# The Development of Digital Business Transformation Model for Individual Performance and Employment Appraisal Based on BPMN 2.0 with SABPP Standard

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*Abstract* - The research aimed to develop the model of digital business transformation with human resource management standard (SABPP) by using business process driven technology (BPMN 2.0) to improve the individual performance and employment appraisal program in human resource department at Sripatum University (SPU) as a case study. In this paper, the researcher conducted the experts, and applied the human resource quality indicator based on SABPP standard to evaluate the model. The research findings were revealed that the model could be seamlessly transformed into as-is environment using business process driven methods. Besides the digital processes, to-be model could be complied with the organization structure and business objectives. Finally, the reliability and the satisfaction results of the effectiveness of tracking operations, comparing to goals and key appraisal metrics to support decision-making for human resource officers are given by the experts at the high level of with an average 's score is 4.33 and S.D. is 0.75.

*Keywords* - BPMN, Human Resource, Appraisal, SABPP, Individual, Performance

## I. INTRODUCTION

Nowadays, human resource management is about attracting, developing and maintaining employee with qualification and skill. The key force of the human resource department in the organization is to efficiently match the objectives of the organization with the employee to create satisfaction and happiness in the workplace [1].

As for the HR in Sirpatum university, the set up mission is to take care of the employees so, they can improve and develop their work efficiently and accurately [2].

From the study of problems and needs, the researcher found that individual performance evaluation was conducted according to the performance evaluation form. By using use the points as part of the contract renewal according to the announcement of Sripatum University. From the announcement of SPU regulation there are to many conditions that must be checked in the operation. Causing errors in work and information that must be examined in the form of paper [2].

The researchers presented a survey of personal performance assessments and employment patterns with BPMN 2.0 by leading technology processes under the BPMN 2.0 standard [3] for

use in reducing workflows, organizing, collecting documents and searching many documents. The system has a database management structure and overall layout. Used for tracking actions, comparing actions with targets and indicators. Precise and fast processing can be used for performance improvement analysis to improve personal performance [2].

## II. LITERATURE REVIEW

Human Resource Management (HRM) is the management of people in the organization [4] in order to attract, develop, retain talented people. Good human resource management, what needs to be done within the framework of rules and laws that lead to compliance with the rules and laws that lead to action [5].

Hiring workers will have a contract which is a contract that creates legal relationships between employers and employees. Both of these have rights and duties. Must be treated according to business ethics and other labor laws [6].

Performance evaluation is the process of reviewing past work activities. In order to evaluate the results that a person has done in accordance with the goals of that job or not. The performance is factored in business that must be developed when dealing with competition. Businesses that need to be developed to cope with competition and in order for the business to operate at its maximum capacity entrepreneurs need to evaluate the performance of the employee periodically when it comes to evaluating the performance business need to do performance appraisal [7].

Performance appraisal techniques have been developed to help build employee efficiency. In the current era, the use of performance appraisals has been expanded in addition to evaluating the performance of employees in various fields, such as motivation that uses more than one assessment technique to help increase satisfaction and motivation at the level of higher. Characteristics of performance

evaluation systems that help improve motivation, identify strengths and weaknesses of employees [8]. Measuring is giving quantitative value for anything, whether tangible or intangible. Measures in best practice after using the SABPP measurement standard [9].

1) The Key Performance Index (KPI) focuses on how employees measure performance and present them in digital form. The results are directly linked to the benefits of employees. KPI is a tool for every type of organization. A good KPI can affect collaboration and the organization's overall image.

2) The main Objective & Key Result (OKR) are tools for degrading the target, which does not conflict with the direct benefits of the employee and is used to evaluate the success of the goal more. OKR has quantitative indicators that focus on important results that can promote the better success of the goals. Therefore, employees are motivated and willing to improve performance [11-12].

