THE ANALYSIS OF UNIT COSTING BASED ON ACTIVIY-BASED COSTING (ABC) MODEL IN CLASS X IPA SMA NEGERI 1 CIPARI KABUPATEN CILACAP ACADEMIC YEAR 2015/2016

UNDERGRADUATE THESIS

This undergraduate thesis is submitted in partial fulfilment of the requirements to obtain the degree of **Bachelor of Education** in Faculty of Economics Yogyakarta State University

By:

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Hereby declare that this undergraduate thesis is my own and original work. According to my knowledge, the is no work or opinions written or publishes by other, except as reference of citation by following the prevalent procedur of scientific writing.

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MOTTO AND DEDICATON

MOTTO

" Kesakitan membuat anda berpikir, pikiran membuat Anda bijaksana, kebijhaksanaan membuat kita bisa bertahan dalam hidup."

(John Pattrick)

"Keberhasilan adalah kemampuan untuk melewati dan mengatasi dari satu kegagalan ke kegagalan berikutnya tanpa kehilangan semangat."

(Winston Chucchill)

"Raihlah ilmu, dan untuk meraih ilmu belajarlah untuk tenang dan sabar"
(Khalifah 'Umar)

DEDICATION

With the thanks to Allah SWT, this simple work is dedicated to:

1. My lovely parents Mr. Agus Sumarsono and Mrs. Nunung Nurlaila who was pray for me and support me in every step.
2. My sisters Vicky Ayu Romadhoni and Vina Meisyana and my brothers Frietz Handy Kristanto, Reno Bayu Adha and Deska Adhi Nugroho who was give me support in everything.

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ABSTRACT

The purpose of this study is to determine the unit cost of educational services per student in class X IPA SMA Negeri 1 Cipari based on Activity Based Costing (ABC) model.

The object of this study was the unit cost of students in class X IPA SMA Negeri 1 Cipari in academic year 2015/2016. Data collection were conducted by interview and documentation. Subjects of this study consist of the finance staffs and head of school administration. The analytical method used in this research was descriptive with quantitative approach. The descriptive analysis with quantitative approach was carried out to expose the results of the calculation of unit cost nominal rate of students in class X IPA SMA Negeri 1 Cipari.

The result of this research showed that educational unit cost based on Activity Based Costing (ABC) model in SMA Negeri 1 Cipari for class X IPA 1 Rp 1,588,887.23 per month per student, for class X IPA 2 Rp 1,571,658.295 per month per student, and for class X IPA 3 Rp 1,588,887.23 per month per student.

Keywords: Unit Cost, Activity Based Costing (ABC), SMA Negeri 1 Cipari, Education Services

ANALISIS BIAYA SATUAN (UNIT COST) BERDASARKAN MODEL ACTIVITY- BASED COSTING (ABC) DI KELAS X IPA SMA NEGERI 1 CIPARI KABUPATEN CILACAP TAHUN AJARAN 2015/2016

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ABSTRAK

Penelitian ini bertujuan untuk mengetahui besarnya biaya satuan (unit cost) pelayanan pendidikan per siswa di kelas X IPA SMA Negeri 1 Cipari berdasarkan model Activity-Based Costing (ABC).

Objek penelitian ini adalah unit cost siswa di kelas X IPA SMA Negeri 1 Cipari tahun ajaran 2015/2016. Pengumpulan data dilakukan dengan teknik wawancara dan dokumentasi. Subjek penelitian ini adalah bendahara dan kepala TU. Metode analisis yang digunakan dalam penelitian ini adalah deskriptif dengan pendekatan kuantitatif. Analisis deskriptif dengan pendekatan kuantitatif dilakukan untuk memaparkan hasil perhitungan nominal angka unit cost siswa di kelas X IPA SMA Negeri 1 Cipari.

Hasil penelitian menunjukkan bahwa biaya satuan penyelenggaraan pendidikan berdasarkan model Activity Based Costing (ABC) di SMA Negeri 1 Cipari untuk kelas X IPA 1 sebesar Rp 1,588,887.23 per bulan per siswa, untuk kelas X IPA 2 sebesar Rp 1,571,658.295 per bulan per siswa, dan untuk kelas X IPA 3 sebesar Rp 1,588,887.23 per bulan per siswa.

Kata kunci: unit cost, Activity Based Costing (ABC), SMA Negeri 1 Cipari, Layanan Pendidikan

FOREWORD

I would like to thank Allah SWT almighty that has given me His bless and His mercy so this undergraduate thesis entitled "THE ANALYSIS OF UNIT COSTING BASED ON ACTIVITY- BASED COSTING (ABC) MODEL IN CLASS X IPA SMA NEGERI 1 CIPARI KABUPATEN CILACAP ACADEMIC YEAR 2015/2016" finally been finished. I realize that it wouldn't have been possible without the support of many people. Therefore, I would like to express my deepest gratitude to the following:

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7. All my Classmate of the International Accounting Education class 2012.
8. All my friend that I can't write one by one.
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That's all, the author realizes that this thesis has not been perfect. The suggestions and criticisms are expected in the completion of this thesis. Authors hope that this thesis can provide things that are useful and add insight to reader and especially for the writer as well.

