



PAPER – OPEN ACCESS

## The Use of Activity-Based Management Methods in the Multipurpose Loan Disbursement Process to Improve Cost Efficiency at Bank Sumut: A Case Study of Ngumban Surbakti Branch

Author : Supriadi, et al  
DOI : 10.32734/lwsa.v9i2.2837  
Electronic ISSN : 2654-7066  
Print ISSN : 2654-7058

*Volume 9 Issue 2 – 2026 TALENTA Conference Series: Local Wisdom, Social, and Arts (LWSA)*



This work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/).  
Published under licence by TALENTA Publisher, Universitas Sumatera Utara



# The Use of Activity-Based Management Methods in the Multipurpose Loan Disbursement Process to Improve Cost Efficiency at Bank Sumut: A Case Study of Ngumban Surbakti Branch

Supriadi<sup>1</sup>, Rulianda Purnomo Wibowo<sup>2</sup>, Nazaruddin<sup>3</sup>

<sup>a</sup>Student at Master of Management Study Program, Postgraduate School, Universitas Sumatera Utara, Medan 20155, Indonesia

<sup>b</sup>Department of Agribusiness, Faculty of Agriculture, Universitas Sumatera Utara, Medan 20155, Indonesia

<sup>c</sup>Department of Industrial Engineering, Faculty of Engineering, Universitas Sumatera Utara, Medan 20155, Indonesia

supriadi0372023@gmail.com, rulianda\_wibowo@usu.ac.id, nazarmtd60@gmail.com

## Abstrak

Kredit Multiguna (KMG) Bank Sumut merupakan sumber pendapatan yang signifikan, namun inefisiensi dalam prosesnya telah meningkatkan biaya operasional dan mengurangi keuntungan. Data keuangan dari tahun 2020 hingga 2024 menunjukkan pendapatan dan pengeluaran yang tidak konsisten, yang mengindikasikan perlunya peningkatan strategi manajemen biaya. Studi ini meneliti bagaimana Activity-Based Management (ABM) dapat diterapkan sebagai pendekatan untuk meningkatkan efisiensi biaya proses pemberian Kredit Multiguna (KMG), sehingga mampu mengurangi biaya, meningkatkan efisiensi operasional sekaligus dapat meningkatkan profitabilitas. Studi ini menggunakan metode studi kasus deskriptif untuk menganalisis implementasi ABM dalam proses pemberian KMG di cabang Ngumban Surbakti dengan melakukan observasi langsung, wawancara mendalam dengan karyawan yang terlibat dan mengumpulkan dokumen berupa laporan keuangan untuk memberikan analisis mendalam tentang hubungan antara aktivitas, sumber daya dan biaya. Studi ini berhasil mengurangi biaya proses pinjaman KMG sebesar Rp 1.718.020.123 atau sebesar 9,76% melalui implementasi ABM, yang mengakibatkan penurunan total biaya aktivitas dari Rp 17.594.775.452 menjadi Rp 15.876.755.329. Dengan memanfaatkan ABM, bank dapat meningkatkan efisiensi biaya dan daya saing sekaligus mempertahankan kualitas layanan. Hal ini mencakup penghapusan peran yang tumpang tindih, konsolidasi verifikasi data dan pengalokasian kembali sumber daya untuk meningkatkan efisiensi alur kerja dan manajemen biaya operasional.

**Kata Kunci:** Activity-Based Management; Kredit Multiguna; Efisiensi Biaya; Aktivitas Tidak Bernilai Tambah

## Abstract

Bank Sumut's Multipurpose Loan (KMG) is a significant source of revenue; however, inefficiencies in its process have increased operational expenses and reduced profits. Financial data shows that from 2020 to 2024, revenue and expenses are inconsistent, indicating the need for improved cost management strategies. This study examines how Activity-Based Management (ABM) can be applied as an approach to improve the cost efficiency of the Multipurpose Loan (KMG) process, thereby reducing costs, enhancing operational efficiency, and increasing profitability. This study uses a descriptive case study method to analyse the implementation of ABM in the KMG lending process at the Ngumban Surbakti branch by conducting direct observations, in-depth interviews with the employees involved, and collecting documents in the form of financial reports to provide an in-depth analysis of the relationship between activities, resources, and costs. This study successfully reduced KMG's lending process costs by IDR 1,718,020,123 or (9.76%) through ABM implementation, resulting in a decrease in total activity costs from IDR 17,594,775,452 to IDR 15,876,755,329. By utilising ABM, they can enhance cost efficiency and competitiveness while maintaining service quality. This involves eliminating duplicate roles, consolidating data verification, and reallocating resources to improve workflow efficiency and operational cost management.

**Keywords:** Activity-Based Management; Multipurpose Loan; Cost Efficiency; Non-Value-Added Activities

## 1. Introduction

In response to the increasingly competitive dynamics of the banking industry, Bank Sumut must strengthen the foundation of its core business, including improving operational efficiency and cost management. One of the main services that contributes to

their revenue is the Multipurpose Loan (KMG) product, which requires effective process management to ensure optimal profitability. However, in practice, the process of providing Multipurpose Loans (KMG) often involves repetitive and inefficient activities, leading to high operational costs and potentially reduced profit margins.

Based on the financial performance reports from 2020 to 2024, Bank Sumut Ngumban Surbakti branch experienced significant fluctuations in revenue, operating costs, and profitability, highlighting the need for a strategic approach to improve cost efficiency. In 2020, total revenue reached IDR 81.99 billion, while operating costs amounted to IDR 63.80 billion, resulting in a profitability rate of 22.19%. However, in 2021, there was a sharp decline: revenue fell to IDR 58.92 billion, a decrease of 28.15% compared to the previous year. Operating costs remained high at IDR 49.93 billion, leading to a profitability drop of 15.26%.

A recovery began in 2022, with revenue rising to IDR 63.25 billion. Significant cost efficiency was achieved, as operating costs decreased to IDR 40.84 billion—an 18.22% reduction from 2021. This improvement drove profitability to 35.42%. The positive trend continued in 2023 and 2024. Revenue increased by 7.94% to IDR 68.27 billion in 2023 and by another 8.68% to IDR 74.20 billion in 2024. Operating costs, however, fluctuated: they decreased by 2.09% to IDR 39.99 billion in 2023 but increased by 8.33% to IDR 43.32 billion in 2024. Profitability remained relatively stable at 41.42% in 2023 and 41.61% in 2024. These trends indicate that, despite revenue growth, controlling operating costs remains a challenge.

These cost fluctuations confirm inefficiencies in the operational processes, particularly within KMG's lending services. Such inefficiencies could erode profit margins. Therefore, implementing the Activity-Based Management (ABM) method is a relevant strategic approach. ABM helps identify non-value-adding activities in the lending process, analyze sources of cost waste, and design actionable optimization strategies aimed at achieving sustainable cost efficiency.

Previous studies have demonstrated the effectiveness of implementing Activity-Based Management (ABM) in enhancing cost efficiency across various sectors. For example, ((Pandey et al., 2023) at PT Sinar Pure Foods International Bitung successfully reduced production costs by 10.75% by identifying and eliminating non-value-added activities. Research conducted by (Sinaga & Hermawan, 2023) both researched a medical equipment distributor and achieved operational cost savings of up to 11%. They did this by integrating ABM, value chain analysis, and PESTEL. However, the application of ABM in the banking sector, particularly in the lending process, remains limited. Therefore, this study aims to implement ABM to analyze cost efficiency in the KMG lending process at Bank Sumut Ngumban Surbakti branch. This is expected to provide evidence-based strategic solutions for cost optimization and increased profitability.

## **2. Literature Review**

### *2.1 Cost Accounting*

Cost accounting is a distinct field dedicated to identifying, quantifying, and evaluating all expenditures linked to a company's activities. It involves monitoring both monetary data, like the cost of supplies or employee wages, and quantitative metrics, such as material quantities used or labor hours expended. In essence, it offers a comprehensive documentation of the ways in which a business obtains and employs its assets to create products or deliver services. As a specialized field within accounting, cost accounting is designed to provide management with essential information. This data, which can be both financial and non-financial, supports effective decision-making throughout the organization. Cost accounting is a specialized branch of accounting that focuses on capturing, measuring, and analyzing all costs associated with an organization's operations. This includes tracking both financial information, such as the monetary value of raw materials or labor, and non-financial information, such as units of material consumed or hours of labor used. Essentially, it provides a detailed and systematic record of how a company acquires and utilizes its resources to produce goods or services (Bhimani et al., 2023).

Cost accounting serves as the essential data foundation for generating management costs. It is the technical process of accumulating, measuring, and classifying expenditures—determining the costs of products, services, departments, and activities. Without this rigorous collection and allocation of financial and non-financial data, there would be no raw, reliable information for managers to use. The data produced through cost accounting plays a vital role due to its dual functionality. On one hand, it informs management accounting by offering granular, internally-focused cost details that support managerial planning, operational oversight, and strategic choices. On the other hand, it contributes crucial figures to financial accounting—especially for inventory valuation and calculating the cost of goods sold—which are required for producing reliable external financial reports. This makes cost accounting an essential component of both internal and external financial processes. Cost Accounting is one of branches of Accounting and is predominantly meant for meeting the informational needs of the management. Managers need cost information for informed decision-making. Cost accounting can provide financial and non-financial information that help decision-making across all functions of the organization (Banerjee, 2021).

## 2.2 Management Accounting

The purpose of management accounting is to aid managers in reaching organizational goals. It does this by evaluating and presenting both financial and operational information to support decision-making. This function is fundamentally aimed at helping the organization achieve its broader strategic objectives through informed managerial actions. Management accounting measures, analyses and reports financial information and non-financial information that are intended primarily to assist managers in fulfilling the goals of the organisation (Bhimani et al., 2023).

