

Return on Investment (ROI) from Libraries

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Abstract

The paper looks at the concept of ROI (Return On Investment) in the context of libraries. In light of the dynamic environment, challenging financial pressures and increasing need for accountability have in all forced libraries to prove their worth in terms of outcomes, impact and returns. The paper draws upon various studies and approaches in dealing with this relevant and important topical theme. The paper focuses on academic libraries and concludes that ROI of each library will be different depending on the settings in which it exists. It is important to study the settings and then clearly envisage the measures of returns for each library.

Keywords: Return on Investment (ROI)

1. Introduction

It needs no space science to comprehend that the libraries and the library profession are facing some of the toughest times. On one hand we have budget constraints, restricted funds, reducing grants, etc and on the other we have increasing cost of books, periodicals, multimedia materials, etc. Add to this we have the ambience of 'Google' and other digital landscapes to work with and against. The moment library does not respond or there exists even a semblance of lax we have users rushing to the web to explore the unknown, un-validated but maybe interesting resources. Sometimes these users do not return. Whatever the reasons and factors for this situation; it calls for serious research. Not to only save libraries but to also understand what the users really want and are they really getting it.

In this back drop we always seem to also have some facts to support the cause for libraries; most of the successful leaders in any walk of life would always have a word of high praise for libraries. It is common to notice that in almost all talks by eminent people, they would refer to books and quote from them. No one would agree that a person who regularly uses the library would fail in the exams or that he/she is not a knowledgeable person. Similarly the teacher who is respected for breadth and depth of knowledge is thought to have used the library the most. A scholar is supposed to be well read and an ardent library user. There would be a number of such assumptions, theories, wisdom, etc that we are used to knowing. Even the critics of libraries will agree that using libraries does help if not immediately, may be in the long run. This is more so true in academic settings where education is the core activity for all stakeholders involved. In fact the survey among students by Cain and Reynolds (2006) found that library was one of the main facilities that were extremely important in choosing the institutions of study. It was also found in this study (Cairns and Reynolds, 2006) that the library was not only important for selecting or rejecting the institution but also scored high on the satisfaction by the students once they joined the institutions and experienced the library services.

All these arguments and issues will make more sense, when we actually measure the value that is delivered by the libraries. The measurement of Return On Investment (ROI) is the evidence that can be demonstrated to prove the value that is delivered by libraries. Measurement of the value in terms of intangible benefits may be difficult if not impossible. It is in the present day context that the libraries have no option but to look at various measurement approaches and methods to prove their value or the benefits of their existence to the users. Measurement of something that is unseen or indirect is one complication, but the time frame to actually witness or experience the benefits derived from using libraries is pretty long. This is precisely why we need to look at the ROI of libraries. In pure economic sense, this is to measure the returns on the investment made in a library.

2. ROI Studies

Assessment exercises in libraries mainly consisted of surveys and they have been conducted in libraries for many years now to collect data on a variety of issues like satisfaction, perception, quality, relevance, etc of various services offered by libraries. The surveys have been targeted to users, staff, management, etc and we have also adopted interviews collecting data. These methods though dated offer useful insights for internal management and policy making in libraries. In fact these methods of collecting data for studies relating to libraries have found good use in the two OCLC reports Environment Scan (2003) and Perceptions of Libraries and Resources (2005). In fact OCLC is coming out with the updated version of Perceptions of Libraries and Resources 2010 also.

Another interesting development in study of public libraries in the US has been that since 1989, the National Center for Education Statistics (NCES) has provided the data like staffing, collection size, operating expenditures, programs presented, circulation, etc for public libraries.

The NCES Public Library Peer Comparison Tool (<http://nces.ed.gov/surveys/libraries/compare/index.asp?LibraryType=Public>) is used to assess services that are provided in terms of satisfaction, usage and efficiency.

ROI studies have been undertaken for all kinds of libraries that include public libraries, school libraries and special libraries in addition to studies in academic libraries. Some of the studies that have been popularly quoted, especially in the public library sector are, 'Worth their weight in gold' (Imholz and Arns, 2007) published by the Americans for Libraries Council; 'Making cities stronger' by Urban Cities Council and studies in Ohio and Florida. These studies look at the ROI of public libraries with favorable results. All these studies do mention the variety of methods used in ROI studies and having looked at various ROI methods observe that:

...public library valuation researchers have sought and adopted valuation methods from the field of economics...The studies reviewed clearly demonstrate the field's growing sophistication, showing advancement from simple questionnaires to complex surveys ... (Imholz and Arns, 2007, p.5)

'Making cities stronger' was also a important report that was conducted by the Urban Institute and the Urban Libraries Council, and it states that the public libraries as essential for cities and they provide economic value to the community through literacy programs, preparation of technology workers, resources for small businesses, etc.

