

Development of Management Methods in Polish Libraries and Information Centers. Hitherto Existing Solutions, New Trends and Directions of Research

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Abstract: The paper presents a recent transformations of management methods in libraries and information centers. There is discussed an influence of management techniques on the effectiveness of library services. The variety of methods which can be useful for libraries are presented as well as criteria that management staff should use during the selection phase. The paper also contains a summary results of recent years, poll-based research on the use of management methods in Polish libraries, including comparison of the state from 2003 with the present state in 2010. There are also discussed a nowadays research trends in the library management.

Keywords: Methods of management, efficiency of management library, changes management

1. Introduction

Among the chief factors that determine the effectiveness of a library are: the quality of management and the methods, techniques and tools of management selected by its directors and managerial Staff. By applying all of these correctly, a library can achieve its strategic goals more efficiently.

Making the right decisions is a precondition for effectively using the methods and instruments of management in a library setting. Before applying any method, a detailed assessment has to be carried out as to its aims and scope. Next, one must identify the criteria that a library has to fulfill prior to implementation, not to mention possible obstacles and practical benefits. Management methods should not be seen as a trend that has to be followed, nor should applying them ever become an aim in itself. Like any other tool, management methods serve a purpose, i.e. enabling a library to function more efficiently. For this reason, the objectives that are to be realized using these methods have to be well defined prior to embarking on the implementation phase. In a library, well-considered strategic decisions can be made only after reviewing all the options presented by various methods, techniques and management tools on offer. Methods such as TQM, Library Benchmarking or Just in Time are useful instruments by means of which a library may enhance its work effectiveness, but they will never replace wise and thoughtful management.

2. Management methods

Methods of management can be subdivided into two categories. **Soft methods**, i.e. TQM and Library Benchmarking, call for gradual evolutionary changes that are to be carried out by consistently raising the quality of service. **Hard methods** like reengineering, by contrast, bring about revolutionary changes. Not every method may be used in all fields of library activity. Most methods, however, are complementary to each other and can be used simultaneously.

Among some of the most commonly used terms from the field of organization and management there are management instruments, management techniques, management methods, approaches, methodologies, methodologies, and the methods and techniques of organization. Many of these terms overlap; they are sometimes used indiscriminately or interchangeably, resulting in unnecessary confusion. For this reason, in the remaining sections of this article, we will use terms found in source literature from the area of management and organization, as listed by J. Antoszkiewicz (from the general to the specific).

By **management methods** we understand "a combination of means and activities recommended by science and applied by managers with the aim of enhancing the effectiveness of management, while taking into account its goals and functions. Management methods are created by selecting the proper methods for planning, organizing, motivating and exercising control in such a way as to ensure that they constitute a complementary whole" (Penc 1997). **Management techniques** are "the procedures and instruments used to solve specific problems in the area of management" (Penc 1997). **Organizational methods** are "purpose-built sets of recommendations relating to the mode of conduct in solving organizational problems; they are based on research and adapted to multiple use" (Penc 1997). **Organizational techniques** comprise "the entirety of systematic modes of conduct based on methods of scientific research, applied in order to solve organizational problems. These techniques are essential components of all methods and techniques of management" (Penc 1997).

Many organizational and managerial methods and techniques, which until now have been used primarily in the corporate world, can also be used in libraries in order to raise effectiveness and affect the process of change. These methods include: strategic management, marketing management, quality management, knowledge management, lean management, library benchmarking, reengineering, Just in Time, teamwork, project management, outsourcing, controlling, Delphi Method, staff assessment system, competency management, participation management, and the card technique.

Strategic management can be defined as method of guiding the long-term development of a library by means of a decision-making process, planning, task realization and control. It means that a library co-participates in shaping its own future, as opposed to passively submitting to change. Strategic management is related to the need to monitor the library's environment, the risks and opportunities that these surroundings generate, the trends and changes occurring in them, and finally the library itself – its resources, capabilities, etc. Strategic management is concomitant to formulating the mission and vision of the library, its strategic goals, strategic plan, and analyzing the internal and external environment.