Management accounting transforms the cost data into actionable intelligence. It analyzes, interprets, and presents the information to support planning, control, and decision-making. This involves budgeting, performance evaluation, strategic pricing, and variance analysis, effectively turning the raw costs into "management costs"—relevant, tailored insights that enable informed strategic and operational choices across the organization.

Cost management takes a comprehensive approach, emphasizing continuous cost reduction. In a competitive landscape, ongoing performance improvement is a critical success factor. Furthermore, cost management is directly connected to the planning of revenue and profits. Cost management is broad in its focus. It includes reduction of costs continuously. Continuous improvement in performance is considered as one of the key success factors in a competitive environment. Cost management is linked with revenue and profit planning (Banerjee, 2021).

## 2.3 Activity-Based Costing (ABC)

Activity-Based Costing (ABC) is a costing approach that improves accuracy by first pinpointing a company's primary activities and then allocating the expenses of those activities to its products or services according to their actual usage. It was created to provide a more precise way of distributing overhead costs to end products. The core principle of the ABC system is that product costs should be determined by analyzing the activities a company performs. This method is founded on the idea that these activities are the true consumers of a company's resources, not the products. The ABC system proposes product cost determination through the activities carried out in the company. It considers that these activities and how they are performed consume the company's resources. Therefore, the activities consume the company's resources and not its products (Rebull et al., 2023).

This shift in perspective allows for vastly improved cost allocation. Overhead costs cannot be directly traced to individual products; however, to determine each product's cost, overhead must be allocated to the various products. Activity-Based Costing (ABC) calculates the cost of a product by first linking a company's expenses to the specific activities that consume those resources. By identifying these activities, overhead costs (previously considered indirect) can be traced directly to them. By defining activities, traditionally indirect overhead costs are transformed into direct costs of those activities. Consequently, a product's final cost is computed based on its specific consumption of these activities in addition to conventional direct costs. Ultimately, the total cost of a product is the sum of the costs of all the activities required, both directly and indirectly, to produce a product or service. To obtain more accurate product costs, many companies now use Activity-Based Costing (ABC) for overhead allocation. Activity-Based Costing (ABC) is a methodology for calculating costs that first identifies an organization's key activities and then assigns the cost of those activities to products or services based on their actual consumption. ABC was developed as a more accurate method of assigning overhead costs to final products (Špacířová et al., 2020). Activity-Based Costing is a cost calculation that begins with tracking activities and then producing products (Wirajaya & Ismail, 2024).

## 2.4 Activity-Based Management (ABM)

Activity-Based Management (ABM) is a systematic approach to improving company performance by analyzing operational activities that impact customer value, such as product quality, service speed, and innovation. Activity-Based Management is a system that supports strategic decision-making by leveraging detailed data to oversee and optimize both costs and the activities that drive them. The goal is to increase customer satisfaction while eliminating wasteful resources on non-critical activities. By focusing on customer value, companies can attract more customers and retain their loyalty through efficient service and quality products. Activity-Based Management has two categories: Operational Activity-Based Management, which can improve operational efficiency and asset utilization while reducing costs; and Strategic Activity-Based Management, which seeks to increase activity demand and profitability based on current or improved activity efficiency (Pandey et al., 2023).

The Activity-Based Management method comprises two main dimensions: cost and process. The cost dimension of Activity-Based Management (ABM) is fundamentally built upon the principles of Activity-Based Costing (ABC). While ABC is the methodology used to more accurately assign the costs of resources to products, services, and customers based on the activities they consume, the cost dimension of ABM uses this detailed cost information for analysis and decision-making. It moves beyond

mere calculation to help managers understand the true drivers of cost, identify which products or customers are truly profitable, and highlight areas where resources are being consumed excessively. In essence, this dimension answers the critical question of "what does an activity cost?" and provides the financial data necessary for strategic choices like pricing and process improvement. Meanwhile, the process dimension focuses on the operational and qualitative aspects of the company's activities. It is concerned with understanding the very nature of the work being done: what specific tasks are performed (the activity), the underlying reason or objective for performing them (the purpose), and the methods and efficiency with which they are carried out (the execution). This dimension seeks to evaluate the performance of each activity by analyzing factors such as time, quality, and value-added. By doing so, it aims to identify non-value-added activities (like rework or excessive movement), eliminate waste, streamline processes, and ultimately drive continuous improvement to enhance overall operational effectiveness. Cost information plays an increasingly important role in management, and costing methods are used to reflect the expenses incurred in the production of goods or services, with ABC standing out for its detailed methodology and precise implementation (Božić & Knežević, 2025).

ABM measures the effectiveness of business processes by evaluating critical activities and refining them to reduce operational costs and improve product or service quality. This approach analyzes the contribution of each activity to business objectives and customer value, allowing companies to identify areas for improvement. As a result, ABM helps organizations become more responsive to market needs and strengthen competitiveness through efficiency and continuous value enhancement. Activity-based management is an integrated system that directs management's attention to activities that can improve the values received by consumers (customer value) and increase the profits obtained by providing these improved values (Mukhzarudfa & Putra, 2019).

### 2.5 Tracing and Allocating Costs

Cost tracing is the process of directly linking a specific, identifiable cost—such as a direct expense—to a particular product, service, project, or department; this recipient of the cost is officially known as a cost object. Cost allocation is the process of distributing costs that cannot be directly linked to a single product or service across multiple products, services, or departments (the "cost objects") using a rational and systematic method. Cost tracing is the assigning of the direct cost to the chosen cost object. Cost allocation is the assigning of indirect costs to the chosen cost object. Cost assignment encompasses both cost tracing and cost allocation (Bhimani et al., 2023).

Cost allocation is the process of determining the amount of cost consumed by a cost object. Cost allocation involves three primary methods: direct tracing, which assigns costs to cost objects by observing their physical relationship; driver tracing, which allocates costs based on causal factors (activity drivers) that measure resource consumption; and allocation, a practical estimation used when no direct or causal link exists, enabling companies to control expenditures according to the nature of their costs.

### 2.6 Activities Analysis

Activity analysis is a systematic process of identifying, describing, and evaluating every activity within a company to understand its contribution to business value creation. Activity analysis aims to differentiate and classify activities based on their contribution value to the company. By assessing their effectiveness, efficiency, and relevance to organisational goals, this process helps optimise resource allocation, reduce waste, and improve operational performance to support the company's financial and strategic growth. Activities analysis are the process of identifying which activities contribute to the company and which do not (Syawal et al., 2022).

What activities are carried out, how many workers are involved in carrying out each activity, how much time and other economic resources are required for each activity, and how the activities benefit the organization as a whole, including recommendations for maintaining the added value of each activity for the organization. Activity analysis is a process consisting of three stages: identification, description, and evaluation. Evaluation not only examines the activities themselves, but also the resources consumed, whether in terms of labour, time, or economic value, and the benefits and recommendations for maintaining added value. Activity analysis is a process of identifying, describing and evaluating the activities carried out by an organization (Firmansyah et al., 2020).

### 2.7 Costs Drivers

A cost driver is a measurable unit, like labor hours or the number of orders, that serves as the foundation for allocating an activity's expenses to a product. Cost drivers are factors that cause costs to arise, which can be used to measure the results of an activity and determine changes in the amount of expenses incurred. Cost drivers are factors that measure output based on an activity that causes changes in costs (Mulkhadimah et al., 2020). Cost drivers are factors that cause changes in activity costs

(Pratama, 2022). Cost drivers refer to various elements or aspects that directly influence and cause fluctuations or changes in costs associated with an activity. The essence of cost behaviour analysis is to identify the causes of these costs, namely by determining the activities that are the reason for the expenditure of a cost. Activities that affect costs are referred to as cost drivers. The primary task in determining cost behaviour is to identify the causes of costs, specifically, the activities that result in a cost being incurred (Ayu & Nugroho, 2023). It establishes an equitable connection between a collective activity and specific products, guaranteeing that each product bears a cost share proportional to its consumption or contribution to that activity. Cost drivers distribute the costs of activities among the products that consume them. In this sense, cost drivers can be the number of labor hours, orders completed, or any unit that links activities and costs (Rebull et al., 2023).

Thus, based on these sources, it is agreed that cost drivers are key elements that link activities with costs incurred, either as a measure, cause, or basis for identification in cost analysis.

### 2.8 Value-Added Activities and Non-Value-Added Activities

Value-added activities refer to a series of actions that directly improve the quality, function or benefits of a product or service from a customer perspective, such as core production processes or service process improvements, so when these activities are reduced or eliminated, they will affect the value for customers and can affect the company's financial performance. Activities that contribute (value-added activities) are activities that are necessary or required to conduct business and also add value to products. If these activities are eliminated, they can reduce the value of a product (Rahmadani et al., 2024).

Activities that add no value to the process or the end product are referred to as non-value adding (NVA) activities and are viewed as waste (Dara et al., 2024). Non-value-added activities are those that do not substantially increase the final value of a product or service, although they may be necessary to support business operations, such as performing repetitive tasks. Reducing or eliminating these activities will not reduce customer value. However, if these activities remain in place, they only increase costs for the company. NVA activities are activities that do not provide added value to consumers and are not necessary in the operational process, so eliminating them can help businesses improve the quality of products and services, and reduce costs (Maulina et al., 2024). Non-value adding (NVA) activities are a form of waste. The reasoning is that these activities use up valuable inputs—namely time, money, and resources—yet they fail to provide any positive return. They do not improve the quality, function, or efficiency of the process itself, nor do they make the final product or outcome any better for the customer. Therefore, they are seen as unnecessary and should be identified and eliminated.

Based on the statement, it can be concluded that non-value-added activities are consistently identified as a source of inefficiency that negatively impacts the company's financial performance.