Yogyakarta, March 31th 2017
The Author,

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CHAPTER I
INTRODUCTION

A. Background Problem

An educational institution is a non-profit institution that should be well-organized and accurate in arranging information about cost. Determining educational cost should be suitable with feedbacks of education users whether the cost is too cheap or even too expensive. Therefore, it is very important for an educational institution, in this case, a school, to do a cost analysis.

In implementing education, educational cost is the most important part. Cost makes all activities run, including educational activities. Schools' budgets come from many resources, such as the government, donation, business and students' parents. In the budget management, the school simply records the budget they obtain and the cost without any clear details. The Government's Regulation Number 32 Year 2013 about National Education Standard explains that basically, educational cost includes investment, operation, and personal cost. Investment cost includes facilitation, people development, and working capital cost.

According to Indra Bastian (2007), the development of cost calculation in primary and middle schools is unable to answer the challenge of autonomy and globalization era. The cost calculation is very simple and cannot reveal principal information as a material or reference of decision making. Also, it is merely information of cost per unit for staff's and non-staffs' expenditure budgets. The calculation cannot reveal and show informative data.

In the progress of the times should be the calculation the cost of school education shifted to a more precise method, no longer using the traditional method which only records the expenditure and income of the cost of course. Activity Based Costing (ABC) is a development in the world of accounting costs. This model was developed in early 1990s in U.S.A and have successfully help the professional to manage the causes of cost, i.e. activity. Some companies in Indonesia already implemented Activity Based Costing System, but is still focused on the determination of cost product.

In managing the financial aspect of education, it is important to analyze and calculate the total educational cost and student unit cost. By analyzing those cost, the school is expected to be able to know the efficiency on the use of schools' funds and government spending on education investment. Cost Analysis Unit gave the basic formula to be used by schools in charging educational cost.

In a survey of budget management in SMA Negeri 1 Cipari academic year of 2015/2016, the school received funds from the government and parents. Total funds from the government were Rp 707,427,550 and the total funds from parents were Rp 1,428,860,000. The total funds from the government only covers 33.13% and it was not enough to covers all cost of education in school, so the school take the money from parents to covers it. The current cost of education is determined by the income of parents. Therefore, each student pay different amount of fees each month. Of 539 students, 10 students receive scholarships (free of tuition fee each month), 85 students charged Rp 85,000

each month, 197 students charged Rp 135,000 each month, and 247 charged Rp 175,000 each month. The existing calculation might give inaccurate information about the real unit cost of education. The researcher thought that an analysis of cost calculation need to be conducted. It could provide more detailed and accurate information based on the school's activities. The Activity Based Costing model (ABC) has never been used to calculate the education cost in SMA Negeri 1 Cipari. Therefore, the researcher was interested to do The Analysis of Unit Costing Based on Activity Based Costing (ABC) Model to determine unit cost of educational activities of each student in SMA Negeri 1 Cipari. It is hoped that by using ABC calculation, educational cost can be measured accurately by tracking not only all students at the school, but also each student. ABC will give useful information for the school administrator to determine the standard of educational fee and reducing or even eliminating non-value added in the school's operation.

Based on the explanation above, the researcher was intended to analyze unit cost of each student in class X IPA SMA Negeri 1 Cipari. There are two majors in SMA Negeri 1 Cipari namely Natural Science (IPA) and Social Science (IPS). The students are placed in their major since their first grade. The researcher choose to conduct unit cost analysis in class X IPA, because IPA class has more activities such laboratory practices and the procurement of laboratory equipment and materials that require a lot of costs in their implementation. The laboratory of IPA are includes physic laboratory,

chemistry laboratory and biology laboratory. The calculation of unit cost in class X will provide insight for cost management in higher grades.

If a school can calculate unit cost of each student accurately and provides clear, accountable and valid information of educational cost, it is hoped that all parties at the school, especially at the high school, the central government, regional government, citizens, and administrators of the school themselves can use the information as the reference in decision making and management policy, development and education participation effectively and efficiently. Thus, the researcher tried to do research entitled "The Analysis of Unit Costing Based on Activity-Based Costing (ABC) Model in Class X IPA SMA Negeri 1 Cipari Kabupaten Cilacap Academic Year of 2015/ 2016.

