

# Business process reengineering

Business, Strategic Management



“ Business Process Reengineering is the fundamental rethinking and radical redesign of business processes to bring about dramatic improvements in critical, contemporary measures of performance, such as cost, quality, service and speed.” Hammer, Champy (1993)

As per the basic principle of BPR; a BRP Consultant should have extensive knowledge and experience about the business for which BPR is being performed which is not true in my case as my understandings of an Enrollment and Module Reservation System is not up to that level of expertise and experience. According to what I have understood about BPR my proposed BPR solution for PAYGU case study requires major changes in the current system as follows:

Proposed Solution Using BPR:

In PAYGU the whole paper work and manual work of Student Declaration Forms, Batch Control Documents, Extended Batch Control Documents and SIN cards should be replaced by developing a computer application. The detailed functionality of the application is described below:

A number of kiosks should be installed and configured with our proposed computerized application. Students coming for enrollment of modules should be guided to those kiosks. Students will fill the web based application form accessible through those kiosks and if they require any assistance, couple of Helpdesk personnel will be there to assist them, moreover there will be extensive help available on the application it self by clicking the help link available in front of every field to be filled.

I am proposing two options to redesign the process of checking formal ID of a student

Option 1: (A new way of filling applicant details)

Student will have to fill in his/her national identification number so all the details such as Name, Surname, Address etc will be imported and displayed directly from the National Identification Number Database. The application will query the database that a Student ID has already been assigned to this national identification number; if yes then that ID will be displayed otherwise a new ID will be created and displayed. Each time a new ID is to an applicant the ID counter will be incremented by 1. (Different ranges can be assigned to students interested to register in different courses as well).

At the bottom of the web based application a submit button will be there. Clicking the submit button will initiate a workflow. At the same time it will print the copy of that application for the record of student. It's mentioned at the end of the application that the applicant has to return to check the status of his/her application on the next business day.

Option 2: (Carrying On with traditional method with minor change)

In case if the proposed option 1 is not feasible solution then there is another way to deal with the problem of checking formal ID of applicant.

On the top of the application there will be a radio button to choose from two available options i. e.

1- Existing student in this case student will have to fill in his already assigned student ID. 2- New Student in this case the application will assign a new

student ID and increments its counter by one so all the students will have unique Student IDs.

If the applicant is an existing student and has entered a valid student ID, all the details of that student will be shown from database on the screen. In case if the applicant is a new student then he/she will have to fill in all his/her details such as Name, Surname, and Address etc. At the bottom of the web based application an input box should be created. An RSA or Safeword Computing secure login device should be given to each helpdesk personal which generates six digit random number by taking the time as seed. By entering this generated number the submit button on an application will become enabled and can be clicked as application will have a plug-in of that device to check weather the entered number is correct.

So after entering all the details in the application, an applicant will call any of the helpdesk personals and after checking that applicants student formal identification and the details filled in web based application the helpdesk personnel will enter the generated number and click the submit button. Clicking the submit button will initiate a workflow. At the same time it will print the copy of that application for the record of student. It's mentioned at the end of the application that the applicant has to return to check the status of his/her application on the next business day.

Rest of the procedure is same for both options and this whole procedure should be performed before clicking the submit button.

After the student details are entered (new student) or displayed (existing student), by clicking on available courses, all available courses will be

displayed, by choosing a course all the module that comes under that course will be displayed. Only the modules which that student can't take will be choose able while all others will be displayed as grayed out (This will ensure that students will study modules right order because if the modules required to be completed before taking a module have not been completed than that module will be grayed out and it will be displayed that pre-requisites modules not completed).

Moreover if the student has already passed any of the modules then by checking from the database it will show the name of those modules as grayed out and it will be displayed that these modules can't be chosen because they have been already completed. By choosing a module will display all the pre-requisites for that module and student must check all check boxes beside pre-requisites of that module to choose that module.

This confirms that a student has completed the pre-requisites for a particular module. (This doesn't check the student's claim for pre-requisites that will be checked later). Implementing this simple logic will eliminate the need of a separate process to validate each application for pre-requisites check and that modules are being studied in order.

The applicant is then required to fill other details e. g. if he is willing to pay cash or by credit and details of colleges from which he has completed pre-requisites. (Note that here MER check is not required as a student can't choose any module through application if he hasn't completed other modules that are required for this module).

At the end of the application, clicking the submit button will initiate a workflow. At the same time it will print the copy of that application for the record of student. Its mentioned at the end of the application that the applicant has to return to check the status of his/her application on the next business day.

First step in the workflow will be that all applications on which payment terms are mentioned as credit, by a component of application student names and addresses from those applications will be checked against a database of known list of bad debtors. Rejected applications in this check will not be processed further and a failed entry will be added in field CWC\_CHECK of the record of those applications indicating that they have failed the credit worthiness check otherwise a passed entry will be added.

All applications that have successfully completed CWC check will then be processed for Inter Institute Query Check. This process will be semi automated as alphabetically sorting by college name from where the student has completed a pre-requisite the system will display a list of all pre-requisites claims to be checked. Then a person will call each of those colleges and click a radio button as accepted or rejected for each claimed pre-requisite. If an application fails in IIQ check a failed entry will be added in field IIQ\_CHECK of the record of those applications indicating that they have failed the Inter Institute Check otherwise a passed entry will be added.

If an application clears all the checks then a new record in the Reservation list table is added in database which contains the Student ID and the module that he has applied for. (This can be done by a trigger). The next working day when the student will come to collect the application, the reception desk

ask for his/her id and enter it into the system if the application has passed all the test than the application will print with passed displayed in the status field and other field CWC Check Result and IIQ Check Result, the student will then be told to go to the account section for payment otherwise an application with failed written in the status field is printed and other field CWC Check Result and IIQ Check Result show the cause of failure that in which check the application has been rejected.

One week before the start of a new module a reservation list of all students on that particular module will be printed and will be sent to Place Allocation Section or even their system can be linked up with enrollment and module reservation system so they can print this list at any time if they so desire.

Achievements That will be made by Proposed BPR Solution :

1- Average time to process an application will be reduced more than half. 2- Reduce Labour Cost : Several members of staff including copy clerks, SFAs, Audit Clerk, EBCDIC, Master Check List Controllers, Provisional Queue Reservation, Academic Course Tutors, Application Form Distributors, Student Enrollment Register Clerk and ID Allocators can be fired as a process of retrenchment. 3- The PAYGU can become environment friendly by using fewer papers in their daily operations. 4- At any later stage if PAYGU wants to offer distance learning, with minor changes they can still use the existing application by hosting it over publicly available internet site.