The aim of **quality management** is to create in the library a quality-oriented work culture. This entails openness in relation to the demands of its users, a friendly and competent service, and ensuring that its book collections are comprehensive and in line with the interests and needs of its patrons. The criteria of quality management can be implemented using any of the following selected qualitative approaches: Total Quality Management, Quality Assurance, Servqual, Quality Function Deployment, Strategic Quality Management and ISO standards.

Knowledge management is a systematic, coordinated process of gathering, verifying, processing, storing and providing access to knowledge, which – in conjunction with other knowledge-related processes – can increase a library's effectiveness. Knowledge management entails organizing a library in such a way as to bring

together all available knowledge resources in a single shared fund of knowledge. These resources comprise both the expertise of individual librarians and the knowledge of the institution as a whole, understood as skills, experience, instruments and procedures, methodologies, relations with the environment and interpersonal relations between library staff.

Lean management is a management method in which, by optimizing, rationalizing and increasing the quality and effectiveness of work, a library can limit the use of resources that it requires to function effectively and realize its statutory goals. In the more specific definition proposed by Jan Sójka, "lean management means that a library comes up with an array of products which correspond to the demands of its users, and that it offers a particular service only when the need occurs" (Sójka 1998). Lean management is based on a sense of economy and on a rational use of library resources, i.e. library staff (basic-level employees as well as office-administration, maintenance and support personnel), materials, buildings and office space, equipment, time and funding.

Benchmarking can be defined as a method of promoting a library's development and increasing its effectiveness by comparing it to the best libraries or to other institutions that can serve as standards of excellence within the relevant group, and transferring their most effective solutions to one's own organization.

Reengineering is a method of rapidly and radically redesigning both strategic processes (with added value for users) and the organizational structure and procedures – with the aim of raising the library's efficiency and effectiveness.

Just in time is a method that enables a library to operate more flexibly by eliminating bottlenecks that might occur when information is delivered to clients. By preventing bottlenecks from forming during gathering and distribution, information reaches the client without losing its relevance. This method enforces a focus on the recipients of information, as all the library's operations are tailored to their needs. Users determine the profile of services and collections offered by the library, helping to eliminate wastefulness. Just in time means that instead of building extensive collections, a library focuses on acquiring only the information that is sought after by its patrons, e.g. by increasing the share allotted in its collections to digital information carriers, using databanks, databases and digital information networks, etc. The just in time method is a rational choice whenever an organization faces the risk that the information that it provides may quickly become outdated, as in the case of institutions serving legal or corporate clients.

Teamwork entails cooperation between library staff from different departments, who work together on specific tasks. Teamwork is most effective when responding to inadequacies in a library's organizational structure and division of responsibilities. It is a method that enables team members to focus on carrying out a single task or project assigned to them. By concentrating in one place the skills and knowledge of staff during group problem-solving sessions, it allows the library to make better use of their potential.

Project management is the method which is focused on a particular targets fulfilled by a team, e.g. computerization of library, digitization of museum collections or organizing readers meeting on specific schedule. Project management becomes widely used by librarians, because it provides clearly noticeable effects of team cooperation.

Participation management is the type of management which allows librarians to fulfill a part of management tasks and entitlement, and to cooperate in decisive

process and realization of objectives, but also to take a responsibility for their activities. This methods broaden the involvement of library staff.

The Delphi Method is an expert method that can be used to create long-term forecasts related to a chosen problem or issue that might potentially impact on the functioning of the library in the future. The Delphi Method is one of a group of methods used for opinion polls. A questionnaire is sent to a group of experts, who are asked to give their opinion on what they expect to be the course of events. The identity of other participants is withheld from each of the experts, and as the participants of the survey cannot communicate with each other, partiality or susceptibility to outside influence can be largely ruled out. Extreme views are filtered out to ensure greater objectivity. Instead of random selection, experts are chosen in terms of their experience and expertise in a given field. The final result is a scenario of future events created on the basis of their opinions.

