BPR in an Institute of Excellence in South India : A Study

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Abstract

Business Process Reengineering is a common topic in the field of Manufacturing and Production Engineering. There are few efforts in the area of Service industry using this framework. The present study is an effort to use the framework for improving efficiency in an Institute of Excellence in South India. The study addresses two of the line functions viz. Course Development and Organization of Events and one staff function, purchase of materials in administration. It is an attempt to put the operations in an educational setup in a business process framework and suggest modification in the lines of Business Process Reengineering or Management. In the present study the findings suggest that by eliminating some of the activities which were of least important with new modifications will reduce the time and cost tremendously. As per the prescription, the time taken for the course development has reduced from 30 days for each course to 11 days for all courses. This is only based on a rough estimation. In reality it may even be lesser if adapt the system in long run. It is important to note that as defined by the Hammer and Champy, a radical redesign can bring a reduction in number of days required and the cost associated with time for a course. The study also addresses the reduction in time for organizing academic events and purchase process.

Introduction

BPR Definition Hammer and Champy " The fundamental rethinking and radical redesign of the Business Process to achieve dramatic improvements in critical contemporary measure of performance such as cost, quality, service and speed.

Fundamental rethinking means finding answer to the following questions.
1. Why we do what we do?
2. Why we do the way we do?

Radical means going to the roots. BPR can lead to an improvement of 100 times.

- BPR helps address
- Increase in process efficiencies
- Improvement in customer service
- Cost reduction
- Data and information sharing
- Use of IT right place at right time

BPR in a manufacturing setup was a well addressed problem. BPR in service industry especially in an educational institute was not been attempted much so far. The present endeavor was an initial step prior to introducing an ERP system for the institute.

Problem definition

Study the business process of an institute of higher learning and find the ways and means to improve processes in terms of cost, time and quality.

Objectives

- To study the current business process in an institute or higher learning and reengineer the processes

Methodology:
- Qualitative and quantitative
- Unstructured interview schedule
- Checklist for qualitative observations
- Information from existing records

It was proposed to study the following functional areas of the organization.
- Operations
- Administration including finance and HR
- Systems
- Promotion or marketing

Organization Profile

An institute of Higher Learning established by State Government for the promotion of Information and Communication Technology in South India. The name of the organization is not disclosed for the purpose of maintaining confidentiality.

Operations

Academics and projects are the main operations of the organization. The projects include, research, development and internship projects undertaken by the external students. The scope of the study does not include the project activities. The academics include course development and organizing academic events such as short courses, seminars and workshops.

Administration

The administration department of the organization is also looking after the HR and Finance functions. The person heads administration also the Finance manager. The administration include, general administration, accounting, stores, and house keeping.

System

System services include, network management, hardware maintenance, software maintenance, and monitoring day to day services.

Promotion

The Promotion of the products such as a full time course and other short courses is the only marketing activity happens in the organization. In some cases strong promotional strategies adopted for recruitment. This was given importance due the high demand in the IT industry.

Products
- A Post graduate course on Information Technology
- Student internship certification for the BTech, MSc, and MCA.
- Short courses, Seminars and Workshops

Findings

For the purpose of Reengineering only Course Development, Administration, and Organizing Academic events were selected.

Academics

As mentioned earlier the academics include course development, and organizing academic events such as short courses, seminars and workshops.

Course Development

Currently the Course development has following steps and duration per course,

1. Finalization of the syllabus based on the existing syllabus with required updations and modifications – **7 Days** per course
2. Preparation of list of books and references- **2 days** per course
3. Spell out the pre-requisites and objectives of the course – **2 days** per course
4. Developing modules for the course – **5 days** per course
   Develop the course module with the following,
   a) Preamble
   b) Instructional objectives
   c) Prerequisites
   d) Modules and contents
   e) Tests
   f) Exercises
   g) Book and online references
5. Scheduling course activities – **2 days** per course
6. Planning the Course Management System – **3 days** per course
7. Deciding system requirement for the courses – **1 day** per course
8. Proposing the evaluation methodology – **1 day** per course
9. Planning feed back mechanism – **2 days** per course
10. Planning and scheduling the guest lectures – **5 days** per course

Total   **30 days** per course

Organizing Academic Events
Likewise, the academic event organization presently has the following steps per event,
1. Finalize Date, Time, Venue, Topic and Faculty member – **10 days**
2. Reserving the venue – **1 day**
3. Finalizing the program schedule – **3 days**
4. Communicating with the faculty members – **3 days** per faculty member
5. Coordinating with the Administration Department of the organization- **2 days**
6. Develop the website for the event – **3 days**
7. Travel and Accommodation arrangement for the speakers – **2 days**
8. Organization of the course material for the participants – **10 days**
9. Preparing the venue – **1 day**
10. Organizing the registration process for the event – **2 days**
11. Designing feedback form for the participants – **1 day**

Total   **38 days** per event

Administration

One of the important activity of the administration department is Purchase of the materials. The currently followed steps in the purchase process the duration per quotation / tender are given below.