### 2.9 Multipurpose Loan (KMG)

A Multipurpose Loan (KMG) is a flexible loan product offered by banks or financial institutions to individuals. The funds from this loan can be used for a wide range of needs, including consumptive purposes—such as financing education or home renovations—and productive purposes—such as business capital, investment, or development. This type of loan serves as a versatile financial solution, as it does not restrict the use of funds, thereby providing customers the flexibility to allocate the loan according to their financial priorities and goals, whether for personal interests or to enhance economic productivity.

### 2.10 Efficiency

Efficiency is synonymous with peak performance and serves as a pivotal objective across numerous domains. It denotes the intelligent and strategic application of resources to guarantee that work is meaningful and produces results, avoiding unnecessary or inefficient actions. Put simply, efficiency is the principle of achieving greater outcomes using fewer inputs. More specifically, it is the ability to utilize resources as optimally as possible to achieve organizational goals, including the use of time, funds, materials, and labor, while ensuring that each resource provides maximum contribution to the final result. Efficiency is defined as an effort made to eliminate all waste of materials and labor as well as detrimental symptoms (Lau, 2023).

### 3. Research Method

#### 3.1 Method of Collecting Data

1. Direct Observation

The observation method involves collecting data by directly observing subjects, objects, and events to gain a comprehensive understanding of the costs incurred.

2. Documentation

Quoting, studying, and analyzing accounting data and operational data obtained from companies, including documents containing cost reports, profit and loss financial reports and so on.

3. Interview

Conducting interviews with branch management as well as with employees in work units directly involved in the KMG loan disbursement process.

#### 3.2 Types of Research

This research employed a descriptive methodological approach. Data from the company—such as documents, reports, and notes pertaining to the research object—were collected from relevant sources, then systematically compiled and processed through categorization and thematic grouping. During the analysis stage, the characteristics, patterns, and phenomena evident in the data were objectively described and subsequently compared with existing theories or concepts from the scientific literature. The objective was to identify consistencies or inconsistencies between the empirical findings and the theoretical framework, thereby yielding a deeper understanding of the actual conditions at Ngumban Surbakti branch office unit while also enriching academic perspectives. This method emphasizes the presentation of a comprehensive and contextual portrayal of the research object, focusing on fact-based interpretation and theoretical logic. Conclusions were then drawn based on the results of this comparison.

#### 3.3 Research Time

The time used by the researcher to conduct this research was no more than two months, calculated from the second Sunday of February 2025 to the second Sunday of April 2025.

#### 3.4 Place Study

This research is located in the researcher's home area, namely Medan, North Sumatra, by conducting a special study of Ngumban Surbakti branch.

#### 3.5 Object Study

This study focuses on Bank Sumut, specifically examining its Ngumban Surbakti branch during the 2024 period. It investigates the KMG loan disbursement process through communication with branch management and relevant employees directly involved in its workflow.

#### 3.6 Variable Study

The variables determined by the researcher which are the focus of the research are as follows:

1. Use of Activity-Based Management (ABM) Method
2. Cost Efficiency
3. Process of Disbursement Multipurpose Loans

#### 3.7 Variable Study

The data sources used in this study are as follows:

1. Primary data

Primary data were collected directly through interviews, using both verbal question-and-answer techniques, with employees and the branch Manager of Bank Sumut Ngumban Surbakti branch. The interviews focused on cost reports for all activities conducted at Bank Sumut, as well as those specific to Ngumban Surbakti branch. This qualitative data includes information on the organizational structure, production processes, and activities aligned with Standard Operating Procedures at Bank Sumut.

## 2. Secondary Data

The secondary data to be collected in this research includes information provided directly by Ngumban Surbakti branch of Bank Sumut. This quantitative dataset comprises financial reports—such as profit and loss statements—as well as other relevant records pertaining to costs associated with its activities.

### 3.8 Data Analysis Method

This study employs a descriptive method utilizing Activity-Based Management (ABM), an approach grounded in the analysis of costs arising from various activities. The research aims to investigate the application of the ABM concept to minimize operating costs and to identify value-added and non-value-added activities at Bank Sumut's Ngumban Surbakti Branch. A literature review is conducted to examine how ABM implementation can enhance operational efficiency and effectiveness. The expected outcome is a reduction in operating costs through the elimination or minimization of non-value-added activities within the bank's work units.

## 4. Results and Discussion

### 4.1 Research Result

#### 4.1.1 Profile and Role of Bank Sumut

Bank Sumut is a regional bank based in North Sumatra Province, with a network of branches across all regencies and cities in the region. The bank also has a presence in Riau Province—particularly in Pekanbaru and Batam—and in Jakarta. At the end of 2024, Bank Sumut's assets reached IDR 45.44 trillion. Like other national commercial banks, it acts as an intermediary by collecting public funds and distributing them as loans, in addition to offering other banking services.

One of its key products is the Multipurpose Loan (KMG), designed to meet various customer needs, both productive and consumptive. The provision of these loans involves several work units across each branch office, including all subordinate units. These include the Retail Loan Marketing unit, the Legal and Loan Administration (LAK) unit, and the Operational unit.

This research focuses on Ngumban Surbakti branch, involving employees from each relevant unit—including supervising staff. Employees directly engaged in the KMG process include Account Officers (AOs) from the Retail Loan Marketing unit, who market the product and gather applicant documents. Administrative Account Officers, also within Retail Loan Marketing, then review and analyze these documents.

The Legal and Loan Administration (LAK) unit subsequently collects the analyzed documents for final review and prepares the loan agreements. Finally, the Operational unit supports the process by preparing all necessary documentation for signing and facilitating the realization of approved loans.

#### 4.1.2 Implementation of the Activity Based Management Method in the Multipurpose Loan Disbursement Process

Table 1 presents the consolidated expenses incurred by Ngumban Surbakti branch of Bank Sumut, including all work units and sub-branches involved in the Multipurpose Loan (KMG) issuance process. The associated costs are prioritized according to their level of urgency and scaled to the size of the activity.

All costs reported for Ngumban Surbakti branch represent the aggregate operating expenses—including those from subordinate units—directly associated with the Multipurpose Loan (KMG) disbursement process. These figures include allocated administrative, risk management, and other operational expenditures, calculated in accordance with applicable comprehensive financial accounting standards.

#### 4.1.3 Use of Activity Based Management in the KMG Loan Disbursement Process

There are several steps to implement Activity-Based Management (ABM). The steps in implementing it are as follows;

## 1. Activities Identification

The process of identifying activities for Multipurpose Loan (KMG) disbursement involves grouping them into three work units based on their tasks, functions, and level of criticality. This classification is based on the priority scale, core roles, and complexity of job responsibilities. Consequently, the urgency and impact of activities vary; strategic or high-risk activities are considered more critical than supporting ones. This distinction enables adjustments in supervision and resource allocation according to each activity's significance within the KMG disbursement process. These activity units are classified as follows:

- Retail Loans Marketing Unit
- Legal and Administration Loans (LAK) Unit
- Operational Unit

Types and sizes of activities of each work unit based on the level of criticality or urgency of the activity are presented in the Table 2.

Table 1. Costs Details Used

Types of Costs	Amount
Salaries	9.605.663.750
Marketing Fee	91.308.600
Sales Promotion	70.342.276
Office Stationery	60.998.620
Printed Materials	89.567.188
Interest Expense	5.029.294.107
Telephone Bill and Maintenance	22.335.427
Vehicle Fuel Oil	62.605.131
Generator Fuel	16.629.166
Building Rental	40.569.227
Vehicle Rental	15.516.894
Water Bill and Maintenance	10.953.096
Electricity Bill and Maintenance	145.278.160
Depreciation of Right of Use Assets	258.982.514
Depreciation of Office Equipment	40.995.114
Depreciation of Office Supplies	25.156.392
Office Cleaning Equipment Maintenance	3.308.561
Computer Maintenance and Repair	8.129.397
Interest Expense on Inter-Office Account Placement	767.416.358
Allowance for Impairment Losses Reverse provision for impairment losses	905.826.267
Cost of Stamp Duty Used	25.290.000
<b>Total Costs</b>	<b>17.594.775.452</b>

Table 2. Types and Sizes of Activities Based on Critical Scale

Activity Units	Activities	Critical Scale	Activities Size
Retail Loan Marketing Unit; Supervision			Number of activity unit performance evaluations
Account Officer (AO) Product Marketer	Marketing KMG loan product	25,00%	Number of loan proposals
	Ask for an interview	10,00%	Number of interviews
	Verify the completeness of the customer's proposal	8,00%	Number of verified proposals
	Access and print out customer history data on the Financial Information Service System (SLIK) of the Financial Services Authority (OJK)	7,00%	Number of reports generated
	Check and print out loan inquiries on the core banking system	12,00%	Number of inquiry checks processed
	Check and print out customer salary/income statement via core banking system	15,00%	Number of documents processed
	Customer documents analysis includes, the amount of loan ceiling requested, the period allowed, the amount of installments adjusted to income, the calculation of insurance coverage costs borne by the customer	18,00%	Number of documents analyzed
	Serving customer complaints	5,00%	Number of complaints handled
Administration of Account Officer (AO)	Verify the completeness of the loan proposal	15,00%	Number of verified proposals
	Verify customer data history through the Financial Information Service System (SLIK) application of the Financial Services Authority (OJK)	20,00%	Number of verifications completed
	Check loan inquiry on the core banking system	10,00%	Number of inquiries processed
	Checking the customer's salary/income statement through the core banking system	15,00%	Number of documents processed

