



# Analysis and recommendations for business process improvement for retail companies using the Business Process Improvement (BPI) method

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## ABSTRACT

Retail companies are businesses that involve direct interaction between sellers of goods or services and consumers, meaning that retail businesses do not have a processing process from raw materials to finished products. In the process of editing and recapping goods data, there are 2 main businesses, namely editing data, sending copies of goods data, and storing new data in the cashier's GIS database. After the evaluation, it was found that simplification could be made to make it more efficient. Based on the results of the evaluation of the business process, it was found that the root cause of the editing time and recap of goods data was long. Business process recommendations are made and the results are obtained, eliminating the process of providing a copy of new item data to the warehouse clerk and storing new item data in the cashier's GIS database.

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## 1. Introduction

A modern business process is an inherently distributed system: its activities are performed by various employees, on different locations, using a heterogeneous set of IT systems [1]. The variety of business processes that occur causes companies to look for ways to explain their business processes. Business process modeling is used to evaluate and improve future business processes. Business process analysis is usually the assignment of processes and subprocesses to activity levels. Analysis

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can be done by modeling business processes. Business Process Modeling describes how people interact with stakeholders in a system and describes specific methods or standards [2].

A retail company is a business that involves direct interaction between sellers of goods or services and consumers, meaning that the retail business does not have a process that converts from the form of raw materials into finished products. The distribution of products or services to consumers is an important role for Retail Companies. The function of the retail company is also for inventory management by regularly or regularly determining the right amount of goods in the right place and at the right time and being responsible for storage and inventory at the time of delivery until the products are sent to reach the hands of consumers. Retail companies that have many business process transactions are quite difficult to decipher [3].

Running a business is an organization with business goals that are not necessarily achieved in one year of running [4]. Therefore, in a business process, it is necessary to evaluate and reengineer business processes, therefore it is not uncommon to make improvements to a business process [5]. Evaluation is needed to get the most efficient business process and there are no problems or obstacles. This is the background for us to conduct an analysis using Business Process Improvement (BPI).

Business Process Improvement (BPI) itself is a systematic scheme for organizations or companies that want to improve the implementation of their business processes. Business Process Improvement (BPI) has 12 useful tools to improve a business process. Of the existing tools used to reduce business processes that have not been improved. Business Process Improvement (BPI) is also often used in business processes in a company or organization. So that the results of existing business processes in organizations such as production processes, distribution processes, sales processes, and other processes will provide better results [6].

The purpose of doing this BPI aims to enable an organization to be able to make business processes that were previously ineffective and efficient into business processes that are more effective and efficient and also the purpose doing this BPI is to look for existing problems and find solutions to these problems. Then the output of doing this BPI is a recommendation of a new business process that is more effective and efficient.

Various steps are needed to get a more effective BPI, one of which requires an analysis [7]. The motivation of every business user is also needed to make the business run more optimally [8]. Good system integration also increases the effectiveness of BPI so that it has increased sustainability [9]. Risk management also needs to be analyzed to make BPI safer [10]. Therefore, the researchers focused on research with the title "Analysis and Recommendations for Business Process

Improvement for Retail Companies Using the Business Process Improvement Method".

## 2. Method

This research methodology describes what stages are carried out to conduct research [11]. In the early stages of this research, methodology begins by looking for theoretical bases to facilitate analyzing problems and methods used. The next stage is to collect data from the intended company. Then identify the existing business processes in the company, then do business process modeling, followed by the evaluation of business processes, then can be done recommendations of business processes that are appropriate for the problems faced and when all is completed the last stage is to draw conclusions from the research conducted.

The steps that must be taken to conduct this research are first to start by conducting a literature study as material to conduct research, then collect data by observation with the company, then evaluate the business process for existing problems. And finally, draw conclusions.

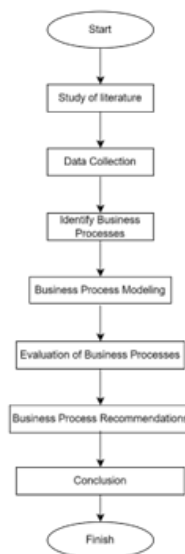


Figure 1. Flowchart of business improvement research method

## 3. Results and Discussion

### 3.1. Identify Current Business Process

The initial stage begins with the identification of business processes. Business process identification is the identification of current business processes: 1) Purchase transactions, 2) Sales transactions, 3) Labeling of prices and 4) Edit and recap of item data.

The next stage is modeling business processes if the business processes are not efficient:

### Section Edit item data

In the edit section of this item, there are 3 actors: Admin, warehouse clerk, and cashier.

