

# Business Process Analysis in the Financial System of PT. Oti Eya Abadi With Business Process Modelling and Notation (BPMN) Method

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## Abstract

Every company certainly needs an information system for ease of work management in a company organization. As in the problems faced by the company PT. Oti Eya Abadi who needs an information system that can create and print company cash as efficiently as possible so that leaders and employees who manage the company's financial cash do not make manual formats in excel anymore and obtain cash data formats automatically from the information system. In order to achieve a sequential but still efficient system flow in the use of information systems, an analysis is made related to the business process flow of the information system with a description in the form of Business Process Modelling and Notation (BPMN). By describing BPMN, the creation of an information system can be made more directed in each access feature so that when the information system is completed it can be used with access that is easier for users to understand and more efficient in using an information system, including the financial information system of PT. Oti Eya Abadi.

**Keywords** — Business Process Analysis, Information Systems, BPMN, System Diagrams

## 1. INTRODUCTION

Every company organization, of course, must have an information system in the form of a website or in the form of a desktop application where this information system can trigger support for activities in terms of management and performance in the field or especially in the field of financial management <sup>[1]</sup>. Same The case with the company PT. Oti Eya Abadi, where this company focuses on nickel mining finance which of course should have an information system to streamline the company's financial cash management process. In terms of creating an information system, of course, a design is needed. One of the designs that must be made is modeling in the form of *Business Process Management* (BPM) which is the main priority of businesses that can build a business process capability with the aim of achieving a more advanced and more efficient information system solution <sup>[2], [3]</sup>. To achieve a more efficient information system, a *Business Process Model and Notation* (BPMN) is needed for the purpose of describing business processes as a fulfillment of the design flow of the information system created <sup>[3]</sup>.

The depiction with the BPMN method is for the purpose of supporting an easy-to-understand model, which can define and display a business process visually in the form of a diagram as control *logic* for workflow purposes, especially in terms of designing a workflow on an information system <sup>[4]</sup>. Apart from this, the use of BPMN is also for purposes in terms of harmonizing between process sequences that connect different activities in an information system <sup>[5]</sup>. BPMN also provides a method that seems to be more efficient in its various performance characteristics which of course makes BPMN able to create a system that is simple and controlled so that it becomes easier to implement its business process level.

The *Business Process Modelling and Notation* (BPMN) method is a modeling that gives rise to various modeling techniques that use a software design approach in the form of UML, to approaches in the form of business orientation such as *Event-driven Process Chains* and also approaches that are formalized and studied academically. Thus, a significant demand for an information system is created as a way to evaluate and be able to compare various different approaches <sup>[6]</sup>. As for the application of the *Business Process Modelling and Notation* (BPMN) method, it is also necessary to draw diagrams for the purpose of modeling business processes, namely in the form of *flowcharts* and *class diagrams* <sup>[7]</sup>.

The existence of a business process with the BPMN method in the creation of information systems can be an innovation that can certainly change the pattern in information technology management activities as well as in the creation of information systems. The presence of this BPMN method makes the implementation of an information technology into the ability to make the desired information system can be realized <sup>[5]</sup>.

