Library management systems projects based on SAAS technology (Software as a Service): a case study of the KOHACAT project

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Abstract

The research paper explores an entrepreneurial project in library management systems, focusing on the globally renowned KOHA system. Launched in 2000, KOHA has been continuously developed by a vast community of developers, libraries, and commercial companies. This project offers an integrated library management system

accessible online, catering primarily to small-sized libraries, with a specific focus on school and larger libraries.

KOHA allows participating libraries to perform all essential operations, including cataloging, lending, user registration, and various other functions supported by standard library management subsystems. Additionally, it facilitates the sharing of bibliographic data with other libraries, thereby saving time on cataloging tasks while ensuring the necessary privacy for managing patrons and their collections.

Keywords

Libraries management systems, KOHA

1. Methodological Introduction

The approach to using library and information management systems has evolved significantly over the past decade. Traditionally, libraries implemented these systems locally within their institutions, which increased the burden due to the high costs of software, infrastructure, and the need for qualified personnel to operate these systems. However, with the development of the Internet, the rise of cloud computing, and fourth-generation Internet services, the adoption of Software as a Service (SaaS) began to spread. Although SaaS emerged in the late nineties, its popularity surged with the advancement of Internet services, particularly in libraries and information centers. Many specialized companies have adapted their products and library management systems to this model, alongside the rise of open-source systems designed to support and leverage this approach. The proliferation of cloud computing services and competitive pricing of cloud servers further facilitated this shift.

This research paper will focus on the business model underpinning the service, starting from naming and branding, identifying target customers, determining required services, preparing the necessary infrastructure, understanding subscription models, and outlining the tasks and responsibilities associated with the system. This approach provides a range of distinguished services for libraries, significantly reducing expenses and efforts, as well as minimizing the responsibilities libraries face when making their catalogs available and managing operations with local systems.

The paper will also discuss the procedures and practices for identifying target customers and marketing the system, serving as a guide for anyone wishing to create an entrepreneurial project or SaaS application that can be applied across various sectors.

2. The Phenomenon of the Study and Its Questions

This study examines one of the platforms operating on the SaaS model for library management systems, a model that has recently gained traction due to its ease of implementation and lower cost compared to traditional local system projects. This study reviews the topic from a commercial perspective of library management systems platforms and aims to answer the following questions:

- What is Software as a Service (SaaS)?

- What are the advantages of SaaS for libraries?

- What are the system needs of libraries?

- What will the KOHACAT service provide for libraries?

- How does the service benefit libraries?

- Comparisons between SaaS and local systems

- What are the requirements for implementing the project?

- What are the technical and technological requirements to operate the project?

3. The Importance of the Study

The importance of the study stems from:
- Introducing the most renowned platforms available under the SaaS model
- Outlining the steps and needs for implementing the project
- Highlighting the features of the KOHACAT service and how libraries can benefit from subscribing to such systems
- Demonstrating the practical aspects and requirements for implementing the KOHACAT project to serve as a model for similar projects
- Comparing the feasibility of subscribing to SaaS platforms versus implementing local projects to produce concrete results on the benefits of this service model

4. Objectives of the Study

- To study the technical aspects of creating the KOHACAT platform
- To examine the implementation steps and operational needs of the platform
- To analyze the KOHACAT platform and present its components
- To explore the services provided by the KOHACAT platform
- To compare KOHACAT as a SaaS solution with local software implementation

5. Study Methodology

The study will use a case study approach, focusing on a specific instance to answer its questions and achieve its objectives. This approach involves collecting facts, data, and information about one particular case, making it the primary source of information. The tools used in this research will include:

- Reviewing literature on library management systems as a service

- Direct interaction with the platform to gather actual information about its operations and effectiveness

6. Results and Recommendations

The study yielded the following insights:

- Understanding the Technical Aspects: The research provided detailed knowledge on the technical requirements for establishing the KOHACAT platform, including the necessary infrastructure.

- Implementation Steps and Operational Needs: The study identified the steps required to implement the platform, from selecting the service name and logo to addressing marketing and legal requirements for contracts.

- Basic Subsystems Exploration: The research examined the core subsystems of the platform, illustrating how they support multiple libraries while maintaining privacy for each one.

- Review of Services Provided: The study reviewed the services offered by the KOHACAT platform, emphasizing its focus on library services.

- Comparison Between SaaS and Local Implementation: The study compared KOHACAT as a SaaS service to locally implemented software, highlighting key findings:

  - Cost Efficiency: SaaS models like KOHACAT are more cost-effective than locally implemented systems.

  - Operational Support: SaaS platforms offer extensive support, including essential tasks and personnel necessary for ongoing system operations.

  - Infrastructure Management: SaaS providers handle the infrastructure, maintenance, and support, reducing the burden on libraries.

  - Enhanced Security and Availability: SaaS platforms provide higher levels of security and availability, ensuring reliable access and data protection at a lower cost compared to local implementations.