Indicators for benchmarking in Norwegian academic libraries: Testing the usability of national collection data

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Abstract: In a world of rapid changes, there is a need for leadership and strategic planning based on statistical evidence - evidence based leadership. In Norway, the National Library has led the way in developing indicators for the public and the academic libraries, and these indicators may be used either longitudinally or for benchmarking within or between libraries. In this paper, the authors will give examples of the use of indicators for the usage of the university library holdings, through the traditional measurements of loans, as well as statistics on down loads of electronic books.

1. Background: On the use of indicators, and why we have chosen the ones we have.

Efficiency, quality, and value for money are some of the key aspects of that are necessary for any kind of businesses – also academic libraries. In order to estimate how the library is doing, the knowledge of results on key performance indicators will be useful. But since libraries do not exist in a vacuum without connection to others in time or space, statistics and indicators are better employed in longitudinal series or as background for benchmarking. Statistical data and indicators will give most meaning when used for comparisons, either with one self, over time, or with relevant others, or both.

The International Federation of Library Association (IFLA), the global library organisation, has a special section on statistics and evaluation. In collaboration with international agencies such as UNESCO and ISO, IFLA "aims to promote the compilation and use of statistics both in the successful management and

operation of libraries and in the demonstration of the value of libraries outside the profession". (IFLA 2014).

IFLA also has a manifesto on library statistics, endorsed by the IFLA Governing Board in 2010. This manifesto is about the importance of library statistics. As well as being necessary for library management, statistics are vital for advocacy and for demonstrating the value that libraries provide, both to individual users and to society at large. IFLA is concerned about usage of statistics in both public and academic libraries.

There are several ISO standards for library statistics, like ISO 2789, 'Information and Documentation – International Library Statistics'. This ISO standard is meant to cover all aspects of libraries: Size and type of the collections (printed or electronic); number and kind of users; usage of library services; and the library resources (staff, funding, space) (Poll 2009a:27)
Norwegian academic and public libraries are gathering data and submitting to the National Library of Norway.

2. On the indicators developed by the National library

"The theories and research about use of indicators point to some general requirements for indicators. They must be valid; that is: Measure what is sets out to measure, by answering to a very precise question and nothing else. Also, it must be accurate. It must be useful for decision-making and it must be reasonable easy to get the data."
(Pors 2007:18)

In 2010 the Norwegian library authorities decided on a set of indicators for academic libraries, for the libraries to be able to both look at development and tendencies longitudinally, as well as to be able to benchmark with other academic libraries within or outside their own organization (Redse 2010).
In 2012, the National Library of Norway had taken over the responsibility for the indicators, and the Norwegian association for higher education institutions, library group (UHR-B) had also been looking at the indicators. The testing and benchmarking showed that there were problems with the data and the data collections, and UHR-B appointed a working group to administer a large-scale test where as many as possible of the academic libraries tested four of the former 24 indicators, and also to assess the indicators as tools for decision-making, reporting and benchmarking (Saxrud, 2012 cited in Landøy 2012).

3. The first bench-marking experiences from the Social Science and Humanities libraries in Norway

The Social Science and Humanity-libraries in the four largest universities in Norway (Oslo, Bergen and Tromsø Universities and the Norwegian University for Science and Technology) did some testing of the usefulness of some of the indicators, and the results were reported at the QQML2011-conference in Athens (Landoy 2011). In 2012, the University of Agder also joined in the

testing, and updated results were reported at the bi-annual Norwegian library meeting in 2012 (Bøhn 2012; Langseth 2012 cited in Landøy 2012).

Evidently, data collection to do bench-marking between the Social science and Humanities libraries was not easy. Relevant data was reported in different national statistics, while focusing on bench-marking between branch libraries, not the whole university library also meant that data had to be locally harvested. To find the similar and the most correct data for all the libraries that were bench-marking took time and patience and involved some serious discussions.

The results of these first investigations were however interesting. One such result, as reported in Langseth 2012 (cited in Landøy 2012) was the differences in primary users divided on library staff. University of Bergen library had approximately 150 users per library staff, Oslo and Tromsø had around 100, while NTNU and Agder had around 250 users per library staff. This may be looked at as a measure of effectiveness, but there may also be other explanations that have to do with the organisation of the libraries, both physical/geographical: how many branch libraries are they divided in? The more branches, the more staff will be needed. Also, the differences in the organisation of the libraries' workflow and tasks will have an impact. When core tasks like cataloguing and acquisition are decentralised, one will find library-staff with these functions also being counted in some of the libraries (Langseth 2012, cited in Landøy 2012).

