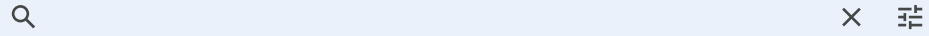


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Activity-Based Costing Method as an Effort to Increase Profitability of PT. Anugrah Ocean Wakatamba

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Abstrak

Tujuan Utama - Penelitian ini bertujuan untuk mengkaji penerapan Activity Based Costing sebagai upaya untuk meningkatkan profitabilitas perusahaan.

Metode - Penelitian ini menggunakan metode deskriptif kualitatif dengan paradigma interpretif, pendekatan studi kasus, menggunakan data primer yang diperoleh melalui wawancara, studi dokumentasi, dan observasi pada PT. Anugrah Ocean Wakatamba. Unsur-unsur yang membentuk harga pokok dan biaya jasa menggunakan metode Activity Based Costing kemudian membandingkannya dengan tarif jasa yang digunakan oleh perusahaan yang menggunakan metode tradisional.

Temuan Utama - Hasil penelitian menunjukkan bahwa terdapat undercoating dalam penetapan tarif pelayanan untuk jenis Ocean Freight 20 feet kering dan Ocean Freight 20 feet refer sebesar 35,56% dan 9,45% selama periode Juni-Desember 2021. Hasil temuan penelitian ini terkait pelaksanaan kegiatan based costing kurang efektif meningkatkan profitabilitas perusahaan pada PT. Anugrah Ocean Wakatamba. Based costing dapat mengidentifikasi biaya yang dikeluarkan untuk menentukan biaya layanan perusahaan PT. Anugrah Ocean Wakatamba.

Implikasi Teori dan Kebijakan – Berdasarkan teori, metode perhitungan biaya berdasarkan aktivitas dapat meningkatkan profitabilitas, namun hasil penelitian menunjukkan bahwa perhitungan biaya berdasarkan aktivitas dapat mendeteksi kerugian. Hal ini disebabkan penetapan biaya berbasis aktivitas yang mengakui setiap biaya yang dikeluarkan untuk pemicu biaya, dalam perhitungan tradisional mungkin tidak dihitung.

Kebaruan Penelitian - Penggunaan Activity Based Costing semakin meningkat profitabilitas pada PT. Anugrah Ocean Wakatamba tidak terlalu berpengaruh signifikan, untuk penelitian selanjutnya menggunakan metode alternatif. seperti Economic Value Added (EVA) dan Market Value Added (MVA).

Kata Kunci: Keuntungan; Metode; Harga; Pelayanan; Perhitungan.

Abstract

Abstract Main Purpose - This study aims to examine the application of activity-based costing as an effort to increase company profitability.

Method - This study uses a qualitative descriptive method with an interpretive paradigm, and a case study approach, using primary data obtained through interviews, documentation studies, and observations at PT. Ocean Wakatamba Award. The elements that make up the cost of goods and service costs use the Activity Based Costing method and then compare with the service rates used by companies using traditional methods.

Main Findings - The results showed that there was undercoating in setting service rates for the type of Ocean Freight 20 feet dry and Ocean Freight 20 feet refer by 35.56% and 9.45% during the June-December 2021 period. The findings of this study related to the implementation of less-based costing activities effectively increasing the profitability of the company at PT. Anugrah Ocean Wakatamba. Based costing can identify the costs incurred to determine the company's service costs PT. Anugrah Ocean Wakatamba.

Theory and Practical Implications - Based on the theory, activity-based costing method can increase profitability, but the research results show that activity-based costing can detect losses. This is due to activity-based costing which recognizes any costs incurred for cost drivers, in traditional calculations it may not be counted.

Novelty - The use of Activity Based Costing increases profitability at PT. Anugrah Ocean Wakatamba does not have a significant effect, for further research using alternative methods, such as Economic Value Added (EVA) and Market Value Added (MVA).

Keywords: Profit; Method; Price; Service; Calculation.

INTRODUCTION

Along with the times, companies are also required to maintain and improve their competitiveness among other similar industries by managing their resources, potential effectively, and efficiently (Perkhofer et al, 2019). This is called the achievement of a competitive advantage that aims to increase profitability (Shakri et al, 2020). The company's ability to manage costs through appropriate allocation and classification can affect the determination of the cost of its products or services (Rosca et al, 2017). Management can cut and control production costs without reducing the quality and quantity of production, which can increase the competitiveness of the company's products or services (Samuel et al, 2017). The proliferation of companies providing freight forwarding services makes companies need to highlight their strengths to gain client loyalty (Nugraha, 2021). Client loyalty is explained through the customer value triad theory, namely three combinations of variables that make up customer value for a product or service, where the perception of this value is directly proportional to quality and service, but inversely proportional to price (Sirisala & Rama, 2021).

Activity-based costing is one method that is claimed to be able to accurately allocate activity costs to produce a more effective cost of goods and enable the determination of prices that can compete among competitors (Lu et al, 2017). The facts on the ground show that the price greatly influences the client's consideration in choosing the company to use his services, especially in this case the freight forwarding company (Archetti & Peirano, 2020). For example, if there are several choices of freight forwarding companies with almost the same service options, regardless of the client's loyalty to a particular company, the client will usually tend to choose the company with the lowest tariff rate (Ronen, 2017).

The ABC (Activity Based Costing System) system makes activity the center point of its activities (Wahidi et al, 2021). Because

activities can be found in manufacturing, service, and trade firms, as well as public sector organizations and non-profit organizations, the ABC system can be applied equally well to all types of organizations (Farah et al, 2020). Here it will be explained whether the ABC (Activity Based Costing System) system can be applied to service companies, and what things need to be understood or considered in implementing an Activity Based Costing System in service companies (French et al, 2016)). With this ABC system, for the first-time service companies can take advantage of a cost information system that is very useful for reducing costs and determining service costs accurately (Ahmad et al, 2017).

The ABC system does not only focus on calculating the cost of goods/services but includes a broader perspective, namely cost reduction through activity classification (Mardjuni et al, 2022). service companies when it is in their interest to reduce costs in classifying activities. So, companies need a cost information system that can provide a lot of information about various company activities (Alsayegh, 2020). But the most basic difference between service companies and manufacturing companies is the definition of output (Ippoliti & Tria, 2020). For manufacturing companies, the output is easy to define (the real product produced) or can be calculated, but for service companies, defining output is more difficult. Output for a service company is less tangible (less quantifiable). Output must be defined so that it can be priced (Wahyulistyo & Cahyonowati, 2022).

Research on Activity Based Costing in determining the cost of goods is mostly done in manufacturing and service companies (AIDhubaibi, 2021). So far, many references refer to its application to hotel service sector companies to determine room rates and manufacturing companies to determine the cost of production. There is almost no or even no research that refers to its application to freight forwarding companies. This research is development research that is expected to be

used as a reference or reference for further research in the field of accounting.

METHOD

Research Design

This study uses a descriptive qualitative research method with an interpretive paradigm with a case study approach, where data collection is carried out through detailed behavioral meanings with direct observation by researchers with objects in the field to analyze an event, phenomenon, or situation for theory development (Maddatuang et al, 2021). The research was carried out by collecting data through direct interviews, observation, and documentation studies by taking the research location at the head office of PT. Anugrah Ocean Wakatamba, considering the existence of all the data and data sources needed at the location (Karim et al, 2021). The data analysis technique uses the descriptive qualitative analysis method which compares the system for calculating the cost of company services that has been applied so far with the use of an activity-based costing system (Rabiyah et al, 2021). Qualitative analysis helps to understand the chronological flow of events assesses causality within the scope of the minds of the parties concerned and obtain a complete and useful explanation, and helps researchers to move forward from presumptions and initial frameworks that allow the formation of new theoretical frameworks. This analytical method emphasizes collecting data in situations that are useful for finding, understanding, explaining, and obtaining an overview of how the implementation of activity-based costing influences determining the cost of services (Chandrarin, 2017).

Data Collection

Researchers conducted interviews with several employees of PT. Anugrah Ocean Wakatamba to obtain data regarding the general description

of the company, recording of financing, methods of determining the cost of services previously, as well as other information that is related to this research.

Researchers examined company documents and archives to obtain written data regarding details of costs, company revenue data, and other information that might be related to this research. Researchers collect, study, analyze various journals, articles, other supporting, and supporting literature. Data Analysis This study uses a descriptive qualitative analysis method that compares the company's service cost calculation method applied so far with the use of an Activity Based Costing System (Keel et al, 2017). Qualitative analysis assists in following and understanding the chronological flow of events, assessing causation in the minds of local people, and obtaining great and helpful explanations. Qualitative analysis also helps the researcher to move beyond preconceived notions and frameworks so that it is possible to form new theoretical frameworks. This analysis method emphasizes data collection in situations that are useful for finding, understanding, explaining, and obtaining an overview of how the implementation of activity-based costing influences the determination of the cost of services. The steps are as follows:

1. Identify all activities related to company services.
2. Classify the costs arising from each of these activities and classify them into various levels of activity.
3. Identify cost drivers.
4. Determine the rate per unit cost driver.

RESULTS AND DISCUSSION

Result

Table 1. Number of Shipments for the Period June-December 2021

Month	Service type			Amount
	Of 20 feet dry	Of 20 feet refeed	Airplane	
June	0	0	2	2
July	1	0	0	1

August	0	0	3	3
September	0	0	0	0
October	1	2	4	7
November	0	1	1	2
December	1	1	10	12
Total	3	4	20	27

Source: Author Findings, 2021.

Table 2. Cost Components Based on Cost (Cost Driver)

Activity group	Cost group	Cost
I	Document activity	PEB, NPE Phytosanitary HC SPM COO B/L AWB Other fees
II	Activity EMKL	Trucking Job lift on Job lifts off Job login Job charge JPT expedition Other fees
III	Container activity	Low sulfur fuel surcharge Incremental terminal handling & surcharges Other fees
IV	Miscellaneous activities	Labor PPJK Telex release Fumigation Another special request

Source: Author Findings, 2021

For each type of service, the activity cost components used vary depending on regulations and the type of goods to be shipped. Shipping by sea for the type of reefer container that involves the costliest components, while the type of service that involves the least cost components is air shipping.

1. Charge for each activity

a. Document activity

This document activity cost incurs PEB & NPE, HC, SPM, COO, B/L, and AWB costs.

Table 3. Rates per Unit Cost Driver Document Activities

Costs	Of 20 feet dry (IDR)	Of 20 feet refer (IDR)	Airplane (IDR)
PEB, NPE	0	330,000	300,000
HC	250,000/commodity	250,000/commodity	250.000/commodity
SPM	2,500/commodity	2,500/commodity	0
COO	200,000	200,000	200
B/L	300,000	300,000	0
AWB	0	0	300,000

Source: Author Findings, 2021

The table above is a table for calculating rates per unit cost driver until December 2021 which has been grouped based on activities and costs

incurred by dividing the average cost by type of service.

Table 4. Document Fee Assignment

Service type	Total of shipments	Unit cost driver rates (IDR)	Total document fee (IDR)
PEB, NPE			
Of 20 feet dry	3	0	0
Of 20 feet refer	4	330	1,320,000
Airplane	20	300	6,000,000
HC			
Of 20 feet dry	3	250	750
Of 20 feet refer	4	250	1,000,000
Airplane	20	250	5,000,000
SPM			
Of 20 feet dry	3	2.5	7.5
Of 20 feet refer	4	2.5	10
Airplane	20	0	0
COO			
Of 20 feet dry	3	200	600
Of 20 feet refer	4	200	800
Airplane	20	200	4,000,000
B/L			
Of 20 feet dry	3	300	900
Of 20 feet refer	4	300	1,200,000
Airplane	20	0	0
AWB			
Of 20 feet dry	3	0	0
Of 20 feet refer	4	0	0
Airplane	20	300	6,000,000

Source: Author Findings, 2021

The table above shows the total document activity until December 2021, which is obtained from number of shipments multiplied tariff of unit cost driver.

b. EMKL activities

This EMKL activity is related to transportation and handling of container collection, transportation to and from the stuffing location, to entering the CY which is a place for container stacking before being put on a ship.

Tabel. 5 Rates per Unit Cost Driver for EMKL Activities

Costs	Of 20 feet dry (IDR)	Of 20 feet refer (IDR)	Airplane (IDR)
Trucking	2,000,000	2,000,000	0
Job lifts on	0	99,000	0
Job lifts off	0	591,000	0
Job login	120,000	591,000	0
Job charge	0	250,000	0
JPT expedition	500,000	500,000	0

Source: Author Findings, 2021

Tabel. 6 Assignment of EMKL Costs

Service type	Total of shipments	Unit cost driver rates (IDR)	Total document fee (IDR)
Trucking			
Of 20 feet dry	3	2,000,000	6,000,000
Of 20 feet refer	4	2,000,000	8,000,000
Airplane	20	0	0
Job lift on			
Of 20 feet dry	3	0	0
Of 20 feet refer	4	99	396
Airplane	20	0	0
Job lift off			
Of 20 feet dry	3	0	0
Of 20 feet refer	4	591	2,364,000
Airplane	20	0	0
Job login			
Of 20 feet dry	3	120	360
Of 20 feet refer	4	591	2,364,000
Airplane	20	0	0
Job charge			
Of 20 feet dry	3	0	0
Of 20 feet refer	4	250	1,000,000
Airplane	20	0	0
JPT expedition			
Of 20 feet dry	3	500	1,500,000
Of 20 feet refer	4	500	2,000,000
Airplane	20	0	0

Source: Author Findings, 2021

The table above shows the total EMKL activity until December 2021, which is obtained from the number of shipments multiplied by the unit cost driver rate.

c. Container activity

Container activities are activities related to container maintenance from preparation before booking to completeness so that it can be unloaded at the destination port.

