

Effective Fund Management of Sponsored Research Projects

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Abstract:

While educating the students, the institutions will follow a scheme and syllabus of a UG or PG degree program developed a committee of experts, called Board of Studies (BoS) and approved by the Senate of the affiliating University. All India Council for Technical Education's (AICTE), is keen in monitoring the methods of conveying the subject knowledge and to evaluate its effectiveness. The Outcome Based Education (OBE) procedures and Bloom's Taxonomy shall give wonderful assessment. The exercise of OBE practices on a student by a staff will be more theoretical, as it is based on the observations and ideas of faculty members[1, 2].

Authors are of the opinion that one of the important methods to evaluate a student's performance would be to assess the final year project with more details. In order to execute a good project, faculty members try to initiate funded projects or consultation from industry. After getting sanctioned, many projects get dropped due to poor fund management. In the current paper, authors propose a solution for this problem.

Key Words: ResearchProject; Fund Management

I. INTRODUCTION

All India Council for Technical Education's (AICTE) concern is to know about the method of conveying the information of the syllabus to the students and to evaluate how effectively the information is received by the students[1]. The Outcome Based Education (OBE) procedures and Bloom's Taxonomy shall give wonderful assessment[2, 3]. Taxonomy verbs, Writing Course Objectives, Course Outcomes and Writing Program Outcomes would create a wonderful plan to execute the teaching process. With the Outcome and Program Outcome mapping, the understanding of a student about any subject could be evaluated. The exercise of OBE practices on a student by a staff will be more theoretical, as it is based on the observations and ideas of faculty members.

The exercise of OBE practices on a student by a staff will be more theoretical, as it is based on the observations and ideas of faculty members. Authors are of the opinion that one of the practical methods to evaluate the student's performance would be to assess the final year project UG and PG students with more details. The concept can be extended to the Ph.D. projects also.

When a project gets sanctioned it is the duty of the management and the investigators to complete the

project successfully. However, many projects get dropped in the beginning itself. One of the major

reasons is poor handling or misuse of funds. The authors suggest a few of their ideas and thoughts related to this problem.

II. FINAL YEAR PROJECTS

Final year projects can be totally experimental or theoretical in nature. Experimental projects involve in design, fabrication and testing on an experimental setup. The theoretical projects may either involve in obtaining data from an industry and making a critical analysis of the data or solve a problem numerically. In both the approaches, student has to exhibit the wide that OBE shall measure the knowledge gained by a batch of students, during the course of studies. the current paper discusses few points about the successful completion of a research project, to gain project based on hand knowledge.

In order to execute a good project, faculty members may try to initiate financial support for research projects from organizations of the GoI. They are AICTE, UGC, DST, TIFAC, IGCAR, BRNS, DBT, CSIR, BIRAC and many others. Few industries also come forward to take support for consultations from the staff of academic institutions.

Authors are of the opinion that the funding agencies to be liberal to the researchers and to bridge the gap between the Industry and Institution. The authors have initiated projects from TNSTSC, MNRE, DST, TIFAC, IGCAR, ISRO and DBT, when they were working together at MepcoSchlenk Engineering College, Sivakasi, Tamil Nadu.

III. PROCEDURE TO HANDLE FUNDS ALLOTTED

In order to obtain a funded project the investigators apply to the agency in a specific format. The application shall have all details like the objects, different instruments and equipment needed for the projects, facilities available, funds needed under different categories (like manpower, instruments, equipment, consumable, travel, miscellaneous etc.), deliverables and the bank accounts details. Usually the bank account details are given as per the instructions of the management of the Institution or College.

The funding agency shall have a team of experts, Performance Appraisal Committee (APC), to monitor the proceeding of the project. Researchers shall make presentations on the progress and the ideal frequency of it would be once in a year. Sanctioned fund will be disbursed annually, as per seen the proposal or sanction conditions. The annual expenditures shall be submitted in the form of an audited report. The procedure is expected to be fool proof method to finish a project successfully.

An example is sited of a successful funded project. Sivakasi is well known for its fireworks production. It is a small town situated in southern part of Tamil Nadu. MepcoSchlenk Engineering College (MSEC) is situated about 11 km away from the Sivakasi town. In the process line of fireworks production, mixing of the chemicals is the first step. During mixing the chemical powders, especially the aluminum powder, float in air and the workers gets a coating of aluminum powder all over the body. This problem was solved by the staff and students of MSEC.