White (2007, p.6) defines ROI as "One of the assessment tools available to libraries to determine the effectiveness of financial resource usage is return on investment. Return On Investment (ROI) is simply defined as a ratio of resources (usually financial) gained or lost in a process/investment/result to the total amount of resources provided. A positive ROI indicates that more benefit than cost has been generated by the process/investment/result; a negative ROI indicates less benefit was generated than the resource provided."

Imholz and Arns (2007) in their summary of the review of the existing methods clearly mention three methods. The cost benefit analysis, contingent valuation and secondary economic impact analysis. In simple terms in cost benefit analysis, the cost of running a service is compared to the benefit provided by the service. Most of the studies using this mainly looked at the direct benefits while listing the indirect benefits.

In contingent valuation, a value is assigned to a service through survey of perceptions of users and then analysed. The users, in this method will be asked as to how much they are willing to pay for such a service and based on this a value is assigned for a service.

In the secondary economic impact analysis, the secondary economic impact like the library staff living and spending locally; other businesses surviving or benefited by libraries like book vendors, binding, printing, computers, etc. are all considered. Though not direct these factors are considered as being the secondary economic impact of libraries.

The study by Imholz and Arns (2007) also propose a new method called as Social Return on Investment (SROI). They say; "One of the most promising appears to be social return on investment (SROI)—a measurement approach developed by expanding traditional cost/benefit analysis to include the economic value of cultural, social, and environmental impacts." The main argument in favor of this method was the fact that the social impact of libraries, especially public libraries was not to be ignored. An extension of this is the balanced score card and the triple bottom line concepts while calculating the return on investment. While balance scorecard looks at the SROI issues in including social costs and returns, in triple bottom line, the idea is to include ecological (environment) and social factors in addition to the finances while calculating the bottom line of an organization.

3. ROI in Academic Library Settings

The studies on ROI clearly indicate interest and concern that is worldwide, it is also clear that various ROI methods and techniques are evolving. It may be easy to look at the social performance of a public library but it may be difficult to say in case of academic libraries. It is to be stated that even in the public library segment the methods are evolving but there are substantial and serious attempts to assess social performance of governments and this would help in assessing public

libraries too. In case of academic libraries it is worthwhile looking at some interesting studies in this direction.

Studies on ROI have predominantly been supported by library associations and one of the main studies on academic libraries, in this direction, has been by Oakleaf (2010) on behalf of Association of College & Research Libraries (ACRL). One of the core objectives of this report was to focus on library value that is demonstrated mainly to external audiences and does not emphasise on measures of perception of quality and satisfaction with library services. This report with a mandate to address the concerns of institutional leaders, lays out ten parameters to measure the library value.