The aim of **assessment systems** and **staff self-assessment** is to help employees become more aware of their skills, competence and performance, and of their role within the organization. Staff self-assessment has a positive impact on many librarians by stimulating self-analysis, self-development and self-accomplishment. It gives employees a better picture of the aim of their work, and helps them to structure their tasks. It helps library managers to make the most of the available human resources by better mining the potential of staff and cooperating with them in planning careers, professional development and training. Assessment system is a powerful instrument for improving quality.

The card technique, also known as organizational stenography, is a method in which predetermined signs (graphic symbols) replace lengthy and complex verbal descriptions as a means of keeping a record of activities. A graphic symbol is assigned to each activity or event, and the time needed to perform each activity is recorded alongside it. The order in which the symbols are written down corresponds to the chronology of events. Additional information includes the name of the event, the distance of dislocation, and (optionally) a concise explanatory description. The card technique can be used for registering the actual state and finding new ways of streamlining the work cycle. It works well as part of the work method measurement cycle. This cycle, as described by Z. Martyniak (Martyniak 2001), consists of the following phases: (1) selecting the goal and item to be analyzed, (2) recording the actual situation, (3) carrying out a critical assessment and analysis of the situation, (4) designing improvements, (5) implementing the designed improvements. The card technique proves its usefulness most of all in recording the actual situation (2) and designing improvement solutions (4). The card technique can be used to create Document Circulation Cards, Process Cards, Activity Cards (also called Team Activity Cards) and Library Material Circulation Cards, otherwise known as Book Circulation Cards – an equivalent of the Material Circulation Card used in industry.

The methods and techniques of management presented here differ in object, range, complexity and character. They harness the results of various disciplines (psychology, sociology, praxeology, ergonomics, system theory, mathematics, organization and management science, etc.). They can be grouped together in clusters of: heuristic methods based on inventiveness and processes of discovery; rationalized methods, operating with control and verification procedures; and classical (empirical) solutions backed up by experience. They can be used to reach a variety of objectives, e.g. optimizing decision-making, enhancing the quality of service, improving interpersonal relations, achieving a more efficient use of resources, strengthening the

library's cooperation with its environment, or raising the effectiveness and efficiency of the institution as a whole. All of these methods, however, have one overarching goal, and that is to supply libraries with the conceptual instruments that can help them to better organize work processes by improving the use of human, material, informational and financial resources at their disposal. In addition to his, management methods can provide an answer to such questions as:

- How can a library achieve greater efficiency in managing its human resources?
- How can it organize work more effectively?
- How to minimize the labor-intensity of selected tasks?
- How to minimize the use of materials?
- How to make sure that equipment is used to greater capacity?
- How to choose a management style?
- How to motivate library staff?
- How to improve their working conditions?
- How to control the realization of tasks?
- What criteria should be chosen to evaluate the work that is carried out?
- How to achieve better cooperation with the external environment?
- How to improve the quality of services?
- How to make the work of the library more efficient and how to raise its effectiveness?

Libraries that wish to improve their effectiveness can apply a range of other methods and techniques of management. The include crisis management, management by objective, management by decentralization, management by innovation, management by motivation, management by values, and others. The choice depends on many individual factors, such as the available expertise related to applying management methods, an understanding of the library's environment, awareness of its organizational potential and the ability of library staff to effectively engage in the cooperation.

The methods of library management evolve constantly in response to the demands of a changing environment while new solutions replace outdated ones. It is essential, therefore, that managerial staff and library directors track these changes and adapt the rules of management to the demands of the situation. By doing so, they will improve the library's relationship with its environment and raise the patrons' level of satisfaction with regard to the services on offer. This, in turn, will create a positive image of the library as a modern service-providing institution.

