

# Strategic Management Implementation of the Activity Base Costing Method in Higher Education as marketing information : A case study of the Technical College in Bekasi, Indonesia

**Wastam Wahyu Hidayat**

Faculty of Economics and Business

*Universitas Bhayangkara Jaya,*

*Jakarta, Indonesia*

*Wastam.wahyu@dsn.UbharaJaya.ac.id*

**Ery Teguh Prasetyo**

Faculty of Economics and Business

Universitas Bhayangkara Jaya,

Jakarta, Indonesia

*ery.teguh@ubharajaya.ac.id*

**Abstract**—The purpose of this research is to calculate the objective of the rate of a standard that is objective according to the activities of technical High school in Bekasi, using, Activity Based Costing (ABC) method, which will be compared with the amount of real standard tariff for the study program of Mechanical, electrical and informatics. The method of analysis used for this research is descriptive analysis with two phases of Activity Based Costing calculations, through interviews, direct observation, and literature research related to the research object. Based on calculations using the Activity-Based Costing (ABC) method of standard per semester for the study program of Mechanical Engineering, electrical engineering and Informatics Engineering are, IDR. 359.446, IDR. 348.407 and IDR. 337.349, while the rearing standard is; IDR 400,000, IDR. 450.000 and IDR. 350.000, this causes the difference, but for the study of Machine Engineering and informatics, the difference is not significant, being for electrical engineering, significant is IDR 101,593.

**Keywords-** *Activity Based Costing, Standard tariff, real tuition.*

## I. INTRODUCTION

In a business environment, it is constantly changing rapidly over time that can have a direct impact on increasing economic competition. Where basically the objectives and objectives of the company are to achieve the target profit or profit and also the survival of the company. In determining the underlying price of a product sometimes many companies still use traditional cost accounting in determining the cost. The result of the cost calculation with the traditional approach is: there is considerable distortion of costs, so the company feared will be difficult to compete with the competitor company. Distortion arises due to inaccuracies in cost-loading, resulting in cost-determination, decision-making, planning, and control errors. The implementation of unit cost or unit cost in college is necessary to provide an overview for the college in calculating the cost of implementation of the establishment so that it can be used as a basis for universities in establishing the cost of organizing the education that must be borne by the students. Therefore, researchers use unit cost calculations using the Activity-Based Costing (ABC) model To determine the cost of education service activities per student per study program at the Technical College in Bekasi. Hopefully through the calculation of ABC costing it can measure the cost of education services accurately by doing searches not

only on all students in college but more to each student unit of each study Program. In the concept of education financing, two important things need to be examined or analyzed, i.e. the overall cost of education (Total cost) and unit cost per student (Unit cost). By analyzing the cost of the unit allows us to know the efficiency of the use of resources in universities, advantages of education investments, and equitable distribution of public and government expenditures for education.

## II. LITERATUR REVIEW

The application of ABC in general aims to determine how much tuition students should be borne, so that by knowing the tuition fee, STTDB can improve the service and quality for students. While specifically, the aim of the application of ABC is: To see the main activities and supporters in the implementation of followers in college, to see the readiness of implementation standard cost and main activities and supporters in organizing in college, to strengthen the efficiency in determining the standard of education costs in college and to know the application and knowledge of the supporting factors of standard education costs, (Nanang Patah, Budhi Pamungkas G. 2017), Unit Cost is an analysis for management decision making in consideration of unit cost because the total cost is not clear enough as the basis for decision making. The benefits gained by conducting a unit cost analysis are (1) determining the selling price of a product or service, (2) for competition, (3) determining the appropriate purchase price, and (4) determining the profit per each product. Activity-Based Costing is an accounting system that classifies costs into activities that occur in the company., (Arfan, Nelly Sari, and Zulbahridar 2015). Activity-Based Costing-ABC is an economic model that identifies the cost group or activity center within an organization and puts that cost into the trigger drive activity (cost driver). (Wardi 2010). The cost hierarchy in Activity-Based Costing System is activity classified into several activity levels namely unit level, batch level, product level, and facility level. Classifications of activities in some of these levels will facilitate the calculation because the cost of activities associated with different levels will be Using different Cost Driver types. The cost hierarchy is a grouping of costs in different cost groups (Cost Pool) as the basis for cost allocation. There are four cost hierarchies in Activity-Based Costing System namely: (1) The cost for each unit (output unit level) is the resource used for the activity to be increased on each production unit or service produced. The grouping for this level is based on causal relationships with each unit being produced. Examples: Engine repair costs, electrical costs, and engine depreciation costs. (2) The cost for a specific group of units (batch level) is the resource used for the activity to be associated with the resulting group of product or service units. The grouping for this level is the cost of causal causation for each group of units produced. Example: Engine usage fee. (3) The cost for each specific product and service (product/service sustaining level) is the resource used for activities that produce a product and services. The grouping for this level is a cost that has a causal relationship with each product or service produced. Example: Cost of design, cost of manufacturing prototype. (4) The costs for each particular facility (facility sustaining level) are the resources used for activities that cannot be directly linked to the resulting product or service but to support the organization as a whole. Grouping for this level is difficult to locate relationships because consequently with products/services produced but needed to smooth the activities of the company related to the production process of goods/services. (Firahmi Rizky, Gunadi Widi Nurcahyo, 2017). The implementation of an activity-based costing system in service companies is because the service company produces an intangible product (intangible) and varies to cause difficulties in determining the cost of activity in producing such services. Using an activity-based costing system in a service organization is essentially an action to organize activities related to services. The management of this activity is based on the principle that the process of activity or effort will consume resources while service costing determined by tracing more specifically to support cost (support cost) which is traditionally allocated to all services products through direct basis, e.g. direct labor, use of equipment or supplies. While in an activity-based costing system, it is

