Re-engineering Library & Information Services & Resources in Modern Digital Era

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Re-engineering is very popular modern management techniques. Application of re- engineering is present day need. Hence , present paper high lights how this techniques is applicable to college Library). Authors has emphasized on not only historical background of re- engineering but also background of studied library in brief and implementation of re- engineering in five phase manner i.e. activities to be re- engineered , selection of the re- engineering team , vision for the new improved processes and actions needed to implement the new process.

Keywords: Re-engineering, College Library

1.   Introduction

With the growing emphasis on quality improvements, libraries adopting management techniques to give their best in the form of information products & services. The Management theories & principals which are applicable to an organization can be successfully implemented to library. The 1990's have seen tremendous evolution of recent management techniques such as T Q M, Re-engineering, Six Sigma etc. Re-engineering which has been very popular in the business world in 1990's, is equally beneficial for libraries to redesign their services in order to provide pin pointed exhaustive information up to end users. Re-engineering involves redesigning key processes, while keeping customer at the center of process redesign.

2.   Meaning & History of the Term Re-engineering

The pressures to lower costs, reduce cycle times, raise quality and, in general, make workplace processes more productive & intensive. As a result, re-engineering which "burst upon the management scene in 1990" has been much in vogue. (Davenport). However the term re-engineering was first introduced by Michael Hammer in 1990 at a Harward Business review article, " Re-engineering Work: Don't Automate obliterate.' (Gaur, Ramesh,C.) .However Hammer & Champy (1933) says "Re-engineering is the Fundamental rethinking & radical redesign of business processes to achieve dramatic improvements in critical contemporary measures of performance such as cost, quality, service & speed."

While as per opinion of Davenport (1933) - "Re-engineering is only the part of what is necessary in the radical change of processes, it refers explicitly to the design of new process. The term process innovation encompasses the envisioning of new work strategies, the actual process design activity & the implementation of the change in all its complex technological, human & organizational dimensions.

The above definitions mostly stresses on rethinking & radical redesign of processes & also on destroying the old ways of thinking & operating.

3. Objectives of the Study

The objectives laid down for the present study are as follows:
   a) To identify the pre-requisites for the application of re-engineering management .
   b) To propose a step by step method for re-engineering library & information services for College Library.
   c) To provide a modern re-engineering plan for College Library.

4. Need of Re-engineering for College Library

Following reasons points out the need for Re-engineering in College Library
   a) To cope the challenges posed by information explosion.
   b) To fulfill multidimensional information needs of library users.
   c) To redesign information services of College Library.
   d) To provide pin-pointed exhaustive information to the end-users of the library.

5. Re-engineering Plan for College, Library   .

The Re-engineering plan for College Library has been framed in the following five steps.

STEP – I, Processes/Activities to be Re-engineered
In the first step the Re-engineering team has identified the processes/ activities of the College, Library that have to be re-engineered. These are as follows.
   a) Physical layout/ Facilities of the library.
   b) Library Collection.
   c) Manual Processes of library housekeeping operations.

STEP – II, Selection of Re-engineering Team
For the successful re-engineering of College Library a competent team of experts should be established in order to redesign the library & information services of college Library.

STEP – III, Status of Current Processes in College Library
In most of the college libraries maximum processes & in house library operations such as, acquisition, cataloguing, circulation, serials control & various reports are being done manually. Use of Information Technology for library operations is very less.

STEP – IV, Vision For The New Improved Process:

Following vision may be developed for the new improved process –

Vision: "We are committed to provide an easy and ready access to the library resources for updating the knowledge base of students and staff. Our endeavor is to keep the users of the library abreast of the state-of-the art inputs in respect of Arts, Commerce & Science, so that, they can face confidently challenges thrown open by 21st century. We are streamlining our concerted efforts to build our library as an excellent center for disseminating information."

STEP – V

Actions Needed to Implement or Redesign the New Process

Physical Layout / Facilities of the library

In order to provide better services to users, the physical layout of the library may be made as follows –

a) Separate Stack Room.

b) Computer Laboratory with sufficient no of computers having Broad Band Connectivity.

c) Separate Reading Room for students and teachers with sufficient library furniture.

d) Separate Reference Section.

e) Reprographic section

f) Processing section

g) Independent cabin for Librarian and Asstt. Librarian.

6.   Library Collection

In order to cope the challenges of multidimensional information needs of the library users, the library collection should built in digital format. It may include -

- CDs, DVDs, Microfilms etc.
- Online-Books, On-Line Journals.
- Online Databases.
- E-Reference sources.
- Membership with e-consortia

7.   Manual Processes Of Library House Keeping Operations

In order to improve efficiency of library housekeeping operations library should be automated with standard library software. With the help of Information Technology, the library housekeeping operations will be redesigned in the following manner.

- Automated Acquisition system.
- Automated Cataloguing system.
- Automated Circulation system.
- Automated Serials control system.

➲ Automated Reporting system.

➲ Automated Stock Verification system.

