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Implementation of a Centralised System for Managing Processes in Cultural Institutions

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ABSTRACT

This paper presents a centralized process management system designed to address the complexities of managing cultural institutions. Built on the Aurea BPM platform, the system automates document circulation for tasks like budgeting and contracts, facilitates real-time reporting on activity progress, and maintains a comprehensive record of process history. This integrated approach enhances efficiency through streamlined workflows, improves transparency with a centralized information source, and empowers effective resource management by enabling institutions to precisely track budgets and procurement plans. Overall, the system fosters improved collaboration, transparency, and resource management within cultural institutions.

Keywords: Cultural institution, Business process, Systems design, Centralised system, Aurea BPM, Managing processes

INTRODUCTION

Nowadays, cultural institutions have to face not only the problems faced by all developing organisations, but also the conditions imposed by the rules of public funding of activities. In addition, the evolution of audiences and their growing expectations affect the nature of activities, their pace and their diversity. Cultural institutions now have to combine traditional statutory activities with new forms of access to collections. The evolution of audiences and their expectations influence the nature of activities and their diversity (Pepin et al., 2023; Krupskyi and Stasiuk, 2023; Fitzpatrick, 2022; Nikiel, 2019; Tekeli, 2023; Biryukov and Romanenko, 2017). With the rapid development of global economic integration, business exchanges between domestic and foreign enterprises are becoming more and more frequent (Huang, 2023).

Due to the diverse nature of the needs, the responsibility for the domain and funding processes in the cultural institution under study was, until recently, distributed among different people and communication flows, which often resulted in a lack of consistency of activities and a high time commitment for the team (Waszkowski et al., 2017; Nowicki et al., 2013). Prior to implementation, the cultural organisation's staff relied on IT systems

that, over time, had reached their limits in terms of efficiency and usability. The organisation had been looking for a long time for an innovative solution that would combine the features of a modern, efficient IT tool and at the same time be easily adaptable to the specificities of working in a cultural institution (Zemīte, 2022; Smiraglia, 2014; Wavell et al., 2002; Waszkowski, 2019; Waszkowski et al., 2018; Waszkowski et al., 2020).

The innovativeness of enterprises is determined by the operations and activities of the numerous innovation centres, including technology parks, innovation centres, technology and transfer centres, academic incubators, as well as loan funds, credit guarantee funds and other organisations whose aim is to support innovation in a broad sense. The innovative capacity of enterprises is strengthened by good cooperation with local authorities and the scientific community, as well as with the above-mentioned business environment institutions. These are all prerequisites for the acquisition and creation of new knowledge, skills and technologies. Cooperation between enterprises and external entities makes it possible to obtain the synergy effect, which increases the competitive position, effectiveness and efficiency of operations (Kamińska, 2023).

The cultural institution was looking for a platform to assess and describe project risks and monitor progress. A notification system for critical deadlines that would reduce routine and redundant formal operations in favour of automation.

The implementation of business processes based on the Aurea BPM platform engine was a major step in the development of the selected cultural institution. The overall goal of the system is to support process management while increasing organisational efficiency and optimising budget utilisation. The use of a class BPM system provides the opportunity for extensive user involvement in the process description phase, process modelling and faster implementation (Aurea BPM; Apaydin et al., 2022; Wiggins and Davis, 2006).

Cross-cultural integration plays a crucial role in international business management. It not only promotes diverse development and innovation within companies, but also acts as an important driving force for the implementation of global strategies. Therefore, in-depth research and attention to cross-cultural integration is crucial for the future development of international business management. This will help to provide more effective management models and strategies for companies to meet the challenges of global development (Huang, 2023).

OBJECTIVES AND CHALLENGES OF IMPLEMENTATION

Before starting the work, the main objectives of the implementation of a centralised system for managing processes in cultural institutions were identified and described. These objectives were identified on the basis of the needs of the studied cultural institution related to the development of statutory activities, reduction of expenses and time, as well as adaptation to modern working standards. During the analytical work the following main

implementation objectives were distinguished (Zemīte, 2022; Kutsuri, 2020; Çakmak, 2018):

- support process management to increase organisational efficiency,
- optimise budget utilisation,
- integration with internal finance, HR, workflow and accounting systems,
- ability to manage budget, control procurement processes and activity reporting system,
- introduction of electronic document workflows and registers (e.g. holiday requests, business trips, invoices).