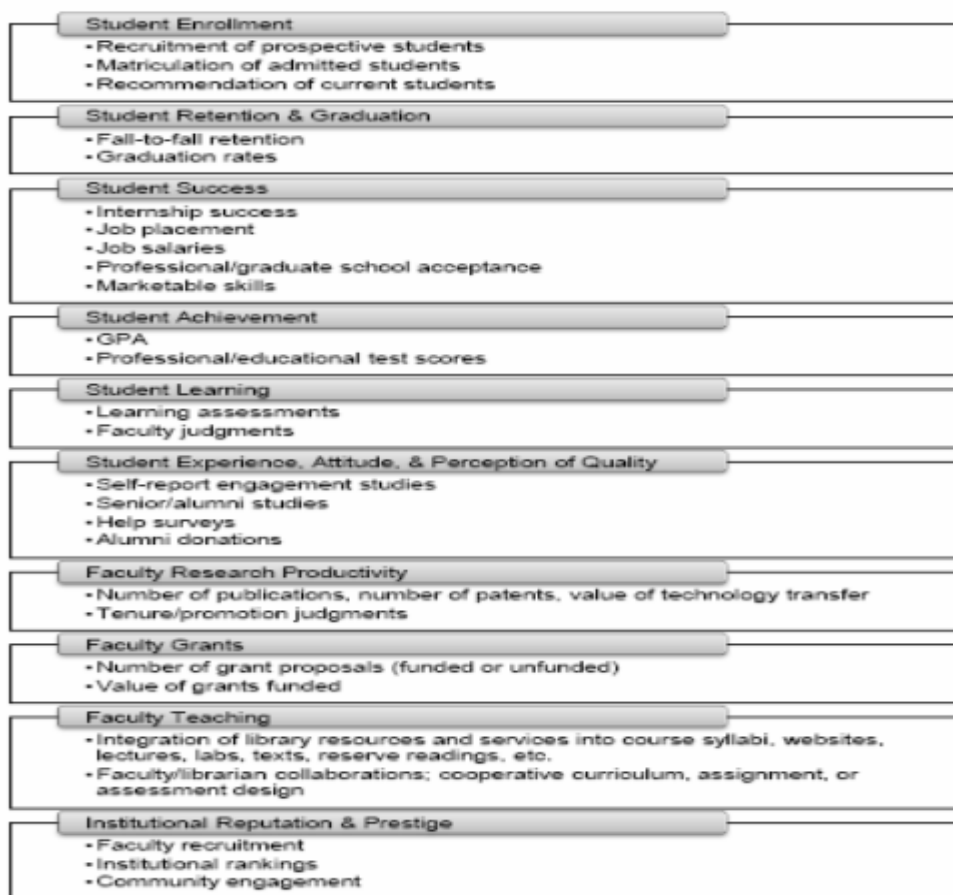


Figure 1: Areas of Library Value and Potential Surrogates (Oakleaf, 2010)

The figure 1 in the Oakleaf report (2010) clearly lays out the following 10 specific areas of library value:

1. student enrollment: strongest profile of students joining the institution or in other words, the best of the students make a choice to join the institute.

2. student retention and graduation: students staying back and graduating from the batch of students who initially joined the institution.
3. student success: success of students in terms of ability to do well in internships, placements secured or entry to reputed institutions for further education.
4. student achievement: success in terms of academic performance and grades.
5. student learning: direct and connected role of library in the student learning.
6. student experience: role of the library in the students experiences in future.
7. faculty research productivity: the quality and quantity of research publications of faculty and the contribution of the library.
8. faculty grants: role of library in the success of grants being awarded to faculty.
9. faculty teaching: role of library in the teaching success or effectiveness of faculty.
10. institutional reputation: role of the library in the overall institutional reputation.

The report also suggests various initiatives to document the role of library in delivering value in these ten areas and recommends a host of activities around these ten areas. It is interesting to note that those of the ten areas, six are related to students. This aspect is quite comprehensive right from the time before a student takes the decision to join an institution to the time of experiencing the library. For the faculty, the report looks at the research productivity, grants that they can get and their teaching with the help of the library. The last important area is institutional reputation and the role a library plays in this.

It may be interesting to note that the concept of ingredient branding could be explored for application here. Ingredient branding is something like 'Intel inside' type of situation wherein irrespective of the manufacturer, the component or ingredient 'Intel' make a separate name or brand for itself. In case of libraries we could look at institutions where in the libraries become independent brands on their own and enhance the parent brand.

Grzeschik (2010) uses the model developed by Luther (2008) at the University of Illinois at Urbana Champaign and applied it to the Berlin School of Library and Information Science and the University Library of the Humboldt University, Berlin. Luther's (2008) study of ROI can be considered the first study in an academic setting. This was based on the work of Strouse (2003) who developed a ROI model for a corporate library. Strouse's model was based on the concept of the outcome or contribution of corporate and government libraries to their institutions in terms of the time and cost saved by users and also the income generated by using the library resources.

Grzeschik (2010) developed a similar model wherein the citations used in proposing grants by the faculty were taken as contribution by the library and this was compared to how many grants that were awarded had how many citations from the library and the average grant amount awarded. Basically it looked at the success rate of grants awarded to faculty and what was the contribution of the library in the process.

Corporate library model	Adapted model for academic library
XX% of respondents report generating revenue with library's support	XX% faculty with grants using citations
-	-
XX% of instances when library was used, revenue was generated	XX% grant proposal success rate using library resources
-	-
\$XX median revenue generated	\$XX average grant income
-	-
\$XX average revenue generated per library use	\$XX average grant income generated using library resources
[no extension]	X Number of grants expended \div \$ library (materials) budget $=$ \$ grant income for each \$1 invested in library resources (ROI value)

Figure 2: Corporate library model vs academic library model (Luther , 2008)

UIUC model – 2006 data		
No. of tenure system faculty	2,045	
No. of principal investigators	1,700	*Survey Q11: 94% of faculty use citations in grant proposals
A = % of faculty using citations in grant proposals*	78.14%	(1700x94%)/2045
No. of grant proposals	2,897	**Survey Q12: 94% of proposals include citations that are obtained via campus network
No. of grant awards	1,456	**Survey Q10: 95% of faculty state citations important or essential in grant awards
B = % proposals incorporating citations obtained through library**	50.79%	(1456x95%)/(2897x94%)
Average size of grant	\$63,923	
C = Proportion of grant secured using library materials	\$25,369	(78.14%x50.79%x\$63,923)
No. of grants (expended) in year	6,232	
D = Proportion of grant income using library materials	\$158,099,608	(\$25,369x6232)
Total library budget	\$36,102,613	
E = University return in grant money on library	\$4.38	(\$158,099,608/\$36,102,613)

