

## **THE JOURNAL IN FOCUS -A REPORT FROM AN INVESTIGATION OF JOURNAL USAGE AMONG SWEDISH RESEARCHERS IN THE ECONOMIC DISCIPLINES\***

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### **Background**

During the last few years there has been an intensified focus on the journal. Prices have been spiralling, budgets declining, the demand for journal articles have increased as has the number of students and scholars. The handling of journals demands staff, shelf-space and money. At the same time technology has opened up possibilities to new solutions.

User studies is the conventional instrument when libraries want to find out if their journals are read and if the selection is the right one. Before the age of electronic fulltext documents one would analyze the results and adjust the subscriptions to use and budgets. Now, there are additional solutions. Printed journals can be replaced by electronic versions. Table of contents can substitute journals which are seldom used or supplement those not subscribed to. Quick document delivery completes the service. At any time of the day or night journals information can reach scholars regardless of the localisation of the library. What implications does this have on the journals acquisition policy?

At the library of Stockholm School of Economics, we wanted to analyse journals usage in order to get a better background knowledge for further strategies. We started by carrying out a user investigation during 1994. The result showed that 11% of the journals were never read and that 34% were read only 1-5 times during a year! We went on with a test of *UnCover* and quick document delivery. Could printed journals be replaced by table of contents? With subsidized prices we thought a quick delivery would be an attractive substitute for journals not subscribed to. However, in spite of various ways of marketing, the new service was no success. After half a year only 20 articles had been ordered from the 30 journals in the experiment. 18 of these were from the same journal and ordered at the same time by the same person!

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We could only draw one conclusion from the experiment: the information that TOC provide is not enough. But such a statement had to be verified or contradicted. We had to find out why, we had to go deeper and we needed to find a strategy for the future in handling journals. How were we to a) adjust the library to scholars needs, b) adjust our journals handling to new technique?

In our role as a national resource library we decided to make an investigation in form of a questionnaire and money was applied for from BIBSAM, The Royal Library's Office for National Planning and Co-ordination. Participating libraries were the economic branch libraries at Uppsala, Gothenburg and Lund University, the university library in Umeå as well as the library at Jönköping International School of Economics.

Questionnaires with 36 questions were sent out to 1,200 scholars in economics, business and finance, statistics and economic history. The response rate was 70%.

The purpose of the survey was to

- find out how scholars use journals
- find out how scholars search for journal literature
- find out about scholars attitudes to electronic journals
- find out how scholars use library collections, library services, on-line facilities as they pertain to journals
- get to know more about the target group (differences in "journal-behaviour" between disciplines, between young and old, between teachers and researchers, full-time and part-time researchers)

## Results

One assumption in the investigation was that journals are more important than books and that some disciplines are more dependent on journals than others. As expected the results show that the use of journals is indeed frequent. 77% use journals *at least* once a week (figure 1).

45% state that journals are more important than books *in research* and 41% that books and journals are equally important. Only 9% find books more important. In *teaching*, however, the figures come the other way round. Here books are more important to 50% of the respondents, to 35% books and journals are equally important and only 6% regard journals as essential in teaching.

These results were not unexpected. But the figures show more. They show that there are obvious differences between the disciplines. The most intensive use of

journals is found in economics, whereas all the other subjects have a lower use (figure 2). Scholars in economics use journals more often and they read journals rather than books. Books are most important to scholars in economic history and statistics.

In teaching the importance of journals is lower. Journals are often too theoretical for students, whereas books offer better introductory material as well as breadth and summaries. Particularly noticeable is the high use of books in the teaching of statistics.

The use of journals varies according to age and level of research. Young researchers (under 40) with a high research activity read journals more often than do old researchers.

The main reasons for reading journals are to keep up with the research front and to follow the developments in the disciplines. Journals are also used for finding references to other works, although not to the same degree. There is a difference in behaviour between young and old scholars. The former look for the latest research results as well as for references, whereas the latter are primarily interested in checking up the current state of knowledge in their disciplines.

How do scholars keep abreast with the developments in their fields? Do they need libraries? Before the electronic era we asked ourselves if the printed bibliographies were used, now we wonder if scholars use the bibliographic databases. The ranking list for sources of information is as follows:

1. References through other publications (62%)
2. Checking of journals in the library (59%)
3. Contact with colleagues (55%)
4. Checking of journals in the departmental collections (42%)
5. Personal subscriptions (37%)
6. Searches in bibliographic databases (36%)

Other sources, such as printed bibliographies, current awareness service, or commercial document deliverers, are much less used.