Tabel. 7 Tariffs per Unit Cost Driver for Container Activities

Costs	Of 20 feet dry (IDR)	Of 20 feet refer (IDR)	Airplane (IDR)
Low sulphur fuel	1,305,000	1,984,500	0
Surcharge			
Incremental terminal	217.5	3,013,500	0
Handling & surcharges			

Source: Author Findings, 2021

Tabel. 8 Container Fee Assignment

Service type	Total of shipments	Unit cost driver rates (IDR)	Total document fee (IDR)
Low sulphur fuel			
surcharge			
Of 20 feet dry	3	1,305,000	3,915,000
Of 20 feet refer	4	1,984,500	7,938,000
Airplane	20	0	0
Incremental terminal			
handling & surcharges			
Of 20 feet dry	3	217.5	652.5
Of 20 feet refer	4	3,013,500	12,054,000
Airplane	20	0	0

Source: Author Findings, 2021

The table above shows the total container activity until December 2021, which is obtained from the number of shipments multiplied by the unit cost driver rate.

but are still needed in the operation of each service (Shen et al, 2019). There are fees that almost always exist in every service, and there are fees that only appear at certain times, for example, due to special requests from clients.

d. Other activities

Other activities are activities that are not included in the previous 3 types of activities

Tabel. 9 Rates per Unit Cost Driver for Other Activities

Costs	Of 20 feet dry (IDR)	Of 20 feet refer (IDR)	Airplane (IDR)
Labour	2,500,000	2,500,000	0
PPJK	0	330	0
Telex release	500	500	0

Source: Author Findings, 2021

Tabel. 11 Assignment of Other Costs

Service type	Total of shipments	Unit cost driver rates (IDR)	Total document fee (IDR)
Labour			
Of 20 feet dry	3	2,500,000	7,500,000
Of 20 feet reefer	4	2,500,000	10,000,000
Airplane	20	0	0
PPJK			
Of 20 feet dry	3	0	0
Of 20 feet reefer	4	330	1,320,000
Airplane	20	0	0
Telex Release			
Of 20 feet dry	3	500	1,500,000
Of 20 feet reefer	4	500	2,000,000
Airplane	20	0	0

Source: Author Findings, 2021

The table above shows the total other activities until December 2021, which is obtained from the number of shipments multiplied by the unit cost driver rate.

2. Determining service rates

Service rates are determined by calculating the cost pool per each type of service provided by

PT. Anugrah Ocean Wakatamba, by multiplying the amount of each cost pool with the cost driver and then dividing the result by the number of shipments made from June 2021 to December 2021.

Table 12. Tariff of 20 Feet dry activity based costing method June – December 2021

Cost pool I	HC	IDR 750,000
	SPM	IDR 7,500
	COO	IDR 600,000
	B/L	IDR 900,000
	Total	IDR 2,257,500
Cost pool II	Trucking	IDR 6,000,000
	Job lift-on	0
	Job lift-off	0
	Job login	360
	JPT expedition	IDR 1,500,000
	Total	IDR 7,860,000
Cost Pool III	Low sulphur fuel surcharge	IDR 3,915,000
	Incremental terminal handling & surcharges	IDR 652,500
	Total	IDR 4,567,500
Cost Pool IV	Labour	IDR 7,500,000
	Telex release	IDR 1,500,000
	Total	IDR 9,000,000

Source: Author Findings, 2021

Service fee = Total of activities /total of shipments
= IDR 23,685,000 /3
= IDR 7,895,000

Tabel 10. Tariff of 20 Feet Reefer Activity Based Costing Method June - December 2021

Cost pool I	PEB, NPE	IDR 1.320.000
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	HC	IDR 1.000.000
	SPM	IDR 10.000
	COO	IDR 800.000
	B/L	IDR 1.200.000
	Total	IDR 4.330.000
Cost pool II	Trucking	IDR 8.000.000
	Job lift on	IDR 396.000
	Job lifts off	IDR 2.364.000
	Job entry	IDR 2.364.000
	Job charges	IDR 1.000.000
	JPT expedition	IDR 2.500.000
	Total	IDR 16.624.000
Cost pool III	Low sulphur fuel surcharge	IDR 7.938.000
	Incremental terminal handling & surcharges	IDR 12.054.000
	*Total	IDR 19.992.000
Cost pool IV	Labour	IDR 10.000.000
	PPJK	IDR 1.320.000
	Telex release	IDR 2.000.000
	Total	IDR 13.320.000

Source: Author Findings, 2021

Service fee = Total of activities/total of shipments
= IDR 54.266.000 / 4
= IDR 13.566.500

Tabel 11. Airplane Tariffs for Activity Based Costing June - December 2021

Cost pool I	PEB, NPE	IDR 6.000.000
	HC	IDR 5.000.000
	COO	IDR 4.000.000
	AWB	IDR 6.000.000
	Total	IDR 21.000.000

Source: Author Findings, 2021

Service fee = Total of activities/total of shipments
= IDR 21.000.000 / 20
= IDR 1.050.000

Especially for Airplane shipments, the only data that can be calculated is document loading per shipment, because the flight rate changes every month and is never fixed for the same or different destinations.

3. Knowing the fare difference

To find out the big difference between the traditional method and the activity-based costing method, a comparison table of rates in percentage and IDR is made.

Tabel 12. Differences in Room Rental Rates for Traditional and ABC Methods

Service type	Traditional method (IDR)	Activity based costing (IDR)	Difference (%)	Description
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Of 20 feet dry	20,320,000	27,545,000	35.56	More expensive
Of 20 feet refer	35,320,000	38,656,500	9.45	More expensive
Airplane	Not known	1,050,000	Not known	Not known

The table above is a table of the difference in service rates between the traditional method and the activity-based costing method of shipments that occur between June-December 2021. For the types of services, of 20 feet dry and of 20 feet refer, both show that the difference in calculations is 35,56% and 9.45% more expensive for the activity-based costing method than the traditional method. Meanwhile, the type of Airplane service is not

known because the delivery rate always changes every month for both the same and different destinations, it also changes per the total number of goods sent so it is very difficult to trace. What can be known is that document cost activities tend to be fixed, which is IDR 1,050,000 per shipment (except for dry sea cucumbers).

Discussion

1. Cost of Ocean Freight Service 20 Feet Dry

For services using ocean freight 20 feet dry, the elements that make up the cost of service are as follows:

- a. PEB, NPE
- b. Phytosanitary (for agricultural commodities)
- c. HC and SPM (for fishery commodities)
- d. COO
- e. B/L
- f. Trucking

2. Cost of Ocean Freight Service 40 Feet Dry

The last time PT. Anugrah Ocean Wakatamba serves requests for the use of ocean freight 40 feet dry in 2020 (Adland et al, 2018). The elements that make up the cost of service are not much different from the elements that make up the cost of service for the previous 20 feet of dry ocean freight. For services using ocean freight 40 feet dry, the elements that make up the cost of service are as follows:

- a. PEB, NPE
- b. Phytosanitary (for agricultural commodities)
- c. HC and SPM (for fishery commodities))

3. Cost of Ocean Freight Service 20 Feet Dry

- g. JPT expedition
- h. Seal
- i. Low sulphur fuel surcharge
- j. Incremental terminal handling & surcharges
- k. Telex release (if the client requests)
- l. Fumigation (for agricultural commodities)
- m. Labour
- n. Telex release (if the client requests)
- o. Fumigation (for agricultural commodities)

For services using ocean freight 20 feet reefer, the elements that make up the cost of service are as follows:

- a. PEB, NPE
- b. HC and SPM (for fishery commodities)
- a. e. Trucking
- b. g. Job lift off
- c. h. Job entry
- d. JPT expedition

4. Cost of Service Ocean Freight 40 Feet Reefer

PT. Anugrah Ocean Wakatamba has never served a request for the use of ocean freight 40 feet referer, but the elements that make up the cost of service are not much different from the elements that make up the cost of service for the previous ocean freight 20 feet referrer. For services using ocean freight 40 feet referrer, the elements that make up the cost of service are as follows:

- a. PEB, NPE
- b. HC and SPM (for fishery commodities)
- c. COO

5. Airplane Service

Cost As far as has happened at PT. Anugrah Ocean Wakatamba, services using Airplane have only ever been used for shipping fishery products. For services using airplane, the elements that make up the cost of service are as follows:

Other elements make up the cost of service for services using an airplane, namely the rate of air freight itself (Quesado & Silva, 2021). However, the rate cannot be traced as the rate for ocean freight because the rate can only be determined if the destination, quantity, and type of commodity to be sent have been determined (there is no special standard). Therefore, the only cost driver that can be traced from this type of service is the document fee. Prive that happened at PT. Anugrah Ocean Wakatamba is included in the third type of private listing. This price is included in the provision of salaries for directors, it's just because the time, nominal, and amount of the

- e. j. Ocean freight c. COO k. Seal d. B/L
- l. Low sulphur fuel surcharge
- m. Incremental terminal handling & surcharges f. Job lift on
- n. Labour
- o. PPJK
- p. Telex release (if the client requests)

- d. B/L
- e. Trucking
- f. Job lift on
- g. Job lift off
- h. JPT expedition
- i. Ocean freight
- j. Seal
- k. Low sulphur fuel surcharge
- l. Incremental terminal handling & surcharges
- m. Labour
- n. PPJK
- o. Job Job entry
- p. Telex release (if the client requests)

- a. PEB, NPE
- b. HC (for fishery commodities)
- c. COO
- d. AWB
- e. PPJK

withdrawal are uncertain, so it is more appropriate to be categorized as price. Even so, this price is not included in matters that affect the cost of services at PT. Anugrah Ocean Wakatamba, however, can still affect the company's profitability, so it is considered as a discrepancy between the theory of entity concept management and practice in the field. This phenomenon was appointed to be input for PT. Anugrah Ocean Wakatamba to review the payroll system for directors. Based on the theory, the Activity Based Costing method is considered to be able to increase profitability, but the results of the study show that calculations using Activity Based Costing

detect losses. This is caused by Activity Based Costing which traces every cost incurred to the cost driver, which in traditional calculations is possible not to count. In practice at PT. Anugrah Ocean Wakatamba, the directors determine the rate of service to be provided to clients based on an estimate of the total price that may be issued. Because the determination of this rate is determined in advance, if there is an increase in the price of one of the unit costs so that the cost of goods issued by the company is getting bigger, the company can't change the price that has been submitted to the client (Gilbert et al, 2019). The problem that has the most significant impact on this phenomenon is the limitation of container quotas for the Makassar City area since the pandemic took place, while the demand for these containers has never decreased it has tended to increase. The high demand amidst the limited fleet has

forced the shipping line to increase Ocean Freight rates, even up to 2-4 times the initial rate. This is something that is sometimes not traced because the notification of this rate increase was not announced publicly. In essence, the issue of Ocean Freight rates is not information that is given haphazardly to all parties. Rates are usually asked branch managers or other tier positions by the directors or managers of a company, and the time to provide this rate information sometimes takes a long time, while from the client side, it is urgent, so sometimes the directors or managers will give a long rate to clients. This makes the anticipation of an increase in the Ocean Freight rate nonexistent and increases the risk of loss. Meanwhile, for the type of Airplane service, it is stated that the service fee is not known.

CONCLUSION

Based on the research results, tracking using the Activity Based Costing method from shipments that occurred between June to December 2021 detected a difference in calculations of 35.56% and 9.45% respectively, which was more expensive for the Activity Based Costing method than the traditional method for Ocean service types. Freight 20 feet dry and Ocean Freight 20 feet referrer. The loss for this type of service using Ocean Freight is due to unexpected extraordinary expenses by the company when determining service rates for its clients.

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-abstract should be revised according to our journal format
-in many places the language is not in academic writin, I just show few places with yellow colour. Please check whole paper
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Below I Attach our revised manuscript title **Activity-Based Costing Method as an Effort to Increase Profitability of PT. Anugrah Ocean Wakatamba**. Some revision have us corrected such us, Grammatical error, language problem and reference style.

Personally, I also submit the revision via Jurnal Aset (Akutansi Riset) Online Journal System in Review upload mode.

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Reviewers' comments on your manuscript have now been received. Having considered these comments alongside your paper I have decided that, unfortunately, we will not be able to publish your paper in Cogent Business & Management on this occasion. If you feel that the manuscript could be significantly revised based on the reviewers' comments, you could consider resubmitting as a new manuscript in the future.

For your guidance, I append the reviewers' comments below.

Reviewer 1:

1. Add problems related to the location of your research and what goals you want to achieve so that the direction of the research discussion to be carried out is clear and directed.
2. Add to the research method related to what steps to analyze the activity-based costing that you use in this research

Reviewer 2:

- Your research uses data collection methods, one of which is interviews. Show who you're interviewing and their job title. By displaying this information, readers or parties interested in research can verify the credibility and validity of the data used. They can check whether the data source is relevant and trustworthy.
- Add suggestions related to your research results to increase the research's usefulness in providing solutions or contributions to the problem at hand.

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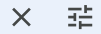


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Activity-Based Costing Method as an Effort to Increase Profitability of PT. Anugrah Ocean Wakatamba

Reviewer I Comment	Author Respons
Add problems related to the location of your research and what goals you want to achieve so that the direction of the research discussion to be carried out is clear and directed. Add to the research method related to what steps to analyze the activity-based costing that you use in this research	I have added a section that discusses the problems related to the location of my research and the goals I want to achieve. This will help readers understand the direction of my research and the context in which it was conducted.
Add to the research method related to what steps to analyze the activity-based costing that you use in this research	I have also added a section that outlines the steps I used to analyze the activity-based costing data in my research. This will help readers understand the methodological approach I used to analyze the data and the reliability of my findings.
Reviewer II Comment	Author Respons
Your research uses data collection methods, one of which is interviews. Show who you're interviewing and their job title. By displaying this information, readers or parties interested in research can verify the credibility and validity of the data used. They can check whether the data source is relevant and trustworthy.	To enhance the credibility and validity of the data used in my research, I have provided information about the individuals I interviewed and their job titles. This will help interested parties verify the relevance and trustworthiness of my data sources.
Add suggestions related to your research results to increase the research's usefulness in providing solutions or contributions to the problem at hand	Based on the results of my research, I have included several suggestions for improving activity-based costing practices in the relevant industry. These suggestions are intended to contribute to the solution of the problems identified in my research and to provide practical insights for professionals in the field.