B. Problem Identification

According to the background of the problem, the identification of the problem of this research are as follows:

1. SMA Negeri 1 Cipari has limited fund to covers their activities.
2. SMA Negeri 1 Cipari cannot explain educational cost efficiently and accurately.
3. Class X IPA has a lot of activities that require a lot of costs in the implementation.
4. ABC is never been used to analyze the educational unit cost in SMA Negeri 1 Cipari.

C. Problem Restriction

According to the identification of the problem mentioned earlier, the researcher limited the problem of the research which was the calculation of educational unit cost presented based on Activity Based Costing (ABC) model in SMA Negeri 1 Cipari in the academic year of 2015/ 2016.

D. Problem Formulation

Based on the background of the research, the problems are formulated as follows:

1. How can we apply the procedures of calculating education cost by ABC in SMA Negeri 1 Cipari?
2. How much is the educational unit cost calculated by ABC model in the natural science program class X of SMA Negeri 1 Cipari academic year 2015/2016?

E. Research Objective

The research objectives are:

1. To apply the procedures of ABC model in calculating educational unit cost in SMA Negeri 1 Cipari.
2. To know the educational unit cost calculated based on ABC model in natural science program class X of SMA Negeri 1 Cipari academic year 2015/2016.

F. Research Benefits

1. Theoretical Significances

   The results of the research were hoped to give knowledge, data and information to add references about educational unit cost and to conduct further research about the same topic.

2. Practical Significances

   a. For the principal of SMA Negeri 1 Cipari, the results of the research were hoped to be a source study to determine the school's income and expenditure budget plans, so activities and management of the school can run well with co-operation of citizens and the school itself.

   b. For citizens, the results of the research were hoped to be used as a source study of educational cost that parents' should prepare and as clear and accountable information resources.

   c. For other researchers, the researcher hoped that the results of the research can be an additional reference in calculating educational unit cost with ABC Model.

CHAPTER II
LITERATURE REVIEW

A. The Concept of Educational Cost

Before inspect the educational unit cost that concerning is educational unit cost in SMA, we need to describe, the following:

1. Educational Cost

Cost is a sacrificed or forgone resource to achieve a certain goal. Cost can be measured in a unit of money that needs to be spent in order to get goods/ services. Mulyadi (2012: 3) classifies definitions of cost into two: general and specific meanings. In a general meaning, cost is economical resource sacrifice measured in a unit of money that already occurred in order to accomplish a certain goal. Meanwhile, in a specific meaning, cost is a part of a sacrificed primary price in order to earn incomes.

Carter (2006: 29) explains that cost is defined as the exchange rate, expenditures, sacrifices to obtain benefits. In financial accounting, expense or sacrifice on acquisition represented by the depreciation of current or future in the form of cash or other asset. Hansen and Mowen (2009: 47) defines the cost as:

> "Cost is a money saving or an equivalent value of money saving which sacrificed to get goods or services that are expected to give benefits for an organization in the future. It is equivalent because it is a source which can be exchanged for expected goods or services. So, cost is a dollar as an expected measurement to achieve particular benefit."

Nanang Fattah (2012: 112) defines "education cost as the amount of money earned and spent for various purposes education". Cost is one aspect

of supporting and determinants in an educational process. Where almost all processes in education cost, ranging from core activities are teaching and learning activities to support activities such as study tours student activities, both need whose same cost.

Mulyasa (2004: 47) stated that finance and cost become two important resources for effective and efficient educational management. Educational cost is very important instrumental input in school. It is almost impossible for any activity which ignore educational cost, so it bold that without cost, teaching-learning process (in any educational institution) will not work.

The Regulation of National Education System Number 20 Year 2003 Section 3 mentions functions and goals of education that national education functions to develop skills and shape moral characters and civilization in order to educate a nation, that aims to develop students' potentials to create faithful, well-behaved, noble moral, healthy, knowledgeable, skillful, creative, independent, democratic, and responsible human. The regulation above is an empirical foundation of educational cost in Indonesia. Determination of educational cost is based on goal and functions of education.

Educational cost is a total cost spent by a student, family, individuals, group of people, or the government for education. From all opinions previously, the researcher concluded that educational cost is a total

of money, goods, energy and opportunity sacrifices spent by the government or people to implement teaching and learning processes.

2. Educational Unit Cost

An explanation below is about unit cost that is the main focus in this research. Unit cost in education do not really discuss about it, whereas this cost is very principal in determining cost of each students in finishing education.

Nanang Fattah (2004: 26) defines that unit cost of each student is a mean of each students calculated of total expense of a school divided by the total number of students at the school (enrollment) in a certain period of time. But according to Jusuf Enocvh (1995: 239), unit cost is calculated by dividing total expense of a school with a total number of active students in a certain year, whether in the whole educational system or only at a certain level and type of education or probably, only at a certain school.

