

BUSINESS PROCESS DEVELOPMENT IN CENTER OF EXCELLENCE TO ENHANCE OPERATIONAL OPTIMIZATION

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ABSTRACT

This research aims to develop business processes at the Center of Accounting and Fintech (CoE Afintec) Polibatam. The analysis of this business process development is an effort to improve operational efficiency and support the achievement of the strategic goals of CoE Afintec. The research method used is a qualitative method with an applied research type, which is focused on solving real problems faced by CoE Afintec. Data were collected through in-depth interviews with related parties and then analyzed using a BPMN (Business Process Model and Notation)-based Business Process Diagram (BPD) to map core processes and see positive and negative values. The research results showed that several processes were not running effectively and optimally. Based on these results, a new business process was redesigned to be more structured, responsive, and in line with the needs and objectives of CoE Afintec development. With the development of this business process, it is hoped that CoE Afintec Polibatam can strengthen its role sustainably as a center of excellence that supports the Tridharma of Higher Education and becomes a profit center for the Polibatam Business Management Department.

Keywords: *Business Process; Business Process Diagram; Center of Excellence*

ABSTRAK

Penelitian ini bertujuan untuk mengembangkan proses bisnis pada *Center of Accounting and Fintech* (CoE Afintec) Polibatam. Analisis pengembangan proses bisnis ini sebagai upaya meningkatkan efisiensi operasional dan mendukung pencapaian tujuan strategis CoE Afintec. Metode penelitian yang digunakan adalah metode kualitatif dengan jenis penelitian terapan, yang difokuskan pada pemecahan masalah nyata yang dihadapi CoE Afintec. Data dikumpulkan melalui wawancara mendalam pihak terkait, kemudian dianalisis menggunakan *Business Process Diagram* (BPD) berbasis BPMN (*Business Process Model and Notation*) untuk memetakan proses-proses inti dan melihat nilai positif dan negatif. Hasil penelitian menunjukkan bahwa terdapat beberapa proses yang berjalan tidak efektif dan optimal. Berdasarkan hasil tersebut, dilakukan perancangan ulang proses bisnis baru yang lebih terstruktur, responsif, dan sejalan dengan kebutuhan dan tujuan pengembangan CoE Afintec. Dengan adanya pengembangan proses bisnis ini, diharapkan CoE Afintec Polibatam dapat memperkuat perannya secara berkelanjutan sebagai pusat keunggulan yang mendukung Tridharma Perguruan Tinggi dan menjadi *profit center* bagi jurusan Manajemen Bisnis Polibatam.

Kata Kunci: *Proses Bisnis; Diagram Proses Bisnis; Pusat Keunggulan*

1. INTRODUCTION

In supporting national development, universities have a strategic responsibility through the implementation of the Tridharma of Higher Education. Based on Kemendikbudristek (2024), the Tridharma of Higher Education, hereinafter referred to as Tridharma, is the obligation of Higher Education to organize education, research, and community service. The Tridharma of teaching is the first pillar because lecturers are professional educators in universities who have the main task of transferring knowledge to their students. Science continues to develop (Santi, Nurwahidin, & Sudjarwo, 2022) because the phenomena that occur in society are increasingly varied so new theories or problem-solving are needed to then be used as a learning reference for students. The development of this science can be obtained through other Tridharma activities, namely research and community service. This is because the two pillars of Tridharma play a role in bridging science with the real needs of society. Ideally, research and community service are conducted by lecturers based on their knowledge and expertise so that the depth of analysis of research results and the benefits of community service can be maximized (Fitriana, Mutmainnah, & Halifah, 2021).

Responding to this challenge, Batam State Polytechnic is committed to improving researcher competence and developing focused research and community service activities through the establishment of a Center of Excellence (CoE). One of the CoEs at Polibatam is the Center of Accounting and Fintech or commonly called Afintec. CoE Afintec focuses on accounting technology, accounting and management services, and accounting education. The operational business processes of CoE Afintec are related to the Tridharma of Higher Education, mainly research and community service. The Research Division in CoE Afintec includes processes for submitting grant proposals or funding, conducting research, and publishing scientific publications. Then, the research process is accompanied by process in the Community Service Division, so the community can utilize

the research results. However, in practice, there is no clear business process standard for each product produced in the operation of CoE Afintec, so a systematic approach is needed in the form of a comprehensive business process analysis. This business process is important to developed because it is an effort to improve operational performance and efficiency (Sagala, Tarigan, Andarini, & Kusumasari, 2024) and increased operational efficiency is a reflection of effective business strategy and strong management (Hia & Komalasari, 2024). Therefore, this research is important to be conducted to visualize the business process that can help optimize the performance of CoE Afintec, especially in supporting the Tridharma of Higher Education.

