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## USER SATISFACTION – THE KEY TO A LIBRARY'S SUCCESS [SATYSFAKCJA UŻYTKOWNIKA – KLUCZ DO SUKCESU BIBLIOTEKI]

Abstract: Evaluating and guaranteeing customer satisfaction in the long-term is an integral part of quality management in libraries. Quality is defined as "all of the characteristics and features of a product or a service, which relate to their suitability for fulfilling fixed or given requirements" [EOQ 1976] and it is determined by the subjective evaluation of the customer. Surveys are used to gather individual opinions and to compress them into an overall evaluation, which then serves as the basis for an analysis of strengths and weaknesses. This article is based on the analysis of a best practice report conducted by the Central Library of Forschungszentrum Jülich. An online survey performed in 2007 was used to assess the satisfaction and expectations of library users and the results were incorporated into an improvement list. "User satisfaction" is particularly important in a special library. There is no such thing as an homogenous user. Instead, a wide variety of user groups exist and the library must adequately react to their individual needs. For the Central Library of Forschungszentrum Jülich, customer orientation means continuously assessing customer satisfaction, further developing the range of information services available in order to meet high quality demands, and optimising products and services with the involvement of the customer.

GERMANY - JÜLICH - MANAGEMENT - QUALITY EVALUATION - SPECIAL LIBRARY

Abstrakt: Ocena i gwarantowanie satysfakcji klienta w długim okresie stanowi integralną część zarządzania jakością w bibliotekach. Jakość jest definiowana jako "wszystkie charakterystyki i właściwości produktu lub usługi, określające jego zdolność do wypełnienia ustalonych lub zadanych wymagań" [EOQ 1976] i jest determinowana przez subiektywny osąd klienta. W celu analizy mocnych i słabych stron biblioteki, przeprowadzono serię wywiadów, mających na celu zebranie indywidualnych opinii, których wyniki złożyły się na ogólną ocenę. Artykuł oparty został na analizie raportu na temat najlepszych praktyk, przygotowanego przez Central Library of Forschungszentrum Jülich. Badanie prowadzone online w 2007 r. zostało wykorzystane do oszacowania satysfakcji i oczekiwań użytkowników biblioteki. Na jego podstawie sporządzony został wykaz rekomendowanych udoskonaleń. Kwestia satysfakcji użytkownika jest szczególnie istotna w bibliotekach specjalnych. Ich użytkownicy nie stanowią grupy homogenicznej, a wręcz przeciwnie, biblioteka musi właściwie reagować na odmienne potrzeby zróżnicowanych grup. Dla Central Library of Forschungszentrum Jülich "orientacja na klienta" oznacza ciągłe sprawdzanie poziomu jego satysfakcji, poszerzanie zakresu usług informacyjnych w celu sprostania rosnącym wymaganiom jakościowym oraz włączanie użytkowników do procesów optymalizowania produktów i usług.

BIBLIOTEKA SPECJALNA – JÜLICH – NIEMCY – OCENA JAKOŚCI – ZARZĄDZANIE

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## **Quality Management in Libraries**

## General Aspects

In his speech in October 2007 entitled "Ein Freudentag für die Kulturnation" (A Happy Day for the Cultural Nations), the President of the Federal Republic of Germany Horst Köhler expressed his appreciation of libraries when he stated that German libraries provide an essential foundation in our knowledge and information society [Köhler 2007].

For a long time, this high esteem of the cultural significance of libraries prevented them from being subjected to the direct pressure of quality management. For many years, the quality of customer services in libraries – like other administrative services – was a matter of complete indifference. A basic turning point was only brought about by the structural crisis of (European) libraries, which can be attributed to the following reasons:

- underfunding of government-supported libraries and information organisations,
- lack of acceptance of library services by the general public and a perceptible drop in take-up of these services,
- structural modifications of library services through the integration of modern, electronic digital media in the existing traditional holdings,
- the media and technological revolution in the information sector.

The situation of special libraries, such as the Central Library at Forschungszentrum Jülich, is even more complicated. The Central Library depends directly on its funding body, makes a direct contribution to the realisation of the corporate goals, and is usually completely responsible for a broad range of activities. Like other special libraries, the Central Library has got no legal basis. It thus has to legitimate itself anew each day. A good standing with users and funding bodies are vital aspects of library management.