Bibliographic databases are used to a much higher extent by scholars in economics than in the other disciplines (figure 3). There is a clear correlation of age - over half of the researchers under 30 use this service but only a fifth of those over 40.

Almost 70% of the participants find the library collections good or very good, although there are local differences. On the whole scholars in economics and

statistics are more pleased with the library collections than are those in business and economic history.

But journals are not only held in libraries. Departments subscribe to journals and there are personal subscriptions. It was of crucial interest for the participating libraries to know to what extent these collections are used. 31% read journals mainly in the library, 34% at their departments and 30% use both collections.

Of those who use departmental journals, 75% give the physical distance as a reason for not going to the library. 40% state that most of the journals needed are held by their departments and 35% that these are the most important journals. 27% answer that certain journals are held *only* by the departments. As departments probably do not have very large collections, smaller collections of core journals apparently meet these researchers' needs.

Lack of time is an important factor. The results show that libraries located near the departments are better used than are those further away. Age does also affect the behaviour. Older scholars prefer to read journals in the department as their time is limited. They are satisfied with having access to a smaller collection of core journals, whereas young scholars need the broad choice of journals offered in the libraries.

Free comments show that scholars find it much easier to read journals in their departments. There are services there which they like, such as the circulation of table of contents (photo-copies from the latest journals issues), nearness, the journals can be taken to the office, they can be read at any time of the day or night and they can be easily photocopied. The selection of journals can be closely tailored to what is needed in the research programmes. It can also be easily changed. However, it is pointed out by several scholars that the departments cannot keep old volumes and that this is an important function of the library! In a question concerning the need for old volumes the answers vary depending on subject and age. Long runs of journals are particularly important for economic historians and statisticians, for young and for full-time scholars. Scholars above 40 with less intense research activity state that the last two years of a journal often suffice.

Do scholars use our OPACs? The use of the on-line catalogue for journal title searches is not very high. Over 50% seldom or never search for a title. The figures for searches for journal issues in the periodical modules are even lower. Over 80% use this possibility seldom or never (figures 4 and 5). The main reasons given for not using the catalogues are that they did not know of the possibility or they do not know how to search. Some scholars do not need the catalogue as they already

know what journals the library holds, others do not use the library journals at all. The possibility to search for particular issues does not seem to fill a great need. Scholars know with what intervals a journal is issued, or they do not look for a particular number but rather a particular subject. Some scholars find it easier to go to the library than to search the catalogues! Others point out that they find the systems difficult to use. (The library systems used at the time of the investigation were *Libertas*, *VTLS* and *Dobis/Libis*).

The use of the OPACs follows the use of journals. The stronger the need for journals, the higher is the use of the catalogue. Consequently scholars in economics search for journal titles and journal issues to a higher degree than do those in other subjects.

Not unexpectedly the knowledge and use of catalogue facilities is greatest among young scholars.

There are local differences, probably depending on the library system itself and on promotion and user education.

We know that scholars prefer to remain in their offices. But what do they do when journals are to be found only in the library? Can we expect them to find their time and stroll away to the library? Yes, we can. 67% do go to the library in such cases. However, they also try other ways (so as to avoid having to go there!). They order copies, they ask their departments to subscribe to the journal, they buy it themselves. Scholars in economic history differ from others in using the library to a higher degree than the average (88%, figure 6). Their frequent use of books probably makes them more acquainted with library.

When a journal is not held by the library or the department, the interlibrary loan service fills an important function. 75% of the participants order articles this way. Again economic historians show a higher figure (84%), probably due to the interdisciplinary character of the subject. Scholars with a higher research profile use the interlibrary loan service more often than do those who primarily teach.

What is important in an article? Why did our experiment with table of contents instead of printed journals fail? What is the scholar looking for in a journal article? What makes him or her decide if the article is worth reading at all? The results from this investigation agree with others of the same kind. Reading the abstract is of utmost importance (over 70%). Looking at title is also essential and ranked third is browsing. If one cannot read the whole article, one reads the abstract, very often in combination with the beginning or the end of the article. Abstracts and title have to be available and browsing must be possible for the

researcher to form an opinion of the value of an article. In economics abstracts are absolutely essential for evaluating a journal article. It is important to know which method is being used and this cannot always be described in a title. Economic historians and statisticians, on the other hand, are less dependent on abstracts.