Most of the methods and management tools reviewed here were first developed in the business world by global production companies such as Toyota, IBM or Xerox. It was only later that they reached commercial and, as time went by, non-profit service-providing institutions. Libraries – belonging to the latter group – have used scientific methods of management rather infrequently and inconsistently. Where these methods have been implemented, it has mostly been at the instigation of library Chief Executive Officers. Consequently, wide-scale research describing the process of implementation and evaluating the results is virtually non-existent and literature on the subject is limited to a handful of articles.

Even though the methods surveyed here – both those adapted to a commercial and a non-commercial (library) setting – were developed over a period of time, the ones that were created later have not supplanted the older ones but – instead – act as a

complement to them. Apart from a common goal – effectively managing the process of introducing changes and raising the work-quality and efficiency of the library – each of the methods presented here reflects the typical trends of the second half of the 20th and the beginning of the 21st century. These tendencies include: a flattening of the organizational structure, limiting the role of intermediate-level management, training and educating personnel, raising their level of involvement, teamwork and delegating competence and responsibilities.

3. Research

Despite the dearth of research on this topic, in the years 2003-2010 a research initiative was carried out aimed at examining the level of interest among Polish libraries in implementing management methods. Over 1,000 libraries nationwide were asked to complete a brief survey on the use of such methods and on the plans for implementing them. The questionnaire was addressed to a wide variety of institutions, ranging from the smallest ones (staffed by one employee) to the country's largest research libraries. The poll was carried out on a sample of libraries from each voivodship in Poland, i.e., public libraries, libraries of institutions of higher education, pedagogical libraries, technical libraries, professional libraries, medical libraries, museum libraries, church libraries, scientific institutes' libraries, agricultural libraries, libraries of the Polish Academy of Sciences (PAN), libraries run by associations, archives, economic libraries and military libraries. Its size and diversity allowed the researchers to come up with a general hypothesis as to the growth tendencies related to the use of management methods in libraries nationwide.

Nearly 300 libraries responded to the poll. The size of this sample, while constituting approximately 30% of the overall target group, is still large enough for statistical purposes, and gives a clear indication of the use of management methods by libraries in Poland. Most of the responding libraries do not use methods of management, nor are they planning to introduce methods of this type in the near future. Many of them do not have even the most basic knowledge in this respect. Other libraries are planning to introduce a chosen range of methods, or are studying them with a view to implementing them at a later date.

Out of the libraries examined, 45 institutions, i.e. 15.9% of the sample, are using one or more methods. The remaining 84.1% of libraries do not use any method, although some of them have been making plans to start the implementation process. Libraries typically employ one or two methods linked together, with a small percentage of libraries using up to four methods. The biggest users of these methods are academic libraries, pedagogical libraries and public libraries located in large cities. Incidental users include school libraries, technical libraries, medical libraries, economical libraries and military libraries. Most of the libraries that do not use such methods include museum libraries, church libraries and scientific institute libraries, libraries run by associations, archives, and the libraries of the Polish Academy of Sciences (PAN). This might be linked to the character of these libraries (except for the larger PAN libraries); as most of them are staffed by a small number of employees, local in nature, and vested in history and tradition.

The methods most frequently used by Polish libraries include strategic management (implemented by 31% of the libraries declaring the use of any method management), a range of qualitative approaches (24%), and staff assessment (20.3%). Among the methods used less often are task-oriented teamwork (11.1%), the card technique (9.2%), benchmarking (9.2%), reengineering (5.5%), knowledge management (3.7%)

and just in time (3.7%). None of the libraries participating in the poll declared the use of lean management or the Delphi method.

Even though several dozen libraries admitted to using selected methods of management, many institutions made the point that these techniques were being implemented as part of a pilot-project, and that this was not being carried out to strict professional standards. The managers of these libraries emphasized a lack of skills needed to use these methods and referred to restricted options with respect to training, courses, seminars and professional literature (primarily textbooks and applications). In spite of this, many librarians are working to extend their knowledge and experience in the field of modern forms of managing non-profit institutions. Many see this as a chance to further their own development. On the other hand, many library employees oppose the introduction of management methods, believing that they would form a threat to the character of their libraries, their work culture and traditions. These employees see management methods as an artificial and unnatural attempt at placing libraries on the same level as commercial institutions.