1. Initiate the purchase request by the employee and send to administration – **1 day**
2. Verifying the availability of the material in the stock – **2 days**
3. If not available, select one of the following. a. Inviting quotation above Rs.5000, or b. Calling Tender above Rs.20,000. - **5 / 10 days**
4. Negotiation and selection of vendors based on, a. least amount quoted in the quotation, and b. supplying within the requested period. - **1 / 10 days**
5. Sending the purchase order – **2 days**
6. Receiving the material- **2 to 7 days**
7. Inspecting the material – **1 day**
8. Report sent to administration and finance section – **1 day**
9. Bill raised by the supplier to finance section – **1 day**
10. Checking the purchase in terms of the price, supplier, numbers and other specifications mentioned. - **3 days**
11. Making the payment to the bill.- **5 days**

Total   **19 days for Quotations 33 days for Tender**

Suggested modifications to the Business Processes

Course Development

Following modifications are suggested for the course development.
1. Provide prospective syllabus for minor contribution to respective faculty along with reference – **1 day**
2. A course module template should be provided with the Post Graduate Program objectives to develop course objectives. course module should be standardized with number of modules. Each module should be equivalent to one credit. Prerequisites should be applicable only to elective courses. Standard Operating Procedure(SOP) for tests, exercises and assignments should be prepared and provided to Faculty members – **5 days for all courses**
3. The SOP will also include feedback forms and the execution procedures. Creating course management system with basic resources, reference materials and an ideal schedule based on number of credits. The actual dates will be updated by the course in charge. - **1 day for all courses**
4. Creating a panel of all the guest faculty with the name, specialization and the designation for the purpose selecting the required person based on need. The panel should be an active list updated in a frequent intervals. This will be for all the courses. The course faculty will select the appropriate person from the list time to time based on requirement. - initially in 4 **days for all courses.**

Total   **11 days for all courses**

Organizing Academic Events

Following modifications are suggested for the organizing academic events.
1. Preparing calendar of academic events for every year. This ill be include, date, time, name, and faculty. When the calendar made, a draft program schedule also be prepared.

A web page with template with an access to the course coordinators will be provided. This will enable the coordinators to update the page time to time. The link of the page will be used for online promotion – **10 days** for all events in a year.

2. Creating an online form for the participants, resource persons, suppliers such as transportation, accommodation and so on. This will automate the process. Once a participant registers and request for accommodation, an automated message will be sent to th selected service provider with contact details. By this number of activities will be reduced to few for the organizing institution. Development of site with required fields will take **1 week.** This will be used for about 5 to 6 years once developed. Occasional updations may be required.
3. The registration system will also have a feedback form. This will be accessed immediately after the event.

Totally 17 days will be sufficient for all events. This will be valid for at least 5 years with minimum updating of the 1 day per year.

Administration

First the administration has to estimate demand for various requirements for the current year based on last year.
The modifications suggested for the business processes in purchase process include,

1. Prepare a list of suppliers for the goods and services (a) priced Rs.20,000 and less and (b) priced Rs.50,000 and above. Select a supplier with a finalized price list for the year. In case of need call for a fresh quotation in the event of sudden rise in market prices. This can be done only twice in a year. It will take **5 days** for all times.
2. Collect the requirement for the items above Rs.20,000 once a year and call for Tender once in three years. Identify supplier and award for 3 Years. A review of prices possible only once a year for the items above Rs.20,000. - **10 days** for all items.
3. Keep stringent norms such as " in case of failure in complying with the requirements, the supplier will be black listed for 3 years. - **0 days.**
4. Payment of Bill on a monthly basis based on whatever supplied in a month. - **1 day in an average per year.**

Total   **6 days for quotations and 11 days for Tender.**

Conclusion
From the above it is clear that some of the activities which are of least important may be eliminated from the process and may introduce the new modifications will reduce the time tremendously. For an example the time taken for the course development has reduced from 30 days for each course to 11 days for all courses. If a program requires about 15 courses for the completion of the diploma or degree, the number of days reduced is from 450 days(Faculty days) to only 11 days. This is only a rough estimation. It is important to note that as defined by the Hammer and Champy, a radical

redesign can bring a reduction in number of days required and the cost associated with time for a course. In the same way the number of days spent for Organizing an event has reduced from 38 days per event to 17 days for all events. Likewise, the purchase in administration will reduced from 19 days for Quotations 33 days for Tender for every quotation/ tender to 6 days for quotations for a year and 11 days for Tender for 3 years.

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