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Activity-Based Costing Method as an Effort to Increase Profitability of PT. Anugrah Ocean Wakatamba

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Abstrak

Tujuan Utama - Penelitian ini bertujuan untuk mengkaji penerapan Activity Based Costing sebagai upaya untuk meningkatkan profitabilitas perusahaan.

Metode - Penelitian ini menggunakan metode deskriptif kualitatif dengan paradigma interpretif, pendekatan studi kasus, menggunakan data primer yang diperoleh melalui wawancara, studi dokumentasi, dan observasi pada PT. Anugrah Ocean Wakatamba. Unsur-unsur yang membentuk harga pokok dan biaya jasa menggunakan metode Activity Based Costing kemudian membandingkannya dengan tarif jasa yang digunakan oleh perusahaan yang menggunakan metode tradisional.

Temuan Utama - Hasil penelitian menunjukkan bahwa terdapat undercoating dalam penetapan tarif pelayanan untuk jenis Ocean Freight 20 feet kering dan Ocean Freight 20 feet refer sebesar 35,56% dan 9,45% selama periode Juni-Desember 2021. Hasil temuan penelitian ini terkait pelaksanaan kegiatan based costing kurang efektif meningkatkan profitabilitas perusahaan pada PT. Anugrah Ocean Wakatamba. Based costing dapat mengidentifikasi biaya yang dikeluarkan untuk menentukan biaya layanan perusahaan PT. Anugrah Ocean Wakatamba.

Implikasi Teori dan Kebijakan – Berdasarkan teori, metode perhitungan biaya berdasarkan aktivitas dapat meningkatkan profitabilitas, namun hasil penelitian menunjukkan bahwa perhitungan biaya berdasarkan aktivitas dapat mendeteksi kerugian. Hal ini disebabkan penetapan biaya berbasis aktivitas yang mengakui setiap biaya yang dikeluarkan untuk pemicu biaya, dalam perhitungan tradisional mungkin tidak dihitung.

Kebaruan Penelitian - Penggunaan Activity Based Costing semakin meningkat profitabilitas pada PT. Anugrah Ocean Wakatamba tidak terlalu berpengaruh signifikan, untuk penelitian selanjutnya menggunakan metode alternatif. seperti Economic Value Added (EVA) dan Market Value Added (MVA).

Kata Kunci: Keuntungan; Metode; Harga; Pelayanan; Perhitungan.

Abstract

Abstract Main Purpose - This study aims to examine the application of activity-based costing as an effort to increase company profitability.

Method - This study uses a qualitative descriptive method with an interpretive paradigm, and a case study approach, using primary data obtained through interviews, documentation studies, and observations at PT. Ocean Wakatamba Award. The elements that make up the cost of goods and service costs use the Activity Based Costing method and then compare with the service rates used by companies using traditional methods.

Main Findings - The results showed that there was undercoating in setting service rates for the type of Ocean Freight 20 feet dry and Ocean Freight 20 feet refer by 35.56% and 9.45% during the June-December 2021 period. The findings of this study related to the implementation of less-based costing activities effectively increasing the profitability of the company at PT. Anugrah Ocean Wakatamba. Based costing can identify the costs incurred to determine the company's service costs PT. Anugrah Ocean Wakatamba.

Theory and Practical Implications - Based on the theory, activity-based costing method can increase profitability, but the research results show that activity-based costing can detect losses. This is due to activity-based costing which recognizes any costs incurred for cost drivers, in traditional calculations it may not be counted.

Novelty - The use of Activity Based Costing increases profitability at PT. Anugrah Ocean Wakatamba does not have a significant effect, for further research using alternative methods, such as Economic Value Added (EVA) and Market Value Added (MVA).

Keywords: Profit; Method; Price; Service; Calculation.

INTRODUCTION

Along with the times, companies are also required to maintain and improve their competitiveness among other similar industries by managing their resources, potential effectively, and efficiently (Perkhofer et al, 2019). This is called the achievement of a competitive advantage that aims to increase profitability (Shakri et al, 2020). The company's ability to manage costs through appropriate allocation and classification can affect the determination of the cost of its products or services (Rosca et al, 2017). Management can cut and control production costs without reducing the quality and quantity of production, which can increase the competitiveness of the company's products or services (Samuel et al, 2017). The proliferation of companies providing freight forwarding services makes companies need to highlight their strengths to gain client loyalty (Nugraha, 2021). Client loyalty is explained through the customer value triad theory, namely three combinations of variables that make up customer value for a product or service, where the perception of this value is directly proportional to quality and service, but inversely proportional to price (Sirisala & Rama, 2021).

Activity-based costing is one method that is claimed to be able to accurately allocate activity costs to produce a more effective cost of goods and enable the determination of prices that can compete among competitors (Lu et al, 2017). The facts on the ground show that the price greatly influences the client's consideration in choosing the company to use his services, especially in this case the freight forwarding company (Archetti & Peirano, 2020). For example, if there are several choices of freight forwarding companies with almost the same service options, regardless of the client's loyalty to a particular company, the client will usually tend to choose the company with the lowest tariff rate (Ronen, 2017).

PT. Anugrah Ocean Wakatamba uses traditional methods determined by leadership policies based on previous prices and

relationships with clients without considering all the basic costs incurred (Myint et al, 2019). This results in the possibility of setting the price too high or too low. This research was conducted to examine the elements that makeup service costs at freight forwarding companies at PT. Anugrah Ocean Wakatamba uses activity-based costing methods and their use to increase company profitability (Priyatmo & Akbar, 2019). The ABC (Activity Based Costing System) system makes activity the center point of its activities (Wahidi et al, 2021). Because activities can be found in manufacturing, service, and trade firms, as well as public sector organizations and non-profit organizations, the ABC system can be applied equally well to all types of organizations (Farah et al, 2020). Here it will be explained whether the ABC (Activity Based Costing System) system can be applied to service companies, and what things need to be understood or considered in implementing an Activity Based Costing System in service companies (French et al, 2016)). With this ABC system, for the first-time service companies can take advantage of a cost information system that is very useful for reducing costs and determining service costs accurately (Ahmad et al, 2017).

The ABC system does not only focus on calculating the cost of goods/services but includes a broader perspective, namely cost reduction through activity classification (Mardjuni et al, 2022). service companies when it is in their interest to reduce costs in classifying activities. So, companies need a cost information system that can provide a lot of information about various company activities (Alsayegh, 2020). But the most basic difference between service companies and manufacturing companies is the definition of output (Ippoliti & Tria, 2020). For manufacturing companies, the output is easy to define (the real product produced) or can be calculated, but for service companies, defining output is more difficult. Output for a service company is less tangible (less quantifiable). Output must be defined so that it can be priced (Wahyulistyo & Cahyonowati, 2022).

Research on Activity Based Costing in determining the cost of goods is mostly done in manufacturing and service companies (AlDhubaibi, 2021). So far, many references refer to its application to hotel service sector companies to determine room rates and manufacturing companies to determine the cost of production. There is almost no or even no research that refers to its application to freight forwarding companies. This research is development research that is expected to be used as a reference or reference for further research in the field of accounting.

METHOD

Research Design

This study uses a descriptive qualitative research method with an interpretive paradigm with a case study approach, where data collection is carried out through detailed behavioral meanings with direct observation by researchers with objects in the field to analyze an event, phenomenon, or situation for theory development (Maddatuang et al, 2021). The research was carried out by collecting data through direct interviews, observation, and documentation studies by taking the research location at the head office of PT. Anugrah Ocean Wakatamba, considering the existence of all the data and data sources needed at the location (Karim et al, 2021). The data analysis

technique uses the descriptive qualitative analysis method which compares the system for calculating the cost of company services that has been applied so far with the use of an activity-based costing system (Rabiyah et al, 2021). Qualitative analysis helps to understand the chronological flow of events assesses causality within the scope of the minds of the parties concerned and obtain a complete and useful explanation, and helps researchers to move forward from presumptions and initial frameworks that allow the formation of new theoretical frameworks. This analytical method emphasizes collecting data in situations that are useful for finding, understanding, explaining, and obtaining an overview of how the implementation of activity-based costing influences determining the cost of services (Chandrarin, 2017).

Data Collection

Researchers conducted interviews with several employees of PT. Anugrah Ocean Wakatamba to obtain data regarding the general description of the company, recording of financing, methods of determining the cost of services previously, as well as other information that is related to this research. The people interviewed included:

Table 1. List of Interview Objects

No	Name	Position
1	Position	Commissioner
2	Listina	Commissioner
3	Suhermansyah	Field Staff

Source: PT. Anugrah Ocean Wakatamba, 2022.

Researchers examined company documents and archives to obtain written data regarding details of costs, company revenue data, and other information that might be related to this research. Researchers collect, study, analyze various journals, articles, other supporting, and supporting literature. Data Analysis This study uses a descriptive qualitative analysis method that compares the company's service cost

calculation method applied so far with the use of an Activity Based Costing System (Keel et al, 2017). Qualitative analysis assists in following and understanding the chronological flow of events, assessing causation in the minds of local people, and obtaining great and helpful explanations. Qualitative analysis also helps the researcher to move beyond preconceived notions and frameworks so that it

is possible to form new theoretical frameworks. This analysis method emphasizes data collection in situations that are useful for finding, understanding, explaining, and obtaining an overview of how the implementation of activity-based costing influences the determination of the cost of services. The steps are as follows:

1. Identify all activities related to company services.

2. Classify the costs arising from each of these activities and classify them into various levels of activity.
3. Identify cost drivers.
4. Determine the rate per unit cost driver.

RESULTS AND DISCUSSION

Result

Table 2. Number of Shipments for the Period June-December 2021

Month	Service type			Amount
	Of 20 feet dry	Of 20 feet reefer	Airplane	
June	0	0	2	2
July	1	0	0	1
August	0	0	3	3
September	0	0	0	0
October	1	2	4	7
November	0	1	1	2
December	1	1	10	12
Total	3	4	20	27

Source: Author Findings, 2021.

Table 3. Cost Components Based on Cost (Cost Driver)

Activity group	Cost group	Cost
I	Document activity	PEB, NPE
		Phytosanitary
		HC
		SPM
		COO
		B/L
		AWB
		Other fees
II	Activity EMKL	Trucking
		Job lift on
		Job lifts off
		Job login
		Job charge
		JPT expedition
		Other fees
III	Container activity	Low sulfur fuel surcharge
		Incremental terminal
		handling & surcharges
		Other fees

IV	Miscellaneous activities	Labor PPJK Telex release Fumigation Another special request
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Source: Author Findings, 2021

For each type of service, the activity cost components used vary depending on regulations and the type of goods to be shipped. Shipping by sea for the type of reefer container that involves the costliest components, while the type of service that involves the least cost components is air shipping.

1. Charge for each activity

a. Document activity

This document activity cost incurs PEB & NPE, HC, SPM, COO, B/L, and AWB costs.

Table 4. Rates per Unit Cost Driver Document Activities

Costs	Of 20 feet dry (IDR)	Of 20 feet reefer (IDR)	Airplane (IDR)
PEB, NPE	0	330,000	300,000
HC	250,000/commodity	250,000/commodity	250.000/commodity
SPM	2,500/commodity	2,500/commodity	0
COO	200,000	200,000	200
B/L	300,000	300,000	0
AWB	0	0	300,000

Source: Author Findings, 2021

The table above is a table for calculating rates per unit cost driver until December 2021 which has been grouped based on activities and costs

incurred by dividing the average cost by type of service.

Table 5. Document Fee Assignment

Service type	Total of shipments	Unit cost driver rates (IDR)	Total document fee (IDR)
PEB, NPE			
Of 20 feet dry	3	0	0
Of 20 feet reefer	4	330	1,320,000
Airplane	20	300	6,000,000
HC			
Of 20 feet dry	3	250	750
Of 20 feet reefer	4	250	1,000,000
Airplane	20	250	5,000,000
SPM			
Of 20 feet dry	3	2.5	7.5
Of 20 feet reefer	4	2.5	10
Airplane	20	0	0
COO			

Of 20 feet dry	3	200	600
Of 20 feet refeer	4	200	800
Airplane	20	200	4,000,000
B/L			
Of 20 feet dry	3	300	900
Of 20 feet refeer	4	300	1,200,000
Airplane	20	0	0
AWB			
Of 20 feet dry	3	0	0
Of 20 feet refeer	4	0	0
Airplane	20	300	6,000,000

Source: Author Findings, 2021

The table above shows the total document activity until December 2021, which is obtained from number of shipments multiplied tariff of unit cost driver.

b. EMKL activities

This EMKL activity is related to transportation and handling of container collection, transportation to and from the stuffing location, to entering the CY which is a place for container stacking before being put on a ship.