From 2009 to 2010 the similar research was done to indicate changes in library management and organization. The poll was responded by 92 libraries (public, school, pedagogical, academic, and scientific). The 52 of them, which is equal to 56.5%, do not apply any of management method. The remaining libraries utilize one or several methods among these listed in the table.

METHODS	NUMBER OF LIBRARIES USING THESE METHODS
Teamwork	27
Staff assessment	15
Knowledge management	10
Strategic management	9
Competence management	9
Participation management	7
Project management	7
Benchmarking	5
Marketing management	4
Controlling	3
Quality management, including: TQM	3
ISO standards	3
Outsourcing	2
Just in time	1
Lean management	1
Delphi Method	1

Tab. 1. Information on the types of methods used by Polish libraries can be found in 2010

Among the most important changes (in respect to results from 2003) are a significant increase of interest of work organization and staff evaluation systems.

4. Conclusion

Even though several dozen libraries admitted to using selected methods of management, many institutions made the point that these techniques were being implemented as part of a pilot-project, and that this was not being carried out to strict

professional standards. The managers of these libraries emphasized a lack of skills needed to use these methods and referred to restricted options with respect to training, courses, seminars and professional literature (primarily textbooks and applications). In spite of this, many librarians are working to extend their knowledge and experience in the field of modern forms of managing non-profit institutions. Many see this as a chance to further their own development. On the other hand, many library employees oppose the introduction of management methods, believing that they would form a threat to the character of their libraries, their work culture and traditions. These employees see management methods as an artificial and unnatural attempt at placing libraries on the same level as commercial institutions.

In the context of this debate and the research results quoted above, the following questions appear to be relevant:

1. To what degree does the use of management methods in libraries reflect the current needs of these institutions based on rational considerations?
2. How high is the risk that using management methods in libraries might result in depriving them of their character as non-profit institutions?
3. Should the use of management methods remain limited to large library institutions or research libraries staffed by employees with well prepared academic background?

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Chapter 3. Using Qualitative and Quantitative Methods in Digital Library Education and Research

The Use of Phenomenographic Approach to Investigate Students' Conceptions of the Use of Web 2.0 Tools

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Abstract: This paper discusses the data collection instrument and data analysis using phenomenography, a qualitative research approach used to investigate DILL students' conceptions of the use of Web 2.0 tools. The research was undertaken as researcher's master's thesis in the digital library learning programme at the Institute of Information Studies, Tallinn University. The iterative process of phenomenography research specialization and justification for its use for the current study are discussed.

Keywords: Web 2.0 tools, phenomenography, DILL students, semi-structured interview, categories of description, and outcome space

1. Introduction

In the past five years the use of Web 2.0 tools has permeated many human spheres including higher education sector. Its incorporation into higher education is a new phenomenon, though many higher education institutions have experimented with it. Consequently, evidence showed that its incorporation into higher education sector is not without challenges or problems (Franklin and Harmelen, 2007). The challenges of the incorporation of Web 2.0 tools into higher education, include, the students' preferences of the use of Web 2.0 tools and the required skills to use it. Therefore, the aim of the research was to acquire a deeper understanding of Digital Library Learning (DILL) students' conceptions of the use of Web 2.0 tools focusing on students' preferences and the required skills to use Web 2.0 tools. DILL programme is an international master in Digital Library Learning which runs among three European universities (Oslo University College, Norway, Tallinn University, Estonia and Parma University, Italy).

To achieve the aim of the research, the following research questions were framed.

Research Questions

1. How do DILL students experience Web 2.0 tools?
2. What are the DILL students' preferences of the use of Web 2.0 tools?
3. What are the required skills to use Web 2.0 tools?

Scope and Limitations

- The target sample for the study was DILL students (groups 2 and 3) from Africa and Asia, other DILL students were not considered.
- Only English language literature was reviewed for the study.

This paper examines phenomenography, a research approach used by the author for her master's thesis.