2. LITERATURE REVIEW

Business Process

A business process is a collection of structured activities or work that are interrelated to produce a product or service (Saepulloh, Rosadi, & Riswaya, 2021). The activities that are carried out systematically involve various functions or teams in the organization, such as the production team, creative team, social media team, etc. This is because organizations can usually work better when expertise from various functions is involved (Lasmi, Bayhaqi, & Suhairi, 2022).

Products or services resulting from a business process are referred to as output. Output is the result of processing input carried out by resources that carry out activities in the business process (Azhari, Budiman, Haroen, & Yasin, 2021). However, business processes do not only focus on output in the form of products or services, but also on how to achieve this output efficiently, effectively, and sustainably. To achieve this, improvements or development of business processes are needed. Existing business processes can be improved or developed by implementing Business Process Management (BPM). BPM is a systematic approach to making organizations more effective, more efficient, and more adaptable to environmental needs (Azhari et al., 2021).

Every existing business process needs to have its workflow documented systematically and depicted visually so that each step or stage in the process is clear and understandable. A visual way to describe the various steps or activities in a business process can use a business process diagram (Romney, Steinbart, Summers, & Wood, 2021).

Business Process Diagram

Business Process Diagram (BPD) is likened to a graphical representation of a series of activities that form a business process with a systematical flow (Eka, 2025). BPD uses the notation standard of Business Process Model and Notation (BPMN). BPMN defines BPD based on flowcharting techniques designed to create graphical business process operating models (Jurik, Schmidt, Misut, Brezina, & Reiff, 2025). The graphic symbols used in BPD can be seen in Figure 1 below.







Symbol	Name	Explanation
	Start/Begin	The start or beginning of a process is represented by a small circle.
	End	The end of a process is represented by a small bolded circle.
	Activity in a process	An activity in a process is represented by a rounded-edge rectangle. An explanation of the activity is placed inside the rectangle.
	Decision	A decision made during the process is represented by a diamond. An explanation of the decision is placed inside the symbol.
	Flow	The flow of data or information is indicated by an arrow.
	Annotation information	Information that helps explain a business process is entered in the BPD and, if needed, a bolded dashed arrow is drawn from the explanation to the symbol.

Figure 1. Business Process Diagram Symbols

Source: Romney et al. (2021)

Romney et al. (2021) also explains several guidelines for preparing for BPD, there are:

1. Identify and understand the business process.
2. Ignore certain items. Unlike flowcharts, BPD does not need to show documents as they flow through the system or show where they are stored.
3. Decide how much detail to include.

4. Organize diagram.

5. Enter each business process on the diagram. Show where each business process begins and ends.

6. Draw a rough sketch of the BPD.

7. Draw a final copy of the BPD.

3. RESEARCH METHOD

This research uses a qualitative method with an applied research type, which aims to solve the actual problems faced by CoE Afintec Polibatam. Specifically, this research uses a descriptive qualitative method. This method allows incident data to be summarized comprehensively (Sandelowski, 2000). Data needs to be summarized first because CoE Afintec's business processes have not been systematically documented, either in the form of flowchart or business process diagram.

The steps of research carried out refer to the steps of business process development explained by Laudon & Laudon (2017), as follows:

1. Determine the business process that needs to be improved or changed.

2. Evaluate the ongoing business process. The existing business process will be modeled and documented systematically, including the identification of inputs, outputs, resources used, and activity sequences. Then, examine the existence of unnecessary or inefficient steps to then be improved.

3. Prepare a new business process design. After the old process is analyzed, then a new process design that aims to improve overall efficiency and effectiveness will be developed.

4. Implement the new business process into the operations of the organization or unit.

5. Conduct continuous evaluation and measurement.

The data collection method was conducted by interviewing the Chairperson and Person in Charge (PIC) of each division in the CoE Afintec organizational structure, namely the Research, Community Service, and Technology Development Division, so that a

specific picture of the business process of each product produced could be obtained. Then, the collected data is documented in the form of a business process diagram and analyzed the positive and negative values according to the steps of business process development. Then, a new business process diagram will be designed based on the analysis results.

4. RESULTS AND DISCUSSION

Training for Accounting and Business Application

The data and information obtained related to this product are documented in the business process diagram in Figure 2 below.

