professional Books
  • Credit for Joint authorship will be equally divided among co-authors
  • Credit will be reduced by 25% for publishing in self-edited volume
  • 50% for Submission
  • 80% for Acceptance]
100% for Publication/Presentation

2. The above point system will be cumulatively recorded against each faculty and they will be ranked in the top down order, cadre wise, to decide on the system of rewards and recognition, during the Year.]

References:


