Libraries Do Make a Difference: Common Principles in Showing the Impact of Different Types of Libraries

Antti-Pekka Seppänen[1] and Markku Laitinen[2]

[1] Centre for Economic Development, Transport and the Environment.
Email: antti-pekka.seppanen@ely-keskus.fi,
[2] National Library, Finland. E-mail: markku.laitinen@helsinki.fi

Abstract: In this paper, we describe a method for a common presentation of the statistics of different types of libraries in an easy-to-understand and illustrative way to be used as a tool for obtaining information as a basis for showing the impact and value of libraries. We compared the statistics of public and scientific libraries and defined the common data sets for them. These data sets that represent the essential key figures of the libraries give a uniform picture of different types of libraries (scientific or public). We combined the statistical data with data obtained from customer surveys from both library sectors and we built a web site for presenting this data. Our experience is that it will be necessary to improve data collection further opening the interfaces between the two different statistic databases (public and scientific libraries) so that the library managers, other decision makers and stakeholders can define even more versatile searches to combine the information.

1. Introduction

The libraries must be able to offer fresh and reliable information in a useful form for the needs of the studies, teaching and research, and education of the citizens. They have to show the advantage and the value of their operation also when the economy resources are weakening and therefore they must be able to systematically show the quality and impact of their operations.

To promote this goal, The National Group for Assessing the Impact of Library Activities was established in Finland in 2005. The operation of the group is coordinated by the National Library. There are representatives from all the library sectors (public and scientific libraries) in the group. One of the goals of the group is to draw up a common set of indicators that could be used in all the library sectors (Laitinen & Saarti 2011). This set of indicators should be suitable for use by the libraries, by their parent organizations and by the financiers and other stakeholders.

_____

To support the task of the group, we established a web page collecting together the focal indicators of library activities. This idea also promotes the quality recommendations set for the public libraries by the Ministry of Education and Culture (Viiri et al. 2010). In this paper, we describe how to combine data from many sources to show the impact of libraries in society. We used four different sources: Finnish Public Libraries Statistics (FPLS), Research Library Statistics Database (RLSD), National Customer Survey for Libraries (NCSL) made in 2010 and Statistics Finland.

In our project, we see the following chain of cause and effect (Fig 1). Libraries get input (funding, human resources, space etc.) and produces outcomes (loans, visits, information literacy teaching etc.). Value of outcomes depends on their quality and efficiency of functions. Impact is what comes from outcomes (the quality of life, better literacy, better science etc.). The high quality of outcomes makes it possible to achieve desired impact in society. Therefore libraries need multifaceted tools for measuring quality (Saarti et al. 2010).
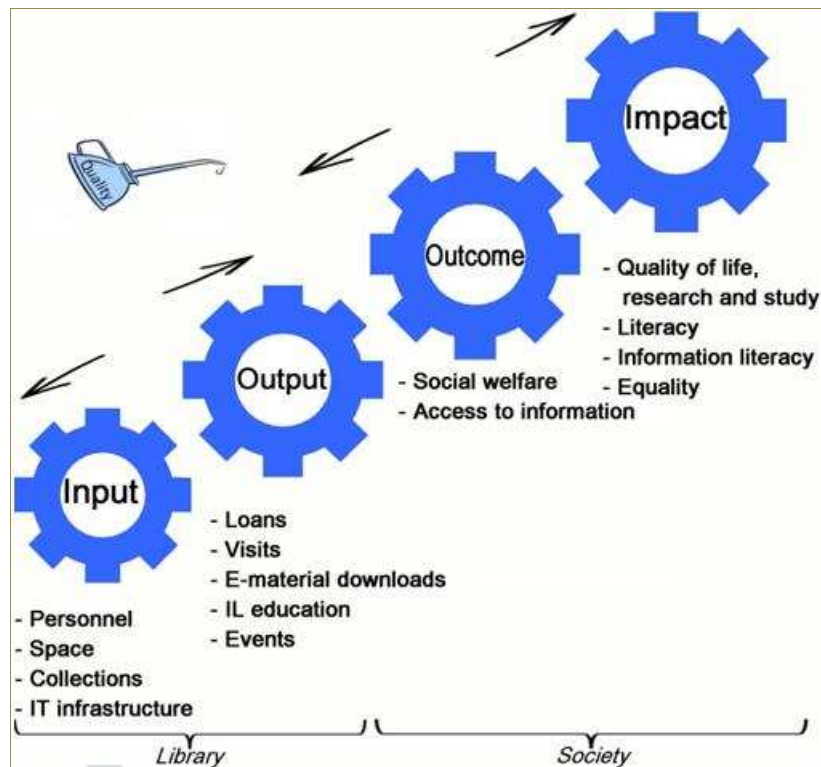

Figure 1. Connections between input, output, outcome and impact. Input and output are processes inside the library, outcome and impact can be seen in the society as a result of them. Turning of any of the cogs affects all the others. E.g., change in input causes change in output, outcome and impact. To get the desired

impact, one must define the number and quality of the needed outputs and outcome. Inputs must be adapted to produce the needed output and outcome. Quality is the "oil" that makes the cogs turn more effectively. (Modified from Viiri et al. 2010, p. 17. - referred in English by Seppänen & Laitinen 2011.)

In our case, we want to gather information about the input, output, outcome and impact of libraries. Our purpose is to show what kind of benefits the libraries of different kind together give to the society as a whole.

2. Different sources to combine

In Finland, there are two different databases for library statistics: one for research libraries and another for public libraries. Coordination of databases has also been divided in two different units, one at the National Library of Finland and another in the Ministry of Culture and Education. This has made it difficult to make a unified picture of impact of libraries in Finland.

RLSD database has information about 103 scientific libraries: from universities, universities of applied sciences and few special libraries of the public sector. It is owned and developed by the National Library. The database monitors input and outcome of the libraries and its structure follows closely to the ISO 2789 standard.

The FPLS database has information about 326 public libraries. It is owned by the Ministry of Education and Culture and developed by the Centre for Economic Development, Transport and the Environment and the Helsinki City Library – Central Library of Finland. It has more pragmatic view of statistics and it follows only partly the ISO 2789 standard. Both of the statistical databases have quite a long history. They have been developed independently.

It must also be noted that purposes of the libraries are different. Scientific libraries are supporting education and scientific study. The objective of the library and information services provided by public libraries is to promote equal opportunities among citizens for personal cultivation, for literary and cultural pursuits, for continuous development of knowledge, personal skills and civic skills, for internationalisation, and for lifelong learning. It must also be noted that the use of all publicly funded libraries in Finland, whether they are scientific or public, is free of charge for everyone. Differences on functions and environmental connections make the statistics different, too. This causes problems when combining statistical data.

National Customer Survey has been made twice so far in 2008 and 2010. It has the same questions for all library sectors and also some sector specific questions.

Our first task was to compare these two different databases and find common interfaces between them. This proved out to be quite hard because databases are so different. The same data is collected in different ways. Some data is only collected into one database. Once we had collected common datasets, we had to choose which ones to use to show input, outcomes and impact.

3. Impact of libraries in Finland –web page

Our web page consists of four parts: the front page, inputs, outcomes and impact. At the front page, we gathered most important figures about each of our points of view.

To illustrate the impact of library, we show for example that the use of the library services improves the quality of life, work and studies.

The data was gathered from NCSL 2010. The customers were presented statements on library services to evaluate the importance of the different library services at their own library, and how well the library has succeeded in offering the services.

To reach information about the impact of library, the customers were asked to estimate how the library services have benefited their work, studies or other activities on the following scale: 1=not at all - 2=a little - 3=substantially - don't know. The results show that in the mean, the library has substantially improved the quality of work, studying or other activities of the customers (Fig. 2).

Figure 2. The customers estimate that the library has substantially improved the quality of their life. The scale: 1=not at all - 2=a little - 3=substantially.

To illustrate the outcomes of library, we show for example how the use of library has changed from physical visits to virtual ones. The number of downloads from the electronic collections of the libraries has been risen rapidly in the libraries of higher education (university libraries and the libraries of universities of applied sciences), and the number of virtual visits in the public libraries, too, is clearly increasing. A decreasing trend in physical library visits can be seen in all library sectors. The change has been about 30% at the libraries of the institutions of higher education and about 20 % public libraries from year 2002. The data was gathered from RLSD and FPLS (Fig. 3-5).

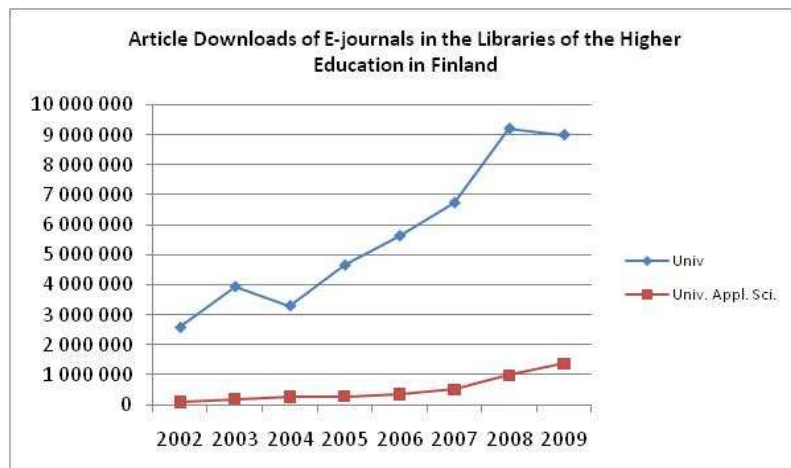**Figure 3.** There is a decreasing trend of physical visits in Finnish libraries.

Figure 4. The strong growth of the use of the electronic journals is evident especially in the university libraries of Finland.
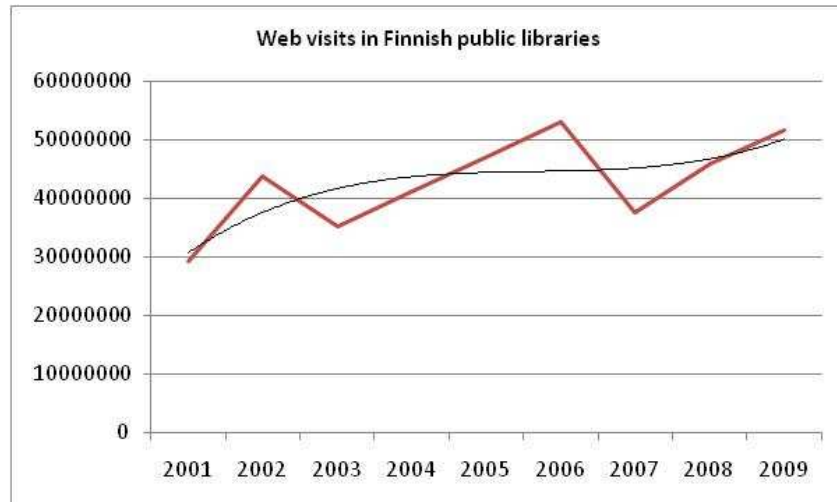
Figure 5. There is an increasing trend of web visits in the Finnish public libraries.

To illustrate the quality of the library services, we show for example how satisfied the customers are with library services. The customers were asked to evaluate how well the library has succeeded as a whole in providing services on a scale from 1 to 5 where 1=very poorly, 2=poorly, 3=moderately, 4=well, 5=very well, don't know / not relevant (Fig. 6).

To compare the perceived satisfaction of the customers with library services with how important they considered that the library services are well functioning, they were, too, asked to evaluate the importance of library's success to produce services on a scale from 1 to 5. In this scale, 1=not at all important, 2=not very important, 3=neither important nor unimportant, 4=quite important, 5=very important, don't know / not relevant. The data was gathered from NCSL 2010 (Fig. 6).

The results show that the customers were satisfied with the services of the library on average, and that they considered that it is very important that the library is able to respond to their needs (Fig. 6).

To illustrate the input of the library service, we show for example how the income of libraries is connected with Gross Domestic Product (GDP). The data was gathered from RLSD and FPLS and Statistics Finland. We measured the change of the Library total costs per target population and the GDP of Finland per inhabitant as a time series from the year 2002 to 2009. (Fig 7.)
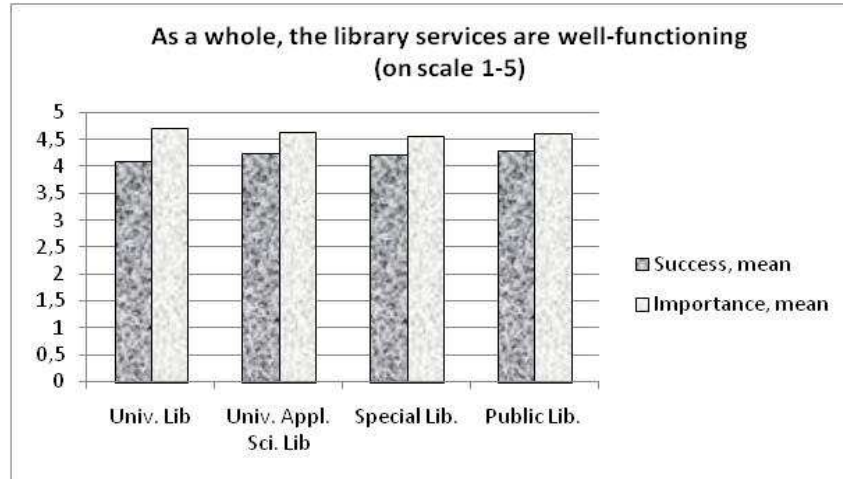
Figure 6. On average, the users are satisfied with the services of the libraries in Finland. The scale from 1 to 5 where in success: 1=very poorly, 2=poorly, 3=moderately, 4=well, 5=very well, and in importance: 1=not at all important, 2=not very important, 3=neither important nor unimportant, 4=quite important, 5=very important.

Setting the index value of the start year 2002 as 100 (2002=100), we formed a time series that shows the growth of expenses per inhabitant in public libraries about 25% and about 30 % growth of expenses per target population in the libraries of higher education. (Fig 7.)
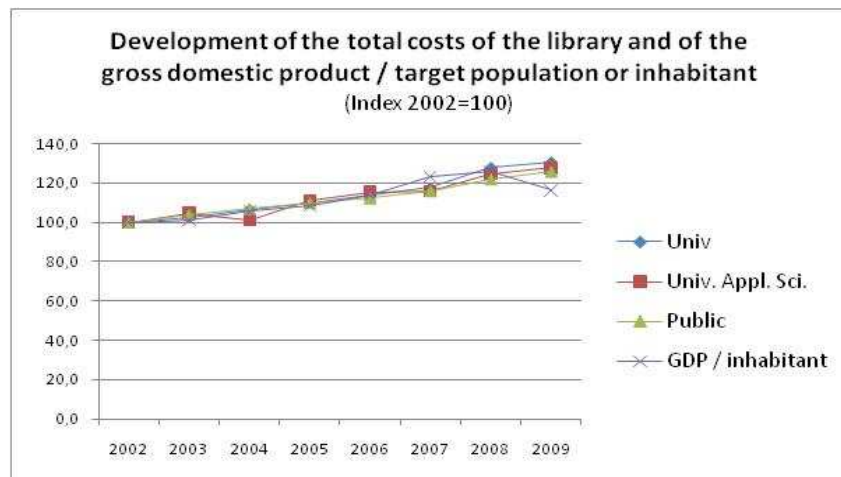

Figure 7. The development of the total costs / target population in libraries compared with the gross domestic product (GDP) / inhabitant. The GDP and the total costs of the libraries are closely connected.

At the same time, the GDP increased by almost 20 %, though in the year 2008, the GDP was +25 % compared with the start level in 2002, but in the year 2009 GDP fell strongly. This falling of GDP did not reflect in the expenses of libraries in 2009. In this context, we did not analyse causality between the expenses of library and GDP, but there are references from the fact that the change in GDP is reflected as an input to the library (Kiviniemi et al. 2009). Keeping this in mind, it will be interesting to see the future development of GDP and its reflection to the expenses of libraries in Finland. (Fig 7.)

Contents at our web page is growing as we collect and combine data from different sources.

4. Conclusions

In the future, we are planning to make it easier to combine data. Both databases should be opened for users as xml format. Then it will be easier to combine statistical data with the different services such as library database and location data of libraries from different sectors (public and scientific). Also, the National Customer Survey for Libraries should be made open in the same way.

We plan to use ISIL (International Standard Identifier for Libraries and Related Organizations) as identifiers in all these databases. If all the sources are open and the identifiers are in use, we can build for example different kinds of visualizations about statistical data on a map. It would also make it possible for citizens to make their own queries and combinations of this data.

These challenges will be taken account in the future development of the databases.

References

Kiviniemi, V., Laitinen, M. & Saarti, J. (2009): Are Libraries' Worth Investing in?: Finnish University Libraries and their Effect on the National Economy. Liber Quarterly. (19:1). http://liber.library.uu.nl/

Laitinen, M. & Saarti, J. (2011): A model for a library-management toolbox: data warehousing as a tool for filtering and analyzing statistical information from multiple sources. Qualitative and Quantitative Methods in Libraries QQML 2011, International Conference, Athens, Greece: 24-27 of May 2011.

Saarti, J., Juntunen, A. & Taskinen, A. (2010). Multi-faceted measuring of the quality as a tool for quality improvement in the Kuopio University Library, Finland. *Performance measurement and metrics* 11(1):39 – 46.

Viiri, M. et al. (2010): Quality Recommendations for Public Libraries. Publications of the Ministry Education and Culture 2010:20. The Ministry Education and Culture of Finland. Helsinki. (At the moment available only in Finnish at http://www.minedu.fi/OPM/Julkaisut/2010/Yleisten_kirjastojen_laatusuositus.html?lang=fi, Last visited 31 March 2011.)