Matin (2013: 160-161) says that a concept of unit cost points at a total of routine cost each student spend in one academic year. Unit cost is called educational cost for one student in one year at a certain level of education. Unit cost of each student is calculation that describes how much money effectively allocated to schools for students' needs during their education. On the contrary, Dedi Supriadi (2003: 202) classifies unit cost into three types/ levels. First, at school level, a student's unit cost is that mean of each student each year is the division result of a total of RAPBS and non-RAPBS. Second, for student, unit cost refers to total expense

(family) of a student for education. Third, total unit cost of each student is mean of total budgets given by the government and citizens for the school.

Uhar Saputra (2010: 278) explains that the total of all cost earned or estimated by an educational institution is total cost received by an educational institution in which it is divided by the number of students, so unit cost of each student will be obtained.

In conclusion, educational unit cost is mean cost spent of each student in a certain period of time to attain education. Unit cost can be used as a standard in students' needs fulfillment at school.

3. Classification of Educational Cost

In relation with educational cost, there are a lot of classifications that experts suggest. The government has its own classification of educational cost. In the government regulation Number 48 Year2008 about Educational Budgeting, educational cost is classified into 3:

a. Educational unit cost is used for education implementation at educational unit level covering: investment, operational cost including personnel and non-personnel cost, educational cost support and scholarships.
b. Implementation cost or educational management is used to implement or manage education done by the government, whether by province, district government or educational unit by citizens.
c. Students' private cost is given by family and students.

According to Matin (2013: 158-159), educational cost is divided into two:

a. Renovation cost is needed to fulfill needs of goods or facilitation to create educational service in a long-term period, such as building school, providing learning instruments, etc.
b. Routine cost is used in long-term period continuously, regularly or repeatedly every month, every semester or every year, such as teachers', administration staffs' and other staffs' salary, operational, building, and schools' equipment including water and electricity maintenance cost, etc.

Dedi Supriadi (2003: 4) in a theory and practice of educational cost, in macro or micro order, educational cost is classified into 3:

a. Direct cost is all expense directly in order to support the implementation of education, while indirect cost is indirect expense in order to support educational process, but it is possible to be conducted at school.
b. Private cost is family expense for education or known as household expenditure, yet social cost is used by citizens for education, whether at school or by tax collected by the government in order to fund education.
c. Monetary cost and non-monetary cost

Nanang Fattah (2012: 3-4) cost can specifically be modified as follows: direct cost, prime cost, conversion cost, indirect cost, fixed cost,

variable cost, controllable cost, product cost, period cost, joint cost, and standard cost.

Nanang Fattah (2004: 23) divides educational cost into two types: direct and indirect cost. Direct cost consists of those spent for teaching and learning activities including stationery purchase, learning instruments, transportation fare, teachers' salary, given by the government, parents, or the students themselves. Meanwhile, indirect cost is earning foregone in the form of opportunity cost sacrificed by students during learning processes.

In research carried out by *Pusat Statistik Pendidikan Balitbang Depdiknas* in co-operation with Research Organization of University of Indonesia about education budgeting from generation to generation, cost is classified into 6:

a. Money cost is real cost spent for implementation of education, such as teachers' and staffs' salary, material and equipment cost and warehouse cost.
b. Opportunity cost is lost money due to allocated resources for education implementation.
c. Direct cost by students is real cost spent by students for teaching and learning processes.
d. Direct cost by school is spent by schools due to educational activities.
e. Implementation cost is all cost used for school operational.

f. Maintenance cost is all cost used to give support to schools in order to increase the quality of costing and maintenance cost.

According the Government Regulation Number 32 Year 2013 about Budgeting Standard, Section 62, Subsection 1, educational costing consists of investment, operational, and personal cost. Investment cost consists of school construction, equipment and textbooks that last for more than 5 years of usage. Operational unit cost of education includes teachers' salary, materials or used-up educational equipment, indirect operational cost of education such as energy, water, and depreciation cost.

Personal cost is spent by students in order to be able to get involved in learning processes. Personal cost includes registration cost, school fee, textbooks, modules, stationery, and school equipment, practical instruments, evaluation cost, transportation fare, etc.

The government regulation Number 19 Section 1 explains that operational cost of education is a part of educational cost needed to fund operational activities of education to achieve national standard education regularly and continuously. Further, Section 62 explains that operational cost of education consists of:

a. Teachers' and staffs' salary and all the supports
b. Materials or used-up educational equipment
c. Indirect operational cost of education, such as energy, water, telecommunication service, maintenance, overtime incentive, transportation, consumption, tax, insurance, etc.