8. Library & Information Services

In order to redesign these information services, of Information Technology may be used in the following way -

➲ CAS & SDI services by e-mail.

➲ Online Information Retrieval system.

➲ Online Resource sharing.

➲ Institutional Repository.

9. Human Resources

The vision for re-engineered HR in the College Library is that, all human resources services should be available instantaneously, on demand with radical redesign of workflow processes. Following steps may be conducted for re-engineering of human resources -

a] To inform the library staff about the re-engineering process, its need & impact.

b] To inform the library staff about their roles & responsibilities in Re-Engineering process.

c] Organization of motivation/study tours for the library staff.

d] Organization of in-service training programmes for library staff in the computer laboratory of college.

10. Reengineering of Information Resources

A) Conventional Documents to Internet as a Source of Information

Availability of latest information with 24x7 access, made internet a popular source of information over conventional documents. The results of the study conducted by Kumar Rajeev & Kaur, Amritpal show the benefits of Internet over conventional documents & also stress out the changing scenario of reading culture in Table No.1.

Table 1 : Benefit of Internet over Conventional Documents

Sr. No.	Influence of Internet	Teachers	%	Students	%	Total	%
1	Easy to Use	309	92.5	431	90.9	740	91.6
2	More Information	304	91.0	415	87.5	719	89.1
3	Time Saving	300	90.0	412	86.9	712	88.1
4	More Useful	286	85.6	381	80.3	667	82.5
5	Less Expensive	263	78.7	351	74.0	614	76.1
6	More Preferred	239	71.5	310	65.4	549	68.4

Source: Webology, Vol.2, No.4, December 2005.

Table 1 shows that more than 80% respondents feel that in comparison to conventional documents, the Internet is easy to use (91.6%), more informative (89.1%) time saving (88.1%) and more useful (82.5%). The 76.1% of the respondents also replied that it is less expensive in comparison to conventional documents.

Books to e-books: Due to increasing costs of publications it is completely impossible for a individual or library to purchase each and every book of his interest. In this situation to effectively meet the individual information needs, the users are searching for e-books & easy availability with latest information attracting more & more users towards the use of e-books.

Online Dictionary of Library & Information Science defines e-books as –"A digital version of a traditional print book designed to be read on a personal computer or on e-book reader." There are two major categories of e-books i.e.

     i)   Off-line (CD-ROM)
     ii)   On-line

There are number of e-books in multidisciplinary subject available free-of-cost on internet.

B)   **Journals to e-journals:** In order to provide latest information to the researchers & scholars, the concept of e-journals had been raised firstly in 1945.With the development of communication technology, the usage & popularity of e-journal has been increased Today e-journal is becoming the main source of scholarly information & its use has been increased.

Easy and free availability on internet, 24x7 access, easy search facility attracting more & more users towards e-journals. There is number of quality e-journals which are available free-of-cost on Internet e.g. DOAJ provide full text access to 4590 scholarly e-journals.

Golnessa, G. M. & Talawar, V. G. (2008) conducted a study at Indian Institute of Science entitled "The use of scholarly Electronic Journals at the Indian Institute of Science: A Case Study in India", with the purpose to investigate the use of scholarly electronic journals at the Indian Institute of Science. The results of the study showed a growing interest in electronic journals among the users at IISc. The electronic journals were mostly used for research needs & PDF format was the most preferred format. The fact is that users have free access to electronic journals at all hours from their own computers seems to be the most appealing feature.

C)   **Conventional Reference Sources to e-Reference Sources:** Now a day's e-reference sources are becoming very popular. Because of their low cost and easy search facility e.g. Encyclopedia Britanica is

now available in CD format with a approximate price of only Rs. 4000/- as well as it is available online through internet. This electronic format of Encyclopedia Britanica enables users to search the required information in very easiest way & also it will not require a large space for storage. Various online & offline dictionaries are also available which provides easy search facility to users & enables them to search the required information within a fraction of seconds.

D)   e-consortia Apporach: Consortia is a generic term to indicate a group of libraries that are working together for a common goal whether to expand co-operation for a traditional library services such as collection development or electronic media. Consortia allows provision for seamless access to electronic information resources while sharing the cost of access. Internet connectivity is an essential component in establishing consortia networks. Open Access Consortia like Open J-Gate provides access to multidisciplinary journals as shown in Table 2 –

Table 2: Subject-Spread of Journal Coverage in Open J-Gate

SR.No.	Subjects	Journals
1	Agricultural & Biological Sciences	618
2	Arts & Humanities	821
3	Basic Sciences	1,151
4	Biomedical Sciences	1,480
5	Engineering & Technology	1,228
6	Library & Information Science	71
7	Social & Management Sciences	1,242
	TOTAL	**6,611**

Source : DESIOC Journal of Library & Information Technology Vol.28(1),2008.

11.   Conclusion

Considering the importance of re-engineering in library and information services, it is necessary to rethink on this serious issue and how it will apply to the library for providing better services to fulfill multidimensional needs of the present patrons.

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