

Evaluation of Academic Service Business Processes through a Business Process Improvement Approach (Case Study: Esa Unggul University Learning Administration Bureau)

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Abstract

Business Process Improvement is a systematic system framework that helps an organization in advancing or improving business processes. To find out the effectiveness of business processes running in academic service processes, it is necessary to evaluate and model existing business processes. The main objective of BPI is to improve business processes and ensure issues in an organization's business processes are handled properly. The use of BPMN is a tool for describing or modeling business process diagrams based on flow chart techniques, assembled to create graphical models of business operations where there are activities and flow controls that define the work order. The results of this study are to evaluate and improve on important functions in the learning administration bureau of Universitas Esa Unggul.

Keywords

business process improvement;
BPMN; evaluation



I. Introduction

Every university establishes business processes related to academic services, these services in practice require improvement or improvement according to the needs of the organization. Business process improvement is carried out by several methods, one of which is the Business Process Improvement (BPI) method. Business Process Improvement is a systematic system framework that helps an organization in advancing or improving business processes. The main objective of BPI is to improve business processes and ensure issues in an organization's business processes are handled properly. Organization must have a goal to be achieved by the organizational members (Niati et al., 2021).

Therefore, in this paper, the first thing the author will do is use the Business Process Modeling Notation (BPMN) to model the current business processes. BPMN is a tool for describing or modeling business process diagrams based on flow chart techniques, assembled to create graphical models of business operations where there are activities and flow controls that define the work sequence.

To find out the effectiveness of business processes running in academic service processes, it is necessary to evaluate and model existing business processes. In connection with the above explanation, the issue was raised as research material with the title "Evaluation of Academic Service Business Processes through a Business Process Improvement Approach (Case Study: Esa Unggul University Learning Administration Bureau)"

II. Research Method

In this study, researchers conducted observations and interviews at the Bureau of Learning Administration (BAP) in academic administration services, which is focused on the procedures contained in the ongoing business process of academic administration services, as well as the problems contained in each activity in the business process.

In order for the research to run well, it is necessary to first develop a research framework. This framework is a sequence of work steps in completing research which can be seen in the following figure:

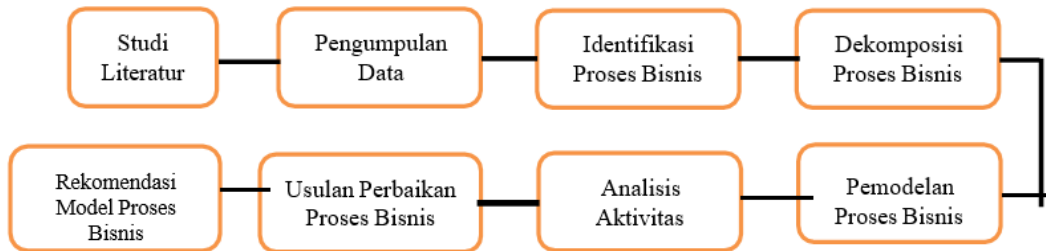


Figure 1. Thinking Framework

Description Figure 1.

- a. This research begins by searching for literature related to the research theme so that strong scientific foundations are obtained to carry out this research.
- b. Collecting data related to academic administrative service business processes, by observing and studying documents related to business process activities so that a good understanding of existing business processes is obtained, by involving parties involved in business processes such as students, academic supervisors, study programs, BAP, counter officers, while the documents collected are in the form of procedures that apply to all business processes.
- c. Identify business processes to map the main business processes and supporting business processes. The tool used at this stage is Value Chain analysis. In this study, the main focus is on business processes in academic administrative services.
- d. Decompose business processes to simplify the analysis process in mapping business processes.
- e. Doing modeling of the business processes that have been determined. In this study for business process modeling using Business Process Modeling Notation (BPMN). BPMN serves to provide a graphical representation to define business processes in a business process modeling.
- f. Conducting activity analysis and business process improvement proposals. This step is carried out in 3 (three) ways, namely:
 1. Non Value Added (NVA), is an activity from a business process that does not provide added value to customers or in the organization's business processes. Example: Redundant inspection, Filling in forms, rework, Excessive transit, waiting, storage.
 2. Business Value Added (BVA), are activities from a business process that do not add value to the process output directly, but these activities are needed in business processes as support for business processes. Example: Scheduling, Marketing, Career Planning, Auditing.
 3. Real Value Added (RVA), an important process that converts inputs into outputs needed to meet customer needs and the value has been felt by the customer.