necessary to search for helper activity for each service product. (Ida Farida, Sunandar 2017). Activity-Based Costing is used for allocates costs to transactions from activities executed within an organization and then allocates such costs appropriately to the product following The role of the activity of each product, namely the loading of indirect costs and support costs as well as the cost of charges and allocation of direct costs and indirect costs, (Yuni, Selly Sipakoly 2017). The ABC system is a method of cost planning system developed to anticipate the weaknesses contained in conventional cost accounting systems, while the subject matter of ABC system is the activities of the company, with a cost search to calculate the basic price of products or services, namely activities that consume resources and products or services that consume activities. Thus the ABC system facilitates the accurate calculation of cost object staples to reduce distortions on conventional cost systems and increase the effectiveness of decision-making management parties. (Stefania Fatma,2013), Activity Based Costing is a cost calculation method (Costing) designed to provide cost information for managers for strategic decision making and other decisions that may affect capacity and also fixed costs (Evi Marlina,2017). The ABC system is a cost information system that changes the way used by management in business management. If in traditional management, the management of the business is based on functionality, with the ABC system, business management changed to activity-based, (Yudiarto. PP, Kartika Y, 2017). An Activity-based costing (ABC) system as a cost-calculation approach based on the activity done and the value of the resources absorbed by the activity to produce a product or service. At colleges that are the main departments concerning cost-per-student calculations are courses. Course fees can be categorized into direct fees and indirect costs. Direct costs are expenses incurred by the course directly for the needs of the course. While indirect costs are the costs gained from the allocation of auxiliary departments or other departments in the college. (Tobi Arfan, Ria Nelly. S, Zulbahridar,2015). education) with the Methode ABC Costing at the Sekolah Tinggi Teknik in Bekasi is the odd and even semester data of the year 2018/2019, to obtain the necessary data in this study, the data collection techniques used are through: interviews to collect data and documents needed by asking questions about the research to the deputy chairman of the Administration and finance field to obtain accurate information. Then do the observation directly to the research site and do the documentation that is considered important to observe the current conditions related to learning, operational costs in the form of completeness of infrastructure, and the supply that is obtained for students. This research is descriptive and vehicular, so it can be obtained a description of how the implementation of the ABC (Activity-Based Costing) model is conducted in high school; And what are the obstacles arising from each of the major activities in the high school, whether it is a direct cost or indirect cost based on methods. Based on the above types of research, which is a descriptive that is implemented through data collection in the field, then the research method used is a descriptive survey and Explanatory survey. Wherever Times is specified, Times Roman or Times New Roman may be used. If neither is available on your word processor, please use the font closest in appearance to Times. Avoid using bit-mapped fonts if possible. True-Type 1 or Open Type fonts are preferred. Please embed symbol fonts, as well, for math, etc.

### **III. METHODOLOGY**

This research is conducted in less than one year. Therefore, the development methods used to collect information about all the elements of the population in high school are related to costs. Implementation of the method of ABC (Activity-Based Costing) in its implementation in the field in the activities of the lecture, according to the results of the expenditure data, this method is still hindered by some inhibitory factors, such as costs-the the cost of supporting is still and provision of definite cost-efficiency determinants.