A closed mixing chamber was designed, fabricated and tested. Anti-static materials like wood, rubber, copper, brass and phosphor bronze were used. This project was sponsored by Sri Kaliswari Fireworks, Sivakasi. Later DST came with a supporting hand with Rs.13 lakhs [4]. Later with the help of TIFAC, DST a Center Of Relevance and Excellence (CORE) was established in the field of "Industrial Safety" [5]. To carryout many 'Industrial Safety' projects, TIFAC-CORE was useful. Few other solutions were projects to solve the problems of Drying Platform, Design of Waste Disposal Pits and Filling Chamber [6]. There were many academic and technical advantages by these projects. A PG course was initiated with the specialization of "Industrial

Safety" got initiated. MSEC was declared to be a research center, which can offer research programs leading to the award of Ph. D. degree in the field of "Industrial Safety". At least four Ph.D.s were produced from these funded projects. Many such successful consultation projects [7-9] can also be sited from institutions, where the funds are used properly.

Asok [10] reported on the different funded projects. TNSTSC also sanctioned student project. IGCAR supported a project on Pressure Drop Devices. MNRE supported MSEC to establish an Energy Park. Many solar gadgets were fabricated and displayed in the solar park.

As on date, MSEC has successfully crossed over 113 sponsored research projects [11].

IV POSSIBLE REASONS FOR FAILURES IN FUND HANDLING

In this section, the authors analyze the possible reasons for the failures and suggest a few of their thoughts about successful handling of funds to complete the funded projects.

After getting sanctioned, many of these projects get dropped due various reasons. One of the main reasons is the poor fund management. In the current paper, authors share their opinions to manage the funds. The incidences listed below are actual examples, which took place in different institutions in the past. Names of the institutes or investigators are not mentioned. Few reasons are listed below:

- (1) The fund received from the funding agency is put in to a common account, where the management loses its control over the money flow.
- (2) Once such a situation occurs, to get the project money disbursement by the investigators become rather difficult, in some institutions, the process of disbursement takes several months.
- (3) Once the money gets deposited in the common account of the trust, the management feels that project is a top secret and nobody should get any initiative in the project.
- (4) Managements do not recognize the investigators by providing honorarium. The entire amount of overheads, which is in the order of 10 to 15 per cent, goes to the management. Few institutions plan an incentive of 1 to 2 percent only. This makes the investigators to feel irritated and they leave the institution dropping the project.
- (5) In few other institutions, once the money gets deposited in the main account of the trust, they forget about all the commitments and even after one or two years of requesting the managements, they refuse to disburse any fund toward the project, instead the investigators are asked to write the report and submit the same to the funding agencies.

(6) If the PI leaves the institution, due to some reason or the other, normally the co-investigator becomes the in-charge of the project or the institution is expected to arrange for a suitable person to take over the project. Few institutions keep all project in a classified manner and projects suffers. As the details of the project are not transparent; finding an in-charge or a source becomes difficult.

V CONCLUSIONS

In India, several thousand engineering colleges have been permitted to run engineering degree programs. Almost all of them will be trying for accreditation from MBA. As research has gained more importance in the modified evaluation of NBA, many institutions try for sponsored projects from the funding agencies. This leads to serious problem to the Governmental bodies to monitor the fund movement. The authors suggest the following solution for the problems of wrong usage of funds.

To avoid the delay in transactions, it is proposed to deposit the fund in a new joint account, which can be operated by the investigator and an authorized signatory of the Management possibly the Professor in charge for R&D activities.

Government bodies like Railways, Pollution Board, Transport Corp., Explosive Dept., Labor Ministry and Defense also can open their doors for better interaction with the institutes.

When late President of India, Dr. APJ Kalam was the principle advisor to the Government, TIFAC initiated many Center Of Relevance and Excellence (CORE) programs. The CORE programs were unique by themselves and everyone one of them was designed to bridge the gap between the institute and industry. Nowadays TIFAC has stopped allotment of COREs to the Institutions. TIFAC-COREs can be reinitiated for the betterment of the higher education. TIFAC may reconsider the formation of at least ten per year COREs.

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