This situation forces us to look at how the users of a special library can be retained and regained as satisfied customers, and how the efficiency of libraries and their services can be optimised and documented. Against this background, economic aspects such as controlling, marketing, customer relations management and quality assurance take on increasing significance as measures for increasing the efficiency and effectiveness of library services. Particular influence has been exerted by the diversification of media and technology in the past five to ten years. A number of new services offered to the customer today arose on the basis of digital data. However, since traditional library services have been complemented rather than replaced, the range of library services has multiplied as a result of modern technology and new media. Traditional quality standards and quality assurance measures are not applicable to these new services. There is an urgent need for the development and definition of new quality standards for new library services such as electronic journals, web-based factual databases, alerting services, information consulting, and online searches. In the English-speaking world, efforts at achieving quality standards and quality criteria for library services began in the early nineties. In adopting the quality management of profit organisations from the consumer and capital goods industries, customer orientation was regarded as one of the major goals for quality management in libraries.

With respect to customer orientation, quality in the library sector is defined as permanent customer satisfaction. It is important that quality is defined from the customer's perspective and that it is not predefined by

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the library's standards. Only a customer who regards the services as being of a high quality from his subjective point of view will remain a satisfied library customer in the long run. The standards established by Tann in 1993 are valid for a general assessment of library quality [Tann 1993]:

- knowing the customers' needs,
- faultless delivery of service,
- good facilities,
- reliable equipment,
- efficient administration,
- efficient back-up service,
- feed-back loops to build in improvement procedures.

Against this background in particular, it becomes apparent that it is not the outputs of a library which are decisive for user satisfaction but rather the outcomes. The outcomes are defined as "the uses made by the consumer of a given output and the degree of satisfaction felt with those outputs" [Abbott 1994]. There are sufficient standards for defining the quality of physical goods, and design codes for safeguarding this quality. A standard itself is relatively easy to define where as values and parameters for the quality of services are difficult to determine and standardisation is only possible to a limited extent.

## Quality Criteria for Library Services: The Juelich Perspective

## **Topicality**

Since the sciencists of today must perform research in a fast, industrially oriented, innovative but also cost-conscious manner, the topicality of library services and information is of overriding significance. With ever shorter half-lives, especially for scientific and technical economic information, the topicality of the library's services and information sources has become even more relevant [Poll, Te Boekhorst 1996].

## Precision and relevance of information

Library services for today's science sector must be precise, clear, unambiguous and relevant. The relevance of scientific information is extremely important, particularly in an era where we are inundated with information. It is the library's task to ensure that the customer benefits from an information service that has been verified for relevance and is fit for use. If the scientist of today receives irrelevant data from their library, this puts the success of their research programme at risk as well as their personal reputation and that of their working group, and thus their scientific survival. After all, irrelevant economic information endangers the economic success of a company.

#### Reliability

More than ever before, library services in the science and research sector must be reliable. This factor takes on special significance against the background of electronic media and web 2.0 technologies. Lucky hits, disappearing URLs, crashing servers and inaccessible domains must not impair the quality of information services.

## **Completeness**

The modern user of a library today expects complete information concerning his query. Only the extensive, complete and comprehensive processing of a user's information query using all available media and accessible sources is regarded as the fulfilment of their information needs. Particularly against the background of the variety of media in a hybrid library the criterion of completeness is more difficult than ever to fulfil today.

## Speed

A library servicing the modern scientific and industrial sectors must not only have current information at their disposal; it must also pass this information on to its customers rapidly and directly. Delays through official channels due to the bureaucratic mentality, labyrinthine operations and high waiting piles make any customer satisfaction impossible. The Central Library of Forschungszentrum Jülich is in the position to supply its customers with any requested journal article within 48 hours.

### Flexible distribution

The scientist and businessperson of today expect the information specialist at their library to provide them with a solution tailored to their personal needs. This includes being flexible when it comes the format in which the customer wishes to receive the information. To meet quality standards, a library must be capable of making the information available to the customer in print or electronic form, by post, courier, e-mail or as a coded URL.