Figure 3: ROI findings in the UIUC study

4. The Proposal

While it is quite pertinent to look at these studies, it may be worth noting that in the Indian context it may be difficult for various reasons to adopt these models. The context and environment in which libraries operate in India is quite different from the libraries wherein these studies have been conducted.

The ROI studies in academic libraries have resorted to either the financial value or the impact value. Financial value has been derived by simply dividing the value of benefits by the cost value. This can also be termed as cost benefit analysis. In the second approach, the impact of library on the users is measured in terms of outcomes. A combination of the calculating the financial values of cost and benefits along with indentifying the impact of the library through survey of perceptions may be useful.

The value of a library, adopting a simple approach, would mean the benefits received against the cost incurred. The cost incurred is a very tangible factor that can be easily calculated. The cost factor in a library would include:

1. Resource identification cost: identifying relevant resources
2. Resource procurement cost: purchase and acquisition
3. Resource maintenance cost: preservation and access
4. Resource management cost: creating systems to manage the resources
5. People cost

Here the resources may include books, journals, contents in various media formats, resources required to manage these content formats like computers, software, book racks, etc. All resources that a library has or needs are taken into consideration for calculating the cost.

The benefits received from a library would be at two levels, institutional and individual. They are further elicited as follows:

1. Institutional level

- a. Students choice, retention, etc including parents perception
- b. Research and publication outcomes
- c. Faculty choice, retention, etc
- d. Brand building – rankings, international partnerships, placements, linkages to industry and local users (academia, government, industry, etc)

2. Individual level

- a. Students
 - i. admission decision

- ii. satisfaction
- iii. next step realization (jobs, higher education, entrepreneurship, etc)
- b. Faculty
 - i. Decision to associate
 - ii. Satisfaction
 - iii. Research and publications
 - iv. Collaboration and promotion
- c. Staff
 - i. Attracting and retaining specialized staff
 - 1. computer professionals
 - 2. Physical education staff
 - 3. Library staff
 - 4. Other technical staff

It can also be seen that the value of costs and benefits could be measured and expressed in terms of:

1. Money
2. Time (manhours) saved
3. Quality improved

This approach may help in deriving better and more realistic calculations when we look at the value of a library in terms of costs and benefits. As stated earlier it is necessary to understand that measuring the costs may be easy and tangible but measuring the output of a library in pure monetary terms is very difficult if not impossible. The true of value that could be assigned to the output of a library has to consider many factors (indicative) similar to:

1. Contribution of a library in the success of a student when reviewed on a long term basis.
2. Contribution of a library in the improvement in faculty performance in teaching, research, training and consulting.
3. The contribution of a library in facilitating development of external members who may have used the library.
4. Contribution of a library in development of a new thought or innovation in theory that generated from the institution within which it operates.
5. Contribution to the entrepreneurship development driven from the institution within which it operates.

5. Conclusion

ROI studies are important and are increasingly becoming inevitable for library professionals to understand and adopt. It may be worth developing models that are relevant to Indian situation wherein the purposes of academic institutions are quite different from those in countries where in the studies have been conducted. For instance, in India, if we take the case of students in their 12th grade they mostly look for IITs and after IITs will look for IIMs and after IIMs will look for highly paid jobs. This is the case for a majority of the student population. In such a situation, measuring the desire of a student in selecting institutions based on library profile becomes irrelevant. Due to the lack of access to quality higher education opportunities in India, we may have to short circuit the need for looking at preferences of students at the level of graduation. It may be worth in looking at the student experiences in such cases.

Hence we may have to look at evaluating libraries based on student experiences, if we look at graduate or post graduate levels. In case of research or doctoral programs it may become very important to look at the choice of student in selecting institutions based on strong libraries as the research he/she is planning will depend on a good library. Hence, it may be relevant to develop ROI models based on institutional goals, student education levels, research outcomes of academic institutions, extent of support to outside research community that the library serves, etc.

There is no doubt that there is a dire need to develop India specific models of measuring ROI and it is a matter of time as hopping to have one that will evolve from India. This is necessary to reflect the true value and character of a library operating in India.

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H Anil Kumar

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