Activity Units	Activities	Critical Scale	Activities Size
	Customer data analysis includes, the amount of loan ceiling requested, the period allowed, the amount of installments adjusted to income, the calculation of insurance coverage costs that are the customer's dependents	30,00%	The amount of data to be analyzed completed
	Loan documents input using the online KMG platform	10,00%	Amount of documents entered
Legal Activity and Loan Administration (LAK) Unit; Supervision			Number of activity unit performance evaluations
LAK Officer	Review the completeness of the KMG loan proposal based on the results of data analysis that has been approved by the Retail Loan Marketing Supervisor	5,00%	Number of proposals reviewed
	Review of loan data through the Financial Information Service System (SLIK) of the Financial Services Authority (OJK)	15,00%	Number of reports reviewed
	Check loan inquiry on the core banking system	10,00%	Number of inquiry checks processed
	Checking the customer's salary/income statement through the core banking system	15,00%	Number of documents processed
	The review of customer data analysis includes, the amount of loan ceiling requested, the period allowed, the amount of installments adjusted to income, the calculation of insurance coverage costs that are the customer's dependents	25,00%	Number of documents analyzed to complete
	Input of loan documents through the core banking system	10,00%	Number of documents entered
	Process insurance coverage declarations on a host-to-host basis that are integrated directly to bank partner insurance companies	15,00%	Number of documents entered
	Print out a debtor's coverage insurance policy for archiving	5,00%	Number of policies printed

Operation Unit;

Activity Units	Activities	Critical Scale	Activities Size
Supervision			Number of activity unit performance evaluations
Back Office (BO)	Print out all loan agreement documents through the online KMG platform received from the LAK unit	25,00%	Number of documents printed
	Printing a memorandum of charge of insurance coverage costs that are the debtor's dependents and stamp duty costs that are the bank's dependents	20,00%	Number of invoices processed
	Process insurance coverage declarations to bank partner insurance companies through a directly integrated host-to-host system	30,00%	Number of documents entered
	Print out a debtor's coverage insurance policy for archiving	15,00%	Number of insurance policies printed
	Send complete documents to insurance companies that are not directly integrated (non-host to host)	10,00%	Number of documents sent

## 2. Costs Drivers Analysis

Accurate cost driver identification is essential for proper cost allocation to activity units. There are two types of cost drivers: resource drivers (directly tied to cost resources) and activity drivers (inherent to office operations). Selecting a relevant cost driver before assigning costs ensures accurate distribution, leading to more realistic allocations and supporting efficiency analysis and informed decision-making. Among the cost drivers in this study are the following;

- Number of labor hours
- Number of used
- Number of orders

To obtain the cost driver percentage for each activity unit, first determine the cost driver for each budgeted cost and then perform a proportional calculation on an annual basis to derive an overview for a single period. The following presents details of costs allocated based on cost drivers;

Table 3. Cost Allocation Details Based on Cost Driver Percentage

Types of Costs	Costs Amount	Activities Units					
		Retail Loan Marketing		Legal and Loan Administration (LAK)		Operation	
		Percentage	Cost Allocation	Percentage	Cost Allocation	Percentage	Cost Allocation
Salaries	9.605.663.750	53,13%	5.103.008.867	6,25%	600.353.984	40,63%	3.902.300.898
Marketing Fee	91.308.600	53,13%	48.507.694	6,25%	5.706.788	40,63%	37.094.119
Sales Promotion	70.342.276	53,13%	37.369.334	6,25%	4.396.392	40,63%	28.576.550
Office stationery	60.998.620	46,55%	28.395.909	12,07%	7.361.902	41,38%	25.240.808
Printed Materials	89.567.188	33,33%	29.855.729	0,00%	0	66,67%	59.711.459
Interest expense	5.029.294.107	53,13%	2.671.812.494	6,25%	314.330.882	40,63%	2.043.150.731
Telephone Bill and Maintenance	22.335.427	46,55%	10.397.526	12,07%	2.695.655	41,38%	9.242.246
Vehicle Fuel Oil	62.605.131	85,11%	53.280.963	0,00%	0	14,89%	9.324.168
Generator Fuel	16.629.166	53,13%	8.834.244	6,25%	1.039.323	40,63%	6.755.599
Building Rental	40.569.227	53,13%	21.552.402	6,25%	2.535.577	40,63%	16.481.248
Vehicle Rental	15.516.894	85,11%	13.205.868	0,00%	0	14,89%	2.311.027
Water Bill and Maintenance	10.953.096	53,13%	5.818.832	6,25%	684.568	40,63%	4.449.695
Electricity Bill and Maintenance	145.278.160	53,13%	77.179.022	6,25%	9.079.885	40,63%	59.019.252
Depreciation of Right of Use Assets	258.982.514	53,13%	137.584.461	6,25%	16.186.407	40,63%	105.211.646
Depreciation of Office Equipment	40.995.114	46,55%	19.083.933	12,07%	4.947.686	41,38%	16.963.496
Depreciation of Office Supplies	25.156.392	46,55%	11.710.734	12,07%	3.036.116	41,38%	10.409.542
Depreciation of Communication	5.652.741	46,55%	2.631.449	12,07%	682.227	41,38%	2.339.065
Software Depreciation	1.992.125	46,55%	927.369	12,07%	240.429	41,38%	824.328
Hardware Depreciation	13.100.035	46,55%	6.098.292	12,07%	1.581.039	41,38%	5.420.704
Building Maintenance and Repair	277.864.305	53,13%	147.615.412	6,25%	17.366.519	40,63%	112.882.374
Office Cleaning Equipment	3.308.561	53,13%	1.757.673	6,25%	206.785	40,63%	1.344.103
Computer Maintenance and Repair	8.129.397	46,55%	3.784.374	12,07%	981.134	41,38%	3.363.888
Interest Expense on Inter-Office	767.416.358	53,13%	407.689.940	6,25%	47.963.522	40,63%	311.762.895
Allowance for Impairment Losses	905.826.267	53,13%	481.220.204	6,25%	56.614.142	40,63%	367.991.921
Cost of stamp duty used	25.290.000	0,00%	0	0,00%	0	100,00%	25.290.000
<b>Total</b>	<b>17.594.775.452</b>		<b>9.329.322.726</b>		<b>1.097.990.963</b>		<b>7.167.461.763</b>

The percentage rate of direct and overhead costs generated by each unit of activity serves as a cost driver, which is used to identify and measure the primary sources of costs in a business process. This data forms the basis for analysis to improve efficiency and control operational costs, enabling companies to evaluate resource consumption proportionally based on activities performed. Consequently, improvement efforts can be directed more precisely and measurably.

Determining the appropriate cost driver is a crucial step in the cost allocation process, as it serves as the basis for distributing costs proportionally to each activity unit. This approach relies on resource drivers, which represent a quantifiable measure of the amount of resources consumed by an activity and form the basis for allocating resources to activities. Selecting a relevant cost driver reflects the causal relationship between operational activities and the costs incurred. Therefore, cost driver identification must be performed before assigning costs to activity units to ensure transparent, accurate allocations and support effective managerial decision-making.

The cost allocation for each unit of activity is calculated by multiplying the cost driver percentage by the total costs incurred in an accounting period. This method ensures proportional cost assignment based on each activity's contribution to resource consumption, resulting in accurate and relevant information for cost analysis and decision-making.

### 3. Tracing and Allocating Costs

Cost allocation is performed using a percentage-based method designed to accurately reflect each activity's resource consumption. This method ensures transparency and accuracy in determining the costs allocated to each unit based on its usage level. The first step is to determine each activity's percentage share according to the criticality scale provided in table 2, which measures its relative resource consumption. This prioritization also helps distinguish between value-added and non-value-added activities, thereby facilitating the identification of areas for optimization.

In practice, the cost of each resource is calculated based on each unit's expenditure, with detailed proportioning. This approach ensures accurate cost calculation per activity unit and helps identify opportunities for efficiency improvements. The total cost is then multiplied by a specific percentage, adjusted according to each activity's criticality scale.

The core principle of this method is that a higher criticality level—reflecting greater urgency and complexity—corresponds to a larger percentage of allocated costs. Consequently, the resulting cost allocation proportionally represents

the priority and urgency of each activity. Through this approach, organizations can achieve fairer, more transparent, and more effective cost allocation, thereby supporting better decision-making in resource management and efficiency. The total activity cost for each unit is calculated utilizing the overall cost allocation data, and the results are as follows:

Table 4. Activity Cost of Each Unit before ABM Implemented

Activities	Costs Activities
Retail Loan Marketing Unit;	
Supervision	4.501.250.111
Account officer (AO);	3.864.977.966
Marketing KMG loan products	966.244.491
Ask for an interview	386.497.797
Verify the completeness of the customer's proposal	309.198.237
Access and print out customer history data on the Financial Information Service System (SLIK) of the Financial Services Authority (OJK)	270.548.458
Check and print out loan inquiries on the core banking system	463.797.356
Check and print out customer salary/income statement via core banking system	579.746.695
Customer documents analysis includes, the amount of loan ceiling requested, the period allowed, the amount of installments adjusted to income, the calculation of insurance coverage costs borne by the customer	695.696.034
Serving customer complaints	193.248.898
Administration of Account Officer (AO);	578.149.617
Verify the completeness of the loan proposal	86.722.442
Verify customer data history through the Financial Information Service System (SLIK) application of the Financial Services Authority (OJK)	115.629.923
Check loan inquiry on the core banking system	57.814.962
Checking the customer's salary/income statement through the core banking system	86.722.442
Customer data analysis includes, the amount of loan ceiling requested, the period allowed, the amount of installments adjusted to income, the calculation of insurance coverage costs that are the customer's dependents	173.444.885
Loan documents input using the online KMG platform	57.814.962
Legal Activity and Loan Administration (LAK) Unit;	
Supervision	771.786.347
LAK Officer;	473.221.245
Review the completeness of the KMG loan proposal based on the results of data analysis that has been approved by the Retail Loan Marketing Supervisor	23.661.062