"Another variable tested was the percentage of the acquisition budget being used for electronic information resources. The assumption here was that University of Tromsø library would have the highest amount of electronic resources, as they have for the longest time been the most outspoken about the advantages of electronic material. Tromsø had a high degree, but to our surprise Oslo, Bergen and NTNU used almost as much – all of them around 80 %. Agder, not having medicine and the heavy sciences among the subjects offered by the university used around 65 % of the acquisition budget on electronic resources (Langseth 2012, cited in Landøy 2012)."

Based on the numbers of visits to the library, divided on the number of patrons in the primary user group (academic staff and students of the faculties), Landøy 2011 speculates on "how much influence having a coffee-shop in the library will entail?" When looking at this variable, which is not an indicator, but part of the statistics that is collected every year, she found that libraries with a coffee-shop close by had a higher number of visitors than in the ones without.

In 2014, the testing of indicators continued with the research that is reported in this paper.

4. An example of indicator usage:

We decided to start this research by using one set of indicators from academic libraries as example of bench-marking and to show the strategic questions that emerge from the data. The data used are the ones that have been reported to the National Library of Norway from the University libraries of Oslo, Bergen,

Agder, Nordland, Stavanger, UiT – the Arctic University of Norway (called Tromsø in the rest of the paper) and Norwegian University for Science and Technology (NTNU). We will use data submitted from university library level, and not Humanities/Social Science branch level as earlier, acknowledging that data collection on branch level does not yield robust data for the time being at least.

We chose the indicator concerned with data on loans of printed books per users as our starting point for two reasons. Firstly, they are fairly easy to collect, as we have a common OPAC, Bibsys, in the Norwegian higher education sector. Secondly, they will give an entrance to another interesting question - we wonder when e-books will start having an impact on the usage pattern of printed books in academia.
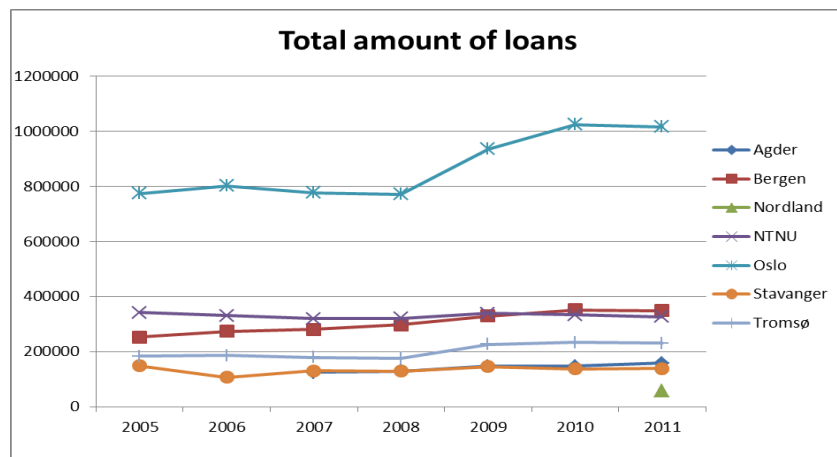

Figure 1: Total amount of loans National Libray of Norway

It is not very surprising to see that University of Oslo has the highest portion of total loans, as they have the largest amount of patrons, and mainly, the number of loans follow the size of the libraries. What is surprising, and not in line with our preconceptions, is that some libraries, especially Oslo, Bergen and Tromsø have had growth in their loans in the period 2005-2011, and that Bergen has passed the number of loans from NTNU. However, we are still expecting a downward shift in the loan of printed books from 2012 and onwards when some of the libraries, especially Bergen and NTNU have actively engaged in Patron Driven Acquisition models.