In order to meet quality criteria and achieve high customer satisfaction, it is not enough to ensure the longterm existence of a library.

In negotiations with management, concrete evidence must always be provided with regard to a library's monetary benefit, profitability, and how much it contributes to the success of the company as a whole.

It is not enough, particularly in profit-oriented enterprises, to discuss the overriding aspects, such as the conservation of cultural heritage, free access to information or the library as a social meeting point, and to use these aspects as reasons justifying the library's existence.

Information centres must provide empirical evidence of their value and their economic efficiency as "return of investment". Monetary values in this context are the financial benefit of library activities (saving of time for customers), cost savings achieved through consolidated purchase of information services, and revenues generated by selling their own services [Herget 2003] In their publication "Special Libraries: Increasing the Information Edge", Griffiths and King [Griffiths, King 1993] referred to more than 10,000 case studies (use-of-potential analysis of information centres in the industrial sector), in which the value could be successfully proven. Even the renowned British Library, a British institution that is globally important and therefore rarely has to provide an economic analysis, is subjecting its services and information sources to a cost-benefit analysis [Hobohm 2007]. This analysis calculated that for every pound sterling invested annually, more than four pounds sterling are generated for the British economy – a return of investment worth noting.

## **Tools for Determining Customer Satisfaction**

Determining customer satisfaction is part of a comprehensive library evaluation. In order to obtain an overall assessment of a library, both the quantitative value and a qualitative evaluation of the services on offer must be taken into account.

The quantitative value of databases, e-journals and printed media can be measured using access statistics on the different servers of the library and cooperating publishers. The use of media holdings can be verified by annual lending statistics. In the Central Library of Forschungszentrum Jülich, the quantitative value of all media and services is documented in an annual report. If required, additional product-specific statistics (e-journals, databases) as well as the data provided by the inhouse developed "Juelich Electronic Resource Management System" can be used for negotiations with publishers and decision makers.

These measures make it possible to determine subjective customer satisfaction and thus indirectly the quality of library services, albeit to an insufficient extent. Widely used methods for determining customer satisfaction are: interviews with selected customers, discussions with focus groups, and user surveys. Mystery shopping and observing customer relations can also provide important impressions on the performance of a library, but they are rarely put into practice.

Moreover, comparative investigations into customer satisfaction (benchmarking) in a number of different institutions can provide important information on the competiveness of a selected library as well as important impulses for optimising services in the same library by comparing identical or similar services [Mundt, Guschker 2003].

# Practical Example: Online Survey Conducted by the Central Library of Forschungszentrum Jülich

In spring 2007, the Central Library of Forschungszentrum Jülich conducted an online survey of their users. The survey was conducted in cooperation with the Institute of Library and Information Science at the Humboldt University Berlin and was supervised by a project team.

The reasons for the cooperation from Jülich's point of view were:

- higher acceptance of the user survey by customers in the Forschungszentrum (scientists) if conducted in a scientific manner
- outsourcing of work (designing the questionnaire, incorporating the questionnaire into a website, evaluating and preparing statistical results, composing written appendices)
- benchmarking with other libraries that had also conducted a customer survey in cooperation with a team from the Humboldt University Berlin

The extensive questionnaire covered the different information offers like books, databases and e-journals and all of the services offered by the Central Library (Publishing House, Language Services, Bibliometrics Service, Artothek), which go far beyond the classical service portfolio of a classical library. The questions were related to how often ZB services were used and how relevant they were, how comprehensive and how up-to-date the range of information available was, and opinions on the service orientation of the Library.

The Central Library made use of a catalogue of questions prepared by the project team in advance and adapted these to a certain extent to suit local requirements. In February 2007, access was granted to the final web-based survey on the Humboldt University web server. The evaluation was conducted using statistics programs and the results were prepared by the project partners in Berlin.

The results document how important the Library services and range of information are to customers and how highly they esteem them:

## Range of information

More than 80 % of customers considered the range of journals offered to be comprehensive and up-to-date (service rated as "very good" or "good"). The subject-specific databases offered by the Library received similar marks. The Library's website was judged as an important source of information by more than 90 %. The need for optimisation was seen with regard to access to concrete information sources (databases, e-journals).