Review of loan data through the Financial Information Service System (SLIK) of the Financial Services Authority (OJK)	70.983.187
Check loan inquiry on the core banking system	47.322.125
Checking the customer's salary/income statement through the core banking system	70.983.187
The review of customer data analysis includes, the amount of loan ceiling requested, the period allowed, the amount of installments adjusted to income, the calculation of insurance coverage costs that are the customer's dependents	118.305.311
Input of loan documents through the core banking system	47.322.125
Process insurance coverage declarations on a host-to-host basis that are integrated directly to bank partner insurance companies	70.983.187
Print out a debtor's coverage insurance policy for archiving Operation Unit;	23.661.062
Supervision	3.853.493.805
Back Office (BO);	3.551.896.361
Print out all loan agreement documents through the online KMG platform received from the LAK unit	887.974.090
Printing a memorandum of charge of insurance coverage costs that are the debtor's dependents and stamp duty costs that are the bank's dependents	710.379.272
Process insurance coverage declarations to bank partner insurance companies through a directly integrated host-to-host system	1.065.568.908
Print out a debtor's coverage insurance policy for archiving	532.784.454
Send complete documents to insurance companies that are not directly integrated (non-host to host)	355.189.636
Total	17.594.775.452

#### 4. Activities Analysis

After determining the cost allocation for each activity, the next step is to analyze the bank's operational activities to identify value-added activities as well as those that do not provide significant contribution—known as non-value-added activities. This category includes repetitive tasks within the bank's business operations.

The aim of this analysis is to optimize resource allocation by maintaining or enhancing high-value activities while evaluating or eliminating inefficient ones. Ultimately, this process improves overall productivity and profitability.

To assess whether an activity provides positive contribution and adds value or merely prolongs the process flow without benefit, three criteria must be met simultaneously:

- The activity must bring about a tangible change;
- This change cannot be achieved by any prior activity in the process;
- The activity must facilitate or serve as a prerequisite for the execution of subsequent activities

##### 4.1.4 Cost Efficiency in the Multipurpose Loan (KMG) Disbursement Process

Information obtained through activity analysis can assist banks in identifying value-added and non-value-added activities within their business processes. Value-added activities should be retained as they directly contribute to product or service quality.

To enhance the efficiency and productivity of the KMG loan disbursement process, value-added activities within the Legal and Administration Unit (LAK) can be integrated into the Operational Unit. This consolidation aims to establish a more efficient workflow, eliminate redundancies, and optimize resources, thereby enabling a more effective loan disbursement process. By consolidating these activities, it is expected to increase customer value and bank profitability in achieving business objectives.

Non-value-added activities performed by Administrative Account Officers (AOs) should be eliminated, as they create an overlap in responsibilities with the KMG product marketing AOs who interact directly with customers. This results in redundancies that drain resources and reduce the bank's operational efficiency. By removing duplicate tasks, the focus of Administrative AOs can be redirected toward more critical and productive areas of work. Furthermore, the value-added activities of Administrative AOs can be integrated into the duties of the Marketing AOs to create a synergistic workflow.

A similar case applies to the Legal and Loan Administration Unit (LAK), whose activities tend to create workflow bottlenecks without providing tangible value. The elimination of this unit aims to prevent the waste of both cost and time, considering that the tasks previously handled by LAK are already covered by other departments.

These steps not only optimize human resource productivity through proper utilization but also strengthen the bank's competitiveness by developing more effective human resource allocation. By streamlining processes, the bank can better focus energy on activities that add value for customers, such as quality service or product innovation. This effort supports operational sustainability and enhances overall business effectiveness, ensuring that each role contributes optimally in alignment with the bank's objectives.

The following are activities that provide added value for bank and will be maintained in the process of providing Multipurpose Loans (KMG), namely;

1. Retail Loan Marketing Unit, which is run by two Account Officers as product marketers, the others handle administration are;
  - Loan supervision
  - Marketing KMG loan products
  - Ask for an interview
  - Verify the completeness of the customer's proposal
  - Access and print out customer history data on the Financial Information Service System (SLIK) of the Financial Services Authority (OJK)
  - Check and print out loan inquiries on the core banking system
  - Check and print out customer salary/income statement via core banking system
  - Customer documents analysis includes, the amount of loan ceiling requested, the period allowed, the amount of installments adjusted to income, the calculation of insurance coverage costs borne by the customer
  - Serving customer complaints
  - Loan documents input using the online KMG platform
2. Legal and Loan Administration Activity (LAK) Unit, its activities are;
  - Input of loan documents through the core banking system
3. Operation Unit, its activities are;
  - Operation supervision
  - Print out all loan agreement documents through the online KMG platform received from the LAK unit
  - Printing out a memorandum of charge of insurance coverage costs that are the debtor's dependents and stamp duty costs that are the bank's dependents
  - Process insurance coverage declarations to bank partner insurance companies through a directly integrated host-to-host system
  - Print out a debtor's coverage insurance policy for archiving
  - Send complete documents to insurance companies that are not directly integrated (non-host to host)

The following are activities that do not provide added value and will be maintained in the Multipurpose Loan (KMG) disbursement process:

1. Retail Loan Marketing Unit, activities carried out by Account Officers as Administration are;
  - Verify the completeness of the loan proposal for Administration of Account Officer

- Verify customer data history through the Financial Information Service System (SLIK) application of the Financial Services Authority (OJK)
  - Check loan inquiry on the core banking system
  - Checking the customer's salary/income statement through the core banking system
  - Customer data analysis includes, the amount of loan ceiling requested, the period allowed, the amount of installments adjusted to income, the calculation of insurance coverage costs that are the customer's dependents
2. Legal and Loans Administration (LAK), activities carried out are;
- LAK supervision
  - Review the completeness of the KMG loan proposal based on the results of data analysis that has been approved by the Retail Loan Marketing Supervisor
  - Review of loan data through the Financial Information Service System (SLIK) of the Financial Services Authority (OJK)
  - Check loan inquiry on the core banking system
  - Checking the customer's salary/income statement through the core banking system
  - The review of customer data analysis includes, the amount of loan ceiling requested, the period allowed, the amount of installments adjusted to income, the calculation of insurance coverage costs that are the customer's dependents
  - Process insurance coverage declarations on a host-to-host basis that are integrated directly to bank partner insurance companies
  - Print out a debtor's coverage insurance policy for archiving

The classification of value-added and non-value-added activities is shown in the table below;

Table 5. Classification of Value Added Activities and Non Value Added Activities

Activities	Value Added Activities	Non Value Added Activities			
		Elimination	Selection	Reduction	Sharing
Retail Loan Marketing Unit; Supervision	√				
Account Officer (AO); Marketing KMG loan products	√				
Ask for an interview	√				
Verify the completeness of the customer's proposal	√				
Access and print out customer history data on the Financial Information Service System (SLIK) of the Financial Services Authority (OJK)	√				
Check and print out loan inquiries on the core banking system	√				
Check and print out customer salary/income statement via core banking system	√				
Customer documents analysis includes, the amount of loan ceiling requested, the period allowed, the amount of installments adjusted to income, the calculation of insurance coverage costs borne by the customer	√				

Activities	Value Added Activities	Non Value Added Activities			
		Elimination	Selection	Reduction	Sharing
Serving customer complaints	√				
Administration of Account Officer (AO);					
Verify the completeness of the loan proposal		√			
Verify customer data history through the Financial Information Service System (SLIK) application of the Financial Services Authority (OJK)		√			
Check loan inquiry on the core banking system		√			
Checking the customer's salary/income statement through the core banking system		√			
Customer data analysis includes, the amount of loan ceiling requested, the period allowed, the amount of installments adjusted to income, the calculation of insurance coverage costs that are the customer's dependents		√			
Loan documents input using the online KMG platform	√				
Legal and Loan Administration (LAK) Unit; Supervision			√		
LAK Officer;					
Review the completeness of the KMG loan proposal based on the results of data analysis that has been approved by the Retail Loan Marketing Supervisor			√		
Review of loan data through the Financial Information Service System (SLIK) of the Financial Services Authority (OJK)			√		
Check loan inquiry on the core banking system			√		
Checking the customer's salary/income statement through the core banking system			√		
The review of customer data analysis includes, the amount of loan ceiling requested, the period allowed, the amount of installments adjusted to income, the calculation of insurance coverage costs that are the customer's dependents			√		
Input of loan documents through the core banking system	√				

Activities	Value Added Activities	Non Value Added Activities			
		Elimination	Selection	Reduction	Sharing
Process insurance coverage declarations on a host-to-host basis that are integrated directly to bank partner insurance companies		√			
Print out a debtor's coverage insurance policy for archiving		√			
<hr/>					
Operation Unit;					
Supervision	√				
Back Office (BO);					
Print out all loan agreement documents through the online KMG platform received from the LAK unit	√				
Printing out a memorandum of charge of insurance coverage costs that are the debtor's dependents and stamp duty costs that are the bank's dependents	√				
Process insurance coverage declarations to bank partner insurance companies through a directly integrated host-to-host system	√				
Print out a debtor's coverage insurance policy for archiving	√				
Send complete documents to insurance companies that are not directly integrated (non-host to host)	√				

Below are costs classification based on activities analysis, which includes two categories: value-added activities and non-value-added activities. This classification is used for further evaluation through the merging, reduction, or elimination of certain activities. In this way, non-value-added costs incurred for them can be reduced while simultaneously increasing operational efficiency by maintaining value-added activities and reducing resource waste, as shown below;

Table 6. Classification of Value Added Activities and Non-Value Added Activities Costs