However, as is well known in the academic libraries, loan of books is only one facet of the usage of library resources. How does this look when we take a more comprehensive view of the holdings, and include downloads of electronic books, book chapters and articles from the library web sites along with the loans?
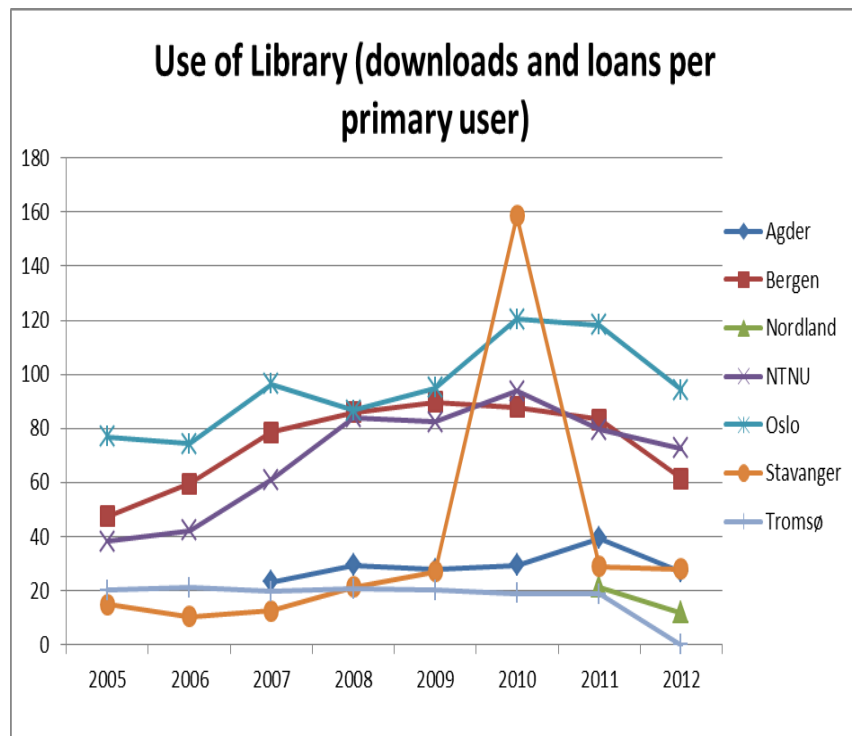
Figure 2: Usage of library holdings, loans of printed and downloads of electronic resources, per library primary user National Libray of Norway

In figure 2 we see the usage of the library holdings, per primary user. This graph also shows the consequences of a library not reporting as they are supposed to: Tromsø has not reported downloads, and is therefore underrepresented in this graph. Stavanger has obviously failed to report some of their primary users (students or staff) in 2010. There are also strong indications that the Universities are reporting different matters. This means we cannot be sure that these numbers represents the same reality at all the universities.

But still, if we took the numbers at face value (apart from Stavanger in 2010 and Tromsø), the development is quite incomprehensible and difficult to explain. Our holdings, especially the electronic resources, are growing, but the growth in usage stopped in 2010-2011. Is this a sign of the libraries actually having too many resources, which makes our primary users information dizzy? Here, further research and investigations will be required.
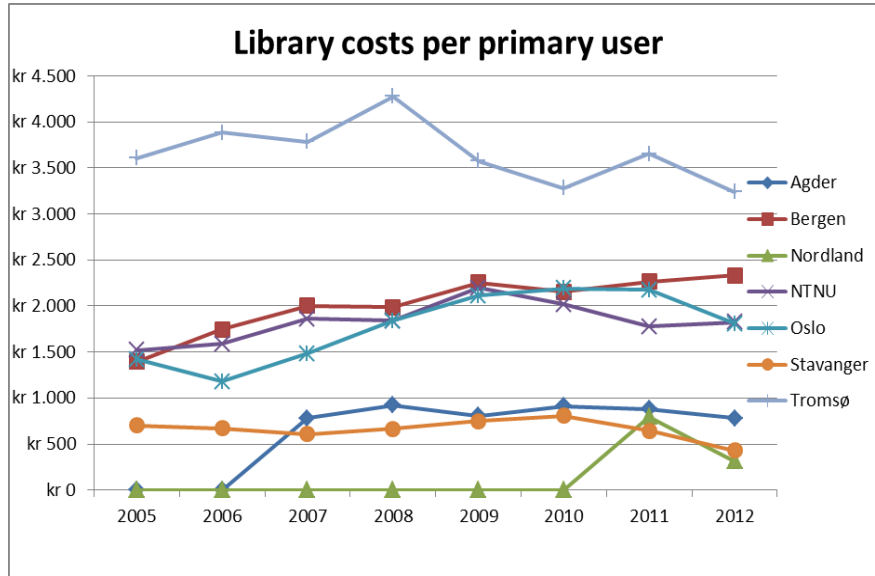
Figure 3: Library cost per primary user. **National Libray of Norway**

In figure 3 we continue to investigate the library through the lens of "library resources per primary user". This graph shows the amount of funds that are used per primary users, in Norwegian kroner. The University of Tromsø is a small university with the complete portfolio, including Science, Technology and Medicine (STM) and a good collection of electronic journals. This is a probable explanation of the high ratio.