The SABPP model is the first human resource management system with 13 standards (Figure 1). The human resource department's operational model is closely linked to standards in terms of knowledge, skills, and behavior in order to implement standards [13-14].
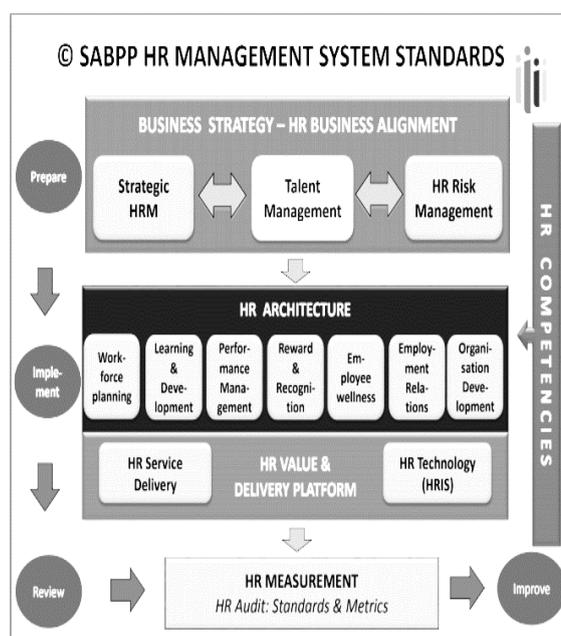


**Figure 1.** SABPP HR Management System Standard [14].

In today's world, the need to improve and update BPMN will help HRM to be more efficient. BPMN is developed to describe business processes. And as a medium for visual communication as a whole, similar to work flow or UML. BPMN is similar to the BPMN activity diagram. There is a central organization, OMG, which creates a standard BPMN standard. Divide the BPMN symbol into 3 groups: 1) activities, 2) events, and 3) gateways as shown in Figure 2 [15].
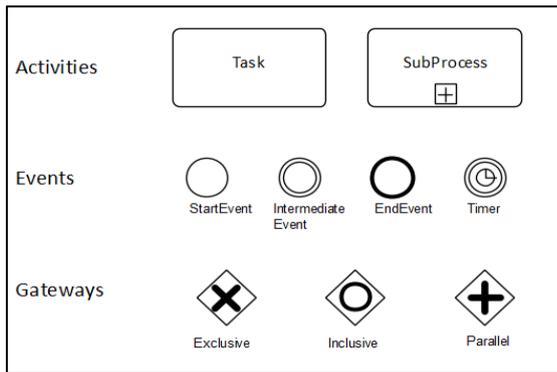


**Figure 2.** Dividing the BPMN Symbol into 3 Groups [17].

BPMN is a graphical modeling language. The strengths of BPMN can explain business processes. Thoroughly with the flow of information in the form of messages sent between relevant people, especially within the company [15]. BPMN is useful in referring to the creation of HRM applications to be more structured. In the design of HRM-based businesses [16].

The performance measurement process with SABPP is generally developed under business process technology. The results of statistical analysis are clearly useful for human asset appraisal, training and development, performance appraisal, attitude survey, and administrative examination [5].

Organizations that have planned for information system implementation should understand the process of developing system analysis systems as steps in identifying problems and feasibility studies and designs. To meet the needs of users, possibilities. To evaluate the development of the system before deciding to develop the system and factors

that affect the development of the information system to succeed [18-19].

## III. PROPOSED MODEL

In this section, we introduce a proof of conceptual model using the BPMN 2.0 tool [20], which is an overview of processes designed on the SABPP standard [13] which can be explained from labor planning to organizational development. This process has been optimized by using human resources technology (Figure 3) and the regulations of Sripatum university. Which data used during the academic year 2016 to 2017. Based on a design of the process driven model under the SABPP standard with BPMN 2.0. SA board for people.
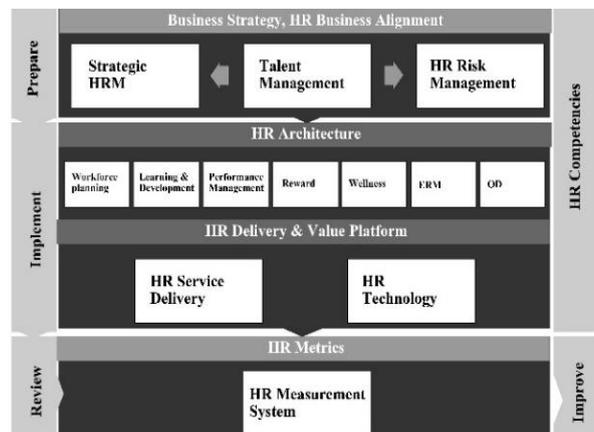