The process where the admin opens the item data and then displays the item data from the database server, then the admin performs a new item data (edit) after that saves it back into the database server. After being saved, the admin copies the item data and gives the copy to warehouse clerk, and warehouse clerk forwards it to the cashier. Then the cashier saves the data into the GIS. Cashier database. Here is the modeling:

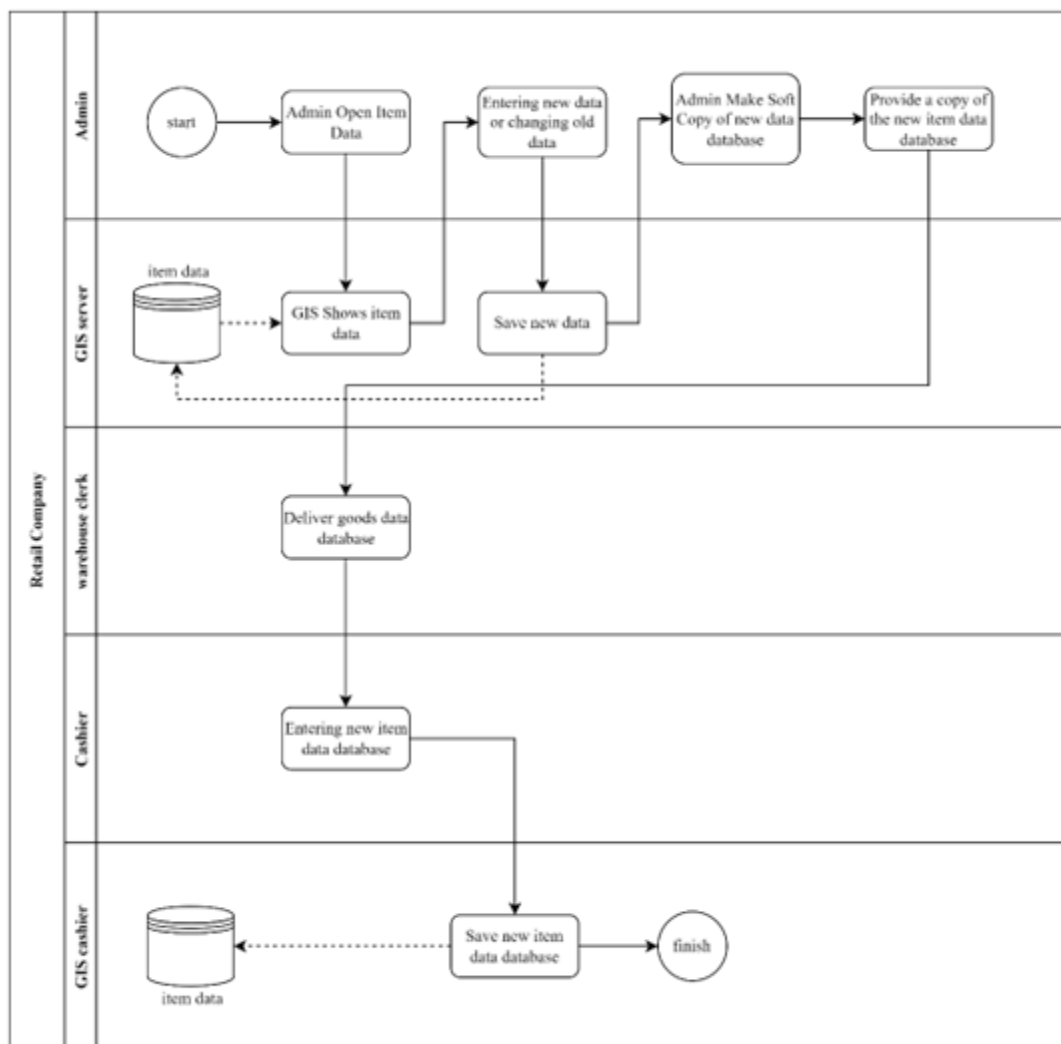


Figure 3. The model of business processes if the business processes are not efficient

### 3.2. Business Process Evaluation

At this stage, it is an analysis of problems in business activities that need to be improved using Business Process Improvement (BPI) which uses 12 streamlining tools. With this, it is hoped that changes can be directed into the effectiveness of business process activities.

### 3.3. Business Process Recommendations

Business process improvement is the next stage in this BPI method. At this stage, the aim is to produce recommendations for business process improvements. At this stage, streamlining tools from the Business Process Improvement (BPI) is used.

Table 1. Bussiness perocess' s problem and the recomendation

Business Process Problems at the start	Streamlining	Business Process Recommendations
The process of providing a copy of new item data to warehouse clerk	<i>Elimination</i>	Simplification because it can be sent directly to the GIS database
The cashier process saves new item data	<i>Upgrading</i>	View data on new items that have been directly sent by the admin to the GIS. cashier

### 4. Conclusion

- a. Based on the main business process, several problems were found in the business process, including 1) Purchase transaction, 2) Sales transaction, 3) Price tagging, 4) Edit and recap of item data.
- b. Based on the evaluation, there are core problems in the business process including the process of providing a copy of new item data to warehouse clerk removed and the cashier process storing new item data is changed to view new item data. To be able to streamline business processes, it is necessary to eliminate a process and change it.

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