## 2. RESEARCH METHOD

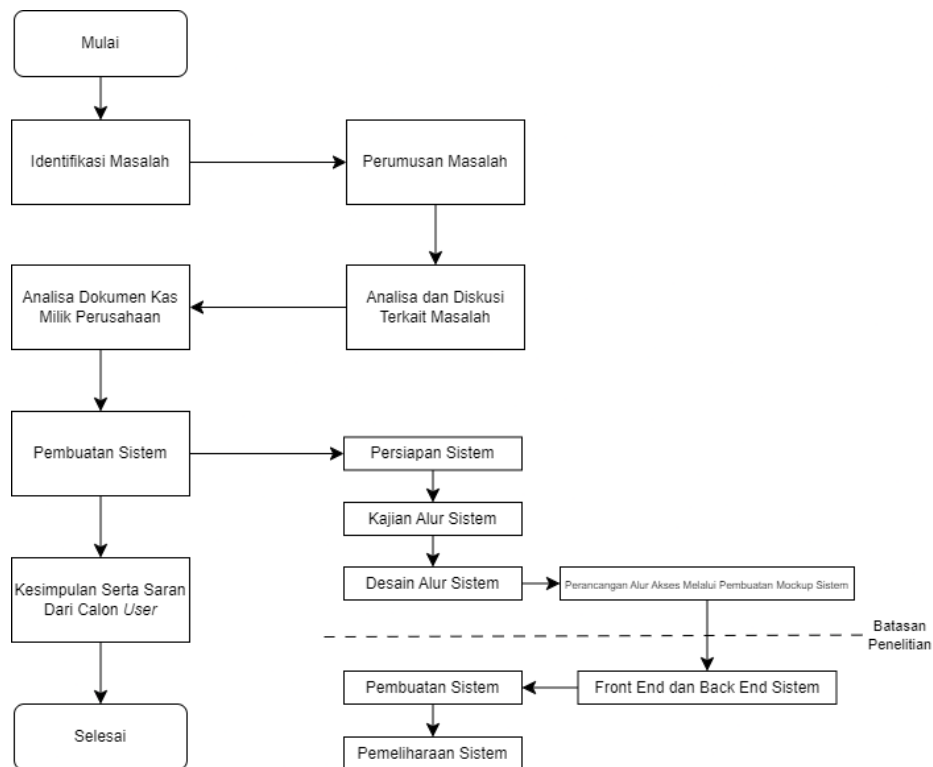
### 2.1. Data Analysis Methods

The method carried out in this study is by conducting a qualitative analysis where this qualitative analysis is used because it is a data analysis that is not applied with the nomination of the use of numbers, but the application in the form of explanatory information and theoretical discussion. With qualitative implementation Therefore, the researcher first understands the concept in terms of BPMN modeling and conducts a literature study on *BPMN workflow* and modeling with the aim of recognizing the course of business processes in an information system created <sup>[8]</sup>. *The workflow* used in this study is by applying diagrams such as *Activity Diagrams* for the purpose of depicting BPMN in order to create a flow that is functional in an information system, including for the purpose of workflow in the Financial Information System of PT. Oti Eya Abadi <sup>[21]</sup>. Apart from understanding and studying the literature on BPMN, the analysis of the business process of the information system that is being created is carried out by recognizing and understanding the wishes of the *user* on the information system to be used <sup>[9]</sup>. From this analysis, this study can also be classified as *Applied Research*, where *Applied Research* is an analytical action applied to the application of a finding with the aim of solving certain problems that are being experienced by an organization. For example, the problem that is being faced by an organization company that uses the information system in this study is the problem of the inefficiency of these leaders and employees in terms of cash management and also the time spent in managing their cash is

not efficient and still quite a long time in terms of completing the company's cash management. Therefore, this type of *Applied Research* is needed to overcome the problems faced by a company such as the company PT. Oti Eya Abadi.

## 2.2. Research Flow

For the depiction of the research flow, it is shown in the figure below <sup>[9], [10]</sup>.



**Figure 1.** Research Stages

At the stage of Designing Access Flow Through Creating System Mockups, a system is made to plan the features that want to be included based on the results of discussions with leaders and employees by making a list of tables, then after making a list of tables, a mockup is made for the information system so that a description is achieved, starting from where *the user* access the information system and end at which feature in ending the information system access process used by the *user*. At this system maintenance stage, in addition to explaining the features that are already available and contained in the information system to the leader and several employees, the system testing stage is also carried out where the information system will be tested whether the information system to be used is feasible to be used or not by the leader and employees and also tested whether there are still *errors* or *bugs* in each feature or in each access flow of the information system. Even if there are still *errors* or *bugs* in the information system, system maintenance is carried out by repairing and eliminating *errors* or *bugs* and when it is eliminated, the information system is ready to be used by leaders and also some employees <sup>[11]</sup>.

### 2.3. Method Success Measurement

The success in the implementation of the BPMN method is based on the following parameters:

#### A. Time Efficiency in Terms of Data Processing

The researcher measured the time efficiency required in the processing of the company's financial cash by conducting and analyzing a comparison of the length of activities carried out by leaders and employees in managing the company's cash before using the Financial Information System of PT. Oti Eya Abadi and after using the Financial Information System of PT. Oti Eya Abadi after the implementation of BPMN for the flow of access to financial information systems.

#### B. The Level of Accuracy of the Data Generated

The researcher conducted *testing* by filling out a form on the financial information system and looking at the results of the data obtained after filling out the form after the implementation of BPMN for the access flow of the financial information system.

#### C. Workflow Efficiency in Information Systems

The researcher also analyzed the effectiveness of the actions taken by *users* in the use of their financial information systems by conducting *Applied Research* research in order to simplify the business processes resulting from the implementation of the BPMN method used by the researcher.

## 3. RESEARCH RESULTS AND DISCUSSION

Based on the results of the *Applied Research* conducted previously, researchers can create a *Flowchart* design flow, diagrams, and BPMN processes as a planning of access flows in the financial information system of PT. Oti Eya Abadi. Which is the design flow to provide an overview to the leadership and several employees which will later be like how to make the leaders and some employees access each feature on the financial information system of PT. Oti Eya Abadi.

### 3.1. Depiction of Information System Access Flow Through Flowchart

In the results of the research stage using the *Applied Research* research method that has been carried out, modeling in the form of a *Flowchart* can be described where this *Flowchart* modeling is divided into two, namely *Flowchart* for access as a leader and *Flowchart* for access as an employee as shown in Figure 2 and Figure 3 <sup>[7]</sup>.