Activities	Value Added Activities	Non-Value Added Activities				Total
		Elimination	Selection	Reduction	Sharing	
Retail Loan Marketing Unit;						
Supervision	4.501.250.111				4.501.250.111	
Account Officer (AO);						
Marketing KMG loan products	966.244.491				966.244.491	
Ask for an interview	386.497.797				386.497.797	
Verify the completeness of the customer's proposal	309.198.237				309.198.237	

Activities	Value Added Activities	Non-Value Added Activities				Total
		Elimination	Selection	Reduction	Sharing	
Access and print out customer history data on the Financial Information Service System (SLIK) of the Financial Services Authority (OJK)	270.548.458					270.548.458
Check and print out loan inquiries on the core banking system	463.797.356					463.797.356
Check and print out customer salary/income statement via core banking system	579.746.695					579.746.695
Customer documents analysis includes, the amount of loan ceiling requested, the period allowed, the amount of installments adjusted to income, the calculation of insurance coverage costs borne by the customer	695.696.034					695.696.034
Serving customer complaints	193.248.898					193.248.898
Administration of Account Officer (AO); Verify the completeness of the loan proposal		86.722.442				86.722.442
Verify customer data history through the Financial Information Service System (SLIK) application of the Financial Services Authority (OJK)		115.629.923				115.629.923
Check loan inquiry on the core banking system		57.814.962				57.814.962
Checking the customer's salary/income statement through the core banking system		86.722.442				86.722.442
Customer data analysis includes, the amount of loan ceiling requested, the period allowed, the amount of installments adjusted to income, the calculation of insurance		173.444.885				173.444.885

Activities	Value Added Activities	Non-Value Added Activities				Total
		Elimination	Selection	Reduction	Sharing	
coverage costs that are the customer's dependents						
Loan documents input using the online KMG platform	57.814.962					57.814.962
Legal and Loan Administration (LAK) Unit;						
Supervision		771.786.347				771.786.347
LAK Officer;						
Review the completeness of the KMG loan proposal based on the results of data analysis that has been approved by the Retail Loan Marketing Supervisor		23.661.062				23.661.062
Review of documents loan data through the Financial Information Service System (SLIK) of the Financial Services Authority (OJK)		70.983.187				70.983.187
Check loan inquiry on the core banking system		47.322.125				47.322.125
Checking the customer's salary/income statement through the core banking system		70.983.187				70.983.187
The review of customer data analysis includes, the amount of loan ceiling requested, the period allowed, the amount of installments adjusted to income, the calculation of insurance coverage costs that are the customer's dependents		118.305.311				118.305.311

Activities	Value Added Activities	Non-Value Added Activities				Total
		Elimination	Selection	Reduction	Sharing	
Input of loan documents through the core banking system	47.322.125					47.322.125
Process insurance coverage declarations on a host-to-host basis that are integrated directly to bank partner insurance companies		70.983.187				70.983.187
Print out a debtor's coverage insurance policy for archiving		23.661.062				23.661.062
Operation Unit; Supervision	3.853.493.805					3.853.493.805
Back Office (BO); Print out all loan agreement documents through the online KMG platform received from the LAK unit	887.974.090					887.974.090
Printing out a memorandum of charge of insurance coverage costs that are the debtor's dependents and stamp duty costs that are the bank's dependents	710.379.272					710.379.272
Process insurance coverage declarations to bank partner insurance companies through a directly integrated host-to-host system	1.065.568.908					1.065.568.908
Print out a debtor's coverage insurance policy for archiving	532.784.454					532.784.454
Send complete documents to insurance companies that are not directly integrated (non-host to host)	355.189.636					355.189.636
Total	15.876.755.329	1.718.020.123	0	0	0	17.594.775.452

#### 4.1.5 The Relationship Between Activity-Based Management Method and Cost Efficiency

Based on the previous analysis, a number of activities were identified for optimization. These include merging similar activities to increase efficiency, reducing the volume of redundant tasks, or even eliminating non-essential activities. These strategic measures are crucial to avoid repetitive work and resource wastage, thus allowing them to focus their efforts on tasks that genuinely support productivity. Similar activities that are carried out repeatedly between units are as follows, tabulated in the following table;

Table 7. Similar Activities Are Repeatedly Performed

Activities Units			
Retail Loan Marketing Activities		Legal and Loan Administration Activities (LAK)	Operation Activities
Product Marketing Account Officer (AO)	Administration of Account Officer (AO)		
Verify the completeness of the customer's proposal	Verify the completeness of the loan proposal	Review the completeness of the KMG loan proposal based on the results of data analysis that has been approved by the Retail Loan Marketing Supervisor	
Access and print out customer history data on the Financial Services Authority (OJK) Financial Information Services System (SLIK)	Verify customer data history through the Financial Services Authority (OJK) Financial Information Services System (SLIK) application.	Review of the Financial Services Authority's (OJK) Financial Information Services System (SLIK) debtor's documents	
Check and print out loan inquiries on the core banking system	Checking loan inquiries on the core banking system	Checking loan inquiries on the core banking system	
Check and print out customer salary/income statement via core banking system	Checking customer salary/income bank statements via the core banking system	Checking customer salary/income bank statements via the core banking system	
Customer data analysis includes the amount of the loan ceiling requested, the permitted term, the amount of installments adjusted to income, and the calculation of insurance coverage costs borne by the customer.	Customer data analysis includes the amount of the loan ceiling requested, the permitted term, the amount of installments adjusted to income, and the calculation of insurance coverage costs that are the customer's responsibility.	Customer data analysis review includes the amount of loan ceiling requested, the permitted term, the amount of installments adjusted to income, and the calculation of insurance coverage costs that are the customer's responsibility.	
		Host to host (directly integrated) insurance coverage declaration process to the bank's partner insurance company	The process of declaring insurance coverage to the bank's partner insurance company via a host to host system (directly integrated)
		Print out the debtor's liability insurance policy for archiving.	Print out the debtor's liability insurance policy for archiving.

Activities Units			
Retail Loan Marketing Activities		Legal and Loan Administration Activities (LAK)	Operation Activities
Product Marketing Account Officer (AO)	Administration of Account Officer (AO)		

Based on the information above, several activities and units could be considered for reduction, elimination, or consolidation with other similar units. Streamlining these operations will help improve efficiency and optimise resource utilisation, ultimately enhancing the overall performance. Among these activities and units are;

1. Administration of Account Officer (AO) Activities

- Eliminating the loan proposal completeness verification activity would result in a 100% cost reduction, saving IDR 86,722,442.
- The activity of Verify customer data history through the Financial Information Service System (SLIK) application of the Financial Services Authority (OJK) can be eliminated, potentially saving IDR 115,629,923
- Eliminating the loan inquiry review activity in the core banking system can reduce costs by IDR 57,814,962, resulting in a 100% savings for this process
- The process of checking customer salary/income bank statements through the core banking system can be eliminated entirely, potentially reducing the costs for this activity by IDR 86,722,442, resulting in a 100% savings for this process
- The analysis of customer documents includes the following: the requested loan amount, the permitted term, installment amounts adjusted based on income, and the calculation of insurance coverage costs which are the customer's responsibility. This activity has a potential cost reduction of Rp 173,444,885, resulting in a 100% savings for this process

2. Legal and Loan Administration (LAK)

- The supervision provided by the Legal and Loan Administration (LAK) unit, which evaluates performance and manages its subordinate work units and employees, can be completely eliminated. This could potentially save IDR 771,786,347 in associated costs, resulting in 100% savings for this process
- Review of the completeness of the KMG loan proposal based on the results of data analysis that has been approved by the Retail Loan Marketing Supervisor, can be eliminated by a 100%, potentially reducing costs for this activity by IDR 23,661,062
- Review of documents loan data through the Financial Information Service System (SLIK) of the Financial Services Authority (OJK) can be eliminated by a 100%, potentially reducing costs for this activity by IDR 70,983,187
- The activity of checking loan inquiries on the core banking system can be eliminated, resulting in a 100% cost reduction amounting to IDR 47,322,125
- The activity of checking customer salary/income bank statements through the core banking system can be eliminated entirely, resulting in a cost reduction of IDR 70,983,187, resulting in a 100% savings for this process
- The customer data analysis review covers the requested loan ceiling, permitted term, installment amounts aligned with income, and the calculation of customer-borne insurance costs. This review has identified that insurance costs can be completely eliminated, potentially reducing expenses for this activity by IDR 118,305,311, resulting in a 100% savings for this process
- Eliminating process insurance coverage declarations on a host-to-host basis that are integrated directly to bank partner insurance companies IDR70,983,187, resulting in a 100% savings for this process
- The process of printing and archiving debtor's insurance policies can be eliminated, potentially reducing costs by IDR 23,661,062, resulting in a 100% savings for this process

The reduction in costs for non-value-added activities is described in the following table;

Table 8. Non-Value Added Activities Costs After Cost Reduction

Non-Value Added Activities	Activities Costs	Cost Reduction (%)	Amount of Costs Reduction	Activities Costs After Cost Reduction
<i>Retail Loan Marketing Unit;</i>				
<i>Administration of Account Officer;</i>				
Verify the completeness of the loan proposal	86.722.442	100,00%	86.722.442	0
Verify customer data history through the Financial Information Service System (SLIK) application of the Financial Services Authority (OJK)	115.629.923	100,00%	115.629.923	0
Check loan inquiry on the core banking system	57.814.962	100,00%	57.814.962	0
Checking the customer's salary/income statement through the core banking system	86.722.442	100,00%	86.722.442	0
Customer data analysis includes, the amount of loan ceiling requested, the period allowed, the amount of installments adjusted to income, the calculation of insurance coverage costs that are the customer's dependents	173.444.885	100,00%	173.444.885	0
<i>Legal and Loans Administration (LAK);</i>				
<i>Supervision</i>				
Review the completeness of the KMG loan proposal based on the results of data analysis that has been approved by the Retail Loan Marketing Supervisor	23.661.062	100,00%	23.661.062	0
Review of documents loan data through the Financial Information Service System (SLIK) of the Financial Services Authority (OJK)	70.983.187	100,00%	70.983.187	0
Check loan inquiry on the core banking system	47.322.125	100,00%	47.322.125	0
Checking the customer's salary/income statement through the core banking system	70.983.187	100,00%	70.983.187	0
The review of customer data analysis includes, the amount of loan ceiling requested, the period allowed, the amount of installments adjusted to income, the calculation of insurance coverage costs that are the customer's dependents	118.305.311	100,00%	118.305.311	0
Process insurance coverage declarations on a host-to-host basis that are integrated directly to bank partner insurance companies	70.983.187	100,00%	70.983.187	0
Print out a debtor's coverage insurance policy for archiving	23.661.062	100,00%	23.661.062	0
<b>Total</b>	<b>1.718.020.123</b>		<b>1.718.020.123</b>	<b>0</b>

