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(Journal of Information System and Technology)

journal homepage: <https://journal.uib.ac.id/index.php/joint/>



Human Capital Management (HCM) Project Development

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Abstract

This study examines the integration of the agile scrum framework as a project management approach in a software development context. The research objective was to evaluate the use of agile scrum for enhancing digital transformation initiatives. The findings indicate that the implemented system can be effectively utilized by the organization, aligning with its requirements. Additionally, the agile scrum methodology proved beneficial in increasing the adoption of SAP SuccessFactors within application consulting settings, emphasizing the need for flexible integration of project management practices to accommodate rapid business dynamics.

Keywords: SuccessFactors, agile scrum, project management

Abstrak

Penelitian ini meneliti integrasi kerangka kerja agile scrum sebagai pendekatan manajemen proyek dalam konteks pengembangan perangkat lunak. Tujuan penelitian ini adalah untuk mengevaluasi penggunaan agile scrum untuk meningkatkan inisiatif transformasi digital. Hasil dari penelitian ini menunjukkan bahwa sistem yang diimplementasikan dapat digunakan secara efektif oleh organisasi, sesuai dengan kebutuhannya. Selain itu, metodologi agile scrum terbukti bermanfaat dalam meningkatkan adopsi SAP SuccessFactors dalam pengaturan konsultasi aplikasi, yang menekankan perlunya integrasi yang fleksibel dari praktik manajemen proyek untuk mengakomodasi dinamika bisnis yang cepat.

Katakunci: successfactors, agile scrum, manajemen proyek

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I. INTRODUCTION

The development of technology has brought digital transformation changes in businesses in every industry to generate better revenue and employee experience. This transformation is used as a change in terms of vision, mission, process, and strategy that allows companies to get a better way to operate and compete with potential competitors. The faster development of technology will urge companies to adapt to the changes that exist. In addition, the human side

also has a significant impact on this change [1] [2].

However, the transformation to digital systems is not without its challenges. While the benefits of increased efficiency, productivity, and profitability are enticing, the implementation of such complex systems can also create disruptions and resistance within the workforce. Employees may be hesitant to adapt to new technologies and processes, leading to reduced

engagement and productivity in the short term [3].

Additionally, the cost of implementing and maintaining these digital systems can be significant, potentially outweighing the long-term financial benefits. Organizations must carefully weigh the pros and cons and develop a comprehensive change management strategy to ensure a successful digital transformation that is embraced by their workforce.

There are several key enterprise systems that companies often implement to manage their human resources and streamline various HR functions. Human capital management (HCM) and enterprise resource planning (ERP) systems are particularly important for effectively managing the human resources of an organization. These integrated software solutions will help companies automate various HR functions, such as onboarding, payroll, performance management, and other HR needs. By utilizing these systems, companies will increase operational efficiency, speed up decision-making and encourage a productive workforce [4] [5]. One of the HCM systems that covers HR needs is SAP SuccessFactors.

SAP SuccessFactors is a cloud-based system that facilitates various solutions for human resource management. With its modular approach, the platform organizes its modules into various categories that cover different aspects of legacy resource management. These modules cover various sections such as recruitment, employee development, executing learning, and other HR sections [6] [7].

Effective implementation and utilization of systems can have a significant impact on a company's overall business performance, revenue generation, and employee well-being. But achieving this positive impact requires the right implementation approach, skilled personnel, and effective project management. With proper execution, digital transformation can drive improvements in efficiency, productivity, and profitability, as well as increase employee satisfaction and engagement [8].

One of the experienced implementors of digital transformation solutions in Indonesia is PT. Weefer Indonesia. This company has proven expertise in implementing a wide range of enterprise systems, including the cloud-based human capital management platform SAP SuccessFactors [9]. The presence of a reliable and experienced implementor like PT. Weefer

Indonesia can significantly increase the effectiveness and efficiency of digital system implementations. This ultimately leads to a more positive impact on the company's overall business performance, cost management, and implementation speed, ultimately driving improvements in efficiency, productivity, and profitability, as well as increased employee satisfaction and engagement.

II. LITERATURE REVIEW

Research carried out by [10] about applying the scrum framework in managing the development of candidate profiling project contain a integration of scrum and agile for a human recourse management system. This research aims to demonstrate how applying Scrum, together with a well-designed system, can result in a more efficient and effective development process. The findings indicate that using the scrum framework enabled the product owner and development team to closely monitor the development process and organize task allocation among team members.

Another study explored the critical success factors and challenges associated with implementing cloud-based Enterprise Resource Planning (ERP) systems in small and medium-sized enterprises, from the perspective of vendors [11]. This research involved in-depth interviews with six cloud ERP vendors in New Zealand, which provided a comprehensive understanding of cloud ERP implementations. One key finding underscores the vital importance of sound project management practices in addressing challenges and ensuring the successful implementation of cloud-based ERP systems.

Another research is conducted by [12] about the application of the scrum framework in developing a payroll information system. The research aims to demonstrate the scrum framework in developing a payroll information system. The result of this research is using the scrum framework will Improved development process, Increased efficiency and enhanced product quality.