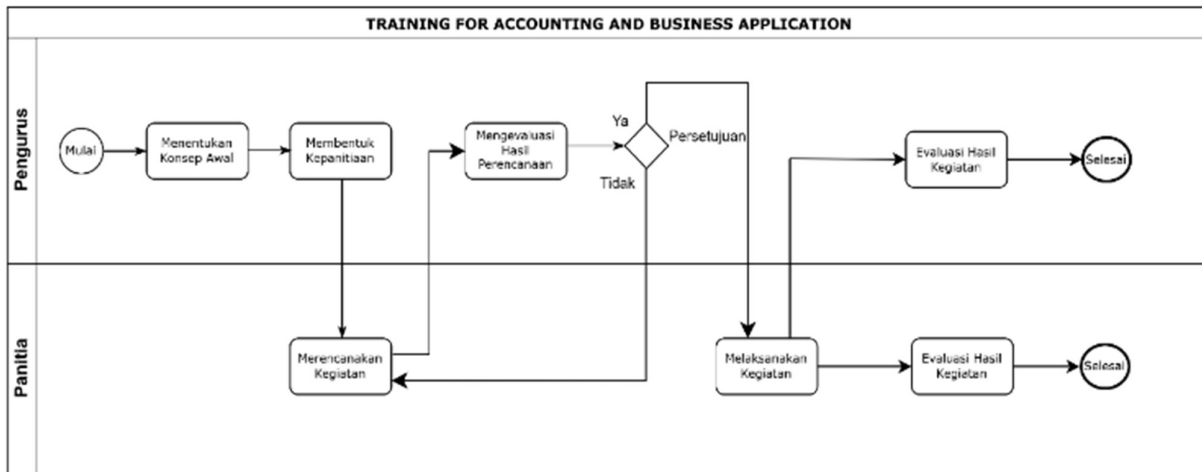


Figure 2. Business Process Diagram Training for Accounting and Business Application (Before Analysis)

Based on the business process diagram above, it can be seen that there is ineffective time in the activity plan approval process. To overcome this, the committee can gradually create an activity plan using digital application, such as Google Sheet and the staff can conduct regular and real-time planning reviews according to the results of the planning input in Google Sheet, so it can improve time effectiveness.

In addition, in the business process diagram, the evaluation stage only involves the committee and staff. It can cause inaccurate evaluation results. Evaluation is an activity to collect information about the activity performance, and then the information is used to determine the right alternative in decision making or to improve future activities (Ariyanti & Prasetyo, 2021). Therefore, in the evaluation stage, it is also necessary to involve activity participants to provide actual feedback, so that the evaluation results are more optimal. The evaluation stage can be optimized digitally by using Google Form which is given to

participants of the Training for Accounting and Business Application after carrying out the activity.

The analysis result can be described in the form of positive and negative values as in Figure 3 below.

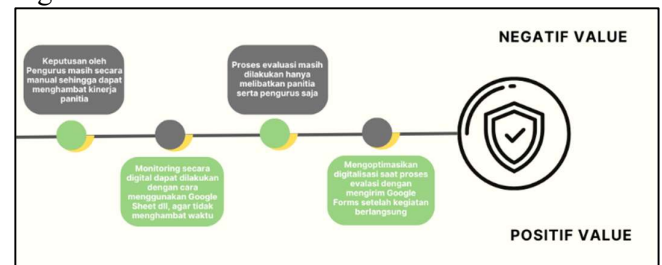


Figure 3. Analysis Result of Business Process Training for Accounting and Business Application

Figure 4 below shows the new business process diagram for the Training for Accounting and Business Application product in CoE Afintec Polibatam.