## 4.2 Discussion

### 4.2.1 Reducing Non-Value Added Activities Done Redundantly

This study examines how the adoption of Activity-Based Management (ABM) can improve operational efficiency and effectiveness for the organization. It also identifies non-value-added activities to be reduced or eliminated, thereby lowering their operational costs. Based on a systematic literature review and an analysis of activities across all relevant units, the study concludes that ABM effectively reduces operating costs and helps identify non-value-added activities for elimination during the research period.

Based on these findings, several activities and units are recommended for reduction, elimination, or consolidation with other similar functions. Streamlining or merging these roles will enhance their operational efficiency, improve resource allocation, and boost overall performance. Below are examples of such activities and units:

#### 1. Administration of Account Officer

Administration of Account Officer (AO) in the retail loan marketing unit perform tasks related to the KMG loan disbursement process that are redundant, as they have already been completed by the previous KMG product marketing Account Officers. These are repetitive activities include:

- Verifying the completeness of loan proposals IDR 86.722.442
- Checking customer data history via the Financial Services Authority's (OJK) SLIK application IDR 115.629.923
- Processing loan inquiries in the core banking system IDR 57.814.962
- Reviewing customer salary/ income statements in the core banking system IDR 86.722.442
- Analyzing customer data, including requested loan amounts, permitted terms, income-adjusted installments, and insurance coverage costs IDR 173.444.885

They can reduced operating costs by IDR 520,334,655 by eliminating redundant tasks handled by Administration of Account Officer. To further enhance operational efficiency, the loan data input and analysis tasks should be transferred to the KMG Product Marketing Account Officers. This reorganization optimizes roles and accelerates loan disbursement. Entrusting Account Officer (AO) as a marketer of KMG products—who directly promotes KMG products—ensures greater data accuracy and relevance while reducing administrative redundancy. This change fosters more data-driven decisions, improves customer responsiveness, and strengthens integration between loan analysis and core business processes, ultimately boosting overall efficiency and service quality.

#### 2. Legal and Loan Administration (LAK)

This activity unit can be eliminated due to overlapping work, as the Account Officer (AO) in the Retail Loan Marketing unit already performs these tasks. Similarly, activities handled by the Legal and Loan Administration (LAK) unit—such as reviewing KMG loan proposals, checking customers' data, verifying income statements, and processing insurance declarations—can be fully eliminated, as these are now managed by the Operations unit. They should retain loan data input into core banking systems due to its strategic value in ensuring data accuracy and supporting decision-making. However, to improve efficiency, this task could be reassigned to the Operations unit, allowing it to focus on core functions while maintaining data consistency and reliability. This allows them to save time and resources on unnecessary processes, thereby increasing productivity and effectiveness in loan data management. These repetitive activities include:

- Supervision activities within the Legal and Loan Administration (LAK) unit—which involve evaluating performance and managing subordinate work units and employees—can be fully eliminated, potentially saving IDR 771,786,347 in associated costs.
- The LAK Officer activity, checking the completeness of KMG loan proposals, based on data analysis that has been approved by the Retail Loan Marketing Supervisor, can be completely eliminated, thus potentially saving costs of IDR 23,661,062.
- The review of debtor's data in the Financial Services Authority's (OJK) Financial Information Services System (SLIK) can be fully eliminated, potentially saving IDR 70,983,187 in costs.
- The activity of checking loan inquiries on the core banking system can be fully eliminated, saving IDR 47,322,125 in costs.
- Checking customer salary or income statements through the core banking system can be fully eliminated, saving IDR 70,983,187 in costs.
- Analysis of customer documents shows that insurance costs can be eliminated by 100%, potentially saving up to IDR

118,305,311

- The host-to-host insurance declaration process can be eliminated entirely, potentially saving IDR 70,983,187
- Printing debtor's insurance policies for archiving can be eliminated by 100%, potentially reducing the cost of this activity by IDR 23,661,062

The elimination of these redundant tasks resulted in operational cost savings of IDR 1,197,685,468 within the unit, while the remaining operations continued to deliver value..

#### 4.2.2 Efficiency Design of Value Added Activities Before and After The Implementation of ABM

They need to optimize value-added activities through effective task redistribution, including the transfer of administrative tasks from Account Officers (AO) in Administration to Account Officer (AO) as KMG product marketers. This allows resources to be focused on core activities such as inputting loan data through the online KMG platform, thereby reducing redundancy and increasing the productivity of high-value services.

Furthermore, integrating strategic activities in the Legal and Loan Administration (LAK) unit—such as data input through core banking systems—into the Operations unit can strengthen oversight functions. This integration not only improves process efficiency but also acts as a control mechanism that ensures compliance with procedures and regulations, creating synergy between administrative efficiency and risk management.

Thus, the design of value-added activities resulting from their ABM implementation is presented in the following table:

Table 9. Efficiency Design of Value Added Activities Before and After Implementation of ABM

Design Value Added Activities	
Before the Implementation of ABM	After the Implementation of ABM
Retail Loan Marketing Activity Unit; Supervision Account Officer (AO) KMG Product Marketer; Marketing KMG loan products Ask for an interview Verify the completeness of the customer's proposal	Retail Loan Marketing Activity Unit; Supervision Account Officer (AO) KMG Product Marketer; Marketing KMG loan products Ask for an interview Verify the completeness of the customer's proposal
Access and print out customer history data on the Financial Information Service System (SLIK) of the Financial Services Authority (OJK)	Access and print out customer history data on the Financial Information Service System (SLIK) of the Financial Services Authority (OJK)
Check and print out loan inquiries on the core banking system	Check and print out loan inquiries on the core banking system
Check and print out customer salary/ income statement via core banking system	Check and print out customer salary/ income statement via core banking system
Analysis of customer documents includes the amount of the loan ceiling requested, the permitted term, the amount of installments adjusted to income, and the calculation of insurance coverage costs borne by the customer	Customer documents analysis includes, the amount of loan ceiling requested, the period allowed, the amount of installments adjusted to income, the calculation of insurance coverage costs borne by the customer
Serving customer complaints Administration of Account Officer (AO);	Serving customer complaints Input of loan documents through the core banking system
Input loan data using the KMG online platform Legal and Loan Administration Activities Unit (LAK); Input loan documents through the core banking system	Operation Unit; Supervision

Design Value Added Activities	
Before the Implementation of ABM	After the Implementation of ABM
Operation Unit; Supervision	Print out all loan agreement documents through the online KMG platform received from the LAK unit Printing out a memorandum of charge of insurance coverage costs that are the debtor's dependents and stamp duty costs that are the bank's dependents
Print out all loan agreement documents through the online KMG platform received from the LAK unit.	Process insurance coverage declarations to bank partner insurance companies through a directly integrated host-to-host system
Print out a note for charging insurance coverage costs that are the responsibility of the borrower and stamp duty costs that are the responsibility of the bank.	Print out a debtor's coverage insurance policy for archiving
Process of declaring insurance coverage to the bank's partner insurance company via a host to host system (directly integrated)	Send complete documents to insurance companies that are not directly integrated (non-host to host)
Print out the debtor's liability insurance policy for archiving	Input of loan documents through the core banking system
Sending complete documents to the bank's partner insurance company that is not directly integrated (non host to host)	

The reduction in operating costs results from eliminating redundant, non-value-adding activities, thereby improving the quality of the bank's products and services. Therefore, the cost of value-added activities after implementing ABM is shown in the following table:

Table 10. Value Added Activities Costs After Implementation of ABM

Activities	Activities Costs
Retail Loan Marketing Unit; Supervision	4.501.250.111
Marketing KMG loan products	966.244.491
Ask for an interview	386.497.797
Verify the completeness of the customer's proposal	309.198.237
Access and print out customer history data on the Financial Information Service System (SLIK) of the Financial Services Authority (OJK)	270.548.458
Check and print out loan inquiries on the core banking system	463.797.356
Check and print out customer salary/ income statement via core banking system	579.746.695
Customer documents analysis includes, the amount of loan ceiling requested, the period allowed, the amount of installments adjusted to income, the calculation of insurance coverage costs borne by the customer	695.696.034
Serving customer complaints	193.248.898
Input of loan documents through the core banking system	57.814.962

Activities	Activities Costs
Supervision	3.853.493.805
Print out all loan agreement documents through the online KMG platform received from the LAK unit	887.974.090
Printing out a memorandum of charge of insurance coverage costs that are the debtor's dependents and stamp duty costs that are the bank's dependents	710.379.272
Process insurance coverage declarations to bank partner insurance companies through a directly integrated host-to-host system	1.065.568.908
Print out a debtor's coverage insurance policy for archiving	532.784.454
Send complete documents to insurance companies that are not directly integrated (non-host to host)	355.189.636
Input of loan documents through the core banking system	47.322.125
<b>Total</b>	<b>15.876.755.329</b>

After eliminating redundant activities, the operating costs decreased, which led to improved efficiency. Value-added activities were maintained, which provided a positive contribution following the implementation of the ABM method. This results in savings of IDR 1,718,020,123 (9.76% of the previous total of IDR 17,594,775,452), bringing the new total to IDR 15,876,755,329. This improvement reflects enhanced financial performance and their success in reducing operating costs.