The graph also demonstrates that the "old" universities (Oslo, Bergen, NTNU, Tromsø) have larger costs per user than the "new" universities (Agder, Stavanger and Nordland, who used to be University Colleges). Is this because of the historically different status? There are also full STM-portfolios in the old, and not in the new universities. What consequences does this have?
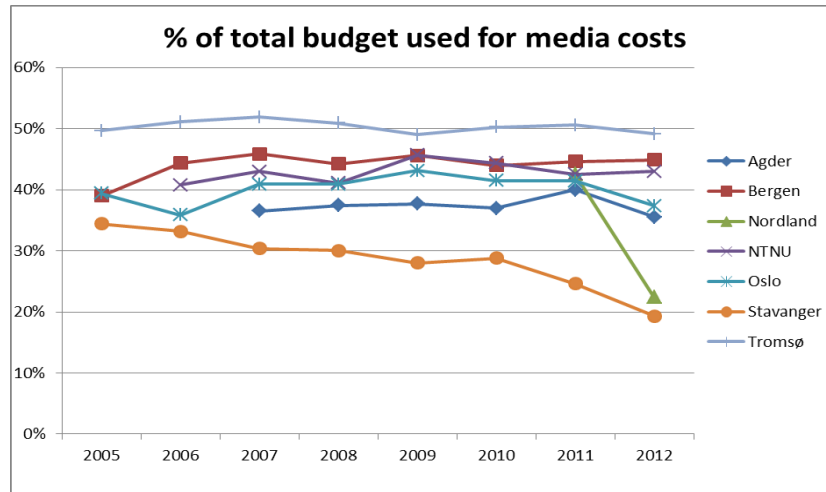
Figure 4: % of total budget used for media costs. National Libray of Norway

In figure 4 we can see that Oslo and Stavanger seem to have reduced their relative usage on media resources, as measured in percentage of the total budget. For the time being we will consider the dramatic shift in Nordland's media budget as a mismatch of data. Bergen, Tromsø, NTNU seem to have the same percentage.

The relative usage between the universities are also in line with the analysis in figure 3, where Tromsø, being a small university, has in many ways, better budgets than the other.

On the other hand, the data also here, needs to be scrutinised and discussed with the universities. What do they include in the "total budget"? What do they include in the "media costs"? Are there different policies regarding allocation of funding from the universities, as in Bergen and Tromsø, where the media budgets are separate from the rest of the library budget? If there are possibilities for interpretations, what are the conclusions and results?
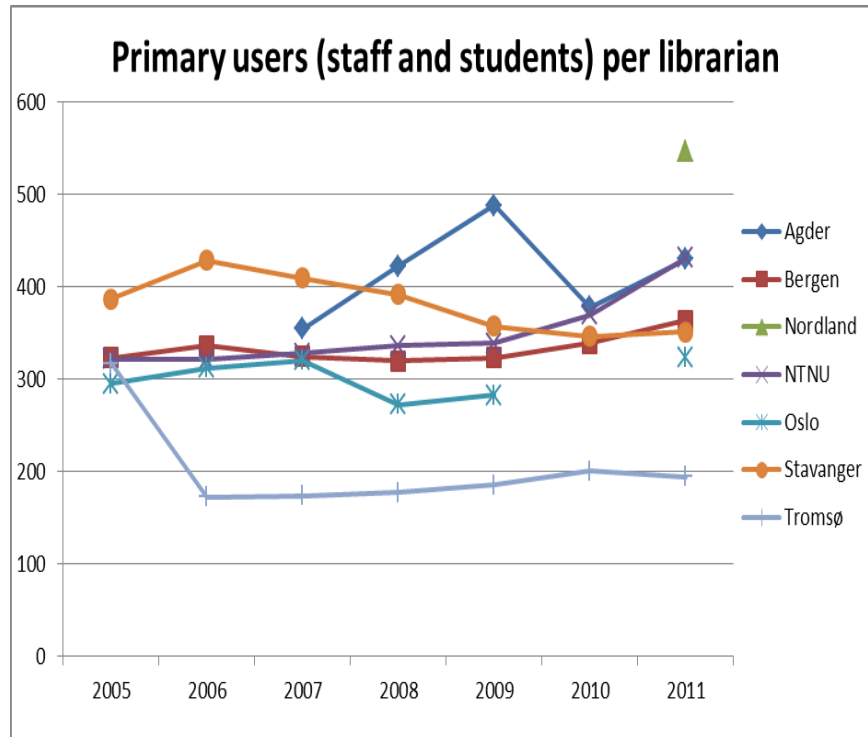
Primary users (staff and students) per librarian