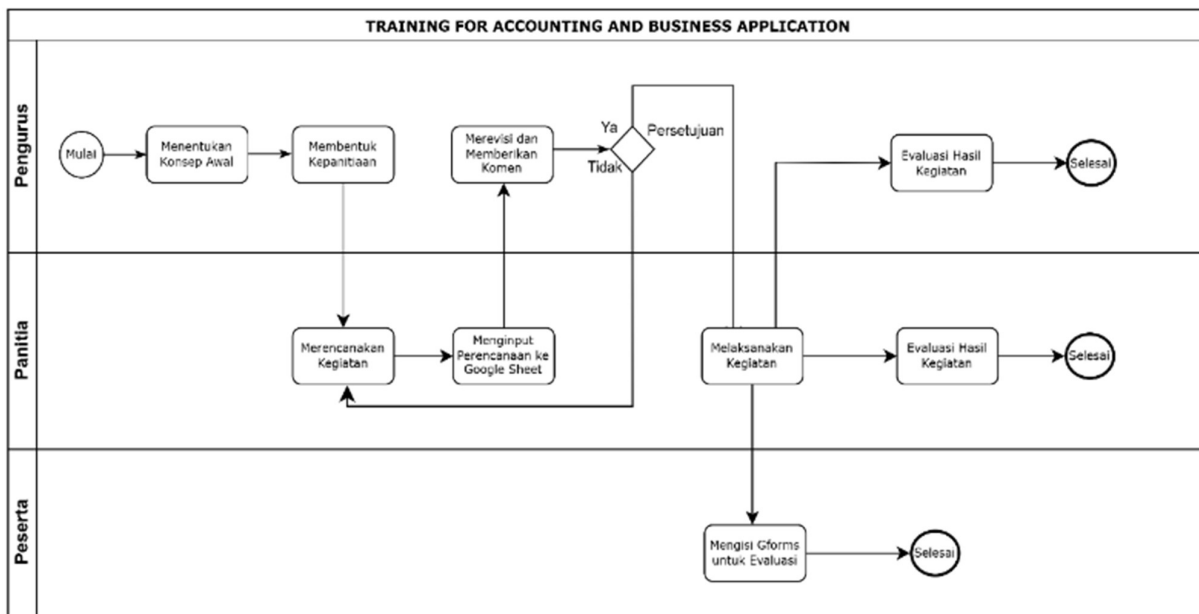


Figure 4. Business Process Diagram Training for Accounting and Business Application (After Analysis)

Reels and Animation for Accounting

The data and information obtained related to this product are documented in the business process diagram in Figure 5 below.

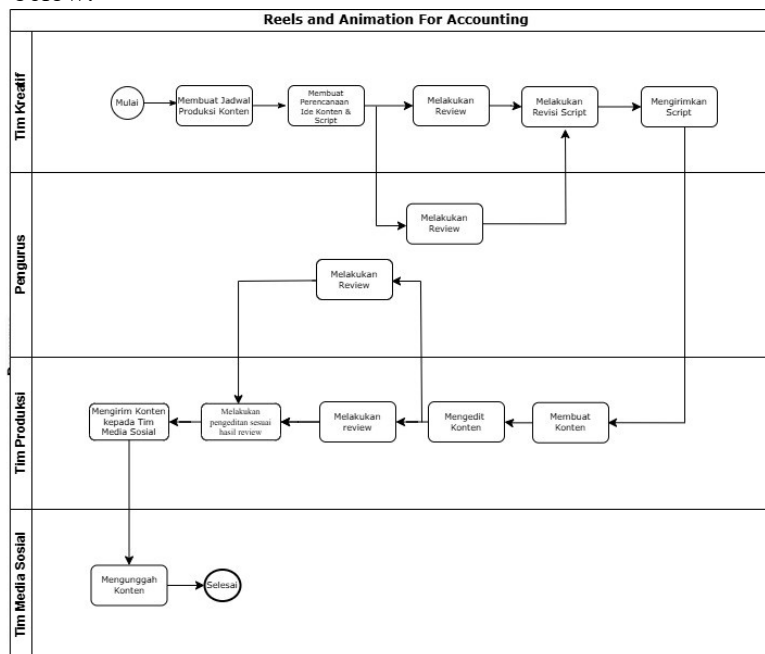


Figure 5. Business Process Diagram Reels and Animation for Accounting (Before Analysis)

Based on the business process diagram above, the content creation process does not involve feedback from the audience or platform users. The impact is that the content can have a risk of being less relevant to audience

preferences. To overcome this, before creating content, it is necessary to know first the audience's preferences. In addition, in business process diagram also can be seen that there is no process to assess the success or effectiveness

and evaluate the performance of the content after it is uploaded, such as engagement, views number, or user interaction, so it is not known whether the content created is effective in achieving the goals. Therefore, a content performance evaluation process is needed.

It is also can be seen in the business process diagram that the task of the Social Media Team is only identified as "uploading content" without mentioning a targeted content distribution strategy such as determining the golden time for uploading content or conducting cross-platform promotions. This cause limited reach and effectiveness of the content, so that the content cannot reach a wider audience and cannot increase brand awareness. However, the important role of social media is to increase brand awareness and user engagement, as well as facilitate viral marketing (Maryolein, Dwina Hapsari, & Oktaviani, 2019).

The analysis result can be described in the form of positive and negative values as in Figure 6 below.