**Figure 3.** Individual Performance and Employment Appraisal on HR Standard Assessment Tool. (SABPP: 2014)

This model was developed by Bizagi Modeler [21] on BPMN 2.0 for testing and evaluation by simulating the performance evaluation of Sripatum University's case study model, namely business process management model for the performance evaluation form system and individual performance system on BPMN 2.0. (Figure 4-5) When Develop an individualized performance appraisal model and employment model with BPMN 2.0. Improve workflow reduced storage redundancy reduce time spent recording. It can be used to create a flow chart accurately. Comply with data structure requirements. And conditional expressions. Optimize your work faster. When testing the model, the system will display a table. Results

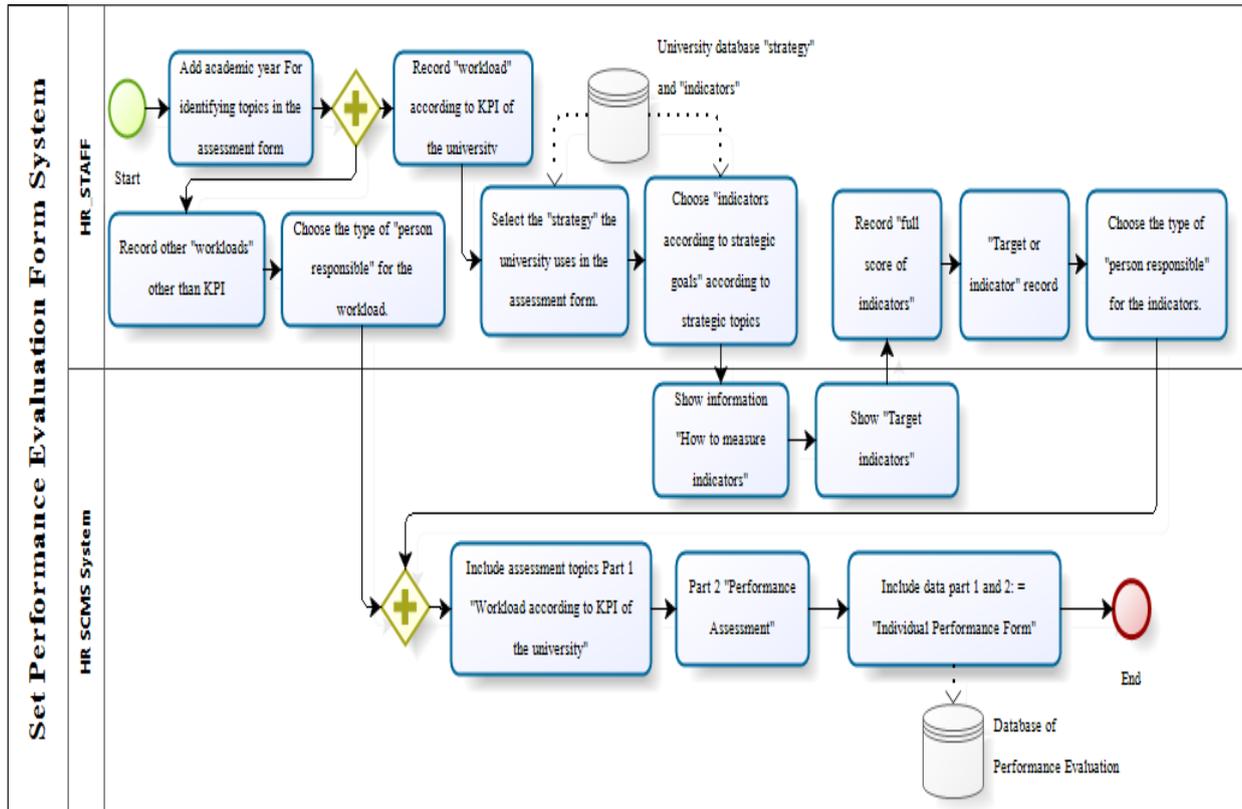with the lowest average, highest of all processes and time.