Tabel. 6 Rates per Unit Cost Driver for EMKL Activities

Costs	Of 20 feet dry (IDR)	Of 20 feet refeer (IDR)	Airplane (IDR)
Trucking	2,000,000	2,000,000	0
Job lifts on	0	99,000	0
Job lifts off	0	591,000	0
Job login	120,000	591,000	0
Job charge	0	250,000	0
JPT expedition	500,000	500,000	0

Source: Author Findings, 2021

Tabel. 7 Assignment of EMKL Costs

Service type	Total of shipments	Unit cost driver rates (IDR)	Total document fee (IDR)
Trucking			
Of 20 feet dry	3	2,000,000	6,000,000
Of 20 feet refeer	4	2,000,000	8,000,000
Airplane	20	0	0
Job lift on			
Of 20 feet dry	3	0	0
Of 20 feet refeer	4	99	396
Airplane	20	0	0
Job lift off			
Of 20 feet dry	3	0	0
Of 20 feet refeer	4	591	2,364,000

Airplane	20	0	0
Job login			
Of 20 feet dry	3	120	360
Of 20 feet refeer	4	591	2,364,000
Airplane	20	0	0
Job charge			
Of 20 feet dry	3	0	0
Of 20 feet refeer	4	250	1,000,000
Airplane	20	0	0
JPT expedition			
Of 20 feet dry	3	500	1,500,000
Of 20 feet refeer	4	500	2,000,000
Airplane	20	0	0

Source: Author Findings, 2021

The table above shows the total EMKL activity until December 2021, which is obtained from the number of shipments multiplied by the unit cost driver rate.

c. Container activity

Container activities are activities related to container maintenance from preparation before booking to completeness so that it can be unloaded at the destination port.

Tabel. 8 Tariffs per Unit Cost Driver for Container Activities

Costs	Of 20 feet dry (IDR)	Of 20 feet refeer (IDR)	Airplane (IDR)
Low sulphur fuel	1,305,000	1,984,500	0
Surcharge			
Incremental terminal	217.5	3,013,500	0
Handling & surcharges			

Source: Author Findings, 2021

Tabel. 9 Container Fee Assignment

Service type	Total of shipments	Unit cost driver rates (IDR)	Total document fee (IDR)
Low sulphur fuel surcharge			
Of 20 feet dry	3	1,305,000	3,915,000
Of 20 feet refeer	4	1,984,500	7,938,000
Airplane	20	0	0
Incremental terminal handling & surcharges			
Of 20 feet dry	3	217.5	652.5
Of 20 feet refeer	4	3,013,500	12,054,000
Airplane	20	0	0

Source: Author Findings, 2021

The table above shows the total container activity until December 2021, which is

obtained from the number of shipments multiplied by the unit cost driver rate.

d. Other activities

Other activities are activities that are not included in the previous 3 types of activities but are still needed in the operation of each service (Shen et al, 2019). There are fees that

almost always exist in every service, and there are fees that only appear at certain times, for example, due to special requests from clients.

Tabel. 10 Rates per Unit Cost Driver for Other Activities

Costs	Of 20 feet dry (IDR)	Of 20 feet refer (IDR)	Airplane (IDR)
Labour	2,500,000	2,500,000	0
PPJK	0	330	0
Telex release	500	500	0

Source: Author Findings, 2021

Tabel. 11 Assignment of Other Costs

Service type	Total of shipments	Unit cost driver rates (IDR)	Total document fee (IDR)
Labour			
Of 20 feet dry	3	2,500,000	7,500,000
Of 20 feet refer	4	2,500,000	10,000,000
Airplane	20	0	0
PPJK			
Of 20 feet dry	3	0	0
Of 20 feet refer	4	330	1,320,000
Airplane	20	0	0
Telex Release			
Of 20 feet dry	3	500	1,500,000
Of 20 feet refer	4	500	2,000,000
Airplane	20	0	0

Source: Author Findings, 2021

The table above shows the total other activities until December 2021, which is obtained from the number of shipments multiplied by the unit cost driver rate.

2. Determining service rates

Service rates are determined by calculating the cost pool per each type of service provided by

PT. Anugrah Ocean Wakatamba, by multiplying the amount of each cost pool with the cost driver and then dividing the result by the number of shipments made from June 2021 to December 2021.

Table 12. Tariff of 20 Feet dry activity based costing method June – December 2021

Cost pool I	HC	IDR 750,000
	SPM	IDR 7,500
	COO	IDR 600,000
	B/L	IDR 900,000
	Total	IDR 2,257,500
Cost pool II	Trucking	IDR 6,000,000
	Job lift-on	0
	Job lift-off	0
	Job login	360
	JPT expedition	IDR 1,500,000

	Total	IDR 7,860,000
Cost Pool III	Low sulphur fuel surcharge	IDR 3,915,000
	Incremental terminal handling & surcharges	IDR 652,500
	Total	IDR 4,567,500
Cost Pool IV	Labour	IDR 7,500,000
	Telex release	IDR 1,500,000
	Total	IDR 9,000,000

Source: Author Findings, 2021

Service fee = Total of activities /total of shipments
= IDR 23,685,000 /3
= IDR 7,895,000

Tabel 13. Tariff of 20 Feet Reefer Activity Based Costing Method June - December 2021

Cost pool I	PEB, NPE	IDR 1.320.000
	HC	IDR 1.000.000
	SPM	IDR 10.000
	COO	IDR 800.000
	B/L	IDR 1.200.000
	Total	IDR 4.330.000
Cost pool II	Trucking	IDR 8.000.000
	Job lift on	IDR 396.000
	Job lifts off	IDR 2.364.000
	Job entry	IDR 2.364.000
	Job charges	IDR 1.000.000
	JPT expedition	IDR 2.500.000
	Total	IDR 16.624.000
Cost pool III	Low sulphur fuel surcharge	IDR 7.938.000
	Incremental terminal handling & surcharges	IDR 12.054.000
	*Total	IDR 19.992.000
Cost pool IV	Labour	IDR 10.000.000
	PPJK	IDR 1.320.000
	Telex release	IDR 2.000.000
	Total	IDR 13.320.000

Source: Author Findings, 2021

Service fee = Total of activities/total of shipments
= IDR 54.266.000 / 4
= IDR 13.566.500

Tabel 14. Airplane Tariffs for Activity Based Costing June - December 2021

Cost pool I	PEB, NPE	IDR 6.000.000
	HC	IDR 5.000.000
	COO	IDR 4.000.000
	AWB	IDR 6.000.000
	Total	IDR 21.000.000

Source: Author Findings, 2021

Service fee = Total of activities/total of shipments
 = IDR 21.000.000 / 20
 = IDR 1.050.000

Especially for Airplane shipments, the only data that can be calculated is document loading per shipment, because the flight rate changes every month and is never fixed for the same or different destinations.

3. Knowing the fare difference

To find out the big difference between the traditional method and the activity-based costing method, a comparison table of rates in percentage and IDR is made.

Tabel 15. Differences in Room Rental Rates for Traditional and ABC Methods

Service type	Traditional method (IDR)	Activity based costing (IDR)	Difference (%)	Description
Of 20 feet dry	20,320,000	27,545,000	35.56	More expensive
Of 20 feet refer	35,320,000	38,656,500	9.45	More expensive
Airplane	Not known	1,050,000	Not known	Not known

The table above is a table of the difference in service rates between the traditional method and the activity-based costing method of shipments that occur between June-December 2021. For the types of services, of 20 feet dry and of 20 feet refer, both show that the difference in calculations is 35,56% and 9.45% more expensive for the activity-based costing method than the traditional method. Meanwhile, the type of Airplane service is not

known because the delivery rate always changes every month for both the same and different destinations, it also changes per the total number of goods sent so it is very difficult to trace. What can be known is that document cost activities tend to be fixed, which is IDR 1,050,000 per shipment (except for dry sea cucumbers).

Discussion

1. Cost of Ocean Freight Service 20 Feet Dry

For services using ocean freight 20 feet dry, the elements that make up the cost of service are as follows:

- PEB, NPE i. Ocean freight
- Phytosanitary (for agricultural commodities)
- HC and SPM (for fishery commodities)
- COO
- B/L m. Labour f. Trucking
- Job entry o. Fumigation (for agricultural commodities)
- JPT expedition
- Seal
- Low sulphur fuel surcharge
- Incremental terminal handling & surcharges
- Telex release (if the client requests)

2. Cost of Ocean Freight Service 40 Feet Dry

The last time PT. Anugrah Ocean Wakatamba serves requests for the use of ocean freight 40 feet dry in 2020 (Adland et al, 2018). The

elements that make up the cost of service are not much different from the elements that make up the cost of service for the previous 20 feet of dry ocean freight. For services using ocean

freight 40 feet dry, the elements that make up the cost of service are as follows:

- a. PEB, NPE
- b. Phytosanitary (for agricultural commodities)
- c. HC and SPM (for fishery commodities))
- d. COO
- e. B/L
- f. Trucking

3. Cost of Ocean Freight Service 20 Feet Dry

For services using ocean freight 20 feet reefer, the elements that make up the cost of service are as follows:

- a. PEB, NPE
- b. HC and SPM (for fishery commodities)
- a. e. Trucking
- b. g. Job lift off
- c. h. Job entry

4. Cost of Service Ocean Freight 40 Feet Reefer

PT. Anugrah Ocean Wakatamba has never served a request for the use of ocean freight 40 feet referer, but the elements that make up the cost of service are not much different from the elements that make up the cost of service for the previous ocean freight 20 feet referrer. For services using ocean freight 40 feet referrer, the elements that make up the cost of service are as follows:

- a. PEB, NPE
- b. HC and SPM (for fishery commodities)
- c. COO

5. Airplane Service

Cost As far as has happened at PT. Anugrah Ocean Wakatamba, services using Airplane have only ever been used for shipping fishery products. For services using airplane, the elements that make up the cost of service are as follows:

- g. Job entry
- h. JPT expedition
- i. Ocean freight
- j. Seal
- k. Low sulphur fuel surcharge
- l. Incremental terminal handling & surcharges
- m. Labour
- n. Telex release (if the client requests)
- o. Fumigation (for agricultural commodities)

- d. JPT expedition
- e. j. Ocean freight c. COO k. Seal d. B/L
- l. Low sulphur fuel surcharge
- m. Incremental terminal handling & surcharges f. Job lift on
- n. Labour
- o. PPJK
- p. Telex release (if the client requests)

- d. B/L
- e. Trucking
- f. Job lift on
- g. Job lift off
- h. JPT expedition
- i. Ocean freight
- j. Seal
- k. Low sulphur fuel surcharge
- l. Incremental terminal handling & surcharges
- m. Labour
- n. PPJK
- o. Job Job entry
- p. Telex release (if the client requests)

- a. PEB, NPE
- b. HC (for fishery commodities)
- c. COO
- d. AWB
- e. PPJK

Other elements make up the cost of service for services using an airplane, namely the rate of air freight itself (Quesado & Silva, 2021). However, the rate cannot be traced as the rate for ocean freight because the rate can only be determined if the destination, quantity, and type of commodity to be sent have been determined (there is no special standard). Therefore, the only cost driver that can be traced from this type of service is the document fee. Prive that happened at PT. Anugrah Ocean Wakatamba is included in the third type of private listing. This price is included in the provision of salaries for directors, it's just because the time, nominal, and amount of the withdrawal are uncertain, so it is more appropriate to be categorized as price. Even so, this price is not included in matters that affect the cost of services at PT. Anugrah Ocean Wakatamba, however, can still affect the company's profitability, so it is considered as a discrepancy between the theory of entity concept management and practice in the field. This phenomenon was appointed to be input for PT. Anugrah Ocean Wakatamba to review the payroll system for directors. Based on the theory, the Activity Based Costing method is considered to be able to increase profitability, but the results of the study show that calculations using Activity Based Costing detect losses. This is caused by Activity Based Costing which traces every cost incurred to the cost driver, which in traditional calculations is possible not to count. In practice at PT. Anugrah Ocean Wakatamba, the directors

CONCLUSION

Based on the research results, tracking using the Activity Based Costing method from shipments that occurred between June to December 2021 detected a difference in calculations of 35.56% and 9.45% respectively, which was more expensive for the Activity Based Costing method than the traditional method for Ocean service types. Freight 20 feet dry and Ocean Freight 20 feet referrer. The loss for this type of service using Ocean Freight is due to unexpected extraordinary expenses by the company when determining service rates for its clients.

determine the rate of service to be provided to clients based on an estimate of the total price that may be issued. Because the determination of this rate is determined in advance, if there is an increase in the price of one of the unit costs so that the cost of goods issued by the company is getting bigger, the company can't change the price that has been submitted to the client (Gilbert et al, 2019). The problem that has the most significant impact on this phenomenon is the limitation of container quotas for the Makassar City area since the pandemic took place, while the demand for these containers has never decreased it has tended to increase. The high demand amidst the limited fleet has forced the shipping line to increase Ocean Freight rates, even up to 2-4 times the initial rate. This is something that is sometimes not traced because the notification of this rate increase was not announced publicly. In essence, the issue of Ocean Freight rates is not information that is given haphazardly to all parties. Rates are usually asked branch managers or other tier positions by the directors or managers of a company, and the time to provide this rate information sometimes takes a long time, while from the client side, it is urgent, so sometimes the directors or managers will give a long rate to clients. This makes the anticipation of an increase in the Ocean Freight rate nonexistent and increases the risk of loss. Meanwhile, for the type of Airplane service, it is stated that the service fee is not known.

Meanwhile, for the type of service using Airplanes, the tariff calculation is not known because only Document Cost activities which tend to be fixed can be traced in value. So, it can be concluded that Activity Based Costing as a method of determining the cost of services is theoretically able to increase profitability, but what happened at PT. Anugrah Ocean Wakatamba based on the discussion above; the Activity Based Costing method is considered incapable of contributing to increased profitability. This is because according to the results of the study, the calculation of cost drivers using the Activity Based Costing method only detects the difference in rates that

lead to losses. It is also possible to periodically check Ocean Freight rates by directors or managers of shipping line companies to anticipate if there is an urgent request from a client asking for service rates as soon as possible. In addition, using Activity Based Costing increases profitability in freight forwarding companies, or this case PT. Anugrah Ocean Wakatamba did not have a significant effect, so for future researchers who wish to continue related research, it is advisable to try using alternative methods, such as Economic Value Added (EVA) and Market Value Added (MVA).