Figure 5: Primary users (staff and students) per librarian. National Library of Norway

In figure 5 we see the relative number of primary users per librarian. This is an "indicator" that has also been investigated earlier. It can be seen as an indicator for effectiveness. It can also be seen in conjunction with the other indicators to suggest a total library priority from the university, and an indication of the user experience.

Agder and NTNU have the highest number of library users per librarians, with Bergen, Oslo and Stavanger not so far behind. Also here, it is evident that the reporting to the National Statistics have been forgotten in Oslo in 2010.

As the outlier, it is interesting to see that Tromsø has the lowest number of primary users per librarian; almost half of the ones from Agder and NTNU. Tromsø has a large number of branch libraries – 9, and the largest geographical diversity, which may lead to a higher number of library staff being necessary, but NTNU has 11 branches. We remember that Tromsø also had the largest part of media budget. There can be several ways to look at this. One is that Tromsø Library has very good budgets and should not complain. Another is that having a large portfolio of resources requires a larger library staff. A further growth in student or staff in Tromsø would therefore not necessarily lead to the employment of more library staff. On the other hand you could expect this

library to have enough resources to be able to investigate new services and engage more heavily in development work.

5. Conclusions

Through working with the indicators suggested by the National Library of Norway, and other indicators over some years we have gained experiences that will be useful when deciding how many resources an academic library will use for gathering and interpreting data, and perhaps also benchmarking with other similar institutions.

One conclusion is that benchmarking through use of national indicators is full of pitfalls, and that those pitfalls will only be discovered through actual usage and trials. We are looking with interest at the initiatives taken by the National Library of Norway, Norwegian Social Science Data where the data on Universities are stored and made available, and the Norwegian Association for Higher Education Institutions. With each such initiative, report and discussion, the number of indicators get smaller and more clearly defined with less room for interpretation and misunderstandings. This is good, if we want to benchmark.

Another conclusion is that a benchmarking exercise can be useful, and that interpretation of the results are vital. Academic libraries may find results in benchmarking that may be good arguments in their budgetary discussions with their universities.

Regarding the "inner lives" and internal discussions in the libraries, benchmarking may also point to areas where the library is very good, or where it has more work to do. This provides the library staff and leadership with material for reflection and strategic decisions.

References:

Landøy, Ane (2011): Indicators as tool for managing a library. Presentation at QQML 2011: 3rd International Conference on Qualitative and Quantitative Methods in Libraries, May 24.-27., Athens, Greece. URI: http://hdl.handle.net/1956/5800 [accessed April 13. 2014]

Landøy, Ane (2012): A system of national indicators for academic libraries in Norway - tools for evaluation? Presentation at IFLA Pre-Conference Library's Efficiency, Impact and Outcomes in Turku, Finland, August 8. and 9. 2012. URI: http://hdl.handle.net/1956/6011 [accessed April 13. 2014]

Poll, Roswitha (2009a): "Standardisation of library statistics" in Heaney, Michael*: IFLA Publications: Library Statistics for the 21st Century World: proceedings of the conference held in Montréal on 18-19 August 2008 reporting on the global library statistics project*. Berlin, K.G. Saur pp 27 – 30.

Poll, Roswitha (2009b): "Benchmarking in the form of performance indicators and Balanced Scorecard" in Heaney, Michael*: IFLA Publications: Library Statistics for the 21st Century World: proceedings of the conference held in Montréal on 18-19 August 2008 reporting on the global library statistics project*. Berlin, K.G. Saur pp 61 - 70.

Pors, Niels Ole (2007): *Strategi, værdi, og kvalitet.* København. Danmarks bibliotekforening

Redse, Torill. 2010. *Indikatorer for norske universitets- og høgskolebibliotek.* ABM-skrift. Vol. \#63. [Oslo]: ABM-utvikling. (in Norwegian)