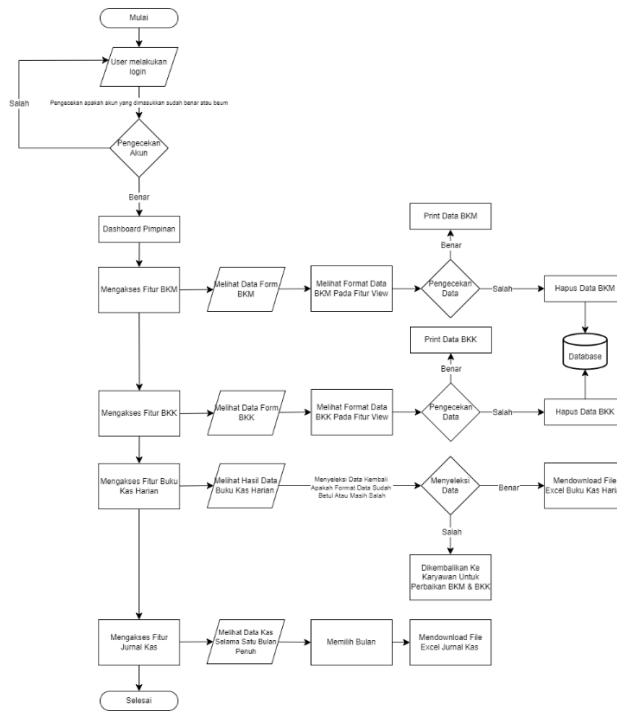


Figure 2. Lead Flowchart

In the drawing of the leader's flowchart above, it starts from the leader who as a *user* logs in first, then if you have logged in and the system checks the account correctly, you will be immediately directed to the *dashboard* page, but if it is wrong, the system will direct the *user* to log in again. Then from the leadership *dashboard*, *users* will immediately access the BKM feature to see the results of the Cash Receipt Book (BKM) form data that has previously been input by employees. On this BKM feature page, the leader first checks the BKM data format that has been input by the employee, if the format is correct, the leader can order the employee to immediately print the BKM if the wrong leader will delete the form and the employee will re-input the BKM form until the format is correct. Then after the leadership feature can directly switch to the BKK feature again just like in the BKM feature, in this BKK feature the leader also checks the form along with data from the Cash Out Book (BKK) which was previously entered into the form by the employee. If the data format is correct, the employee is instructed by the leadership to print the BKK data, but if the format of the BKK data is incorrect, the leader will transfer it to the employee again to fill out the BKK form until the BKK data format is correct. Then after the leader (*user*) finishes accessing and checking the data from the BKM feature and data from the BKK feature, then the leader switches again to the Daily Cash Book feature. In this Daily Cash Book feature, the leader will see the results of the daily cash book format which is automatically filled in based on the form from BKM and BKK that has been previously inputted, then select the data, where if correct, the employee can print his daily cash, if incorrect, then the employee must correct the form on the BKM or BKK. After completing the Daily Cash Book feature, the leadership can see the results of cash data for one month on the journal cash feature <sup>[12]</sup>.

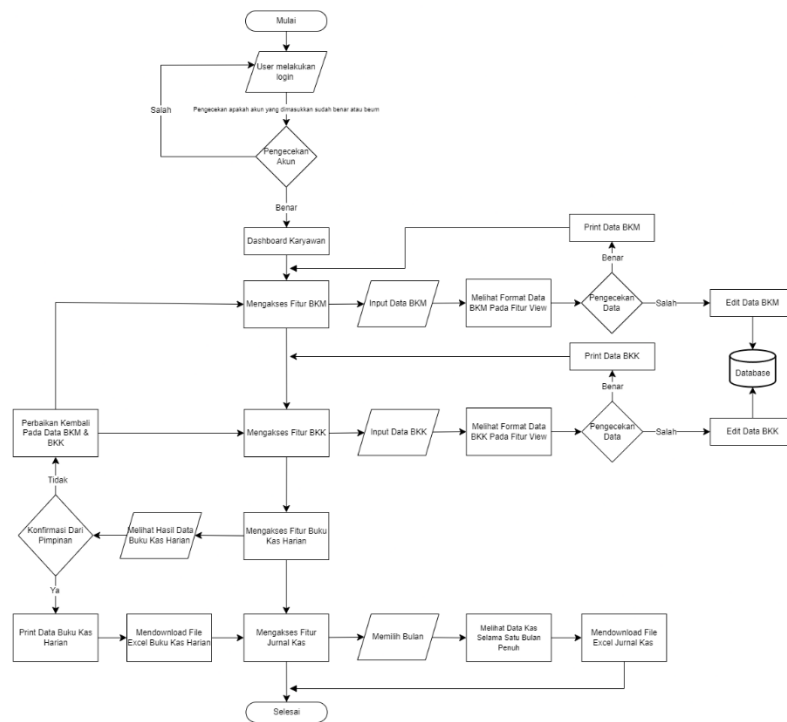


Figure 3. Employee Flowchart

In the description of the *employee flowchart* above, access is different from the leader. This is because the leadership only sees all the data results from the features in the Oti financial information system. Meanwhile, for employees, not only see and check the data format but also input the form for each feature, after filling out the form, employees can immediately get each data from each feature. The depiction of the *employee flowchart* starts from logging in first. After logging in, if the employee has entered the correct account, he will be immediately directed to the *employee dashboard page*, if it is incorrect, the employee must log in again until the account is correct. After entering the *employee dashboard page*, employees then access the BKM feature to input the form to obtain Cash Book (BKM) data. Then if the data is correctly stated by the leader, the employee can immediately print the BKM output data, but if it is wrong, the employee can squeeze or delete the form. After entering the Cash Book Incoming (BKM) feature, employees can immediately input the Cash Book Out (BKK) feature whose actions are the same as entering BKM, fill out the form, then obtain the cash data and then can immediately print the BKK if it has been validated correctly by the leadership and edited or deleted the form if it is wrong. After inputting the BKM feature and the BKK feature, employees will automatically obtain the Daily Cash Book output format based on the form that the employee has previously filled out. If there is an error in the Daily Cash Book Format, then there is an error that is not noticed at the time of BKM and BKK input, then the employee will make improvements again on the BKM or BKK form and if the Daily Cash Book Format is correct, then the employee can immediately print the Daily Cash Book and Cash Journal <sup>[12]</sup>.

3.2. Depiction of Information System Access Flow Through Use Case Diagram

After the drawing of the flowchart for the financial information system of PT. Oti Eya Abadi, was made again in terms of describing the use case for access to information systems that should have been described as simple as possible [13]. In the flowchart that has been described as above, a use case can be generated that contains about two actors with appropriate names and a corresponding but interrelated Job Desk as well [14]. The depiction of the use case can be seen in the following figure [13], [14].

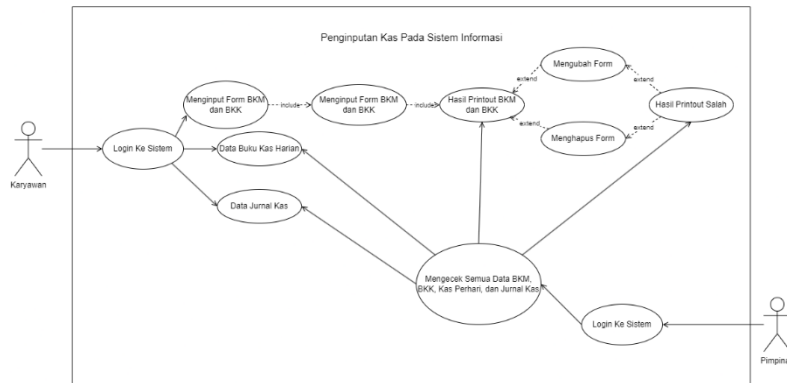


Figure 4. Use Case Input Process in Oti Financial Information System

As shown in the image above, the dominant activity is in the Employee actor. This is because when in the discussion stage with Applied Research research user pads, the leadership only wants to see the results of input data from each cash only and those who input enough employees. And the result in the use case is that the leader only has two actions, namely just logging in and checking the data results, but because he checks all the data, one action from the leader can be interrelated with all the actions of the employee [14].