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Activity-Based Costing Method as an Effort to Increase Profitability of PT. Anugrah Ocean Wakatamba

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Abstrak

Tujuan Utama - Penelitian ini bertujuan untuk mengkaji penerapan Activity Based Costing sebagai upaya untuk meningkatkan profitabilitas perusahaan.

Metode - Penelitian ini menggunakan metode deskriptif kualitatif dengan paradigma interpretif, pendekatan studi kasus, menggunakan data primer yang diperoleh melalui wawancara, studi dokumentasi, dan observasi pada PT. Anugrah Ocean Wakatamba. Unsur-unsur yang membentuk harga pokok dan biaya jasa menggunakan metode Activity Based Costing kemudian membandingkannya dengan tarif jasa yang digunakan oleh perusahaan yang menggunakan metode tradisional.

Temuan Utama - Hasil penelitian menunjukkan bahwa terdapat undercoating dalam penetapan tarif pelayanan untuk jenis Ocean Freight 20 feet kering dan Ocean Freight 20 feet refer sebesar 35,56% dan 9,45% selama periode Juni-Desember 2021. Hasil temuan penelitian ini terkait pelaksanaan kegiatan based costing kurang efektif meningkatkan profitabilitas perusahaan pada PT. Anugrah Ocean Wakatamba. Based costing dapat mengidentifikasi biaya yang dikeluarkan untuk menentukan biaya layanan perusahaan PT. Anugrah Ocean Wakatamba.

Implikasi Teori dan Kebijakan - Berdasarkan teori, metode perhitungan biaya berdasarkan aktivitas dapat meningkatkan profitabilitas, namun hasil penelitian menunjukkan bahwa perhitungan biaya berdasarkan aktivitas dapat mendeteksi kerugian. Hal ini disebabkan penetapan biaya berbasis aktivitas yang mengakui setiap biaya yang dikeluarkan untuk pemicu biaya, dalam perhitungan tradisional mungkin tidak dihitung.

Kebaruan Penelitian - Penggunaan Activity Based Costing semakin meningkat profitabilitas pada PT. Anugrah Ocean Wakatamba tidak terlalu berpengaruh signifikan, untuk penelitian selanjutnya menggunakan metode alternatif. seperti Economic Value Added (EVA) dan Market Value Added (MVA).

Kata Kunci: Keuntungan; Metode; Harga; Pelayanan; Perhitungan.

Abstract

1

Main Purpose - This study aims to examine the application of activity-based costing as an effort to increase company profitability.

Method - This study uses a qualitative descriptive method with an interpretive paradigm, and a case study approach, using primary data obtained through interviews, documentation studies, and observations at PT. Ocean Wakatamba Award. The elements that make up the cost of goods and service costs use the Activity Based Costing method and then compare with the service rates used by companies using traditional methods.

Main Findings - The results showed that there was undercoating in setting service rates for the type of Ocean Freight 20 feet dry and Ocean Freight 20 feet refer by 35.56% and 9.45% during the June-December 2021 period. The findings of this study related to the implementation of less-based costing activities effectively increasing the profitability of the company at PT. Anugrah Ocean Wakatamba. Based costing can identify the costs incurred to determine the company's service costs PT. Anugrah Ocean Wakatamba.

Theory and Practical Implications - Based on the theory, activity-based costing method can increase profitability, but the research results show that activity-based costing can detect losses. This is due to activity-based costing which recognizes any costs incurred for cost drivers, in traditional calculations it may not be counted.

Novelty - The use of Activity Based Costing increases profitability at PT. Anugrah Ocean Wakatamba does not have a significant effect, for further research using alternative methods, such as Economic Value Added (EVA) and Market Value Added (MVA).

Keywords: Profit; Method; Price; Service; Calculation.

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INTRODUCTION

Along with the times, companies are also required to maintain and improve their competitiveness among other similar industries by managing their resources, potential effectively, and efficiently (Perkhofer et al, 2019). This is called the achievement of a competitive advantage that aims to increase profitability (Shakri et al, 2020). The company's ability to manage costs through appropriate allocation and classification can affect the determination of the cost of its products or services (Rosca et al, 2017). Management can cut and control production costs without reducing the quality and quantity of production, which can increase the competitiveness of the company's products or services (Samuel et al, 2017). The proliferation of companies providing freight forwarding services makes companies need to highlight their strengths to gain client loyalty (Nugraha, 2021). Client loyalty is explained through the customer value triad theory, namely three combinations of variables that make up customer value for a product or service, where the perception of this value is directly proportional to quality and service, but inversely proportional to price (Sirisala & Rama, 2021).

Activity-based costing is one method that is claimed to be able to accurately allocate activity costs to produce a more effective cost of goods and enable the determination of prices that can compete among competitors (Lu et al, 2017). The facts on the ground show that the price greatly influences the client's consideration in choosing the company to use his services, especially in this case the freight forwarding company (Archetti & Peirano, 2020). For example, if there are several choices of freight forwarding companies with almost the same service options, regardless of the client's loyalty to a particular company,

the client will usually tend to choose the company with the lowest tariff rate (Ronen, 2017).

PT. Anugrah Ocean Wakatamba uses traditional methods determined by leadership policies based on previous prices and relationships with clients without considering all the basic costs incurred (Myint et al, 2019). This results in the possibility of setting the price too high or too low. This research was conducted to examine the elements that makeup service costs at freight forwarding companies at PT. Anugrah Ocean Wakatamba uses activity-based costing methods and their use to increase company profitability (Priyatmo & Akbar, 2019). The ABC (Activity Based Costing System) system makes activity the center point of its activities (Wahidi et al, 2021). Because activities can be found in manufacturing, service, and trade firms, as well as public sector organizations and non-profit organizations, the ABC system can be applied equally well to all types of organizations (Farah et al, 2020). Here it will be explained whether the ABC (Activity Based Costing System) system can be applied to service companies, and what things need to be understood or considered in implementing an Activity Based Costing System in service companies (French et al, 2016)). With this ABC system, for the first-time service companies can take advantage of a cost information system that is very useful for reducing costs and determining service costs accurately (Ahmad et al, 2017).

The ABC system does not only focus on calculating the cost of goods/services but includes a broader perspective, namely cost reduction through activity classification (Mardjuni et al, 2022). service companies when it is in their interest to reduce costs in classifying activities. So, companies need a cost information system that can provide a lot

of information about various company activities (Alsayegh, 2020). But the most basic difference between service companies and manufacturing companies is the definition of output (Ippoliti & Tria, 2020). For manufacturing companies, the output is easy to define (the real product produced) or can be calculated, but for service companies, defining output is more difficult. Output for a service company is less tangible (less quantifiable). Output must be defined so that it can be priced (Wahyulistyo & Cahyonowati, 2022).

Research on Activity Based Costing in determining the cost of goods is mostly done in manufacturing and service companies (Al-Dhubaibi, 2021). So far, many references refer to its application to hotel service sector companies to determine room rates and manufacturing companies to determine the cost of production. There is almost no or even no research that refers to its application to freight forwarding companies. This research is development research that is expected to be used as a reference or reference for further research in the field of accounting.

METHOD

Research Design

This study uses a descriptive qualitative research method with an interpretive paradigm with a case study approach, where data collection is carried out through detailed behavioral meanings with direct observation by researchers with objects in the field to analyze an event, phenomenon, or situation for theory development (Maddatuang et al,

2021). The research was carried out by collecting data through direct interviews, observation, and documentation studies by taking the research location at the head office of PT. Anugrah Ocean Wakatamba, considering the existence of all the data and data sources needed at the location (Karim et al, 2021). The data analysis technique uses the descriptive qualitative analysis method which compares the system for calculating the cost of company services that has been applied so far with the use of an activity-based costing system (Rabiyah et al, 2021). Qualitative analysis helps to understand the chronological flow of events assesses causality within the scope of the minds of the parties concerned and obtain a complete and useful explanation, and helps researchers to move forward from presumptions and initial frameworks that allow the formation of new theoretical frameworks. This analytical method emphasizes collecting data in situations that are useful for finding, understanding, explaining, and obtaining an overview of how the implementation of activity-based costing influences determining the cost of services (Chandrarin, 2017).

Data Collection

Researchers conducted interviews with several employees of PT. Anugrah Ocean Wakatamba to obtain data regarding the general description of the company, recording of financing, methods of determining the cost of services previously, as well as other information that is related to this research. The people interviewed included:

Table 1. List of Interview Objects

No.	Name	Position
1	Adnan Huludin	Commissioner
2	Listina	Finance Director/Manager
3	Suhermansyah	Field Staff

Source: PT. Anugrah Ocean Wakatamba, 2022.

Researchers examined company documents and archives to obtain written data regarding details of costs, company revenue data, and

other information that might be related to this research. Researchers collect, study, analyze

various journals, articles, other supporting, and supporting literature.

Data Analysis

This study uses a descriptive qualitative analysis method that compares the company's service cost calculation method applied so far with the use of an Activity Based Costing System (Keel et al, 2017). Qualitative analysis assists in following and understanding the chronological flow of events, assessing causation in the minds of local people, and obtaining great and helpful explanations. Qualitative analysis also helps the researcher to move beyond preconceived notions and

frameworks so that it is possible to form new theoretical frameworks. This analysis method emphasizes data collection in situations that are useful for finding, understanding, explaining, and obtaining an overview of how the implementation of activity-based costing influences the determination of the cost of services. The steps are as follows:

1. Identify all activities related to company services.
2. Classify the costs arising from each of these activities and classify them into various levels of activity.
3. Identify cost drivers.
4. Determine the rate per unit cost driver.

RESULTS AND DISCUSSION

Result

Table 2. Number of Shipments for the Period June-December 2021

Month	Service type			Amount
	of 20 feet dry	of 20 feet referer	Airplane	
June	0	0	2	2
July	1	0	0	1
August	0	0	3	3
September	0	0	0	0
October	1	2	4	7
November	0	1	1	2
December	1	1	10	12
Total	3	4	20	27

Source: Author Findings, 2021.

Table 3. Cost Components Based on Cost (Cost Driver)

Activity group	Cost group	Cost
I	Document activity	PEB, NPE Phytosanitary HC SPM COO B/L AWB Other fees
II	Activity EMKL	Trucking Job lift on Job lifts off Job login Job charge JPT expedition

		Other fees
III	Container activity	Low sulfur fuel surcharge Incremental terminal handling & surcharges Other fees
IV	Miscellaneous activities	Labor PPJK Telex release Fumigation Another special request

Source: Author Findings, 2021.

For each type of service, the activity cost components used vary depending on regulations and the type of goods to be shipped. Shipping by sea for the type of reefer

container that involves the costliest components, while the type of service that involves the least cost components is air shipping.

1. Charge for each activity

a. Document activity

This document activity cost incurs PEB & NPE, HC, SPM, COO, B/L, and AWB costs.

Table 4. Rates per Unit Cost Driver Document Activities

Costs	Of 20 feet dry (IDR)	Of 20 feet reefer (IDR)	Airplane (IDR)
PEB, NPE	0	330,000	300,000
HC	250,000/commodity	250,000/commodity	250,000/commodity
SPM	2,500/commodity	2,500/commodity	0
COO	200,000	200,000	200,000
B/L	300,000	300,000	0
AWB	0	0	300,000

Source: Author Findings, 2021.

The table above is a table for calculating rates per unit cost driver until December 2021 which has been grouped based on activities

and costs incurred by dividing the average cost by type of service.

Table 5. Document Fee Assignment

Service type	Total of shipments	Unit cost driver rates (IDR)	Total document fee (IDR)
PEB, NPE			
Of 20 feet dry	3	0	0
Of 20 feet reefer	4	330,000	1,320,000
Airplane	20	300,000	6,000,000
HC			
Of 20 feet dry	3	250,000	750,000
Of 20 feet reefer	4	250,000	1,000,000
Airplane	20	250,000	5,000,000
SPM			
Of 20 feet dry	3	2,500	7,500

Of 20 feet refee	4	2,500	10,000
Airplane	20	0	0
COO			
Of 20 feet dry	3	200,000	600,000
Of 20 feet refee	4	200,000	800,000
Airplane	20	200,000	4,000,000
B/L			
Of 20 feet dry	3	300,000	900,000
Of 20 feet refee	4	300,000	1,200,000
Airplane	20	0	0
AWB			
Of 20 feet dry	3	0	0
Of 20 feet refee	4	0	0
Airplane	4 20	300,000	6,000,000

Source: Author Findings, 2021.

The table above shows the total document activity until December 2021, which is obtained from number of shipments multiplied tariff of unit cost driver.

b. EMKL activities

This EMKL activity is related to transportation and handling of container collection, transportation to and from the stuffing location, to entering the CY which is a place for container stacking before being put on a ship.

Table 6. Rates per Unit Cost Driver for EMKL Activities

Costs	Of 20 feet dry (IDR)	Of 20 feet refee (IDR)	Airplane (IDR)
Trucking	2.000.000	2.000.000	0
Job lifts on	0	99.000	0
Job lifts off	0	591.000	0
Job login	120.000	591.000	0
Job charge	0	250.000	0
JPT expedition	500.000	500.000	0

Source: Author Findings, 2021.