TABLE-3.1

COST RECAPITULATION

Cost of Capital	Nature	TOTAL	Techniques Machine	Techniques Electrical	Technique Informatic	TOTAL
MAIN		IDR	IDR	IDR	IDR	IDR
Lecture Salaries	Direct	643.722.000	321.861.000	193.116.600	128.744.400	643.722.000
UTS/UAS Exam Fee	Direct	152.500.000	76.250.000	45.750.000	30.500.000	152.500.000
Cost of ,Ospek,Jaket.KTM	Direct	363.400.000	167.723.077	111.815.385	83.861.538	363.400.000
Practicum Fee	Direct	455.000.000	210.000.000	140.000.000	105.000.000	455.000.000
<b>SUB TOTALS</b>		<b>1.614.622.000</b>	<b>775.834.077</b>	<b>490.681.985</b>	<b>348.105.938</b>	<b>1.614.622.000</b>
<b>SUPPORTING</b>						
Chairman/deputy ,Staf Salary	In Direct	420.936.000	194.278.154	129.518.769	97.139.077	420.936.000
Stationery and Office	In Direct	36.000.000	16.615.385	11.076.923	8.307.692	36.000.000
Electricity and water	In Direct	104.805.744	48.371.882	32.247.921	24.185.941	104.805.744
Internet an phone	In Direct	21.600.000	9.969.231	6.646.154	4.984.615	21.600.000
Building Rental	In Direct	62.500.000	28.846.154	19.230.769	14.423.077	62.500.000
Building and Air Conditioning treatment	In Direct	55.000.000	25.384.615	16.923.077	12.692.308	55.000.000
Promotion	In Direct	18.000.000	8.307.692	5.538.462	4.153.846	18.000.000
Campus Development	In Direct	132.500.000	61.153.846	40.769.231	30.576.923	132.500.000
Quality Anssurance	In Direct	45.000.000	20.769.231	13.846.154	10.384.615	45.000.000
Research and Dedication	In Direct	55.000.000	25.384.615	16.923.077	12.692.308	55.000.000
Depreciation	In Direct	171.520.000	79.163.077	52.775.384	39.581.538	171.520.000
<b>SUB TOTALS</b>		<b>1.122.861.744</b>	<b>518.243.882</b>	<b>345.495.921</b>	<b>259.121.941</b>	<b>1.122.861.744</b>
<b>GRAND TOTALS</b>		<b>2.737.483.744</b>	<b>1.294.077.959</b>	<b>836.177.906</b>	<b>607.227.879</b>	<b>2.737.483.744</b>
NUMBER OF STUDENTS		650	300	200	150	650

Source: Self-processed

**TABLE 3-2**

**TUITION FEE WITH ABC COSTING**

Program Study	Total Cost Major  IDR	Total Cost Supporting  IDR	Total Cost  IDR	Amount Student	Cost of Tuition/ Student  /year IDR	Cost of Tuition/ Semeter/ Student  IDR	Cos of Tuition/ Month /Studen (ABC- Costing)  IDR	Cost of Tuition /Month/ Student ( Real)  IDR
Techniques Machine	775.834.077	518.243.882	1.294.077.959	300	4.313.593	2.156.797	359.466	400.000
Techniques Electrical	490.681.985	345.495.921	836.177.906	200	4.180.890	2.090.445	348.407	450.000
Technique Informatic	348.105.938	259.121.941	607.227.879	150	4.048.186	2.024.093	337.349	350.000
Amount	1.614.622.000	1.122.861.744	2.737.483.744	650				

Source: Self-processed

#### IV. RESULTS AND DISCUSSION

According to the table. 3-1, to acquire the generalized figures go into the object of cost per Prodi, then the study performs the allocation of the general cost by the total cost of students with the number of each Prodi, the costs that are still generalized, among others: Ketu salary and vice chairman, salary staff, office stationery, Internet/telephone, building rental, building maintenance and air conditioning, promotion, campus development, quality assurance, research institution cost and community service and depreciation fee, whereas according to table 3-1, that the existing financial transactions can be directly charged to each other, among others: Lecturer salary, practicum fee, Ospek, jacket alma mater, student card.

Based on table 3-2, the Expense Machine engineering program, Donation of education coaching) according to Activity Based Costing (ABC) is IDR. 359.466, while the real that is done by high School is IDR. 400,000, so the difference is not so far that is IDR. 40.534. While the electrical engineering program costs expenses ,(donation of education coaching) according to Activity Based Costing (ABC) is IDR. 348.407, while the real done by high School is IDR. 450,000, so the difference is IDR. 101.593, why the difference is high, because the accreditation of Electrical Engineering study Program already B, while the other still C. While the engineering program Informatics costs expenses,(donation of education coaching) according to Activity Based Costing (ABC) is IDR. 337.349, while the real is done by the High School is IDR. 350,000, so the difference is IDR. 12.651, why the difference is slight and the lowest, because of the accreditation of the Program Informatics Engineering course C, and the number of competitors circled campus.

#### V. CONCLUSION

Based on the results of the study of standard tariff calculation at the high School of Engineering in Bekasi with Activity Based Costing (ABC) method, it can be saved that:

1. Implementation of the SPP tariff on each Prodi is based on the calculation of Activity Based Costing (ABC) method.
2. Implementation of SPP tariff on each Prodi besides based on the calculation of Activity Based Costing (ABC) method, and also must scale students ' ability, accredits program study and competition.
3. The occurrence of difference between the calculation of SPP tariff and the real cost of SPP with the calculation of the Activity-Based Costing (ABC) method, not too significant for the Program study of Mechanical Engineering and informatics Engineering.
4. The biggest difference between the calculation of SPP tariff and real cost SPP with the calculation of Activity Based Costing (ABC) method of IDR. 101,593, is in an electrical engineering study program because it is accredited B and lack of competition.

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