Example: Product Development, Material Procurement, Design, Fabrication, Assembly, Finishing, Packaging, After Sales Service.

- g. Modeling the business processes that will be recommended, at this stage simplification of business processes is carried out with the aim of increasing the effectiveness and efficiency and adaptability of a business process.

III. Results and Discussion

The discussion of the research and test results obtained is presented in the form of a description of the method used. The following are the stages of the BPI Process.

3.1 Identification of Current Business Processes



Figure 2. BAP's Business Value Chain

Figure 2 is a business decomposition depicted through the business value chain. After the business process decomposition is carried out, then the critical business process selection is carried out to map the process. From the decomposition of the business process above, the business process is focused on the academic administrative service process as shown in Figure 2 where 5 academic services are taken, described in Figure 3 below:



Figure 3. BAP Services

In Figure 3, 5 academic services are taken to evaluate business process improvement at BAP.

3.2 Business Process

Modeling Business Process Modeling is a general diagram representing a sequence of activities that implicitly focuses on a process, action and activity (*job*). The tools used to model business processes in this research are *Business Process Modeling Notation* (BPMN). phase is *improvement* carried out on the business processes that are currently running.

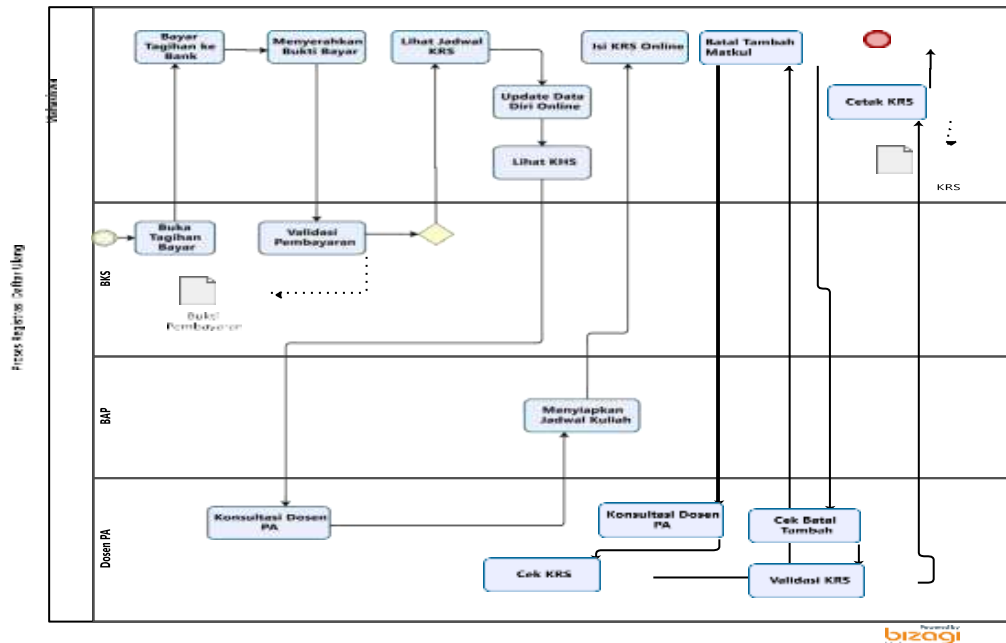


Figure 4. Re-registration Registration Business Process

In Figure 4. Re-registration registration business process there are 4 actors involved, namely Students, BKS, BAP, PA Lecturers. Constraints encountered in the re-registration business process are as follows:

1. Students must come to campus to ask for a bill for tuition payments and submit proof of transfer of tuition fees. But for students or guardians of students who come from outside the city, this is a problem because they have to go to campus to ask for a bill for tuition payments and submit proof of transfer of tuition fees, while the distance between the area and the campus is quite far.
2. BKS cannot directly check tuition fees that have been transferred by students, because BKS only accepts transfer receipts in the form of cash or ATM receipts from students. The proof of transfer is checked by the foundation. Sometimes prospective students have paid for college but the deposit slip or proof of transfer is lost, so the foundation takes a long time to check the transaction history in the foundation's account.
3. The KRS validation process takes place online and manually, because of the Personal Data Update before filling out the KRS, canceling the addition of courses until the KRS validation by the PA Lecturer.
4. The length of the queue when students consult with PA Lecturers to validate KRS to print KRS by students.