From the description of the use case above, a use case description or use case specification can also be described for each action that has been described in the use case above [10]. The purpose of this use case description or use case specification is to clarify all the actions performed by the two actors in the image. An explanation of the use case description is described in the table below [15].

Table 1. Use Case Description on the Financial Information System of PT. Oti Eya Abadi

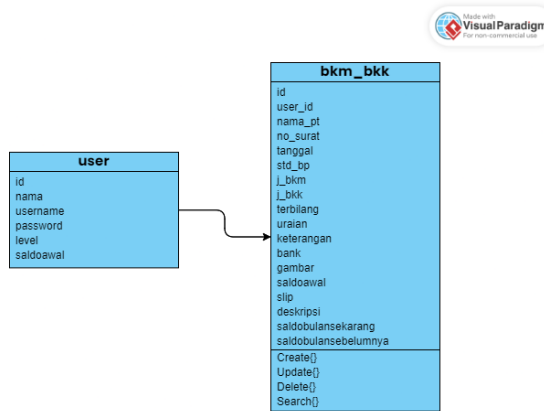
Specification of Use Case Financial Information System of PT. Oti Eya Abadi	
Actor	Employees and Leaders
Brief Description	The Use Case for the Oti Cash Information System is applied by leaders and employees for the purpose of creating and managing each company's cash.
Usecase Goal	Employees and leaders managed to obtain all printouts from each cash with appropriate formalities and fills.

<b>Specification of Use Case Financial Information System of PT. Oti Eya Abadi</b>	
<i>Pre-Conditions</i>	<ol style="list-style-type: none"> <li>1. Employees use the system to input and obtain <i>printouts</i> from all cash.</li> <li>2. The leadership reviews all <i>cash printouts</i> and decides when it's time to <i>print</i> cash or not.</li> </ol>
<i>Basic Flow of Events</i>	<ol style="list-style-type: none"> <li>1. <b>(Select the option of each feature in order)</b> <i>The Use Case</i> starts from the employee accessing each BKM and BKK feature for input, then continues by accessing the Daily Cash Book feature for <i>the Daily Cash Book</i> format print session which of course is filled in automatically, then the last employee accesses the Cash Journal feature when it has been filled in for a whole month.</li> <li>2. The system displays all the features selected by each <i>user</i></li> <li>3. <b>(Use Case selesai)</b> <i>Use Case selesai</i></li> </ol>
<i>Alternative Flows</i>	<ol style="list-style-type: none"> <li>1. Printing BKM and BKK If, on the BKM and BKK feature page, employees can select the <i>View</i> feature and can print <i>BKM and BKK Printouts from these features and employees can also print directly from each user 's browser.</i></li> <li>2. Printing Daily Cash Books If, on the Daily Cash Book page, employees can select the <i>Print</i> feature and can directly print <i>Printouts</i> from the Daily Cash Book directly using <i>the Browser.</i></li> <li>3. Downloading the Daily Cash Book Excel File If, on the Daily Cash Book page, employees can select the <i>Download .xls</i> feature and can immediately get a file in <i>.xls</i> format whose contents are in the Daily Cash Book format according to the date filtered by the <i>user.</i></li> <li>4. Downloading the Cash Journal Excel File If, on the Cash Journal page, employees can select the <i>Download .xls</i> feature as well and get an excel file that contains a format according to the format of the Cash Journal feature page as well which has been adjusted by the month and year that is filtered <i>by the user.</i></li> </ol>
<i>Extension Points</i>	<i>None</i>
<i>Special Requirements</i>	<i>None</i>

### 3.3. Drawing Class Diagrams

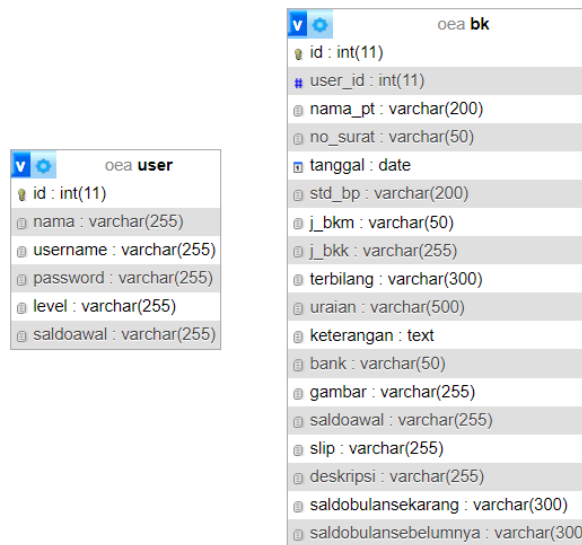
About 2 classes applied to the needs of Oti's financial information system consist of *users* and *bkm\_bkk*. It only consists of *users* and *bkm\_bkk* because based on the results of discussions with *users* in the *Applied Research* study, it is planned to combine databases from BKM and BKK forms so that when automatic summons for form data that has been input into the Daily Cash Book and Cash Journal features, the summons can be directly combined for BKM form data and also BKK form data. So that from the planning of combining databases for BKM and BKK, many rows are also produced for the database tables. From the results of

the discussion about the call for form data, a class *diagram* is also produced which is designed as shown in the following figure <sup>[10]</sup>.