At the time of the investigation electronic journals were not very well known. Since then there has been an explosive development with parallel editions from most big publishing houses coming on to the net. In March 1996 only 5% read e-journals regularly and 22% sometimes (figure 7). In the questionnaire "electronic journal" could mean anything from a newsletter published on the Internet and a well-known, peer-reviewed journal read in fulltext on *ABI/Inform*. Attitudes are cautious and curious but on the whole positive. As the main reason for not reading, a majority say that they don't know how to find e-journals on the net. Some scholars wonder about their quality and value, as reputation, status and job promotion depend on publishing in good journals. Others are not prepared to read from the screen. Those who do read e-journals regularly are the younger scholars and scholars in statistics. Economic historians are the least interested. 91% of all participants want to know more about e-journals.

The last questions concerned article delivery. How good is the knowledge of *UnCover* and other commercial document deliverers? How are they used and can they substitute journal subscriptions? Only 15% use *UnCover* on a regular basis and then more for subject searching than for table of contents information. As a reason for not using *UnCover* the majority give "lack of possibility to browse" (61%) and "lack of serendipity" (71%). The need for quick delivery (and quick delivery does not mean a day or two, but rather an hour and not more) is sometimes important, but seldom so great that scholars are prepared to pay extra for the service. The greatest need for quick delivery is to be found among scholars in economics and among young scholars.

## **Summary of results**

There is a clear difference between young and old scholars. The young ones do more research and use journals to a higher extent than their older colleagues. They need the library with its large choice of journals and old volumes. They use all possible channels to find information, the traditional as well as the new, electronic ones. Their attitude to new technology is positive and open. Old scholars read a smaller selection of journals and they prefer to have them in their offices (departmental or private subscriptions). They need old volumes less often. The incitement to go to the library is therefore weak. They search new issues more

actively with the aim of checking up developments in their research fields. They know less of electronic journals and information sources.

*Economics* stands out as being the most research orientated discipline. The use of journals is most frequent here as is the use of electronic information sources. Scholars in economics use the library to a higher extent than others, their need for quick article delivery is more strongly pronounced and they are most satisfied with the library selection of journals.

In *business and finance* we find more academics with a high percentage of teaching. Their use of journals is lower. On the other hand books are still important for their research. The knowledge of electronic information sources is low, visits to the library few, and the need for quick document delivery little. There is a high tendency to see to it that the department (rather than the library) subscribes to a journal or to take on a personal subscription.

Also in *statistics* the use of journals is low and the percentage of teaching fairly high. The use of books is particularly high in this subject. Scholars in statistics find the library collections very good, but use them least! Their knowledge of electronic journals is very good and they know best of all how to find them.

*Economic history* differs from the other subjects in many respects. The research is based on historical material and as a consequence it is a book-reading discipline. Journals are much less important and those which are must be kept in long runs by the library. There is little need for rapidity. The library holdings are important for economic historians and they have learned to use them. They know the on-line catalogues best, but they also work in a more traditional way to find their references. They use printed bibliographies rather than on-line sources. Their interest in electronic journals is low.

There are *local differences* in the investigation, which are of great interest for the participating libraries. They will not be considered in this paper, however.

## **Conclusions and future strategies**

The investigation has shown that journals are frequently used, that they are more important than books and that they must be near at hand for instant use. They must allow browsing as well as a serendipitous approach. Older scholars prefer to read journals in their offices. As subscriptions in the departments are selective, their need for journal titles is consequently limited. Younger scholars, on the other hand, need a broader selection and therefore use the library more often. Journals not held by the library are sometimes needed quickly, but rapid document

delivery service must not cost. Electronic information is offered (bibliographic databases, on-line catalogues, table of contents service), but it is not always used, particularly not by the older scholars. What are the problems and how should they be solved?

We will have to cut down on the number of subscriptions, but we must do it in the least harmful way. Not only do prices rise, we must also budget for parallel subscriptions for e-journals, i.e. an added cost of about 20% per title.

We therefore need continuous user studies. We cannot cut down the number of subscriptions without knowing what is really used and needed.

We need to know how students use journals. This investigation should be followed up with one directed to the undergraduate students in the economic disciplines. What kind of journals do they use? How often do they read journals and at what stages in their education do they need journals as opposed to books?

The core journals used by our local researchers have to be identified as have the core journals on a national level.

We will have to share our resources even better than we already do. We will have to do it on a local level, whenever it is possible. To have several parallel subscriptions within an organization is expensive, but may also be necessary to provide for effectiveness and flexibility in the scholarly work. On a national level there is already effective resource sharing. The Swedish national union catalogue *Libris* is used for interlibrary orders of journal articles. Most libraries offer a quick delivery service when asked for.

Electronic versions of the printed journals is *one* solution for the future handling of journals. E-journals can be shared by many. Several paper subscriptions within an organization can be substituted with *one* subscription for a paper *and* electronic net-worked version. On a national level national licenses are the apparent solution.