Table 7. Assignment of EMKL Costs

Service type	Total of shipments	Unit cost driver rates (IDR)	Total document fee (IDR)
Trucking			
Of 20 feet dry	3	2,000,000	6,000,000
Of 20 feet refee	4	2,000,000	8,000,000
Airplane	20	0	0
Job lift on			
Of 20 feet dry	3	0	0
Of 20 feet refee	4	99,000	396,000
Airplane	20	0	0

Job lift off			
Of 20 feet dry	3	0	0
Of 20 feet referee	4	591,000	2,364,000
Airplane	20	0	0
Job login			
Of 20 feet dry	3	120,000	360,000
Of 20 feet referee	4	591,000	2,364,000
Airplane	20	0	0
Job charge			
Of 20 feet dry	3	0	0
Of 20 feet referee	4	250,000	1,000,000
Airplane	20	0	0
JPT expedition			
Of 20 feet dry	3	500,000	1,500,000
Of 20 feet referee	4	500,000	2,000,000
Airplane	40	0	0

Source: Author Findings, 2021.

The table above shows the total EMKL activity until December 2021, which is obtained from the number of shipments multiplied by the unit cost driver rate.

c. Container activity

Container activities are activities related to container maintenance from preparation before booking to completeness so that it can be unloaded at the destination port.

Table 8. Tariffs per Unit Cost Driver for Container Activities

Costs	Of 20 feet dry (IDR)	Of 20 feet referee (IDR)	Airplane (IDR)
Low sulphur fuel	1,305,000	1,984,500	0
surcharge			
Incremental terminal handling & surcharges	217,500	3,013,500	0

Source: Author Findings, 2021.

Table 9. Container Fee Assignment

Service type	Total of shipments	Unit cost driver rates (IDR)	Total document fee (IDR)
Low sulphur fuel surcharge			
Of 20 feet dry	3	1,305,000	3,915,000
Of 20 feet referee	4	1,984,500	7,938,000
Airplane	20	0	0
Incremental terminal handling & surcharges			
Of 20 feet dry	3	217,500	652,500
Of 20 feet referee	4	3,013,500	12,054,000
Airplane	40	0	0

Source: Author Findings, 2021.

The table above shows the total container activity until December 2021, which is obtained from the number of shipments multiplied by the unit cost driver rate.

d. Other activities

Other activities are activities that are not included in the previous 3 types of activities but are still needed in the operation of each service (Shen et al, 2019). There are fees that almost always exist in every service, and there are fees that only appear at certain times, for example, due to special requests from clients.

Table 10. Rates per Unit Cost Driver for Other Activities

Costs	Of 20 feet dry (IDR)	Of 20 feet reefer (IDR)	Airplane (IDR)
Labour	2,500,000	2,500,000	0
PPJK	0	330,000	0
Telex release	500,000	500,000	0

Source: Author Findings, 2021.

Table 11. Assignment of Other Costs

Service type	Total of shipments	Unit cost driver rates (IDR)	Total document fee (IDR)
Labour			
Of 20 feet dry	3	2,500,000	7,500,000
Of 20 feet reefer	4	2,500,000	10,000,000
Airplane	20	0	0
PPJK			
Of 20 feet dry	3	0	0
Of 20 feet reefer	4	330,000	1,320,000
Airplane	20	0	0
Telex Release			
Of 20 feet dry	3	500,000	1,500,000
Of 20 feet reefer	4	500,000	2,000,000
Airplane	40	0	0

Source: Author Findings, 2021.

The table above shows the total other activities until December 2021, which is obtained from the number of shipments multiplied by the unit cost driver rate.

2. Determining service rates

Service rates are determined by calculating the cost pool per each type of service provided by PT. Anugrah Ocean Wakatamba, by multiplying the amount of each cost pool with the cost driver and then dividing the result by the number of shipments made from June 2021 to December 2021.

Table 11. Tariff of 20 Feet dry activity based costing method June – December 2021

Cost pool I	HC	IDR 750,000
	SPM	IDR 7,500
	COO	IDR 600,000
	B/L	IDR 900,000
	Total	IDR 2,257,500
Cost pool II	Trucking	IDR 6,000,000

	Job lift-on	0
	Job lift-off	0
	Job login	360,000
	JPT expedition	IDR 1,500,000
	Total	7,860,000
Cost Pool III	Low sulphur fuel surcharge	IDR 3,915,000
	Incremental terminal handling & surcharges	IDR 652,500
	Total	IDR 4,567,500
Cost Pool IV	Labour	IDR 7,500,000
	Telex release	IDR 1,500,000
	Total	IDR 9,000,000

Source: Author Findings, 2021.

Service fee = Total of activities /total of shipments
= IDR 23,685,000 /3
= IDR 7,895,000

Table 12. Tariff of 20 Feet Reefer Activity Based Costing Method June - December 2021

Cost pool I	PEB, NPE	IDR 1.320.000
	HC	IDR 1.000.000
	SPM	IDR 10.000
	COO	IDR 800.000
	B/L	IDR 1.200.000
	Total	IDR 4.330.000
Cost pool II	Trucking	IDR 8.000.000
	Job lift on	IDR 396.000
	Job lifts off	IDR 2.364.000
	Job entry	IDR 2.364.000
	Job charges	IDR 1.000.000
	JPT expedition	IDR 2.500.000
	Total	IDR 16.624.000
Cost pool III	Low sulphur fuel surcharge	IDR 7.938.000
	Incremental terminal handling & surcharges	IDR 12.054.000
	Total	IDR 19.992.000
Cost pool IV	Labour	IDR 10.000.000
	PPJK	IDR 1.320.000
	Telex release	IDR 2.000.000
	Total	IDR 13.320.000

Service fee = Total of activities/total of shipments
= IDR 54.266.000 / 4
= IDR 13.566.500

Table 13. Airplane Tariffs for Activity Based Costing June - December 2021

Cost pool I	PEB, NPE	IDR 6.000.000
	HC	IDR 5.000.000
	COO	IDR 4.000.000
	AWB	IDR 6.000.000
	Total	IDR 21.000.000

Source: Author Findings, 2021.

Service fee = Total of activities/total of shipments
 = IDR 21.000.000 / 20
 = IDR 1.050.000

Especially for Airplane shipments, the only data that can be calculated is document loading per shipment, because the flight rate changes every month and is never fixed for the same or different destinations.

3. Knowing the fare difference

To find out the big difference between the traditional method and the activity-based costing method, a comparison table of rates in percentage and IDR is made.

Table 14. Differences in Room Rental Rates for Traditional and ABC Methods

Service type	Traditional method (IDR)	Activity based costing (IDR)	Difference (%)	Description
Of 20 feet dry	20,320,000	27,545,000	35.56	More expensive
Of 20 feet refer	35,320,000	38,656,500	9.45	More expensive
Airplane	Not known	1,050,000	Not known	Not known

The table above is a table of the difference in service rates between the traditional method and the activity-based costing method of shipments that occur between June-December 2021. For the types of services, of 20 feet dry and of 20 feet refer, both show that the difference in calculations is 35,56% and 9.45% more expensive for the activity-based costing method than the traditional method.

Meanwhile, the type of Airplane service is not known because the delivery rate always changes every month for both the same and different destinations, it also changes per the total number of goods sent so it is very difficult to trace. What can be known is that document cost activities tend to be fixed, which is IDR 1,050,000 per shipment (except for dry sea cucumbers).

1. Cost of Ocean Freight Service 20 Feet Dry

Discussion

For services using ocean freight 20 feet dry, the elements that make up the cost of service are as follows:

- | | |
|---|---|
| a. PEB, NPE | i. Ocean freight |
| b. Phytosanitary (for agricultural commodities) | j. Seal |
| c. HC and SPM (for fishery commodities) | k. Low sulphur fuel surcharge |
| d. COO | l. Incremental terminal handling & surcharges |
| e. B/L | m. Labour |
| f. Trucking | n. Telex release (if the client requests) |
| g. Job entry | o. Fumigation (for agricultural |

commodities)

h. JPT expedition

2. Cost of Ocean Freight Service 40 Feet Dry

The last time PT. Anugrah Ocean Wakatamba serves requests for the use of ocean freight 40 feet dry in 2020 (Adland et al, 2018). The elements that make up the cost of service are

- a. PEB, NPE
- b. Phytosanitary (for agricultural commodities)
- c. HC and SPM (for fishery commodities)
- d. COO
- e. B/L
- f. Trucking
- g. Job entry

h. JPT expedition

3. Cost of Ocean Freight Service 20 Feet Dry

For services using ocean freight 20 feet reefer, the elements that make up the cost of service are as follows:

- a. PEB, NPE
- b. HC dan SPM (for fishery commodities)
- c. COO
- d. B/L
- e. Trucking
- f. Job lift on
- g. Job lift off
- h. Job entry

4. Cost of Service Ocean Freight 40 Feet Reefer

PT. Anugrah Ocean Wakatamba has never served a request for the use of ocean freight 40 feet referer, but the elements that make up the cost of service are not much different from

- a. PEB, NPE
- b. HC and SPM (for fishery commodities)
- c. COO
- d. B/L
- e. Trucking
- f. Job lift on
- g. Job lift off

not much different from the elements that make up the cost of service for the previous 20 feet of dry ocean freight. For services using ocean freight 40 feet dry, the elements that make up the cost of service are as follows:

- i. Ocean freight
- j. Seal
- k. Low sulphur fuel surcharge
- l. Incremental terminal handling & surcharges
- m. Labour
- n. Telex release (if the client requests)
- o. Fumigation (for agricultural commodities)

- i. JPT expedition
- j. Ocean freight
- k. Seal
- l. Low sulphur fuel surcharge
- m. Incremental terminal handling & surcharges
- n. Labour
- o. PPJK
- p. Telex release (if the client requests)

the elements that make up the cost of service for the previous ocean freight 20 feet referrer. For services using ocean freight 40 feet referrer, the elements that make up the cost of service are as follows:

- h. JPT expedition
- i. Ocean freight
- j. Seal
- k. Low sulphur fuel surcharge
- l. Incremental terminal handling & surcharges
- m. Labour
- n. PPJK

- i. Job Job entry

5. Airplane Service Cost

As far as has happened at PT. Anugrah Ocean Wakatamba, services using Airplane have only ever been used for shipping fishery

- a. PEB, NPE
- b. HC (for fishery commodities)
- c. COO

Other elements make up the cost of service for services using an airplane, namely the rate of air freight itself (Quesado & Silva, 2021). However, the rate cannot be traced as the rate for ocean freight because the rate can only be determined if the destination, quantity, and type of commodity to be sent have been determined (there is no special standard). Therefore, the only cost driver that can be traced from this type of service is the document fee.

Prive that happened at PT. Anugrah Ocean Wakatamba is included in the third type of private listing. This price is included in the provision of salaries for directors, it's just because the time, nominal, and amount of the withdrawal are uncertain, so it is more appropriate to be categorized as price. Even so, this price is not included in matters that affect the cost of services at PT. Anugrah Ocean Wakatamba, however, can still affect the company's profitability, so it is considered as a discrepancy between the theory of entity concept management and practice in the field. This phenomenon was appointed to be input for PT. Anugrah Ocean Wakatamba to review the payroll system for directors.

Based on the theory, the Activity Based Costing method is considered to be able to increase profitability, but the results of the study show that calculations using Activity Based Costing detect losses. This is caused by Activity Based Costing which traces every cost incurred to the cost driver, which in traditional calculations is possible not to count. In practice at PT. Anugrah Ocean

- o. Telex release (if the client requests)

products. For services using airplane, the elements that make up the cost of service are as follows:

- d. AWB
- e. PPJK

Wakatamba, the directors determine the rate of service to be provided to clients based on an estimate of the total price that may be issued. Because the determination of this rate is determined in advance, if there is an increase in the price of one of the unit costs so that the cost of goods issued by the company is getting bigger, the company can't change the price that has been submitted to the client (Gilbert et al, 2019). The problem that has the most significant impact on this phenomenon is the limitation of container quotas for the Makassar City area since the pandemic took place, while the demand for these containers has never decreased it has tended to increase. The high demand amidst the limited fleet has forced the shipping line to increase Ocean Freight rates, even up to 2-4 times the initial rate.

This is something that is sometimes not traced because the notification of this rate increase was not announced publicly. In essence, the issue of Ocean Freight rates is not information that is given haphazardly to all parties. Rates are usually asked branch managers or other tier positions by the directors or managers of a company, and the time to provide this rate information sometimes takes a long time, while from the client side, it is urgent, so sometimes the directors or managers will give a long rate to clients. This makes the anticipation of an increase in the Ocean Freight rate nonexistent and increases the risk of loss. Meanwhile, for the type of Airplane service, it is stated that the service fee is not known.

Based on the research results, tracking using the Activity Based Costing method from

CONCLUSION

shipments that occurred between June to December 2021 detected a difference in calculations of 35.56% and 9.45% respectively, which was more expensive for the Activity Based Costing method than the traditional method for Ocean service types. Freight 20 feet dry and Ocean Freight 20 feet referrer. The loss for this type of service using Ocean Freight is due to unexpected extraordinary expenses by the company when determining service rates for its clients. Meanwhile, for the type of service using Airplanes, the tariff calculation is not known because only Document Cost activities which tend to be fixed can be traced in value. So, it can be concluded that Activity Based Costing as a method of determining the cost of services is theoretically able to increase profitability, but what happened at PT. Anugrah Ocean Wakatamba based on the discussion above; the Activity Based Costing method is considered incapable of contributing to increased profitability.

This is because according to the results of the study, the calculation of cost drivers using the Activity Based Costing method only detects the difference in rates that lead to losses. It is also possible to periodically check Ocean Freight rates by directors or managers of shipping line companies to anticipate if there is an urgent request from a client asking for service rates as soon as possible. In addition, using Activity Based Costing increases profitability in freight forwarding companies, or this case PT. Anugrah Ocean Wakatamba did not have a significant effect, so for future researchers who wish to continue related research, it is advisable to try using alternative methods, such as Economic Value Added (EVA) and Market Value Added (MVA).