**Figure 5.** Class Diagram of Financial Information System PT. Oti Eya Abadi

From the description of the *Class Diagram* above, it can be generated in the form of a database emodel where the database modeling is based on the depiction of the structure of the *Class Diagram* that has been made, including the entire row of the *Class Diagram* description above. For database modeling, it can be seen in figure 6 <sup>[15]</sup>.



**Figure 6.** Results of Modeling the Financial Information System Database of PT. Oti Eya Abadi

### 3.4. Business Process Flow in the Financial Information System of PT. Oti Eya Abadi

For business processes in the Financial Information System of PT. Oti Eya Abadi is divided into several processes, including Business Process and Financial Information System Notation of PT. Oti Eya Abadi, Subprocess of Input of Cash Book (BKM), Subprocess of Input of Cash Book Out (BKK), Subprocess of Daily Cash Book, and Subprocess of Cash Journal.

3.4.1. Business Process and Financial Information System Notation of PT. Oti Eya Abadi

A business process is an activity or step in gathering information about an existing process that then organizes it into a process model design as it is [20]. Business processes and notation from the financial information system of PT. Oti Eya Abadi contains the flow of two activities between employees and leaders where the flow concerns the actions taken while *the user* uses the OTI financial information system. The results of business processes and notation of the Financial Information System of PT. Oti Eya Abadi has a description or flow of synchronization between employees and leaders where the events that occur in the system are due to the relationship of the situation to the area that is directly related to the system and *the external entity* (External Environment). Each external entity always interacts directly with the system, which is meant by this external entity, of course, employees and leaders or each *user* who uses the financial information system of PT. Oti Eya Abadi [16]. For the flow The business process and notation of the Oti financial information system are in the figure below [8], [16], [20].

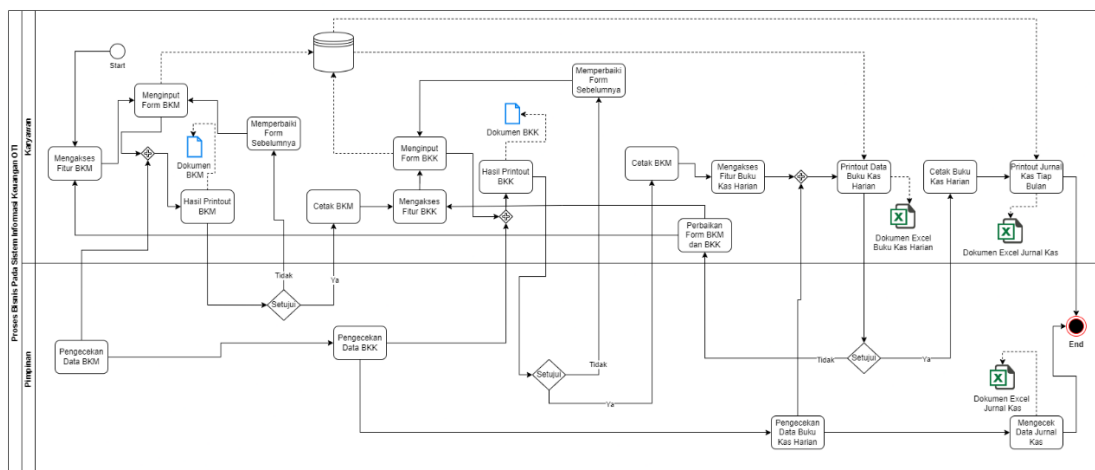


Figure 7. Business Process and Notation in the Financial Information System of PT. Oti Eya Abadi

From figure 7, a description of each action can also be made with the following description [17].

- a. Employees log in and directly access the Cash Book Incoming (BKM) feature to input the Cash Book Entrance (BKM) form which then after entering the form, the employee will get a web document in the form of a *BKM Data Prinout* that has been input earlier and ask for direct approval from the leadership whether to print the *printout* immediately or whether there must be another form improvement.
- b. The leader logs in and also directly accesses the Cash Book Incoming (BKM) feature which then immediately checks *the data prinout* of the Cash Book Incoming (BKM) data and approves whether Yes or No. If the leader agrees, the leader will immediately order the employee to print *the BKM data prinout* and the employee will immediately print the BKM data. However, if the leader still does not or does not agree with the results of *the BKM data prinout*, the leader will return the form to the employee to make improvements to the BKM form that has been inputted.

- c. After the employee prints the Cash Out Book (BKM), then the employee switches to the same Cash Out Book (BKK) form input as in the previous Cash Out Book (BKM) form, in this Cash Out Book (BKK) form, the employee must also first input the BKK form for the purpose of printing out the Cash Out Book (BKK) data. After the comfort of filling out the BKK form, employees can immediately save the form data and can immediately check *the BKK data printout* and approve again to the leader, which if the leader has approved the BKK data format, the employee can immediately print the BKK data *printout*, but if the leader has not agreed with the *printout* format, the employee must make another improvement to the BKK form that was previously entered but incorrect.
- d. The leader first checks the printout results *of the* Cash Entry Book (BKK) by looking at each format and contents, if the leader has agreed or agreed with the data on the BKK *printout*, the employee is instructed to immediately print the Cash Entry Book (BKK) data that has previously been input by the employee. However, if The leadership has not agreed with the results of the Cash Out Book (BKK) data, then the leadership will return the BKK form data that was previously entered by the employee to correct the form filling again because there is an error in input, for example, an error in the input of the description of the expenditure and so on.
- e. After the employee inputs the Cash Book In (BKM) form and on the Cash Book Out (BKK) form, then the employee accesses the Daily Cash Book feature and then checks the printout results of the data from the Daily Cash Book which will automatically appear the data in accordance with the Cash Book In form data (BKM) and the Cash Book Out (BKK) form data that is input by the employee and depends on the date of the form input because there is a date filter feature in the Cash Book feature Daily. When employees check the daily cash book data format, employees can download the output of daily cash book data in the form of *an excel softfile*, but before printing and downloading the excel *softfile* from the daily cash book data format, employees must first ask for approval again from the leadership because there may be a mistake in entering the BKM or BKK form that was missed. If when the leader checks that there are errors that are missed on the BKM and BKK forms, the leadership will order employees to correct between the BKM form or the BKK form or maybe correct both the BKM form and the BKK form so that this makes the employee make improvements again on the form, but if the leader has approved the results of the form data from the Daily Cash Book as well, then the employee can immediately print *the printout* dataDaily cash book and can also directly download the excel file.
- f. The leadership checks the data of the Daily Cash Book. If the leader has approved the daily cash book data format, the leader will allow employees to print and download excel files from the Daily Cash Book data, but if the leader does not approve the daily cash book data format, the employee will be asked to correct the BKM and BKK forms that have previously been input by the employee.
- g. After the employee prints all the BKM, BKK, and daily cash book data, the employee can check the cash journal data which is also automatically input based on the BKM and BKK forms that have previously been input by the employee and can print and download an excel file from the cash journal data as well if the data has been input for a full month. In this cash journal feature, employees can also filter their cash journal data according to the month they want to choose.