Promotion of e-journals is crucial. Particularly older scholars have to be told and taught about the advantages of e-journals. The young scholars are more positive than the old ones. They have the potentiality to find added value in the electronic medium. They are the ones to carry new technology into the future methods of doing research. Maybe clicking and surfing will become tomorrow's browsing and flipping through printed pages.

The less frequent journals can be given their electronic place through current awareness service, through databases like *UnCover*, through links to table of contents on our homepages.

We have to evaluate the use of electronic journals and the journals themselves. But many projects, experiments, investigations and evaluations are already taking place in the library world. These must be studied and the results applied to our local settings.

We have to find a flexible way of balancing through the rapid development of article provision. A lot has been written about access versus holding. There lies a temptation in replacing our printed journals with access to table of contents and on-demand service. It might seem a solution to let our journals collections become wholly electronic. But this investigation has shown that there has to be a flexibility based on strongly variegated needs. We must strive to offer both access *and* holding. Access and resource sharing for those journals which we know are not frequently used and which can be shared with others, holdings and ownership, both of paper *and* electronic versions, at libraries *and* departments, for those journals which we have identified as being of core interest for scholars and students in the economic disciplines.

## **The Journal in Focus.**

### **Questions**

1. Sex?
2. Age?
3. University?
4. Department?
5. Full-time or part-time employment?
6. Full-time or part-time researcher?
7. How often do you use the computer in your office?
8. Which of the following data-services can you reach from your office?
  - a) the library on-line catalogue
  - b) bibliographic databases
  - c) WWW on the Internet
  - d) electronic mail
9. How often do you use journals in your research/teaching?
10. How important are journals compared to books in research?
11. How important are journals compared to books in teaching?
12. Why do you read journals?
13. How do you keep abreast of the developments in your research field?
14. How is the coverage of journals in your library?
15. Does your department subscribe to journals?

16. To what extent do you read journals in your department in comparison to library journals?
17. If you prefer to read journals in the department, give reasons why.
18. Do you use the library on-line catalogue to search for journal titles?
19. If no, give reasons why.
20. Do you use the library on-line catalogue to search for journal issues?
21. If no, give reasons why.
22. If very important journals are held only by the library (and not by the department), what do you do?
23. If a journal is *not* held by the library or the department, what do you do?
24. Which information do you need in order to decide if you want to read a journal article?
25. If you do not read the whole article, which parts do you read?
26. Which time span of a journal is most important for you?
27. How often do you read electronic journals?
28. If you never read electronic journals, give reasons why.
29. Would you like to know more about electronic journals within your research field?
30. What advantages and disadvantages do you find with electronic journals?
31. How often do you use *UnCover* or similar databases?
32. If you use *UnCover* etc, in which ways do you search for information?
33. Do you think that printed journals can be substituted by commercial document deliverers such as *UnCover*?
34. If no, give reasons why.
35. Is quick document delivery always important to you?
36. Would you be prepared to pay £15-20 extra for rapid delivery (within 24 hours)?

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**Figures**

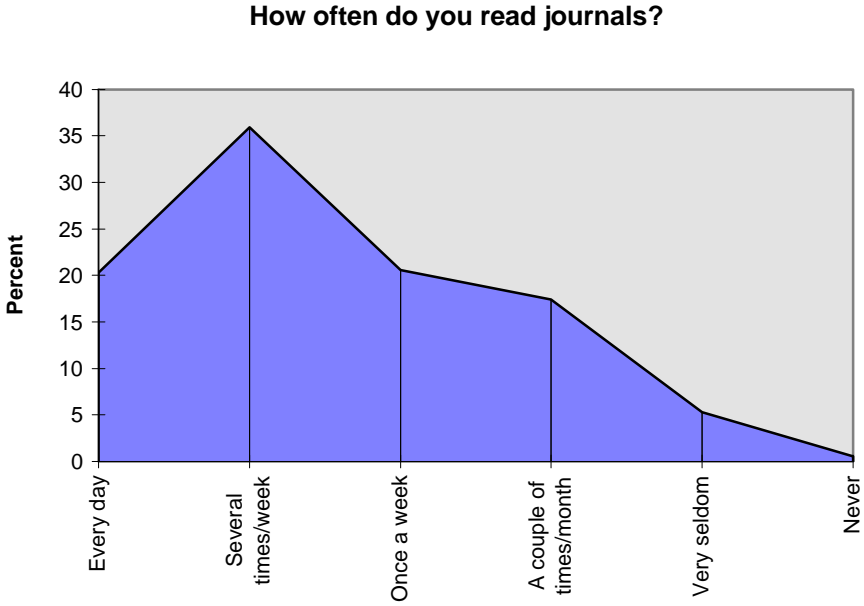


Figure 1.