Additionally, research has been carried out on the implementation of the agile scrum methodology in developing a mobile application known as SICITRA [13]. The study aims to document how the agile scrum approach can be effectively utilized throughout the application

development lifecycle. This paper also use case study to analyzed the process of using agile scrum in the development. The findings from this study suggest that the use of agile scrum can lead to benefits such as organized product management, measurable progress and productivity, as well as improved communication and collaboration.

III. METHODOLOGY

The method used in this research at PT. Weefer Indonesia is agile scrum. Agile is a term for a collection of principles and practices that place a focus on teamwork, quick iterations, and adaptability in project management and software development [14]. In order to produce working software or prototypes more quickly, projects are broken up into brief sprints using the incremental and iterative agile scrum methodology. The product owner is in charge of creating and prioritizing the product backlog, making sure that the items in the backlog are defined, and making sure the project is in line with business goals. The scrum master is in charge of assisting the team in adhering to the scrum methodology, removing any obstacles, and facilitating the scrum process. While at the conclusion of each sprint, members of the development team are in charge of delivering the working product increment [15]. There are several iterative cycles that must be completed while using the scrum technique for project management, as shown in Figure 1.



Figure 1. Scrum Lifecycle

The agile software development process is guided by the scrum framework, which consists of several important phases. Among these is the process of creating a product backlog, in which the product owner lists the features and specifications of the product in order of importance. The product backlog is then divided by the team into smaller, more doable tasks that may be finished in a sprint, which is a set period of time that usually lasts two to four weeks. The

cross-functional development team collaborates to deliver a potentially shippable product increment during the sprint execution. The team can consistently and effectively add value to the product throughout the development lifecycle thanks to this structured, iterative approach. There are usually four main stages to applying scrum to a project: preparation, implementation, review, and reporting.

The team leader must play a key role as a product owner in the preparation stage. The team leader will identify and write down all the backlog from the initial requirements. The team leader must also prioritize the product backlog and ensure that team members understand the context. All scrum activities must be documented in an agile scrum tool. Then, several items from the product backlog must be included in the sprint backlog. The product owner will provide a detailed description of each task.

Once the preparation stage is complete, the implementation stage will be crucial. The scrum development team will perform work on each sprint. In this stage, communication and collaboration will be used to complete the task. The weekly scrum is another activity that takes place in this stage. Each individual will be expected to coordinate, update on progress and identify challenges as they arise. During implementation, the result will be tested and documented in a user manual.

After the implementation stage is carried out, the process advances to the review stage. Prior to the sprint review, the project owner present a demonstration of the potential product increment they have developed during the sprint. Before that, the team must ensure that the product is in a condition that is ready to be shown to the company. Following the demonstration, the project owner and the company discuss any necessary changes to the features shown. The company provides clear and constructive feedback on the work completed, areas requiring adjustment, and aspects needing improvement. The product owner updates the product backlog based on the feedback received during the sprint review as deemed necessary. This may entail adding new items, altering priorities, and refining item descriptions to better reflect the company's needs and expectations.

The last stage for applying scrum in the project is reporting stage. At the end of each sprint, the development team delivers new product features or usable deliverables, including

enhancements. These potential product increments must adhere to the predefined standards of quality, usability, and functionality. The team then reports and releases the product change to the company, accompanied by a user manual document created concurrently with the implementation and tailored to meet the specified requirements.

IV. RESULTS AND DISCUSSION

In this section, the author will demonstrate how the scrum methodology can be successfully applied to the SuccessFactors system, which was implemented at PT. Weefer Indonesia over a period of four months.

Development Preparation

It is essential to plan for successful system integration during the crucial development preparation stage of the scrum methodology. The scrum framework comprises three key elements: roles and responsibilities, product backlog, and sprint backlog. The first element is to identify clear roles and responsibilities for each individual in the scrum team. Each team member, from the product owner to the development team, needs to be aware of their specific roles and responsibilities within the project. There is also a possibility that a team member may have multiple roles in a project or organization, which should be clearly defined. The result of defining the roles and responsibilities will be outlined in detail in Table.

Table 1. Distribution of Roles and Responsibilities

Name	Role	Responsibility
Yessica	Scrum Master	Guarantee the seamless integration of scrum throughout the system development process. To minimize potential impediments, it is vital to conduct scrum on a regular basis.
Nellsen Purwandi	Product Owner	Work with users to build the product backlog and give feedback on each sprint's deliverables.

Nellsen Purwandi	Development Team	Develop and test the product to make sure it's high-quality.
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After all of the team members are of the role. The next step is to design the product backlog. This process will be required identification of each backlog to sort the product backlog based on the priority. The results of the product backlog design will be input as in Table 2.

Table 2. Product Backlog

User Stories	Acceptance Criteria
Employees should be able to define goal plans in the system, specifying the goal title, description, start date, and end date	The system provides an interface enabling users to establish new goals by specifying the title, description, due date, and priority weighting.
Managers should have the capability to review the goal plans set by their team members.	The dashboard presents the goals defined for each team member, allowing them to review the goal details, progress, and alignment with the objectives of the team and organization.
Managers should be able to align their own goal plan with those of their team	The system facilitates a cascading feature to realign the goal plans collaboratively with team members. Additionally, the system offers reporting functionalities to generate individual and team-level progress reports on the established goals.
HR administrators require the ability to generate reports and analyses regarding the progress of these goals.	The system facilitates a cascading feature to realign the goal plans collaboratively with team members.

