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Master's Thesis Abstract

**Development of a resource management methodology in an
IT company BLOOMEX INC.**

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Introduction

The integration of information technologies into business processes has become crucial for the modern organization's success. However, introducing a new information system into business processes is a complex and costly process that can impact various aspects of enterprise activity.

Nevertheless, effective methodologies and standards have been developed to address the challenges of implementing a new information system. This thesis aims to propose a specific approach to resource management that can effectively meet the objectives and challenges of resource management in the IT industry.

The thesis will conduct a literature review and analyze various resource management methodologies, and propose a specific resource management methodology for an IT company based on the findings. Additionally, this thesis will explore the theoretical aspects of project management methodology, basic concepts of the project management system, and the effectiveness of the project management system in the company.

Problem to solve

Bloomex operates in multiple countries and manages a variety of projects simultaneously, including website and CRM development, third-party integrations, delivery app development, POS system development, data warehousing, and state orders processing. However, managing these projects across various teams, time zones, and locations presents a significant challenge for the company.

Bloomex faces several challenges that affect its operations, including confusion and errors in project data tracking and reporting, difficulty in understanding and meeting customer requirements, challenges in meeting project deadlines, issues with the quality of software products, and a high turnover rate among employees.

Confusion and errors in project data tracking and reporting arise from the lack of standardized procedures for recording and reporting project data, unclear roles and responsibilities for information management, and insufficient training and support for employees. The absence of processes for gathering and incorporating customer feedback into product development, limited engagement with customers, and a lack of dedicated resources or budget allocated for researching industry trends make it challenging to understand and meet customer requirements.

Meeting project deadlines is a challenge due to unclear project timelines, insufficient staffing levels, and a lack of effective delegation and task management systems. Issues with the quality of software products stem from the lack of proper testing processes and insufficient resources or budget allocated for testing and quality assurance. Finally, the high turnover rate among employees is due to the company's insufficient employee retention and engagement initiatives.

Solution

After studying the project management system, the organization's problems were identified. The company's current situation is a major obstacle to effective functioning since it can be characterized as a project due to the specificity of its activities. The issues were divided into two groups: problems with organizational activities and problems that affect the organization's income. The first group includes untimely updating of essential information and low preparation for changes in customer requirements. The second group includes frequent overtime of work, low-level internal software product testing, and high risks associated with personnel (illness, dismissal).

To solve the identified problems in Bloomex, it is recommended to refine the current project implementation methodology, specifically Scrum. This approach is cost-effective, speeds up the acceptance of change, and leverages a high level of corporate cohesion. The following activities were implemented to improve management in the company:

Poker planning is a flexible, consensus-based assessment and planning method used by Agile teams worldwide. The product owner or client describes the task or function for the team, and each evaluator "holds a deck of cards" Poker Planning with values representing the number of points, ideal days, or other units in which the team evaluates. If all evaluators

choose the same value, it becomes evaluative. If not, evaluators discuss their estimates, and developers with high and low ratings justify them by giving arguments. This process is repeated until a consensus is reached.

The T-shirt size method is used to determine the size of the task, allowing decomposition of the work, and is usually used in flexible projects. Items are classified by T-shirt size: XS, S, M, L, XL. The development team assesses the workload and evaluates whether it is very small, small, medium, large, very large, or huge. Once evaluated, the development team can think more dynamically about the burden of the task, and the dimensions can be converted to a numeric value after the evaluation is completed.

Use of a task board: The team used a task board to track the progress of tasks and to improve communication between team members. A task board is a physical or digital board that displays the status of tasks in progress. It helps to keep the team informed about what tasks are being worked on, what tasks are completed, and what tasks are pending. This visual representation of the work helps to identify bottlenecks and other issues that may arise during the development process.

Daily stand-up meetings: Daily stand-up meetings were held to improve communication and collaboration within the team. These meetings are short and focused, with each team member providing a brief update on their progress and any issues they may be facing. This helps the team to stay aligned and to identify any issues early on, before they become major problems.

Improved documentation: Documentation was improved to ensure that all team members had access to up-to-date information about the project. This included project plans, user requirements, design documents, and technical specifications. By keeping documentation up-to-date, the team was able to avoid confusion and ensure that everyone was working towards the same goals.

Overall, these improvements helped to increase efficiency and productivity within the Bloomex project. By refining the project implementation methodology, using tools such as poker planning and a task board, and improving communication and collaboration within the team, Bloomex was able to deliver a high-quality product within the set timelines and budget. To improve team efficiency, several changes were implemented, including reducing daily schedules to increase useful work time, holding weekly reports and daily "morning coffee" synchronizations, developing a resource allocation table to distribute developers among managers, and introducing the 7/1 system for small tasks.

During a war conflict between Russia and Ukraine, a project manager had to quickly devise a strategy to manage resources effectively and ensure that the project continued despite significant disruptions to Ukrainian team members' work. They divided tasks among Russian team members and provided support for Ukrainian team members to work from home or safe locations when possible, successfully completing the project on time and within budget.

A Gantt diagram was introduced to visualise project tasks on a timescale and easily diagnose the causes of delays. A single document regulating the actions of the collective company was also created, with feedback and proposals for improvement adopted after the first version was presented.

The improvements were initially implemented for two project managers, with positive feedback leading to implementation for the whole company. The changes resulted in increased productivity, customer loyalty and involvement, simplified task assignments, improved communication and understanding within the team, and increased staff initiatives in joint discussions. The direct implementation of the methodology in the company took four hours.

Conclusion

Despite the large number of research in project management, there is no one-size-fits-all template.

By comparing different IT company resource management methodologies, the advantages and disadvantages of each system were identified. By combining the best aspects of the methodologies, points were introduced that increase the efficiency of the developed product in the company.

The development and implementation of business innovations is a labour-intensive task, but one of the most basic. The conducted analysis is important for making changes and tracking the dynamics of growth of the company's performance. The changes have had a positive impact on the company's status.

Work will continue on studying «weaknesses» of the company and development of a set of measures to increase the efficiency of employees and to increase the loyalty of customers to the company.

Thus, it is safe to say that the work done had a positive impact on a small part of the IT market. The planned presentation will help other companies in the industry to improve their performance and work more efficiently.

Keywords

Information technologies, Business processes, Information system, Resource management, Methodologies, Project management, Scrum, Poker planning, T-shirt size method