Thus, the implementation of ABM increases cost efficiency by 9.76%, demonstrating its effectiveness in optimizing resource management and reducing waste in banks. As shown in the table 11 below, these efficiency results are derived from costs proportionally allocated across unit. Simply put, the table below demonstrates how operating cost savings contribute to banks.

Table 11. The Share of Costs from Value-Added Activities After ABM Implementation Across Units

Activities Units	Costs Activities Before Implementing ABM	Costs Activities After Implementing ABM	Efisiensi	
			Cost Reduction Non-Value Added Activities	Savings Percentage (%)
Retail Loan Marketing	8.944.377.693	8.424.043.038	520.334.655	2,96%
Legal and Loan Administration (LAK)	1.245.007.593	47.322.125	1.197.685.468	6,81%
Operational	7.405.390.166	7.405.390.166	0	0,00%
Amount of Cost Savings	17.594.775.452	15.876.755.329	1.718.020.123	9,76%

## Conclusion

1. This study highlights the importance of understanding the performance and impact of cost management systems, particularly how they integrate with ABC approaches. These systems play a critical role in identifying, measuring, and controlling costs associated with business operations, enabling organizations to allocate resources more effectively to sustainability initiatives.
2. The implementation of the Activity-Based Management (ABM) method at Bank Sumut Ngumban Surbakti branch enables the identification of sources of cost waste and operational inefficiencies by analyzing activities, accurately allocating costs, and distinguishing between value-added and non-value-added activities
3. The application of Activity-Based Management (ABM) at Bank Sumut Ngumban Surbakti branch has proven highly effective, successfully eliminating more than Rp 1.7 billion in non-value-added costs and reducing total operational costs by 9.76%, thereby significantly improving efficiency and financial performance.
4. The implementation of Activity-Based Management (ABM) has significantly improved Bank Sumut cost efficiency and competitiveness. This method deserves widespread adoption, as it serves not only as a cost control tool but also as a long-term strategy to optimize resource allocation, eliminate unproductive activities, and increase profitability without compromising customer service quality.

## References

- [1] Alnoor Bhimani, S. M. (2023). *Management and Cost Accounting*. London, England, England: Pearson Education Limited. Retrieved from [https://books.google.co.id/books?hl=id&lr=&id=fD2fEQAAQBAJ&oi=fnd&pg=PR19&dq=management+accounting,+horngren&ots=cnUEo9ixG-&sig=ZzwiCryx5rC7yIG-wAxNguNM8H0&redir\\_esc=y#v=onepage&q=management%20accounting%2C%20horngren&f=false](https://books.google.co.id/books?hl=id&lr=&id=fD2fEQAAQBAJ&oi=fnd&pg=PR19&dq=management+accounting,+horngren&ots=cnUEo9ixG-&sig=ZzwiCryx5rC7yIG-wAxNguNM8H0&redir_esc=y#v=onepage&q=management%20accounting%2C%20horngren&f=false)
- [2] Ayu Mulhadimah, P. L. (2020). Analisis Cost Driver Pada CV.Binter. *Jurnal Pendidikan Tambusai, IV*, 888-891. doi:10.31004/jptam.v4i2.540
- [3] Banerjee, B. (2021). *Cost Accounting: Theory and Practice*. Calcuta, New Delhi, India: PHI Learning Private Limited. Retrieved from <https://books.google.co.id/books?id=BB4-EAAAQBAJ&pg=PP1&ots=01y3stjTiZ&dq=Cost%20Accounting%3A%20Theory%20and%20Practice%2C%20banerjee&lr&hl=id&pg=PP1#v=onepage&q=Cost%20Accounting:%20Theory%20and%20Practice,%20banerjee&f=false>
- [4] Bondan Wirajaya, H. (2024, May 31). Analisis Penerapan Metode Activity Based Costing Method Untuk Meningkatkan Akurasi Dalam Menentukan Perhitungan Harga Pokok Produksi. *Jurnal Ilmiah Akuntansi*, 448-457. doi:10.30640/akuntansi45.v5i1.2491
- [5] Deri Firmansyah, D. D. (2020). *Akuntansi Manajemen Informasi dan Alternatif Untuk Pengambilan Keputusan*. Tangerang, Banten, Indonesia: PT. Bidara Cendekia Ilmi Nusantara. Retrieved from [https://www.researchgate.net/profile/Dadang-Saepuloh-2/publication/347833071\\_AKUNTANSI\\_MANAJEMEN\\_Informasi\\_dan\\_Alternatif\\_Untuk\\_Pengambilan\\_Keputusan/links/5fe4553a92851c13feb4f4dd/AKUNTANSI-MANAJEMEN-Informasi-dan-Alternatif-Untuk-Pengambilan-Keputusan.pdf](https://www.researchgate.net/profile/Dadang-Saepuloh-2/publication/347833071_AKUNTANSI_MANAJEMEN_Informasi_dan_Alternatif_Untuk_Pengambilan_Keputusan/links/5fe4553a92851c13feb4f4dd/AKUNTANSI-MANAJEMEN-Informasi-dan-Alternatif-Untuk-Pengambilan-Keputusan.pdf)
- [6] Dina Rahmadani, N. S. (2024, October 17). Efisiensi Melalui Analisis Non Value Added Berbasis Activity-Based Management: Studi pada Bento Kopi Cirebon. *Journal of Sharia Accounting and Tax*, 321-337. doi:10.70095/jsat.v2i2.273
- [7] Elfreda Aplonia Lau. (2023, March). Efektivitas dan Efisiensi Melalui Pemanfaatan Run Out Time (ROT) Method. *Jurnal Exchall (Economic Challenge)*, 1(1), 1-11. doi:10.47685/exchall.v5i1.346
- [8] Haritha Malika Dara, A. P. (2024, April 6). Reducing non-value added (NVA) activities through lean tools for the precast industry. *Heliyon*, X, 1-18. doi:10.1016/j.heliyon.2024.e29148
- [9] Maria-Victoria Sa'nchez-Rebull, A. N.-B.-L. (2023). After 30 Years, What Has Happened to Activity-Based Costing? A Systematic Literature Review. *SAGE*(2), 1-26. doi:10.1177/21582440231178785

- [10] Meyta Pandey, D. M. (2024, 1 1). Penerapan Metode Activity Based Management dalam Meningkatkan Efisiensi Aktivitas dan Biaya Produksi pada PT Sinar Pure Foods. *Jurnal LPPM Bidang EkoSosBudKum (Ekonomi, Sosial, Budaya, dan Hukum)*, 8(1), 50-59. Retrieved from <https://ejournal.unsrat.ac.id/index.php/lppmekosobudkum/article/view/53001>
- [11] Mukhzarudfa, W. (2019). Akuntansi Manajemen. Jambi, Jambi, Indonesia: Salim Media Indonesia (Anggota IKAPI). Retrieved from [www.salimmedia.com](http://www.salimmedia.com)
- [12] Rachmat Syawal, S. R. (2022, 5 30). Analisis Manfaat Penerapan Activity Based Management Untuk meningkatkan Efisiensi Biaya Pada PT Semen Baturaja (Persero)Tbk. *AT TARIIZ : Jurnal Ekonomi dan Bisnis Islam*, 71-82. doi:10.62668/attariiz.v1i02.315
- [13] Raffli Dika Pratama, A. E. (2022, November). Pengaruh Biaya Pemeliharaan Aset Tetap Terhadap Laba Bersih Pada PDAM Kota Cirebon. *Indonesian Accounting Literacy Journal*, III, 106-114. doi:10.35313/ialj.v2i04.4086
- [14] Rosanti Maulina, E. H. (2024, December 11). Analisis Non Value Added Activity Melalui Penerapan Activity Based Management Untuk Meningkatkan Efisiensi Pada Cafe Barista Di Kota Bangkalan. *JURNAL MEDIA AKADEMIK (JMA)*, 2, 1-16. doi:10.62281/v2i12.1123
- [15] Yanti Demsina Sinaga, A. A. (2023, 12 28). Peningkatan Profitabilitas dan Efisiensi Biaya Perusahaan Melalui Penerapan Activity Based Management, Value Chain dan PESTEL. *Jurnal Studi Akuntansi dan Keuangan*, 6(2), 287-309. doi:<https://doi.org/10.29303/akurasi.v6i2.371>
- [16] Yusi Sri Ratih Ayu, M. (2023, March). Analisis Penerapan Metode Activity Based Manajemen Untuk Meningkatkan Efisiensi Biaya Produksi Pada PT. Pesona Arnos Beton Gresik. *Journal of Student Research (JSR)*, I, 122-137. doi:10.55606/jsr.v1i2.973
- [17] Zuzana Špacírová, D. E.-M. (2020, 6 1). A general framework for classifying costing methods for economic evaluation of health care. *The European Journal of Health Economics*, 21(4), 529-542. doi:10.1007/s10198-019-01157-9
- [18] Zuzana Špacírová, D.-M. A. (2020, January 20). A general framework for classifying costing methods for economic evaluation of health care. *The European Journal of Health Economics*, 21, 529-542. doi:10.1007/s10198-019-01157-9
- [19] Zuzana Špacírová, D.-M. J. (2023). After 30 Years, What Has Happened to Activity-Based Costing? A Systematic Literature Review. Spain, Spain, Spain. doi:10.1177/21582440231178785