Investment cost, according to the Government Regulation Number 19 Year 2005 Section 62, includes supplying facilitation and infrastructure, developing human resources, and fixed capital. Meanwhile, the Government Regulation Number 48 Year 2008 classifies investment cost into two: investment cost of educational land and non-education land.

Investment cost, based on *BSNP* in *Naskah Akademik Standar Biaya Pendidikan* (2006: 32-33), consists of material, school building, educational tool, educational media, textbook and other equipment that last for more than one year of usage. Determining educational tool prices:

a. Learning tools (visual aids, computers, laboratories, etc.)

   It is determined based on the valid price standard in some suppliers of educational tools according to technical specifications from Department of National Education.

b. Meubelier

   Prices are determined according to the valid standard prices.

c. Additional References

   It is determined based on the valid retail prices.

d. Educational staff investment: education and training for teachers.

Development of educational staffs, including headmasters, vice headmasters, teachers, administration staffs, office boys, security officers, laboratory staffs, librarians, and school committees. Human resource development includes workshop, seminar, on the job training, training, and education. Development cost includes investment cost, because the use of

development result is not only for one year, but also for more than one year. Yet, since the human resource development cost every year in real value is relatively the same, it can be classified as operational cost.

4. Sources of Educational Cost

Sources of educational cost are one important thing that need to be considered to implement education. The government as a policy manager has a great role in costing education and people as the consumers of education also take role in the implementation of education through educational cost. The following are several opinions about sources of educational cost:

Harsono (2007: 9-10) classifies sources of educational cost into four types:

a. Educational cost from the government
b. Educational cost from students' parents
c. Educational cost from financial institutions and corporations
d. Educational cost from educational institutions themselves

Dedi Supriadi (2003: 5-6) divides sources of educational cost into some levels:

a. At macro level (national):
    1) Tax revenue
    2) Non-tax revenue
    3) Export profits
    4) Other businesses, such as stock investment in BUMN

5) Grant and overseas loan

b. At province and district level

Budget for educational sector comes from the central government plus Regional Revenue stated in RAPBD.

c. At school level

Educational cost is earned from the central government, regional government, students' and society's contribution.

Meanwhile, according to the Government Regulation Number 48 Year 2008 about Educational Budgeting, Section 51, Subsection 1, educational cost is from the central government, regional government, and society. Dadang Suhardan, Ridwan, & Enas (2012: 21) explain that sources of educational cost are from the government, such as APBN and APBD, schools, society, business (corporations), and grant.

In conclusion, there are three sources of educational cost which are from the central government, regional government and society. The cost given by the central government is from tax, non-tax, goods and service export, and other business revenue. Furthermore, cost from regional government is earned from the central government or Regional Revenue. Educational cost from society is directly given by parents, individuals, or institutions and corporations.

5. Analysis of Educational Cost

The researcher analyzed educational cost using Activity Based Costing (ABC) method. Therefore, the researcher will present some definitions, terms, advantages and disadvantages of ABC.

Charles T. Hongren (2008: 170) mentions one of the best ways to improve cost calculation system is to implement a system of Activity Based Costing. Activity Based Costing repair cost calculation system with emphasis on activity as an object of base cost (fundamental).

Indra Bastian (2007: 137) states that Activity Costing System (ACS) can be functioned to calculate educational cost. ACS is a calculating machine in economics approach where cost is the reflection of activity done by the parties, so the cost detail is the detail of needed activities and supporting equipment. The calculation used is division of direct cost and direct routine cost, then is divided by the total number of students to find out their direct/ real needs in general.

According to Nanang Fattah (2004: 26-28), there are two approaches to determine educational cost:

a. Macro Approach

Macro approach is calculation to all educational expense received from various resources, then is divided by the total number of students. The main determining factor in educational unit cost calculation is the policy in educational cost allocation of every country. Every country has different educational unit cost influenced

by teachers' salary and teaching hours, seminar and training, students' grouping at school and in classes, teaching methods and materials, evaluation system and also supervision of education.

b. Micro Approach

Micro approach is cost calculation based on cost allocation per educational component used by students. It analyzes educational cost according to total cost and unit cost based on educational types and levels. Total cost is the collection of cost per educational input components of each school. Educational unit cost per student is the average cost spent to implement education at school per student per year. Unit cost per student is the function of the sum of cost and the number of students at school. Therefore, educational cost per student can be understood by dividing the total educational cost ever year with the total number of students in the certain year.

From several opinions above, it can be concluded that ABC is an approach of costing approach in accordance with activities.