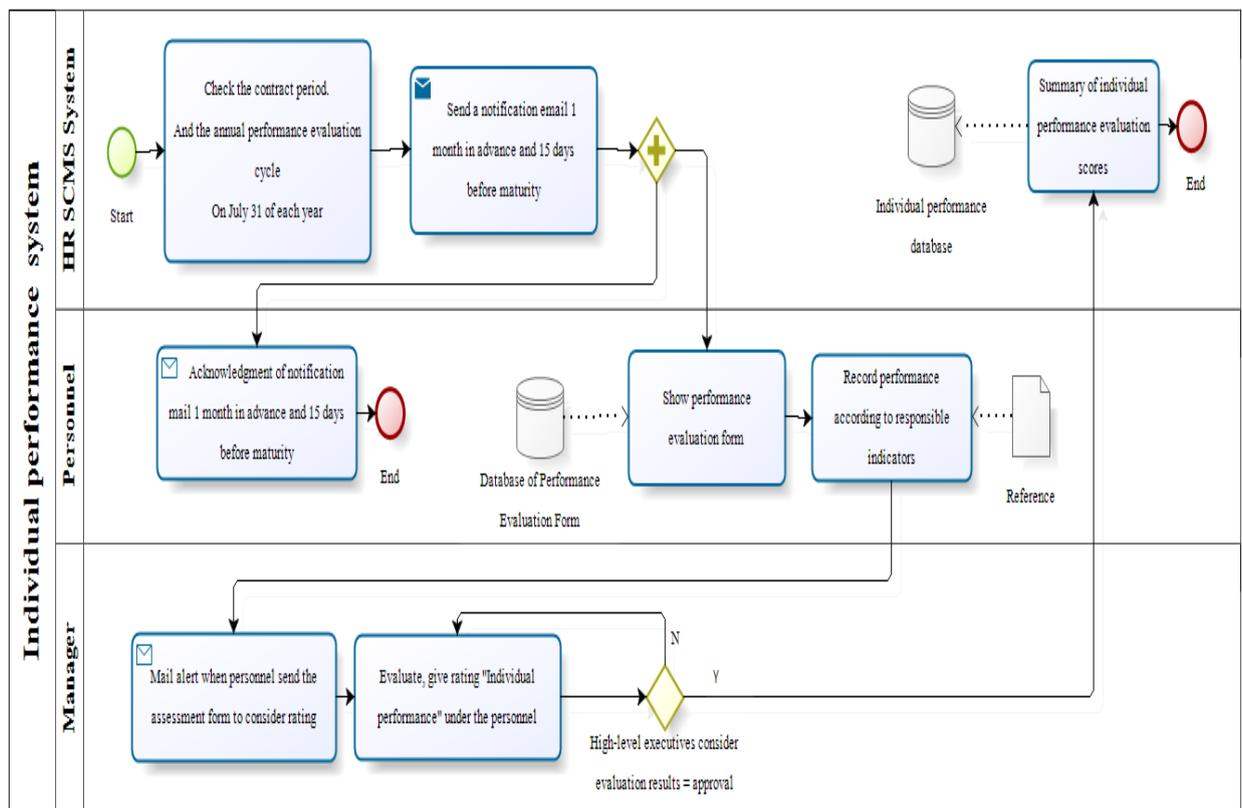**Figure 4.** Business Process Management Model for Set Performance Evaluation Form System on BPMN 2.0



**Figure 5.** Business Process Management Model for Individual Performance System on BPMN 2.0

## IV. THE EVALUATION

Individual performance appraisal and employment model were evaluated by experts to verify accuracy and improve the design of complete data obtained from the Sripatum University personnel office. Analysis with detailed work and job requirements from SABPP [14] and according to personal KPI of Sripatum University.