The conceptual work identified the following challenges related to the nature of cultural institutions' activities (Zemīte, 2022; Kutsuri, 2020; Çakmak, 2018; Nabli and Nugent, 1989):

- the need to combine traditional statutory activities with new ways of working,
- the parallel operation of several enterprises with a complex organisational structure,
- the creation of special modules in the system for the activities of cultural institutions,
- the parallel running of projects at the substantive and formal levels, and the coordination of human teams working simultaneously on several projects.

The process of planning and preparing for the implementation of a centralised system for process management in cultural institutions involved a wide range of activities, from the formulation of functional goals and objectives, integration with the existing infrastructure, to preparing staff and process owners for changes resulting from the new system. The process of planning and preparing for system implementation mainly involved activities such as (Zemīte, 2022; Kutsuri, 2020; Çakmak, 2018; Antosz et al., 2022):

- working with a design approach,
- the need to formulate functional assumptions and goals for the project,
- developing the assumptions and goals together with the analysis team,
- carrying out a comprehensive business case for building the new system,
- defining priorities, such as monitoring work progress, automating routines, and building a reporting system,
- conducting meetings and training sessions for end users,
- integration with the existing IT infrastructure,
- preparation for migration (data, documents, users, procedures, records).

The lack of a proper planning process, the lack of understanding of the nature and role of certain instruments, and the insufficient link between all elements of the plan and the mission of individual cultural institutions leave room for individual improvisation and disputes (Gałecka and Smolny, 2023; Hasitschka et al., 2005).

COMPONENTS OF THE PROJECT

The following elements of the implementation of a centralised system for process management in cultural institutions were identified:

1. The supply of software licences for the development, test and production environments.
2. Installation and commissioning of the delivered software.
3. Analysis of the current state of the organisation in terms of the processes used in it, optimisation of the business processes in accordance with the scope of the implementation.
4. Delivery of the system, including design and implementation of modules based mainly on business processes (see Figure 1):

    - **Document flow module**
      This module allows the handling of business processes related to document circulation. It includes the following processes:

        - circulation of purchase requests,
        - circulation of cost documents,
        - electronic office workflow of incoming and outgoing letters, o civil-law agreement workflow,
        - circulation of civil law contracts,
        - business trip circulation,
        - circulation of holiday requests.

    - **Activity Management Module**
      This module is the main element of the system that allows the creation, management and follow-up of initiatives registered by users in the system. Thanks to the possibility of defining approval paths, the actions created can be validated and approved by the required persons and then directed for implementation. Special forms allow users to describe and categorise the actions entered into the system, which greatly facilitates their further evaluation and verification. It also defines objectives, scope and deadlines, and assigns team members and their authorities and responsibilities. In addition, this module allows you to identify and assess the risks associated with the activity and to define countermeasures, thus facilitating the management of the risks associated with the idea. This module has built-in communication tools that allow easy exchange of information between team members associated with an activity.

    - **Procurement and Reporting Module**
      This module is responsible for creating budget lines, managing the budget for activities and all work related to activities by creating a schedule of activities and actions, and controlling the budget by attaching specific expenses to previously created activities and actions from the schedule. Thanks to the integration with the workflow module and the activity handling module, the system allows to track the use, implementation and transfer of funds from individual projects, activities and actions.

- **Global reporting - factual reporting on the activities of the cultural institution**
  This module is integrated with the modules described above and is based on the data collected in them. The module enables the presentation of the schedule of individual activities and actions, as well as the schedule of all activities on a Gantt chart. The module makes it possible to efficiently manage activities and monitor the progress of work carried out within them, as well as to design and implement dynamic reports.

5. Provide analytical documentation for the above modules.
6. Delivery and parameterisation of the system.
7. Delivery of the configured system installed in a test environment.
8. Testing and implementation.
9. Installation of the system in a production environment.
10. Implementation for BPMS platform administrators, business analysts and key users of the system.
11. User training.
12. Implementation of maintenance and support services.
13. System development.