Additionally, the system offers reporting functionalities to generate individual and team-level progress reports on the established goals.

Subsequent to designing the product backlog, the next step is to develop sprint planning based on the priorities within the backlog. This process is structured as illustrated in Figure 1 to facilitate the team in achieving the desired outcomes efficiently and quantifiably.

Item Name	Progress Status	Last Update	Weekly Consumption
Planning			
1. Menambahkan permission administrator untuk reporting	Planning	04/01/2024	2
Implementasi			
1. Menancing reporting untuk laporan kemajuan goal plan	Implementasi	04/01/2024	2
QA			
1. Menambahkan fitur Cascade pada goal plan	QA	05/04/2024	1
Revisi			
1. Menambahkan field goal plan (judul, deskripsi, tanggal mulai, dan tanggal berakhir)	Revisi	05/02/2024	2
Deployment			
1. Menambahkan Permission korporasi, manager untuk goal plan	Deployment	05/02/2024	2

Figure 2. Sprint Backlog

System Implementation

Following the establishment of the product backlog and sprint planning, the subsequent phase involves the implementation process. At the commencement of each week, the product owner, who is the author, and the development team will engage in a weekly scrum session with the scrum master. This activity aims to update the team on the previous week's progress, the upcoming tasks for the current week, and any obstacles encountered during the sprint. Then, based on the weekly scrum, the author will initiate a sprint planning phase to implement the necessary changes.

Each user will have access to a goal plan view as presented in Figure 2. The system provides users with the same set of fields to create new goals, including Goal Name, Category, Start Date, Due Date, Percentage of Completion, Weight, Metric, and Status. The addition of these goal-related fields is the initial step in establishing a goal plan.

After all the goal fields have been added to the system, the key focus becomes the access permissions for goal plan features, such as adding, editing, deleting, and cascading goals. For the employee role, the access is limited to viewing the created goals, adding new goals, and

deleting goals. In contrast, the manager role has broader access, including viewing and reviewing the goal plans created by employees, cascading goals to team members, and modifying or deleting goals within their team's goal plan.

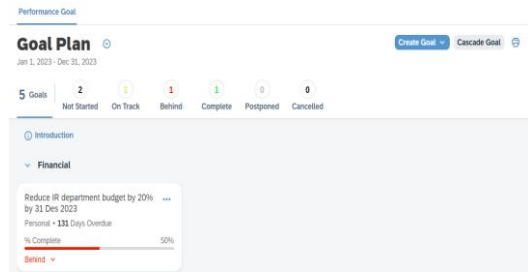


Figure 3. Goal Plan

Employees can add a new goal by clicking the "Create Goal" button shown in Figure 2. This will display a form with various fields for the employee to complete, as illustrated in Figure 3. Once the employee has filled in all the required information, they must save the goal. The manager can then view and evaluate the goals set by employees, making any necessary adjustments to ensure alignment with the organization's targets.

Figure 3. Create Goal

The HR administrator has access to the reporting functionality within the system, enabling them to monitor the overall progress of the project. Once the system has been successfully implemented in accordance with the backlog, the development team will generate a user manual document. This user manual will serve as a reference resource for users, outlining a sequence of comprehensive procedures for utilizing the system, and accompanied by visual representations of the user interface.

Review and Reporting

The concluding phase in deploying the system via the scrum framework is evaluation and reporting. At this juncture, the system has been successfully implemented in adherence to

the backlog. The author will be responsible for presenting the final outcomes of the system to the organization as depicted in Figure 4.

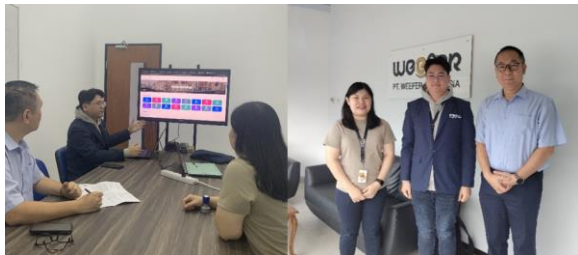


Figure 4. Implementation Result Submission Session

During the presentation, the organization will furnish feedback on the entire system. After receiving all the feedback, the author will undertake an assessment, which may encompass enhancements and developments in both soft skills and system components. Once all the improvements are incorporated, the product will be submitted to the organization in conjunction with the user manual documentation.

V. CONCLUSION

The research focused on integrating agile scrum as the SAP SuccessFactors Project Management at PT. Weefer Indonesia has been progressing smoothly. This initiative is expected to accelerate the efficient and effective implementation of HR. based on the result, is better to invest in regular training and development programs for team members. This will ensure that they stay updated with the latest industry practices and technologies, enhancing their skills and productivity. Such continuous learning initiatives can significantly contribute to the overall success of future projects.

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