- h. Leaders can also check and download an excel file from the cash journal data that has been input according to the month filtered and if it has been entered for a full month of cash journal data.

3.4.2. Cash Receipt Book Input Subprocess (BKM)

The subprocess of inputting BKM can be seen in the following figure [9], [18], [20].

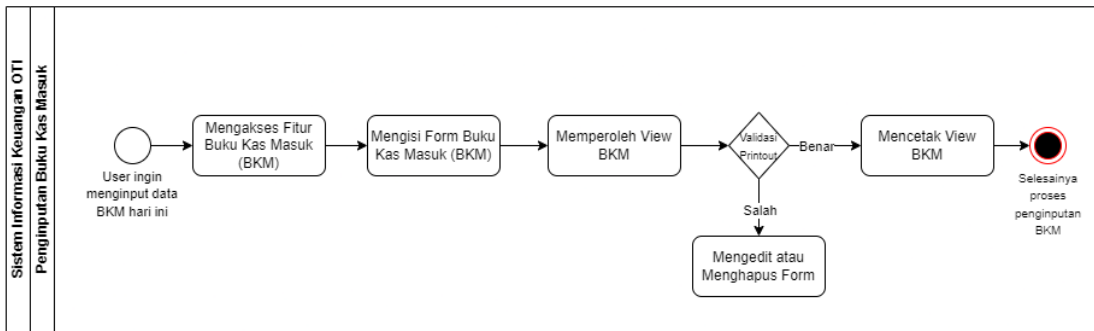


Figure 8. BKM Input Subprocess

In the image, the BKM input subprocess notes the entire action when the employee (*user*) inputs the form to obtain a *printout* of data from the Cash Receipt Book (BKM) [18]. Subprocess for BKM input, where for the beginning of BKM input when after logging in, the employee (*user*) starts by accessing the BKM feature first, then *the user* will immediately fill out the BKM form according to the available form format by filling out the form until it is completed and saving the form data, then the *BKM printout* will be immediately obtained on the *view* feature which is on the BKM page and right in *the view* feature, *the user* will check the BKM *view data* whether the data is correct or still wrong, if the data is still incorrect, then *the user* can delete or edit the form data that has been created earlier and if the data is correct, the *user* can immediately print the BKM data [9], [20].

3.4.3. Subprocess of Entering Cash Out Books (BKK)

The BKK input subprocess can be seen in the following figure [9], [18], [20].

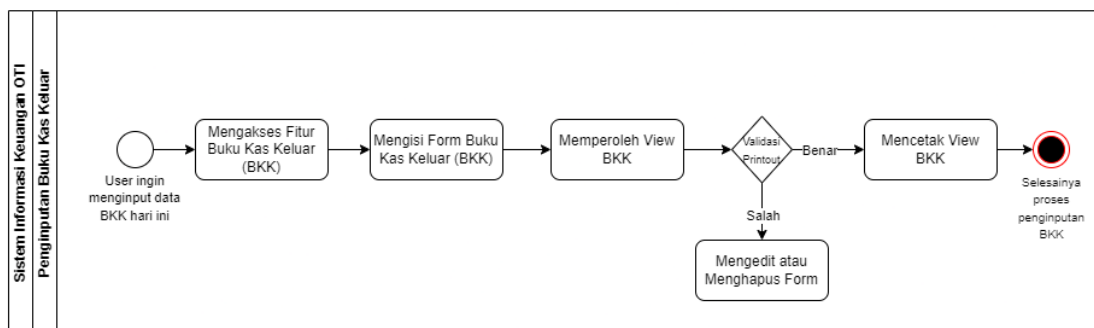


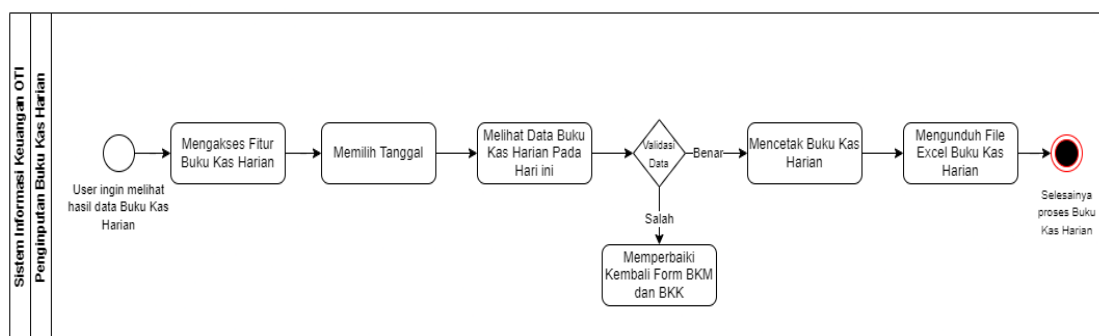
Figure 9. BKK Input Subprocess

Similar to the BKM input subprocess, this BKK input subprocess also notes all actions taken by *the user* to input the form for BKK purposes as well as to get *data printout* from BKK [18]. In the input of this BKK form after *the user* inputs the BKM previously, *the user*