Before the writer discusses more about ABC system, there are some terms that need to be considered:

a. An activity is something done in an organization. It is an action, movement or series of job. It is also defined as a collection of action carried out in an organization that aims to determine activity cost.

b. A resource is an economical element given or used in an activity, for example, in education, teacher, salary, educational tools, etc.
c. Cost object is the final form in which cost calculation is needed. In education, cost object is services.
d. Cost element is the total of cost paid for resources consumed by activities in cost pool, for example, exam, enrollment, practical cost, etc.
e. Cost driver is a factor that causes changes of activity cost. It is a tangible factor used to give cost to activities and from activities to others, products/ services, for example, the number of students, teachers, and activity frequency.

ABC helps reducing distortion caused by allocation of traditional cost. It also gives clear view of how the composition of product, service, and activity differentiation of a company that gives big contribution in a long term. The main benefits of ABC are:

a. ABC presents more accurate and informative product cost that refers to more accurate calculation of product profitability to better strategic about selling price, lines, products, markets and expenses.
b. ABC presents more accurate calculation of cost triggered by activities. It can help management to boost product and process value by deciding a better product design,

controlling cost better, and helping to develop value boosting projects.

c. ABC helps managers give information of relevant cost to take business decisions.

Although ABC gives alternative cost investigation to individual products in better ways, there are a couple of limitations that managers should take into account before using them to calculate cost. The limitations are:

a. Allocation, even if the activity data is available, some cost probably needs allocation to a department or product based on arbitrary volume, because, practically, the activities that cause the cost cannot be found.

b. Neglecting cost, some identified cost is neglected by analysis. An activity that is frequently neglected is marketing.

c. Expense and consumed time. ABC system is very expensive to develop and implement and it is time-consuming.

Mulyadi (1993: 94) says that the procedure of overhead costing using ABC goes through two stages:

1) First Stage

Collecting cost to cost pool that has the same activity go through 4 stages:

a) Identifying and classifying cost to various activities

b) Classifying activities to cost activities, cost at this stage is classified into four categories: activity level init costing, batch related activity costing, product sustaining activity costing, activity costing sustaining facility. The stages are clearly explained below:

(1) Unit Level Activities

These activities are done for each production unit. Unit-level activity cost is in line with the total number of production unit. Unit-level driver is a unit of activities that is different from the number of production and sold goods. All driving stages are in line with unit output and it is only a reference for allocation in relation with the volume used in ABC, for example, at unit-level drive is direct working hours, direct workers' salary, a number of components of raw material and machine working hours.

(2) Batch Level Activities

Activities get every batch processed without considering the number of units in it. For example, a job, such as producing and shipping order of customers are batch-level activity. Batch-level driver is a various unit of activities and the number of

produced and sold unit, for example, driving level, time, and demand of raw materials.

(3) Product Level Activities

Product-level activities re related to product specifications and usually are finished without paying attention to how many batches or units produced and sold.

(4) Facility-Level Activities

Facility-level activities are those forwarded to a company operation, but expanded in something that is not related to volume. These activities are used together along with various types of products.

c) Identifying Cost Driver is a factor that can be explained to overhead consumption cost which will facilitate at identification stage in determining unit cost driver.

d) Determining average per unit cost driver is cost per cost driver unit calculated for activities. It can be calculated using a formula below:

Cost per *unit cost driver* = Total Aktivities/ *Cost Driver*.

2) Second Stage

Searching for and burdening every activities with products using cost driver. Overhead cost of each activity is calculated using a formula below:

BOP charge = Unit cost driver x Cost driver

There are some benefits from using ABC model. Mulyadi (2007: 97) says that ABC system promises a lot of benefits, such as:

1) Presenting plentiful information about activities used by a company to produce products and services for customers
2) Presenting facilities to prepare cost activity fast.
3) Presenting cost information to monitor cost reduction plans
4) Presenting accurate and multidimensional products and services

Although ABC model has plentiful benefits, it is not perfect, since it also have weaknesses, such as:

(1) Activity Based Costing system is a very complex and significant system.
(2) Activity measurement can be very expensive.
(3) ABC implementation is unknown yet, thus presentation or rejection from the system is big enough.
(4) Lack of sources of ABC application. ABC needs adjustment in collecting and processing data that are not fully available.

B. Senior High Schools

A school is a place where teaching and learning processes are held. This is a place where learning processes and interaction between teachers and students happen and a place to develop students' potentials. In Indonesia, there

are a lot of types of school, private and state. This research focuses on Senior High School (SMA).

UU Number 20 Year 2003 about National Education System explains that educational unit is a group of educational service that carries out formal, non-formal and informal education at any level of education. At formal education level, educational unit is classified into three: elementary, secondary and high education. Middle education are Senior High School (SMA), Islamic Senior High School (MA), Vocational High School (SMK), and Islamic Vocational High School (MAK).

The Government Regulation Number 29 Year 1990 about Middle Education that General Middle Education focuses in developing students' knowledge and skills.