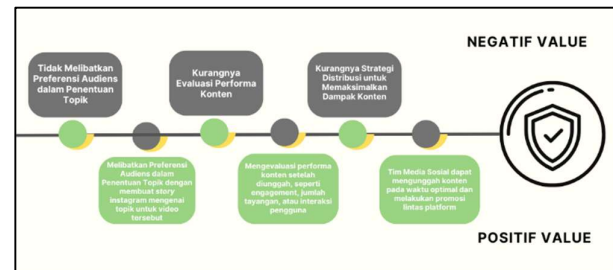


Figure 6. Analysis Result of Business Process Reels and Animation for Accounting

Figure 7 below shows the new business process diagram for the Reels and Animation for Accounting product in CoE Afintec Polibatam.

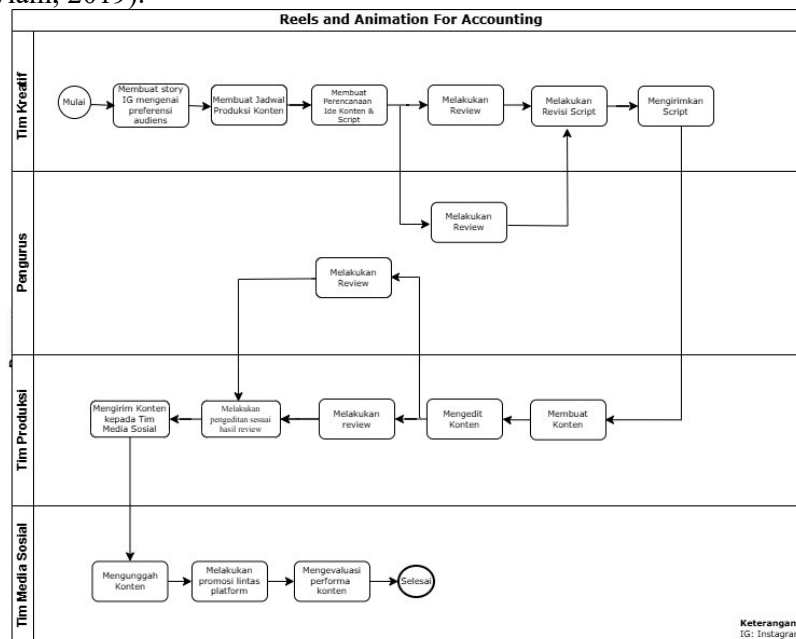


Figure 7. Business Process Diagram Reels and Animation for Accounting (After Analysis)

Transaction Scanner

The data and information obtained related to this product are documented in the business process diagram in Figure 8 below.

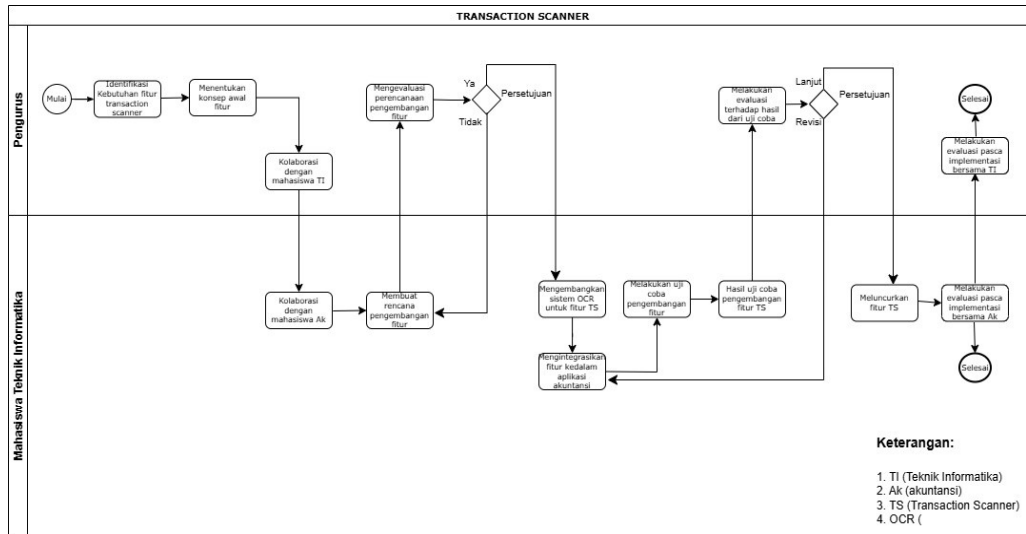


Figure 8. Business Process Diagram Transaction Scanner (Before Analysis)

Based on the business process diagram, it can be seen that the system or technology being designed is highly dependent on students from Information Technology (IT) faculty. If the students are not available because they are busy, in class, or no longer involved, then the sustainability of the system or project can be disrupted. This is a risk because there is a possibility that no other party understands enough to continue or maintain the system. Therefore, collaboration is needed not only with IT students but also with other parties or external parties who understand the development of technology or system.