will start the subprocess for BKK input by accessing the BKK page feature first, so that on the BKK page *the user* can immediately fill out the available forms and complete all the forms, when *the user* finishes and saves the form that has been filled in, the *user* will immediately get a *printout* of BKK data directly on the *view* feature on the BKK page and when *The user* presses the *view* feature in this condition *the user* will check all BKK data according to the form entered by the *user* earlier, in checking this BKK data *the user* is faced with two options if the form data that appears still has errors or has previously been inputted, then *the user* can delete or edit the BKK form that has been *entered* by the user input, but if the *user* sees that the form is correct, the *user* can immediately print the BKK data from the form that the *user* has input <sup>[9], [20]</sup>.

#### 3.4.4. Daily Cash Book Subprocessing

Meanwhile, the Subprocessing of the Daily Cash Book can be seen in the following figure <sup>[9], [18], [20]</sup>.



**Figure 10.** Daily Cash Book Subprocessing

The image above contains a subprocess that notes the *user's activities* in obtaining data from the Daily Cash Book through *printout* of daily cash book data and also if *the user* wants to get an excel *softfile* from the daily cash book data <sup>[18]</sup>. The subprocess for checking daily cash book data begins with the *user* who accesses the Daily Cash Book feature first after entering the BKK form, then in this situation *the user* will see a data from the daily cash book from each date that has been input by the *user* based on each date of the BKM and BKK forms, after *the user* selects the daily cash book date, the *user* can directly access the *Print* feature on the daily cash book page and can directly see the daily cash book data that is in accordance with the format of the previous daily cash book, in this condition *the user* has two options where if *the user* still has an error that is missed again, then *the user* corrects the BKM and BKK forms that have previously been input by *the user*. Because this daily cash book feature forms data into a daily cash book format according to the provisions of the company by automatically retrieving the results of the form input from BKM and BKK and if *the user* feels that the data in the *daily cash book printout* is correct, then *the user* can immediately print the daily cash book and can also directly download the excel file from the daily cash book data according to the date choice of the *user* <sup>[9], [20]</sup>.

3.4.5. Cash Journal Subprocess

Meanwhile, the Subprocess of the Cash Journal can be seen in the following figure <sup>[9]</sup>, <sup>[18]</sup>, <sup>[20]</sup>.

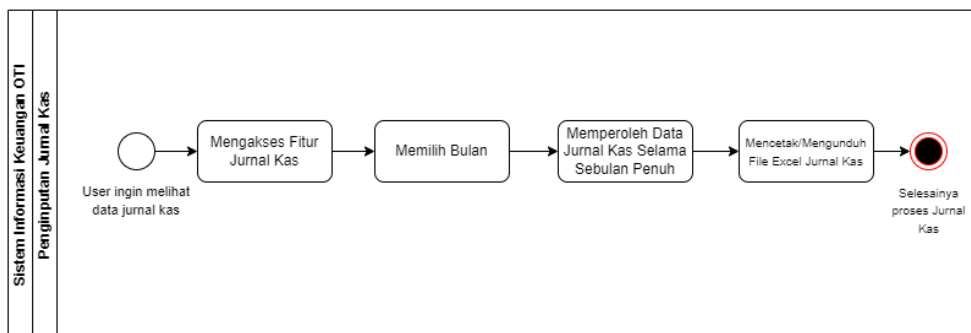


Figure 11. Cash Journal Subprocess

In the image, the Cash Journal Subprocess notes a *user* activity in accessing the Cash Journal to obtain *an excel softfile* from the cash journal every month <sup>[18]</sup>. The subprocess of the cash journal above describes the user's access to the cash journal that he wants to access with the beginning of the user who must access the Cash Journal feature first, then the user can choose the month and the user gets the data for a full month, after that *the user* can print or download the cash journal excel file after obtaining data from the cash journal depending on the month that the user has selected <sup>[9]</sup>, <sup>[20]</sup>.

3.5. Business Process Flow in the Financial Information System of PT. Oti Eya Abadi

In this section, it explains what features are available and exist in the OTI financial information system or the capabilities present in the overall planned information system. The analysis on the feature includes the needs of *users* who From the beginning they wanted it as available in Table 2 and the result of an agreement based on discussions between information system developers and *users* in Table 3 <sup>[19]</sup>. Therefore, the following table will display some features that were previously desired by *users* <sup>[9]</sup>, <sup>[19]</sup>.

Table 2. Features that users want

Kind	Description	Feature Name
Creation of Cash Receipt Book (BKM)	The system has a function that can load <i>printout</i> results to display BKM data based on the form filled out by the <i>user</i> .	Cash Book Incoming Form (BKM)
Creation of Cash Out Book (BKK)	The system has a function that can load <i>printout</i> results to display BKK data based on the form filled out by the <i>user</i> .	Cash Out Book Form (BKK)
Daily Cash Book Management	The system has a function that can automatically call BKM and BKK form data so that it can display the results of <i>the Daily Cash Book printout</i> based on the data from the BKM and BKK forms that have been filled in by <i>the user</i> .	Automatic Daily Cash Book
Cash Journal Management	The system has a function that can automatically call BKM and BKK form data so that it can display the results of <i>the Cash Journal printout</i> based on the data from the BKM and BKK forms that have been filled in by the <i>user</i> .	Cash Journal

After analyzing the company's output data that has been made in the previous month and year as a result of manual cash making, a further topic with *users* is obtained by exploring *the needs of users* with priorities that can streamline their cash work <sup>[9]</sup>. So the results of the deepening are available in the following table <sup>[9], [19]</sup>.