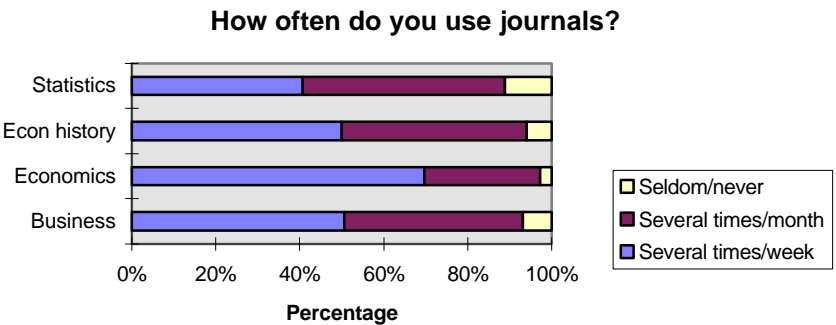


Figure 2.

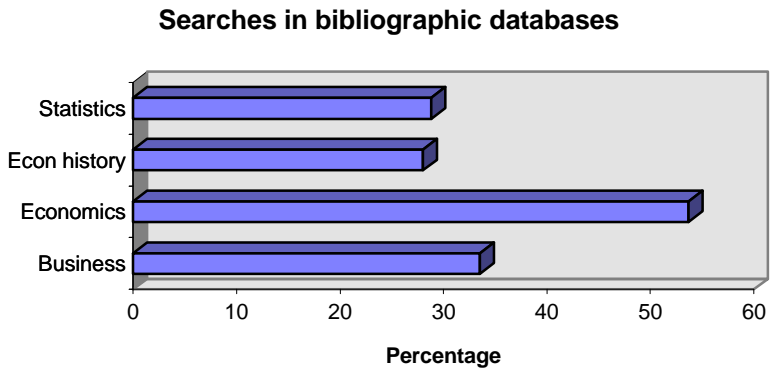


Figure 3.

### Use of on-line catalogue for searches on journal title

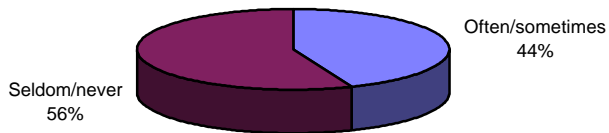


Figure 4.

## Use of on-line catalogue for searches on journal issue

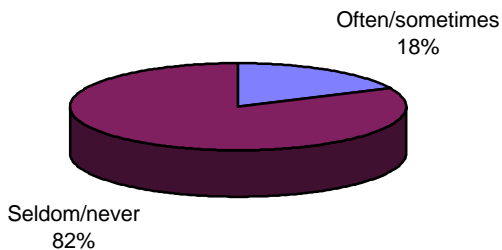


Figure 5.

## What do you do when a journal is only held by the library?

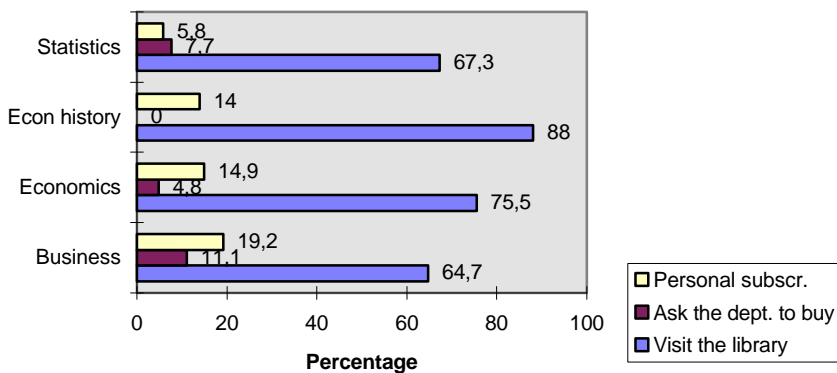


Figure 6.

### Do scholars read electronic journals?

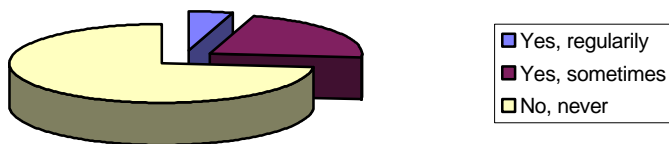


Figure 7.