This research collects and collects data by interviewing the person responsible for assessing the performance and employment contract of the person (Human resource practitioners) and information technology practitioners as shown in Table I.

**TABLE I**
**JOB DESCRIPTIONS ON SABPP STANDARD HR TECHNOLOGY**

| SABPP HR Technology | Weights | Score | Total |
|---|---|---|---|
| 1. Leverage technology to allow easy access to relevant data | 5 | 5 | 25 |
| 2. Consolidate & rapidly extract HR information in real time | 4 | 5 | 20 |
| 3. Streamline the HR Management System & its associated processes | 2 | 5 | 10 |
| 4. Ensure that appropriate information security principles, policies & practices | 2 | 5 | 10 |
| 5. Enable the effective implementation of change & improvements | 2 | 5 | 10 |
| **Total** | | | **75** |

In Table I, the evaluation of the model use the human resource quality indicator of SABPP standard following Likert's scale [22] 4.50 – 5.00 is highest, 3.50 – 4.49 is high, 2.50 – 3.49 is medium, 1.50 – 2.49 is low and 0.00 – 1.49.

**TABLE II**
**THE RESULTS OF EXPERTS TO VERIFY THE ACCURACY AND MAKE IMPROVEMENTS**

| Evaluation list | $\bar{x}$ | S.D. | Result |
|---|---|---|---|
| 1. Technology to allow easy access to relevant data | 4.50 | 0.50 | The Highest |
| 2. Consolidate & rapidly extract and real-time | 4.33 | 0.75 | High |
| 3. Can Streamline the HR Management System & its associated processes | 4.83 | 0.37 | The Highest |
| 4. Appropriate information security principles, policies & practices | 4.33 | 0.75 | The Highest |
| 5. Effective implementation of change & improvements | 4.50 | 0.50 | High |
| **Total average** | **4.50** | **0.57** | **The Highest** |

The result of the average score is the highest level, and the average value is 4.50 and S.D. is 0.57 as shown in Table II.

1) It can streamline the HR management System and its associated processes is the highest level with an average 's score is 4.83 and S.D. is 0.37, with the opinion of most experts who see that the relevant processes are more effective.

2) Technology allows easy access to relevant data and effective implementation of change and improvements is the highest level with an average 's score is 4.50 and S.D. is 0.50 by the opinion of most experts that the model this shown easy access to relevant data and have improvements align with the organization's.

3) Consolidate & rapidly extract and real-time and appropriate information security principles, policies & practices is the highest level with an average 's score is 4.33 and S.D. is 0.75 by the opinion of most experts that see consolidate report data in real time to deliver effective presentation information and have information security and have developed practices.

## V. CONCLUSIONS

The proposal for the development in this paper is to use our model, BPMN 2.0 Technology. The Researchers found that our research results are consistent with the research of Rebelo [14], Yohana & Marisa [15], and Arisanti & Marisa [16]. Business process model design and notation (BPMN) are useful in being a reference for creating HRM applications to be more structured and to be used as a guide for developing business process management models.

When testing and evaluating process data models from experts, the results of business process management model, the scores are at the highest level. The mean is 4.50 and SD is at 0.57. This is the technology that is easily access to the relevant information, it can collect and extract the data in real time for the most effective information process for the effective information presentation. All the change and improvement of the technology solutions are in line with the organization's objectives.

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**(Arranged in the order of citation in the same fashion as the case of Footnotes.)**

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