a. Business Process of Re-Registration

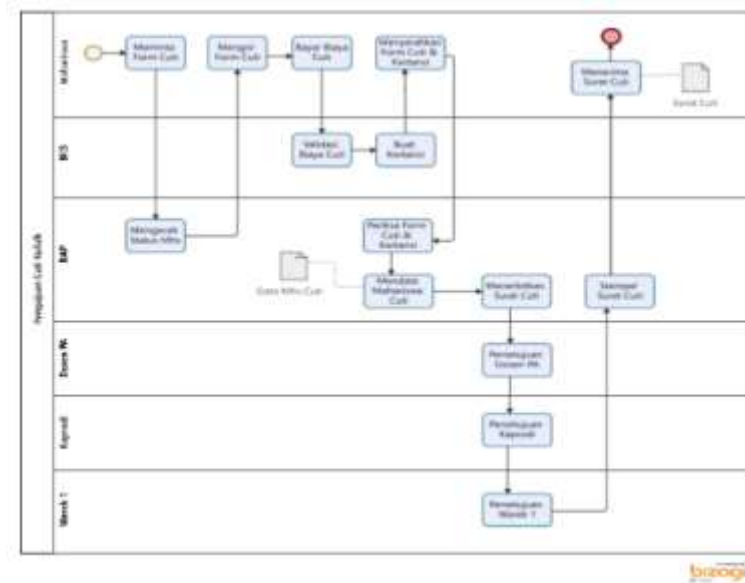


Figure 5. Business process of re-registration

In Figure 5. In the business process of submitting college leave there are 6 actors, namely students, BAP, BKS, PA Lecturers, Head of Study Program, Warek 1. In the business process of submitting college leave there are several problems :

1. Students must come to campus to request and fill out the Lecture Leave Form and submit proof of tuition leave payment. This is certainly an obstacle for students who are outside the area.
2. BKS cannot directly check the tuition leave fees that have been transferred by students because BKS only accepts proof of transfer of tuition leave fees in cash or ATM receipts from students.
3. The process of issuing a college leave letter that must be approved by the PA Lecturer, Head of Study Program, Warek 1 which must be signed manually.
4. Data collection of students who apply for study leave conducted by BAP requires a time process according to the queue of students who apply.

b. Business Process Printing of Diplomas

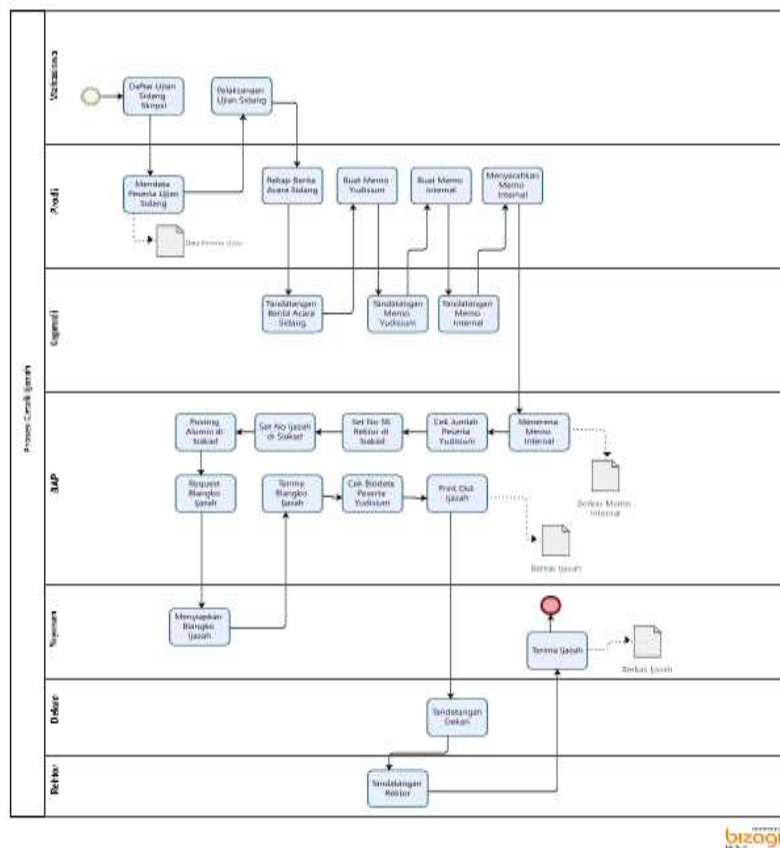


Figure 5. Business Process of Printing of Diplomas

In Figure 5. In the business process of printing diplomas, there are 7 actors, namely Students, Study Programs, Head of Study Programs, BAP, Deans, Chancellors, Foundations. Some of the problems in the diploma printing business process:

1. The length of data collection on the Minutes of the thesis trial conducted by the Study Program, due to the large number of students who take the thesis trial exam at different times.
2. The process of submitting scores from the examiners to the Study Program to be recapitulated in the minutes of the thesis trial, due to the large number of students taking the thesis trial.
3. Synchronization of student biodata with student data files uploaded in Siakad in the form of scans of ID cards, latest education certificates (SMU, D3, S1), family cards with writing names, places of birth and date of birth in student biodata.
4. The signing of the diploma files that must be signed by the Dean and Rector, which requires a time process according to the number of diploma files that will be signed by the Dean and Rector.

c. Graduation Registration Business Process

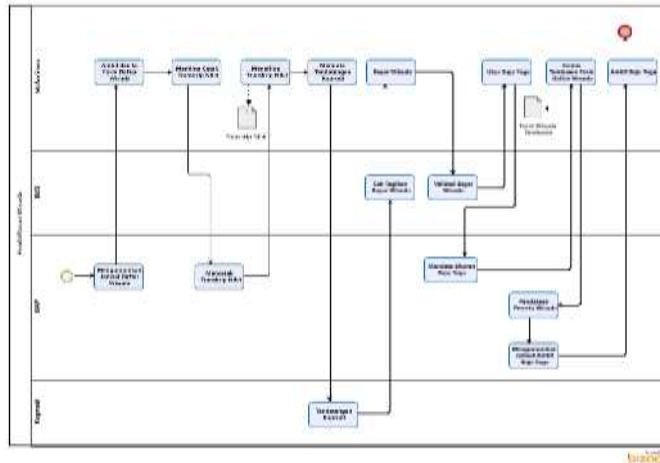


Figure 6. Graduation Registration Business Process

In Figure 6. In the graduation registration business process there are 4 actors, namely students, BAP, BKS and the Head of Study Program. In the business process of graduation registration, there are several problems:

1. Students must come to campus to take the Graduation Registration Form. But for students who come from outside the city, this becomes a problem because they have to go to campus to take the Graduation Registration Form, while the distance between the area and the campus is quite far.
2. Students must come to campus to validate their graduation payment to BKS, but for students who come from outside the city this is a problem because they have to go to campus to validate their graduation payment to BKS, while the distance between the area and campus is quite far.
3. Students need time to process to get a signature from the Head of Study Program, due to the working hours of the Head of Study Program and the queue when asking for the Head of Study Program's signature.

d. Business Process of Taking Diplomas

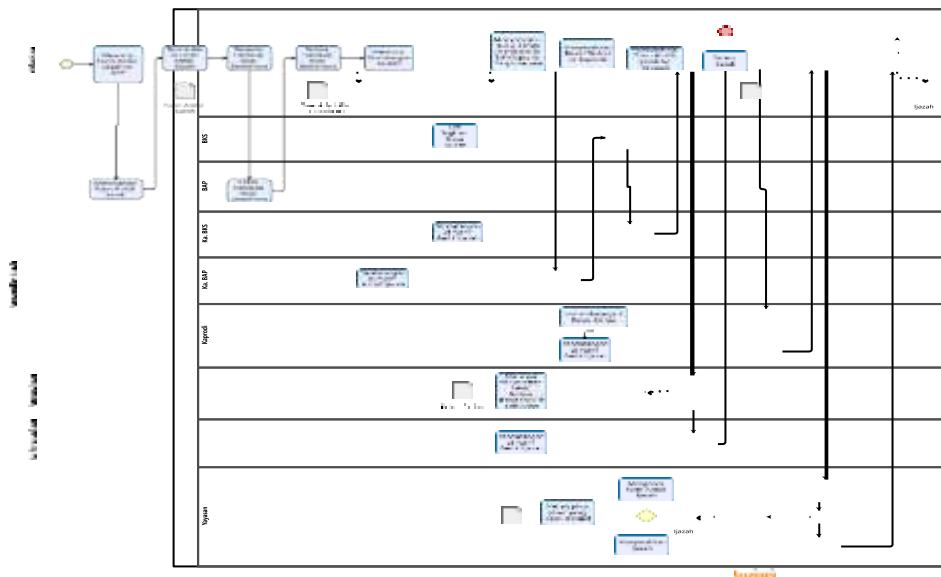


Figure 7. Business Process of Taking Diplomas

In Figure 7. In the business processes of taking diplomas there are 9 actors, namely students, BAP, Head of BAP, BKS, Head of BKS, Libraries, Head of Libraries, Head of Study Program, Foundation. In the business process of taking this diploma, there are several problems:

1. Students must come to campus to take the diploma. But for students who come from outside the city, this becomes a problem because they have to go to campus to get a diploma, while the distance between the area and the campus is quite far. Not to mention permission from the office if they work.
2. The signature on the Certificate Take Form is not yet complete, as a condition for obtaining a diploma at the Foundation.
3. Revision of student thesis that has not been completed and has not been signed by the Head of Study Program.
4. There is a financial billing problem that has not been resolved through BKS.
5. Have not submitted the return of books, hardcopy and softcopy of thesis to the library.