**Table 3.** Fixed feature in the financial information system of PT. Oti Eya Abadi

Kind	Description	Feature Name	Status	Ket
Creation of Cash Receipt Book (BKM)	The system has a function that can load <i>printout</i> results to display BKM data based on the form filled out by the <i>user</i> .	Cash Book Incoming Form (BKM)	OK	There is an edit and delete feature for the purpose of correcting the BKM form and there is a <i>View feature</i> for the purpose of printing BKM data.
Creation of Cash Out Book (BKK)	The system has a function that can load <i>printout</i> results to display BKK data based on the form filled out by the <i>user</i> .	Cash Out Book Form (BKK)	OK	There is an edit and delete feature for the purpose of correcting the BKK form and there is a <i>View feature</i> for the purpose of printing BKK data.
Daily Cash Book Management	The system has a function that can automatically call BKM and BKK form data so that it can display the results of <i>the Daily Cash Book printout</i> based on the data from the BKM and BKK forms that have been filled in by <i>the user</i> .	Automatic Daily Cash Book	OK	There is a date filter feature so that the data displayed follows the date of the form that has been inputted and there is a feature to download excel files for <i>user</i> purposes in <i>backing up</i> cash data that has been inputted.
Cash Journal Management	The system has a function that can automatically call BKM and BKK form data so that it can display the results of <i>the Cash Journal printout based on the data from the BKM and BKK forms that have been filled in by the user</i> .	Cash Journal	OK	There is a month filter feature so that the data displayed follows the month of the form that has been inputted and there is an excel file download feature for <i>user</i> needs in <i>backing up</i> the cash data that has been inputted.

Based on table 3 of the features generated in the financial information system of PT. Oti Eya Abadi is a feature that has been agreed upon with leaders and employees to streamline the company's cash management needs and can minimize the time used for managing the company's cash and make it easier for leaders and employees to back up and search for data that has been processed and input or processed.

### 3.6. *Analysis of the Success of the Implementation of the BPMN Method*

Based on the measurement of parameters for the success of the BPMN method at the Applied Research stage, the following results were obtained:

#### A. Time Efficiency in Terms of Data Processing

With the application of the BPMN method and *testing* carried out by researchers on the Financial Information System of PT. Oti Eya Abadi, the time required by *users* in using their financial information system is drastically reduced by around 70% in the company's cash processing when compared to *users* who are still processing company cash with the use of *Microsoft Excel*.

#### B. The Level of Accuracy of the Data Produced

With the application of the BPMN method and *testing* carried out by the researcher, an Information System was also obtained that can produce *output* data accurately in accordance with the form that has been input by *the user* on the Financial Information System of PT. Oti Eya Abadi and also obtained cash calculation data which is also accurate and there are no calculation errors made by the system. The accuracy of cash data obtained through its financial information system is around 90% similar to last month's cash output when *users* input cash using *Microsoft Excel*.

#### C. Workflow Efficiency in Information Systems

With the application of the BPMN method and the results of the analysis in the *Applied Research* stage above, the researcher can create a simple business process flow by reducing about 4 unnecessary steps from the 10 steps carried out by *the user* when processing cash in *Microsoft Excel* for the purpose of the access flow of the Financial Information System of PT. Oti Eya Abadi so that in the future the use of this financial information system can be easier for users to use without the slightest obstacle in using the system.

## 4. CONCLUSION

Based on the research that has been applied by the researcher, namely the application of *the Business Process Modelling and Notation* (BPMN) method in the financial information system of PT. Oti Eya Abadi which was realized as material for depicting the flow of access to the financial information system of PT. Oti Eya Abadi got several conclusions, namely:

- a. Referring to the analysis of the access process on the financial information system of PT. Oti Eya Abadi, there are 4 types of business processes as a reference for the access process on each feature of the information system, including, business processes and notation for the entire system access and clarified with the subprocesses of each feature for describes what actions must be taken by *users* to obtain data from each feature, including BKM, BKK, Daily Cash Book, and also Cash Journal.
- b. Analysis of the access process on the financial information system of PT. Oti Eya Abadi is applied based on the results of discussion and analysis of goals and problems by understanding the problem
- c. faced by *users* from everything that hinders *users* in managing the company's cash.

- d. Based on the design of business processes applied to the financial information system of PT. Oti Eya Abadi obtained the results of the information system as proposed and required by the company. With the design and depiction of business processes such as the system proposed by the *user*, the *user* process in managing the company's cash becomes more efficient, easier, and of course takes less time in managing the company's cash.
- e. By describing the business process for the company's information system, it is easy to obtain the entire features that must be entered into the information system and also the order of access from each feature to obtain the entire cash data from the information system used by the company.
- f. Based on the results of the analysis of the success parameters that have been carried out, that the use of the BPMN method in the decision of the access flow for the Financial Information System of PT. Oti Eya Abadi can be said to be successful, successful in terms of improving time efficiency in processing company cash data, improving the accuracy of data generated by information systems, and also succeeding in streamlining the flow of cash work in financial information systems.

## 5. SUGGESTED

Based on what is obtained from the application of Business Process Analysis in the Financial Information System of PT. Oti Eya Abadi with the notation from BPMN is expected that if there is further development for business processes in this company's information system in the future to add business processes such as *approve* and *not approve* for the addition of features to the information system to fill out the form in the leadership role section so that later employees when completing the BKM and BKK forms no longer need to consult the form to the leader but directly look at additional features in the form of notification features in the information system so that in the future the use of the financial information system of PT. Oti Eya Abadi has become more efficient and shortens the time of employees and leaders in managing the company's cash.

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