## Range of services

Services such as document delivery, literature search service, and the alerting service were also consistently positively assessed. More than 75 % of customers considered this range of services to be "good" or "very good". The Central Library's document delivery was deemed extremely important by around 98 % of the users surveyed.

#### Service orientation

A number of customers praised the competent advice, long opening hours of the library (24-hour access), and the fact that Library staff members were almost always available. Improvements were suggested with regard to the workstations in the reading room, as well as the arrangement of resources and orientation in the open-access area of the Library.

The detailed results of the survey were presented internally in the Library in the form of an analysis of strengths and weaknesses, and a catalogue of measures for optimising the range of services was drawn up. The aggregated data were discussed with bodies relevant to the Library, such as the library commission, and new courses of action were decided upon for the Library.

To conclude, we can say that the Central Library's online user survey provided important impulses for the operational organisation and strategic orientation of the Library. Feedback from the customers supplied us with a good basis for argumentation in negotiations with management. The benchmarking with other libraries planned within the framework of the survey could not be realised. The heterogeneity of the libraries surveyed and the specifics of the Central Library of Forschungszentrum Jülich ruled out a direct comparison.

The image of the Central Library as a competent service provider was confirmed and consolidated by the survey. The customers welcomed the opportunity to voice their individual opinions on the services offered by the Library and thus to directly influence the development of the Library so that it best meet their needs.

# Realisation of Customer Retention at the Central Library of Forschungszentrum Jülich

The extent to which customers are involved in the development and organisation of the Central Library does not stop at determining personal information requirements within the framework of user surveys; users are also involved in designing information products in collaboration with the Central Library or external cooperation partners. This process makes the concept of "open innovation" a reality.

The Central Library has already conducted a number of customer retention projects with an open innovation character. While the Central Library's Chemistry Library was an internal campus project, the marketing study conducted by Thomson's Institute of Scientific Information was quite different. Here, the Central Library played

the role of a cooperation partner for an external content provider and a mediator for users in Forschungszentrum Jülich.

## Case Study: "Chemistry Library"

The incentive for the development of the "Chemistry Library" was provided when dedicated scientists asked whether all forms of information related to chemistry could be brought together in a shared interface on the Central Library website. The idea was to bring together the range of information offered by the Library on chemistry, be it reference works, collections of facts, fact databases, no matter what their physical form (electronic or printed), and compile them under purely content-related aspects. In addition to providing access to each of the sources, the Chemistry Library should also provide additional information on the contents, how to use the resources and the application of the actual work.

## **Development milestones**

As a result of the selection of topics, the objective, and the technical configuration, the Central Library chose to use the "lead user method" in order to make the Chemistry Library project a reality.

#### Generation of ideas

In January 2006, the problems associated with chemistry searches were outlined within the framework of an information discussion with scientists. The discussion was prompted by a desire to make the users more aware of printed reference works for chemistry on the one hand, and to make the specific problems associated with searches for substances more transparent on the other.

#### **Development of concepts**

In February 2006, discussions were held between qualified librarians from the Reading Room, subject specialists, and interested chemists from the initiating institutes. These resulted in concrete tasks being assigned to the parties involved.

#### Prototype and product tests

In spring 2007, the prototype Chemistry Library was presented to the project partners. The presentation focused on the conceptual approach, design and contents of the Central Library's new subject portal. In the discussion that followed, suggestions were made by the extended audience of scientists regarding changes and improvements which were subsequently implemented by the Central Library. Finally, the Chemistry Library was launched in May 2007.

## **Market introduction**

The Chemistry Library was subsequently advertised in the Research Centre's internal newsletter and was incorporated into user training provided by the Central Library.

The graphically oriented homepage of the Chemistry Library provides the first clues as to the conceptual reorganisation of the presentation of the specialised information.

The substance, which stands at the centre of all chemical questions, represents the graphical and conceptual centre of the homepage. Starting from this basic idea, the individual aspects of a substance such as its physicochemical properties, spectra, analytics, synthesis, and reactions are assigned.