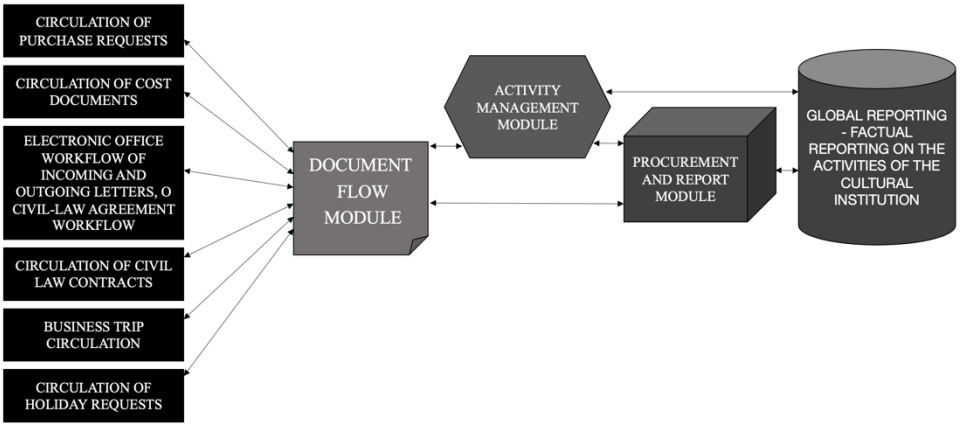

Figure 1: Centralised system for managing processes in cultural institutions.

IMPLEMENTATION LESSONS

The implementation of a centralised system for process management in cultural institutions has undoubtedly had an impact on the implementation of day-to-day tasks, among others:

- comprehensive budget management, process control, an integrated reporting system that can be handled in one place,
- reduction of routines and unnecessary formal operations in favour of automation,
- possibility of electronic handling of processes (accessibility, remote work, registers, reports),

- easier management and implementation of projects,
- increased efficiency of work organisation,
- optimisation of budget utilisation, thanks to process management,
- easier monitoring of work progress,
- faster and easier reporting on the activities of cultural institutions,
- electronic document circulation,
- integration with an external system (smooth flow of information and data between different areas such as finance, human resources and document flow),
- automation of processes, thanks to the elimination of unnecessary steps, including acceptance steps.

The implementation of a centralised system for process management in cultural organisations has identified a comprehensive set of lessons that can be recommended to other cultural organisations (Nowicki et al., 2017, Waszkowski, 2019):

- the active involvement of users in the planning phase brings far-reaching benefits in implementation,
- taking into account the specificities of the sector and the needs of cultural institutions is essential for success,
- the ability to modify and adapt the platform to individual needs is essential in this type of implementation,
- planning the implementation objectives; defining the functional scope is fundamental and a step that cannot be omitted,
- the flexibility of implementation and the ability to adapt the system is essential in today's dynamically changing environment.

CONCLUSION

The implementation of a centralised system for managing processes in cultural institutions in the selected organisation enabled more effective management of the financial sphere, and in particular the planning of budget expenditure and the monitoring of the implementation of approved projects, which made it possible to assess risks in the planning and implementation of projects carried out as part of statutory activities, such as exhibitions and conferences. The implementation of the system has improved communication with suppliers and subcontractors in terms of drafting letters, contracts and documentation, as well as enforcing and settling tasks assigned to employees. The structuring and documentation of existing processes and the modelling of future processes is important in terms of creating quality standards for cultural institutions and supporting the training and information system for staff. As the importance of organising remote working has definitely increased in the face of epidemic threats (Reformat, 2023; Roggeveen and Sethuraman, 2020), the implemented system has ensured that data and functions can be accessed from anywhere via secure web interfaces that comply with the latest standards. Integration with existing IT systems is also important. The system provides a reporting platform for management information as well as substantive and financial reporting to regulatory authorities.

The integration of the central system with the internal systems for finance and human resources, document circulation and archiving, and the accounting system went smoothly and according to the agreed timetable. After a multi-threaded integration, the central process management system is now the only place to manage budgets, control processes, public procurement and monitor the cultural institution's activities. After two years of working with the system, employees point out that the implementation has enabled them to work in a modern organisation that aims to reduce costs and time and focus on developing statutory activities.

It is worth noting that the process owners and potential users of the system had extensive input into the design of the processes, forms and dashboards, which ultimately minimised the need for lengthy and complex training. The training sessions enjoyed broad involvement from process owners and future users of the system and were divided into sections tailored to specific user groups. The training was based on real data and pre-prepared test scenarios.

Challenges faced during the implementation included: limited financial resources; parallel project work and ongoing tasks; implementation of electronic workflows for processes that were previously analogue.

A key objective of the implementation was also to create a reporting system for internal use and regulatory reporting that would enable group work.

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