3.3 Activity Analysis and Business Process Improvement Proposals

After modeling the current business processes, the Value Added analysis is then carried out. This analysis classifies activities into three classifications, namely:

1. *Real Value Added (RVA)*, is an activity that has direct value to consumers.
2. *Business Value Added (BVA)*, is an activity that has no direct value to consumers.
3. *Non Value Added (NVA)*, is an activity that has no added value, either to customers or in business processes.

3.4 Modeling of Business Process Recommendations

After analyzing problems and recommending improvements to existing business processes, the following is a proposed diagram of improvements to academic service business processes.

a. Recommendations for Re-registration Business Process Improvement

Recommendations or suggestions for improving the re-registration business process can be found in the activity of opening invoices, submitting proof of payment, updating personal data online, see KHS, PA Lecturer consultation. Recommendations for improvement of the Re-registration Business Process can be seen in the following picture:

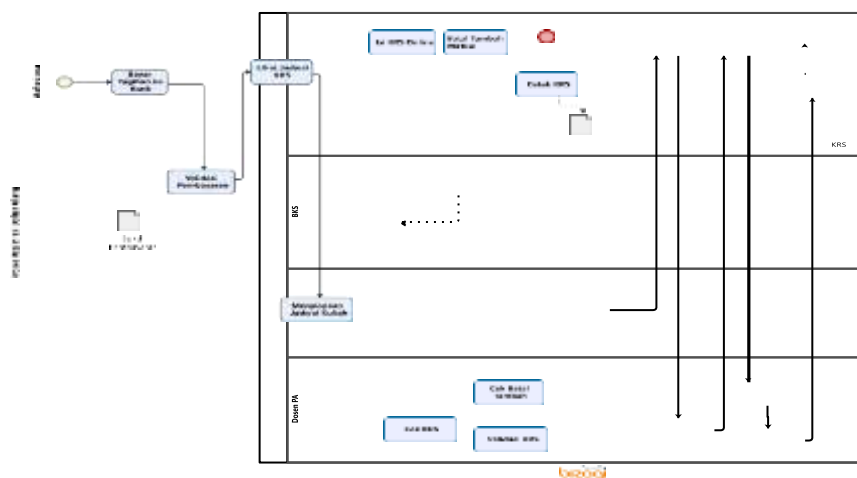


Figure 8. Re-registration Business Process Recommendations

3.5 Comparison of Total As Is and To Be Business Process Activities

Analysis has been carried out to map what activities are eliminated and *upgraded* to business processes which is currently (*As Is*) where from the results of the analysis there are several activities that are eliminated and *upgraded* so that the number of activities in the recommended business processes is less. Comparison of the number of recommended activities as shown in the following table:

Table 1. Comparison of the number of *As Is* and *To Be*

Business Process	activities Number of As Is	activities Number of activities To Be
Registration Re	16	10
Applications for Lecture Leave	15	10
Print Certificates	23	15
Graduation Registration	16	13
Taking Diplomas	21	17

IV. Conclusion

Based on the results of the thesis preparation from the previous chapter, in this chapter which is the final part of this research, it can be concluded that several descriptions to answer the problem formulation according to the research, are as follows:

1. The results of business process modeling using BPMN get 26 activities were eliminated for efficiency and effectiveness in academic administration services at Esa Unggul University.
2. Using *Value Added* to map activity names, actors, classifications and improvement plans for each activity in the academic administration service business process at Esa Unggul University.
3. Comparison of the number of activities that are eliminated and *upgraded* to current business processes, so that the number of activities in the recommended business processes is less

Suggestion

1. There is a need for total and continuous implementation of business processes and *Standard Operating Procedures (SOP)* from the Learning Administration Bureau (BAP) so that the vision and mission of Esa Unggul University can be achieved.
2. Further research is needed to unravel the problems faced in the business process of academic administration services at Esa Unggul University, especially in the Learning Administration Bureau (BAP).

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