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Activity-Based Costing Method as an Effort to Increase Profitability of PT. Anugrah Ocean Wakatamba

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Abstrak

Tujuan Utama - Penelitian ini bertujuan untuk mengkaji penerapan Activity Based Costing sebagai upaya untuk meningkatkan profitabilitas perusahaan.

Metode - Penelitian ini menggunakan metode deskriptif kualitatif dengan paradigma interpretif, pendekatan studi kasus, menggunakan data primer yang diperoleh melalui wawancara, studi dokumentasi, dan observasi pada PT. Anugrah Ocean Wakatamba. Unsur-unsur yang membentuk harga pokok dan biaya jasa menggunakan metode Activity Based Costing kemudian membandingkannya dengan tarif jasa yang digunakan oleh perusahaan yang menggunakan metode tradisional.

Temuan Utama - Hasil penelitian menunjukkan bahwa terdapat undercoating dalam penetapan tarif pelayanan untuk jenis Ocean Freight 20 feet kering dan Ocean Freight 20 feet refer sebesar 35,56% dan 9,45% selama periode Juni-Desember 2021. Hasil temuan penelitian ini terkait pelaksanaan kegiatan based costing kurang efektif meningkatkan profitabilitas perusahaan pada PT. Anugrah Ocean Wakatamba. Based costing dapat mengidentifikasi biaya yang dikeluarkan untuk menentukan biaya layanan perusahaan PT. Anugrah Ocean Wakatamba.

Implikasi Teori dan Kebijakan - Berdasarkan teori, metode perhitungan biaya berdasarkan aktivitas dapat meningkatkan profitabilitas, namun hasil penelitian menunjukkan bahwa perhitungan biaya berdasarkan aktivitas dapat mendeteksi kerugian. Hal ini disebabkan penetapan biaya berbasis aktivitas yang mengakui setiap biaya yang dikeluarkan untuk pemicu biaya, dalam perhitungan tradisional mungkin tidak dihitung.

Kebaruan Penelitian - Penggunaan Activity Based Costing semakin meningkat profitabilitas pada PT. Anugrah Ocean Wakatamba tidak terlalu berpengaruh signifikan, untuk penelitian selanjutnya menggunakan metode alternatif, seperti Economic Value Added (EVA) dan Market Value Added (MVA).

Kata Kunci: Keuntungan; Metode; Harga; Pelayanan; Perhitungan.

Abstract

Main Purpose - This study aims to examine the application of activity-based costing as an effort to increase company profitability.

Method - This study uses a qualitative descriptive method with an interpretive paradigm, and a case study approach, using primary data obtained through interviews, documentation studies, and observations at PT. Ocean Wakatamba Award. The elements that make up the cost of goods and service costs use the Activity Based Costing method and then compare with the service rates used by companies using traditional methods.

Main Findings - The results showed that there was undercoating in setting service rates for the type of Ocean Freight 20 feet dry and Ocean Freight 20 feet refer by 35.56% and 9.45% during the June-December 2021 period. The findings of this study related to the implementation of less-based costing activities effectively increasing the profitability of the company at PT. Anugrah Ocean Wakatamba. Based costing can identify the costs incurred to determine the company's service costs PT. Anugrah Ocean Wakatamba.

Theory and Practical Implications - Based on the theory, activity-based costing method can increase profitability, but the research results show that activity-based costing can detect losses. This is due to activity-based costing which recognizes any costs incurred for cost drivers, in traditional calculations it may not be counted.

Novelty - The use of Activity Based Costing increases profitability at PT. Anugrah Ocean Wakatamba does not have a significant effect, for further research using alternative methods, such as Economic Value Added (EVA) and Market Value Added (MVA).

Keywords: Profit; Method; Price; Service; Calculation.

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INTRODUCTION

Along with the times, companies are also required to maintain and improve their competitiveness among other similar industries by managing their resources, potential effectively, and efficiently (Perkhofer et al, 2019). This is called the achievement of a competitive advantage that aims to increase profitability (Shakri et al, 2020). The company's ability to manage costs through appropriate allocation and classification can affect the determination of the cost of its products or services (Rosca et al, 2017). Management can cut and control production costs without reducing the quality and quantity of production, which can increase the competitiveness of the company's products or services (Samuel et al, 2017). The proliferation of companies providing freight forwarding services makes companies need to highlight their strengths to gain client loyalty (Nugraha, 2021). Client loyalty is explained through the customer value triad theory, namely three combinations of variables that make up customer value for a product or service, where the perception of this value is directly proportional to quality and service, but inversely proportional to price (Sirisala & Rama, 2021).

Activity-based costing is one method that is claimed to be able to accurately allocate activity costs to produce a more effective cost of goods and enable the determination of prices that can compete among competitors (Lu et al, 2017). The facts on the ground show that the price greatly influences the client's consideration in choosing the company to use his services, especially in this case the freight forwarding company (Archetti & Peirano, 2020). For example, if there are several choices of freight forwarding companies with almost the same service options, regardless of the client's loyalty to a particular company,

the client will usually tend to choose the company with the lowest tariff rate (Ronen, 2017).

PT. Anugrah Ocean Wakatamba uses traditional methods determined by leadership policies based on previous prices and relationships with clients without considering all the basic costs incurred (Myint et al, 2019). This results in the possibility of setting the price too high or too low. This research was conducted to examine the elements that makeup service costs at freight forwarding companies at PT. Anugrah Ocean Wakatamba uses activity-based costing methods and their use to increase company profitability (Priyatmo & Akbar, 2019). The ABC (Activity Based Costing System) system makes activity the center point of its activities (Wahidi et al, 2021). Because activities can be found in manufacturing, service, and trade firms, as well as public sector organizations and non-profit organizations, the ABC system can be applied equally well to all types of organizations (Farah et al, 2020). Here it will be explained whether the ABC (Activity Based Costing System) system can be applied to service companies, and what things need to be understood or considered in implementing an Activity Based Costing System in service companies (French et al, 2016)). With this ABC system, for the first-time service companies can take advantage of a cost information system that is very useful for reducing costs and determining service costs accurately (Ahmad et al, 2017).

The ABC system does not only focus on calculating the cost of goods/services but includes a broader perspective, namely cost reduction through activity classification (Mardjuni et al, 2022). service companies when it is in their interest to reduce costs in classifying activities. So, companies need a cost information system that can provide a lot

of information about various company activities (Alsayegh, 2020). But the most basic difference between service companies and manufacturing companies is the definition of output (Ippoliti & Tria, 2020). For manufacturing companies, the output is easy to define (the real product produced) or can be calculated, but for service companies, defining output is more difficult. Output for a service company is less tangible (less quantifiable). Output must be defined so that it can be priced (Wahyulistyo & Cahyonowati, 2022).

Research on Activity Based Costing in determining the cost of goods is mostly done in manufacturing and service companies (Al-Dhubaibi, 2021). So far, many references refer to its application to hotel service sector companies to determine room rates and manufacturing companies to determine the cost of production. There is almost no or even no research that refers to its application to freight forwarding companies. This research is development research that is expected to be used as a reference or reference for further research in the field of accounting.

METHOD

Research Design

This study uses a descriptive qualitative research method with an interpretive paradigm with a case study approach, where data collection is carried out through detailed behavioral meanings with direct observation by researchers with objects in the field to analyze an event, phenomenon, or situation for theory development (Maddatuang et al,

2021). The research was carried out by collecting data through direct interviews, observation, and documentation studies by taking the research location at the head office of PT. Anugrah Ocean Wakatamba, considering the existence of all the data and data sources needed at the location (Karim et al, 2021). The data analysis technique uses the descriptive qualitative analysis method which compares the system for calculating the cost of company services that has been applied so far with the use of an activity-based costing system (Rabiyah et al, 2021). Qualitative analysis helps to understand the chronological flow of events assesses causality within the scope of the minds of the parties concerned and obtain a complete and useful explanation, and helps researchers to move forward from presumptions and initial frameworks that allow the formation of new theoretical frameworks. This analytical method emphasizes collecting data in situations that are useful for finding, understanding, explaining, and obtaining an overview of how the implementation of activity-based costing influences determining the cost of services (Chandrarin, 2017).

Data Collection

Researchers conducted interviews with several employees of PT. Anugrah Ocean Wakatamba to obtain data regarding the general description of the company, recording of financing, methods of determining the cost of services previously, as well as other information that is related to this research. The people interviewed included:

Table 1. List of Interview Objects

No.	Name	Position
1	Adnan Huludin	Commissioner
2	Listina	Finance Director/Manager
3	Suhermansyah	Field Staff

Source: PT. Anugrah Ocean Wakatamba, 2022.

Researchers examined company documents and archives to obtain written data regarding details of costs, company revenue data, and

other information that might be related to this research. Researchers collect, study, analyze

various journals, articles, other supporting, and supporting literature.

Data Analysis

This study uses a descriptive qualitative analysis method that compares the company's service cost calculation method applied so far with the use of an Activity Based Costing System (Keel et al, 2017). Qualitative analysis assists in following and understanding the chronological flow of events, assessing causation in the minds of local people, and obtaining great and helpful explanations. Qualitative analysis also helps the researcher to move beyond preconceived notions and

frameworks so that it is possible to form new theoretical frameworks. This analysis method emphasizes data collection in situations that are useful for finding, understanding, explaining, and obtaining an overview of how the implementation of activity-based costing influences the determination of the cost of services. The steps are as follows:

1. Identify all activities related to company services.
2. Classify the costs arising from each of these activities and classify them into various levels of activity.
3. Identify cost drivers.
4. Determine the rate per unit cost driver.

RESULTS AND DISCUSSION

Result

Table 2. Number of Shipments for the Period June-December 2021

Month	Service type			Amount
	of 20 feet dry	of 20 feet reefer	Airplane	
June	0	0	2	2
July	1	0	0	1
August	0	0	3	3
September	0	0	0	0
October	1	2	4	7
November	0	1	1	2
December	1	1	10	12
Total	3	4	20	27

Source: Author Findings, 2021.

Table 3. Cost Components Based on Cost (Cost Driver)

Activity group	Cost group	Cost
I	Document activity	PEB, NPE Phytosanitary HC SPM COO B/L AWB Other fees
II	Activity EMKL	Trucking Job lift on Job lifts off Job login Job charge JPT expedition

		Other fees
III	Container activity	Low sulfur fuel surcharge Incremental terminal handling & surcharges Other fees
IV	Miscellaneous activities	Labor PPJK Telex release Fumigation Another special request

Source: Author Findings, 2021.

For each type of service, the activity cost components used vary depending on regulations and the type of goods to be shipped. Shipping by sea for the type of reefer

container that involves the costliest components, while the type of service that involves the least cost components is air shipping.

1. Charge for each activity

a. Document activity

This document activity cost incurs PEB & NPE, HC, SPM, COO, B/L, and AWB costs.

Table 4. Rates per Unit Cost Driver Document Activities

Costs	Of 20 feet dry (IDR)	Of 20 feet reefer (IDR)	Airplane (IDR)
PEB, NPE	0	330,000	300,000
HC	250,000/commodity	250,000/commodity	250.000/commodity
SPM	2,500/commodity	2,500/commodity	0
COO	200,000	200,000	200.000
B/L	300,000	300,000	0
AWB	0	0	300,000

Source: Author Findings, 2021.

The table above is a table for calculating rates per unit cost driver until December 2021 which has been grouped based on activities

and costs incurred by dividing the average cost by type of service.

Table 5. Document Fee Assignment

Service type	Total of shipments	Unit cost driver rates (IDR)	Total document fee (IDR)
PEB, NPE			
Of 20 feet dry	3	0	0
Of 20 feet reefer	4	330,000	1,320,000
Airplane	20	300,000	6,000,000
HC			
Of 20 feet dry	3	250,000	750,000
Of 20 feet reefer	4	250,000	1,000,000
Airplane	20	250,000	5,000,000
SPM			
Of 20 feet dry	3	2,500	7,500

Of 20 feet refeer	4	2,500	10,000
Airplane	20	0	0
COO			
Of 20 feet dry	3	200,000	600,000
Of 20 feet refeer	4	200,000	800,000
Airplane	20	200,000	4,000,000
B/L			
Of 20 feet dry	3	300,000	900,000
Of 20 feet refeer	4	300,000	1,200,000
Airplane	20	0	0
AWB			
Of 20 feet dry	3	0	0
Of 20 feet refeer	4	0	0
Airplane	20	300,000	6,000,000

Source: Author Findings, 2021.

The table above shows the total document activity until December 2021, which is obtained from number of shipments multiplied tariff of unit cost driver.

b. EMKL activities

This EMKL activity is related to transportation and handling of container collection, transportation to and from the stuffing location, to entering the CY which is a place for container stacking before being put on a ship.

Table 6. Rates per Unit Cost Driver for EMKL Activities

Costs	Of 20 feet dry (IDR)	Of 20 feet refeer (IDR)	Airplane (IDR)
Trucking	2.000.000	2.000.000	0
Job lifts on	0	99.000	0
Job lifts off	0	591.000	0
Job login	120.000	591.000	0
Job charge	0	250.000	0
JPT expedition	500.000	500.000	0

Source: Author Findings, 2021.