In addition, the testing process is limited or not comprehensive enough to ensure that the system can function properly in various real situations. To overcome this, the testing process need to involve not only internal parties to the project, but also external parties, such as users. It is commonly referred to as User Acceptance Testing (UAT). UAT tests the system to verify its compliance with user requirements and its

ability to accommodate all business scenarios for relevant users (Kusuma & Yufron, 2024).

The analysis result can be described in the form of positive and negative values as in Figure 9 below.

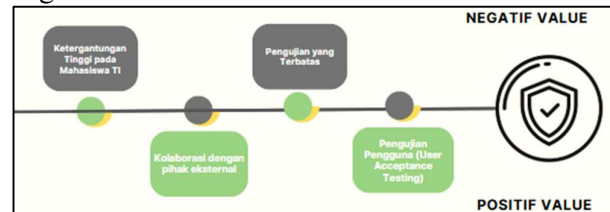


Figure 9. Analysis Result of Business Process Transaction Scanner

Figure 10 below shows the new business process diagram for the Transaction Scanner product in CoE Afintec Polibatam.

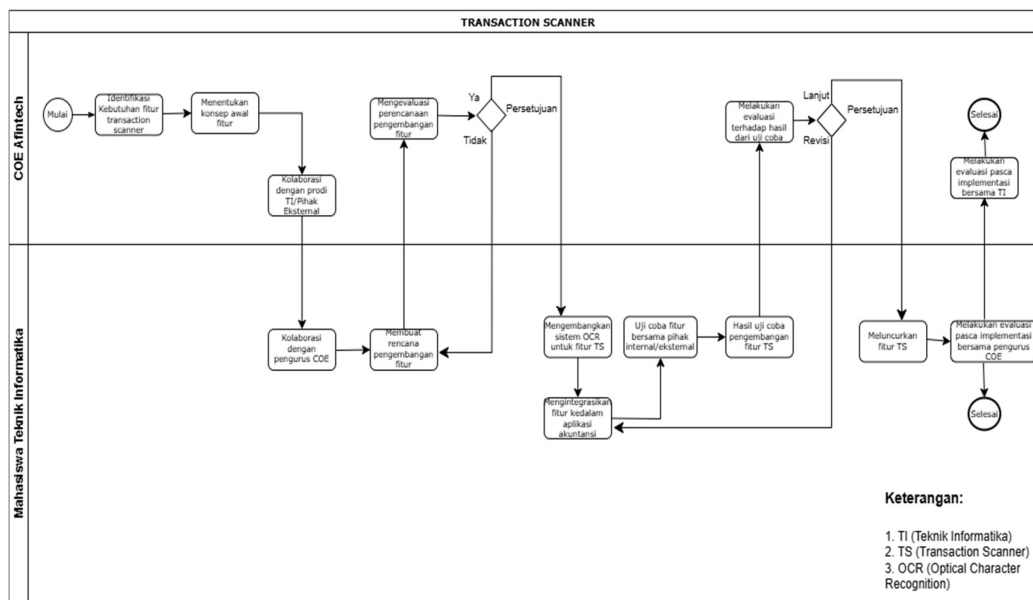


Figure 10. Business Process Diagram Transaction Scanner (After Analysis)

5. CONCLUSION AND SUGGESTION

This research aims to develop business processes in CoE Afintec Polibatam by producing a visualization of the business process that can practically contribute to optimizing its operational performance. The research's results indicate that there are several shortcomings in the existing business process, such as time ineffectiveness, products that are not on target, and evaluation processes that are not optimal. Through a descriptive qualitative method and documentation of business processes using Business Process Diagrams (BPD), positive and negative values can be seen and used as a basis for redesigning new business processes that are more structured, responsive, and in line with the needs and objectives of CoE Afintec development.

This research limitation is that it focuses on the business process development stage and does not include implementation trials or long-term performance evaluation of CoE Afintec. As a suggestion, after this new business process is implemented, an evaluation should be carried out whether the new business process can be run optimally and has been able to achieve CoE Afintec's strategic goals effectively and efficiently.

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