"Chemical engineering" and "Protein chemistry" stand in opposition to this strategy, as they are not directly related to any chemical substance, but they are important points of departure when searching for chemical information. Other links bring the user to key electronic and printed reference works, such as Römpp, for example, or they offer the user additional search tips. Other functions here include the electronic order form and details on the specialised information and search services offered by the Central Library. This approach also allows the user access via the categories they normally use.

The design and construction therefore incorporate both subject-related and formal search options, which are backed up by help menus and direct access to the main sources of information.

#### **Features and Functions**

The individual functions of the Chemistry Library were developed in close cooperation with the users. As a consequence, relevant sources related to specific aspects such as synthesis, reactions etc. are presented in tabular form. Where possible, direct access to databases and electronic dictionaries is offered. Deep links provide access to additional sources from different information systems, such as the library catalogue for example, and bring the user to the deepest possible content level in the other website. This minimises the effort associated with changing systems for the user and it ensures seamless access.

An important feature of the Chemistry Library is the combination of databases and information services with tutorials and help texts. These forms of help offer important support for independent searches. For this reason, links have been incorporated into existing help texts from the content providers, or relevant texts or tutorials were created by the subject specialists in the Central Library. The Chemistry Library has therefore realised an important request of chemists at Forschungszentrum Jülich.

Relevant information sources are listed in a standardised order which is repeated in each of the subcategories (synthesis, reactions, etc.). This leads to greater recognition among the scientists, which in turn makes the portal quick and easy to use.

In comparison with information searches on the Internet or in the subject information portal, the Chemistry Library comes out on top because of its focused, qualitative, subject-related selection of sources and the fact that its information sources are tailored to meet the specific demands of Jülich scientists. It is embedded in the overall concept of information provision at Jülich and provides an overview of the contents of the library catalogue and the subject information portal on a meta-level as well as direct access to selected electronic sources. The numerous tutorials and other material provide young scientists in particular with important support for subject-related searches. A high acceptance and appreciation of the Chemistry Library amongst scientists in chemistry-oriented fields was accordingly ascertained in discussions with customers.

#### Marketing Study: Web of Knowledge

The Web of Knowledge with the "Web of Science" database is one of the most important data sources offered by the Central Library. Along with the search for literature, the database is also used to determine citation clusters and it represents the material basis for the Central Library's bibliometric service.

In spring 2007, the Institute of Scientific Information and the Central Library, signed a cooperation agreement between the two institutions. The Central Library therefore became the only German library in the international user group within the framework of ISI's institutional partnership research.

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In May 2007, the first interviews of users were conducted within Forschungszentrum Jülich by an employee from Thomson ISI in cooperation with the Central Library.

In preparation for the interviews, members of staff at the Forschungszentrum were informed about the study through the Library's information channels – via mailing lists, announcements in the internal electronic Newsletter, and posters in more than 40 institutes.

Interested users were invited to participate in an online survey, which was then used by ISI as the basis for selecting people for interview. It was important that the focus group was representative of all members of staff in terms of age, position, research area, and experience in using databases and more concretely in using ISI.

In the user interviews, standardised questions were asked on usage behaviour and on the evaluation of individual features (such as Workflow, EndNoteWeb and Storage). Before the interviews were concluded, participants had the opportunity to give their opinions on the planned changes in the layout and design of the ISI database. The interviews were documented in writing and they were recorded using a webcam for analysis at a later stage. Participants received an incentive from the company and were pleased to have an opportunity to directly influence the layout and organisation of content.

In the analysis performed by ISI, the results of the Jülich interviews were assessed as extremely important. The Central Library received a summary of the global results for all of the institutions involved together with a breakdown of the results of the Jülich interviews. This meant that the Central Library could use the results to optimise their own range of information services and products. Independent of the concrete results of the survey, the Library was also able to ascertain an increasing awareness amongst users on campus based on the participation rate in the survey and the cooperation with the Institute of Scientific Information.

## Conclusion

User satisfaction depends to a large extent on the ability of the library to integrate user needs into the development of the library. Tools for customer retention, like surveys run on a regular basis, help to detect weak points in library performance and give important hints for the optimisation of library services.

In the long run, the participation of customers in the realisation of open innovation projects garantees immediate access to user needs and a high degree of user satisfaction. Thus turns user success into library success.

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