Table 7. Assignment of EMKL Costs

Service type	Total of shipments	Unit cost driver rates (IDR)	Total document fee (IDR)
Trucking			
Of 20 feet dry	3	2,000,000	6,000,000
Of 20 feet refeer	4	2,000,000	8,000,000
Airplane	20	0	0
Job lift on			
Of 20 feet dry	3	0	0
Of 20 feet refeer	4	99,000	396,000
Airplane	20	0	0

Job lift off			
Of 20 feet dry	3	0	0
Of 20 feet refeer	4	591,000	2,364,000
Airplane	20	0	0
Job login			
Of 20 feet dry	3	120,000	360,000
Of 20 feet refeer	4	591,000	2,364,000
Airplane	20	0	0
Job charge			
Of 20 feet dry	3	0	0
Of 20 feet refeer	4	250,000	1,000,000
Airplane	20	0	0
JPT expedition			
Of 20 feet dry	3	500,000	1,500,000
Of 20 feet refeer	4	500,000	2,000,000
Airplane	20	0	0

Source: Author Findings, 2021.

The table above shows the total EMKL activity until December 2021, which is obtained from the number of shipments multiplied by the unit cost driver rate.

c. Container activity

Container activities are activities related to container maintenance from preparation before booking to completeness so that it can be unloaded at the destination port.

Table 8. Tariffs per Unit Cost Driver for Container Activities

Costs	Of 20 feet dry (IDR)	Of 20 feet refeer (IDR)	Airplane (IDR)
Low sulphur fuel surcharge	1,305,000	1,984,500	0
Incremental terminal handling & surcharges	217,500	3,013,500	0

Source: Author Findings, 2021.

Table 9. Container Fee Assignment

Service type	Total of shipments	Unit cost driver rates (IDR)	Total document fee (IDR)
Low sulphur fuel surcharge			
Of 20 feet dry	3	1,305,000	3,915,000
Of 20 feet refeer	4	1,984,500	7,938,000
Airplane	20	0	0
Incremental terminal handling & surcharges			
Of 20 feet dry	3	217,500	652,500
Of 20 feet refeer	4	3,013,500	12,054,000
Airplane	20	0	0

Source: Author Findings, 2021.

The table above shows the total container activity until December 2021, which is obtained from the number of shipments multiplied by the unit cost driver rate.

d. Other activities

Other activities are activities that are not included in the previous 3 types of activities but are still needed in the operation of each service (Shen et al, 2019). There are fees that almost always exist in every service, and there are fees that only appear at certain times, for example, due to special requests from clients.

Table 10. Rates per Unit Cost Driver for Other Activities

Costs	Of 20 feet dry (IDR)	Of 20 feet referer (IDR)	Airplane (IDR)
Labour	2,500,000	2,500,000	0
PPJK	0	330,000	0
Telex release	500,000	500,000	0

Source: Author Findings, 2021.

Table 11. Assignment of Other Costs

Service type	Total of shipments	Unit cost driver rates (IDR)	Total document fee (IDR)
Labour			
Of 20 feet dry	3	2,500,000	7,500,000
Of 20 feet referer	4	2,500,000	10,000,000
Airplane	20	0	0
PPJK			
Of 20 feet dry	3	0	0
Of 20 feet referer	4	330,000	1,320,000
Airplane	20	0	0
Telex Release			
Of 20 feet dry	3	500,000	1,500,000
Of 20 feet referer	4	500,000	2,000,000
Airplane	20	0	0

Source: Author Findings, 2021.

The table above shows the total other activities until December 2021, which is obtained from the number of shipments multiplied by the unit cost driver rate.

2. Determining service rates

Service rates are determined by calculating the cost pool per each type of service provided by PT. Anugrah Ocean Wakatamba, by multiplying the amount of each cost pool with the cost driver and then dividing the result by the number of shipments made from June 2021 to December 2021.

Table 11. Tariff of 20 Feet dry activity based costing method June – December 2021

Cost pool I	HC	IDR 750,000
	SPM	IDR 7,500
	COO	IDR 600,000
	B/L	IDR 900,000
	Total	IDR 2,257,500
Cost pool II	Trucking	IDR 6,000,000

	Job lift-on	0
	Job lift-off	0
	Job login	360,000
	JPT expedition	IDR 1,500,000
	Total	7,860,000
Cost Pool III	Low sulphur fuel surcharge	IDR 3,915,000
	Incremental terminal handling & surcharges	IDR 652,500
	Total	IDR 4,567,500
Cost Pool IV	Labour	IDR 7,500,000
	Telex release	IDR 1,500,000
	Total	IDR 9,000,000

Source: Author Findings, 2021.

Service fee = Total of activities /total of shipments
= IDR 23,685,000 /3
= IDR 7,895,000

Table 12. Tariff of 20 Feet Reefer Activity Based Costing Method June - December 2021

Cost pool I	PEB, NPE	IDR 1.320.000
	HC	IDR 1.000.000
	SPM	IDR 10.000
	COO	IDR 800.000
	B/L	IDR 1.200.000
	Total	IDR 4.330.000
Cost pool II	Trucking	IDR 8.000.000
	Job lift on	IDR 396.000
	Job lifts off	IDR 2.364.000
	Job entry	IDR 2.364.000
	Job charges	IDR 1.000.000
	JPT expedition	IDR 2.500.000
	Total	IDR 16.624.000
Cost pool III	Low sulphur fuel surcharge	IDR 7.938.000
	Incremental terminal handling & surcharges	IDR 12.054.000
	Total	IDR 19.992.000
Cost pool IV	Labour	IDR 10.000.000
	PPJK	IDR 1.320.000
	Telex release	IDR 2.000.000
	Total	IDR 13.320.000

Service fee = Total of activities/total of shipments
= IDR 54.266.000 / 4
= IDR 13.566.500

Table 13. Airplane Tariffs for Activity Based Costing June - December 2021

Cost pool I	PEB, NPE	IDR 6.000.000
	HC	IDR 5.000.000
	COO	IDR 4.000.000
	AWB	IDR 6.000.000
	Total	IDR 21.000.000

Source: Author Findings, 2021.

Service fee = Total of activities/total of shipments
 = IDR 21.000.000 / 20
 = IDR 1.050.000

Especially for Airplane shipments, the only data that can be calculated is document loading per shipment, because the flight rate changes every month and is never fixed for the same or different destinations.

3. Knowing the fare difference

To find out the big difference between the traditional method and the activity-based costing method, a comparison table of rates in percentage and IDR is made.

Table 14. Differences in Room Rental Rates for Traditional and ABC Methods

Service type	Traditional method (IDR)	Activity based costing (IDR)	Difference (%)	Description
Of 20 feet dry	20,320,000	27,545,000	35.56	More expensive
Of 20 feet refer	35,320,000	38,656,500	9.45	More expensive
Airplane	Not known	1,050,000	Not known	Not known

The table above is a table of the difference in service rates between the traditional method and the activity-based costing method of shipments that occur between June-December 2021. For the types of services, of 20 feet dry and of 20 feet refer, both show that the difference in calculations is 35,56% and 9.45% more expensive for the activity-based costing method than the traditional method.

Discussion

For services using ocean freight 20 feet dry, the elements that make up the cost of service are as follows:

- | | |
|--|--|
| <ul style="list-style-type: none"> a. PEB, NPE b. Phytosanitary (for agricultural commodities) c. HC and SPM (for fishery commodities) d. COO e. B/L f. Trucking g. Job entry | <ul style="list-style-type: none"> i. Ocean freight j. Seal k. Low sulphur fuel surcharge l. Incremental terminal handling & surcharges m. Labour n. Telex release (if the client requests) o. Fumigation (for agricultural |
|--|--|

Meanwhile, the type of Airplane service is not known because the delivery rate always changes every month for both the same and different destinations, it also changes per the total number of goods sent so it is very difficult to trace. What can be known is that document cost activities tend to be fixed, which is IDR 1,050,000 per shipment (except for dry sea cucumbers).

1. Cost of Ocean Freight Service 20 Feet Dry

commodities)

h. JPT expedition

2. Cost of Ocean Freight Service 40 Feet Dry

The last time PT. Anugrah Ocean Wakatamba serves requests for the use of ocean freight 40 feet dry in 2020 (Adland et al, 2018). The elements that make up the cost of service are

- a. PEB, NPE
- b. Phytosanitary (for agricultural commodities)
- c. HC and SPM (for fishery commodities)
- d. COO
- e. B/L
- f. Trucking
- g. Job entry

h. JPT expedition

3. Cost of Ocean Freight Service 20 Feet Dry

For services using ocean freight 20 feet reefer, the elements that make up the cost of service are as follows:

- a. PEB, NPE
- b. HC dan SPM (for fishery commodities)
- c. COO
- d. B/L
- e. Trucking
- f. Job lift on
- g. Job lift off
- h. Job entry

4. Cost of Service Ocean Freight 40 Feet Reefer

PT. Anugrah Ocean Wakatamba has never served a request for the use of ocean freight 40 feet referer, but the elements that make up the cost of service are not much different from

- a. PEB, NPE
- b. HC and SPM (for fishery commodities)
- c. COO
- d. B/L
- e. Trucking
- f. Job lift on
- g. Job lift off

not much different from the elements that make up the cost of service for the previous 20 feet of dry ocean freight. For services using ocean freight 40 feet dry, the elements that make up the cost of service are as follows:

- i. Ocean freight
- j. Seal
- k. Low sulphur fuel surcharge
- l. Incremental terminal handling & surcharges
- m. Labour
- n. Telex release (if the client requests)
- o. Fumigation (for agricultural commodities)

- i. JPT expedition
- j. Ocean freight
- k. Seal
- l. Low sulphur fuel surcharge
- m. Incremental terminal handling & surcharges
- n. Labour
- o. PPJK
- p. Telex release (if the client requests)

the elements that make up the cost of service for the previous ocean freight 20 feet referrer. For services using ocean freight 40 feet referrer, the elements that make up the cost of service are as follows:

- h. JPT expedition
- i. Ocean freight
- j. Seal
- k. Low sulphur fuel surcharge
- l. Incremental terminal handling & surcharges
- m. Labour
- n. PPJK

- i. Job Job entry

5. Airplane Service Cost

As far as has happened at PT. Anugrah Ocean Wakatamba, services using Airplane have only ever been used for shipping fishery

- a. PEB, NPE
- b. HC (for fishery commodities)
- c. COO

Other elements make up the cost of service for services using an airplane, namely the rate of air freight itself (Quesado & Silva, 2021). However, the rate cannot be traced as the rate for ocean freight because the rate can only be determined if the destination, quantity, and type of commodity to be sent have been determined (there is no special standard). Therefore, the only cost driver that can be traced from this type of service is the document fee.

Prive that happened at PT. Anugrah Ocean Wakatamba is included in the third type of private listing. This price is included in the provision of salaries for directors, it's just because the time, nominal, and amount of the withdrawal are uncertain, so it is more appropriate to be categorized as price. Even so, this price is not included in matters that affect the cost of services at PT. Anugrah Ocean Wakatamba, however, can still affect the company's profitability, so it is considered as a discrepancy between the theory of entity concept management and practice in the field. This phenomenon was appointed to be input for PT. Anugrah Ocean Wakatamba to review the payroll system for directors.

Based on the theory, the Activity Based Costing method is considered to be able to increase profitability, but the results of the study show that calculations using Activity Based Costing detect losses. This is caused by Activity Based Costing which traces every cost incurred to the cost driver, which in traditional calculations is possible not to count. In practice at PT. Anugrah Ocean

- o. Telex release (if the client requests)

products. For services using airplane, the elements that make up the cost of service are as follows:

- d. AWB
- e. PPJK

Wakatamba, the directors determine the rate of service to be provided to clients based on an estimate of the total price that may be issued. Because the determination of this rate is determined in advance, if there is an increase in the price of one of the unit costs so that the cost of goods issued by the company is getting bigger, the company can't change the price that has been submitted to the client (Gilbert et al, 2019). The problem that has the most significant impact on this phenomenon is the limitation of container quotas for the Makassar City area since the pandemic took place, while the demand for these containers has never decreased it has tended to increase. The high demand amidst the limited fleet has forced the shipping line to increase Ocean Freight rates, even up to 2-4 times the initial rate.

This is something that is sometimes not traced because the notification of this rate increase was not announced publicly. In essence, the issue of Ocean Freight rates is not information that is given haphazardly to all parties. Rates are usually asked branch managers or other tier positions by the directors or managers of a company, and the time to provide this rate information sometimes takes a long time, while from the client side, it is urgent, so sometimes the directors or managers will give a long rate to clients. This makes the anticipation of an increase in the Ocean Freight rate nonexistent and increases the risk of loss. Meanwhile, for the type of Airplane service, it is stated that the service fee is not known.

CONCLUSION

Based on the research results, tracking using the Activity Based Costing method from

shipments that occurred between June to December 2021 detected a difference in calculations of 35.56% and 9.45% respectively, which was more expensive for the Activity Based Costing method than the traditional method for Ocean service types. Freight 20 feet dry and Ocean Freight 20 feet referrer. The loss for this type of service using Ocean Freight is due to unexpected extraordinary expenses by the company when determining service rates for its clients. Meanwhile, for the type of service using Airplanes, the tariff calculation is not known because only Document Cost activities which tend to be fixed can be traced in value. So, it can be concluded that Activity Based Costing as a method of determining the cost of services is theoretically able to increase profitability, but what happened at PT. Anugrah Ocean Wakatamba based on the discussion above; the Activity Based Costing method is considered incapable of contributing to increased profitability.

This is because according to the results of the study, the calculation of cost drivers using the Activity Based Costing method only detects the difference in rates that lead to losses. It is also possible to periodically check Ocean Freight rates by directors or managers of shipping line companies to anticipate if there is an urgent request from a client asking for service rates as soon as possible. In addition, using Activity Based Costing increases profitability in freight forwarding companies, or this case PT. Anugrah Ocean Wakatamba did not have a significant effect, so for future researchers who wish to continue related research, it is advisable to try using alternative methods, such as Economic Value Added (EVA) and Market Value Added (MVA).

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