The goal of middle education is formulated in the Government Regulation Number 29 Year 1990:

a. To develop students' knowledge to continue education to the higher one and to develop themselves along with the development of sciences, technology and arts;
b. To develop students' skills as the members of society in building relation with social, cultural and natural environment.

C. Related Studies

1. A study conducted by Khairil Pajri in 2013 aimed to describe educational cost of each student on workshop practice of Building Drawing Skill program in SMK 2 Depok, Sleman, Yogyakarta. Unit cost based on ABC

approach showed that class X was Rp 1.124.000, class XI was Rp 1.013.000 and class XII was Rp 987.000.

2. A study carried out by Eka Purwanti and Sumarjo in 2012 aimed to identify material unit cost of workshop practice of Building program in SMK Negeri 2 Yogyakarta. Unit cost based on real calculation per year was Rp 47.735.920 The unit cost per year per student was Rp 561.599. The remaining cost of real needs was Rp 14.773.880.
3. Ibnu Prakosa (2010) conducted a study that aimed to obtain the number of operational cost of education per year per student by using Activity Based Costing (ABC) approach in National Standard and pioneering International Standard Secondary Schools. The results showed that by using a traditional approach in SMP N Y and SMP N Z, misallocation of costing in each program classes held by the schools was found. By using a traditional approach, in SMP N Y, regular classes were Rp 1.066.430, superior classes were Rp 2.448.336, and international classes were Rp 3.999.111. In SMP N Z, regular classes were Rp 1.258.165, superior classes were Rp 2.516.330, and international classes were Rp 4.193.883. Meanwhile, by using ABC, the results showed that in SMP N Y, regular classes were Rp 925.947, superior classes were Rp 2.734.861, and international classes were Rp 4.310.003. In SMP N Z, regular classes were Rp 1.156.504, superior classes were Rp 2.421.535, and international classes were Rp 6.426.803.

D. Conceptual Framework

Every educational activities, such as learning processes and equipment and infrastructure supplies need cost. Educational cost is money or monetary value of needed educational resources to manage and implement education. At school level (educational unit), educational cost is gained from the central government, regional government and society. Until now, SMA N 1 Cipari had not applied costing analysis yet, especially activity based costing analysis that caused school's inability to reveal and provide important information regarding educational cost. Whereas, the information were very needed by the people who are related to the implementation of education, such as the school's administrators, as a reference to tale decisions regarding plan, decision making, and supervision of educational cost.

Lack of information of educational cost impeded the school's administrators to identify the number of resources of each activity, so unclear costing would probably happen. It caused incorrect decision making in relation with the cost allocation for each activity or educational cost decision for each student among study programs.

Activity Based Costing is an accounting calculation model that calculates costing based on resource consumption of done activities. The implementation of ABC hopefully could be an alternative for SMA N 1 Cipari to calculate main prices of education of each student in order to determine unit cost of each student by identifying activities as fundamental cost object and burdening cost according to resource-consuming activities. The implementation

of ABC hopefully could give information of costing to every activity and unit cost more accurately by investigating not only to all students at the school, but also to each unit of student. Furthermore, the implementation of the analysis could be a reference for people to reveal internal wastefulness along with probabilities of how to solve it, as well as give suggestions to develop external productivities and educational benefits through clear educational investment.

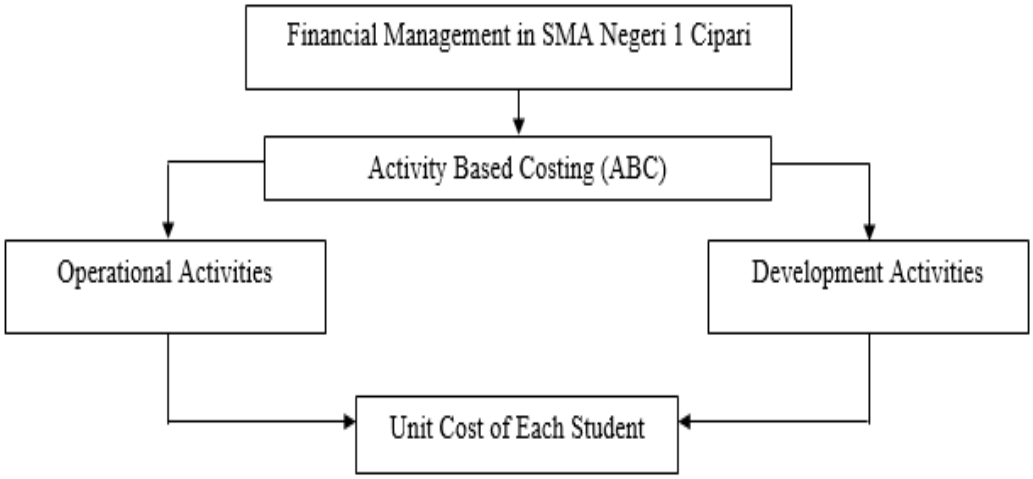


Figure 1. Conceptual Framework

E. Research Questions

According to the formulation of the problem, literature review, and conceptual frameworks, the research questions were formulated as follows:

1. How much the amount of operational costs in SMA Negeri 1 Cipari in academic year 2015/2016?
2. How much the amount of development costs in SMA Negeri 1 Cipari academic year 2015/2016?

3. How much the amount of unit cost in SMA Negeri 1 Cipari academic year 2015/2016 based on Activity Based Costing model in every classes?

CHAPTER III
RESEARCH METHOD

A. Research Setting

This research was carried out in SMA Negeri 1 Cipari located on MT. Haryono Street, Cigatel, Cipari, Cilacap.

B. Research Approach and Method

This research used quantitative approach and descriptive-qualitative analysis method. Descriptive-qualitative analysis method was done to expose calculation of unit cost of each student. The calculation was finished based on Activity Based Costing (ABC) method.

C. Research Data and Data Resources

The data resources were subjects where the data were collected. There were several resources, such as:

1. Person, is data resource that can give verbal data through interviews or written one through questionnaires. The person data in this research were the Finance Staff and Head of School Administration.
2. Place, is data resource that provides stable condition. The data were from SMA N 1 Cipari.
3. Document, is data resource that is able to present alphabets, numbers, figures or other symbols. The data resources included the document of APBS 2015/2016 and the document of RAD (*Rekapitulasi Aset Daerah*) 2015/ 2016.

The research also used data resource such as person and document to collect needed data. The data were:

1. Primary data was gained from person by doing interviews.
2. Secondary data was gained from document by using documentation.

D. Research Subjects and Objects

The subjects of the research were the head of school administration and finance staff. The objects were unit cost of the students class X IPA of SMA N 1 Cipari.

E. Data Collection Techniques

The data collection techniques of this research were:

a. Interviews

Interview is an information tool done by asking several verbal questions. The main characteristic of interview is a direct contact between the interviewer and interviewee. It is done formally. Interview was done to collect data of school financial management, implementation of APBS arrangement, school activities, and reporting system used by the school. The information was gained from the school principal, the head of school administration, and the finance staff. The chosen respondents were the head of school administration and the school finance staff.

b. Documentation

Document is, originally, defined as written things, thus, the researcher investigated and collected students', teachers', staffs', and infrastructure data, APBS and *Rekapitulasi Aset Daerah* (RAD).

F. Research Instruments

The research instrument was interview guideline. The interview guideline contained a list of questions for the interviewees to find deeper information of the unit cost in SMA N 1 Cipari, Cilacap. The blueprint of the interview guideline can be seen in the table below:

Table 1. The Blueprint of the Interview Guideline

Indicator	Informant
Financial school management process	Finance Staff
	Head of School Administration
Source of school funds	Finance Staff
	Head of School Administration
Person who participated in financial school management process with their job	Finance Staff
	Head of School Administration
Financial Reporting System	Finance Staff
	Head of School Administration
Allocating funds to activities	Finance Staff
	Head of School Administration

G. Data Analysis Technique

The data analysis technique used was suitable with the objective of the research that is to obtain calculation of normal cost of each student per month based on the calculation using ABC. In the unit cost calculation, the researcher used ABC method.

1. Activity Study
   a. Identifying all activities in SMA Negeri 1 Cipari
   b. Identifying all resources consumed by the school, whether in the form of budgets, staff, equipment, etc.

c. Identifying number of people, equipment and facilities, salaries, honorarium, and incentives (resources driver) for each component related to activities.

d. Determining relevant cost driver to activities, for example public activities such as electricity, telephone using total drivers.

e. Charging full costs to activities according to consumed resources through chosen and relevant cost driver to main process activities.

2. Cost Object Study

a. Identifying and classifying cost objects.

b. Identifying and classifying the activity driver, such as how long of the room using, total of student, building wide, the use of energy and service for every activity which need a fully cost to relate the activity to the consumed cost object.

c. Fully charge the cost to cost object according to how much the cost consumed through school activity driver.

d. Collecting secondary data, Budgeting standard.

e. Calculating the total of operational cost and development cost in a year.

3. Designing ABC Model

a. Identifying financial data at SMA Negeri 1 Cipari through all processes including managerial process, main process, and supporting process.

b. Reviewing financial data in SMA Negeri 1 Cipari, Budgeting standard.

c. Identifying and making definition of some main activity in school into the activity detail which define all activity. It reflects all managerial processes, main and its supporting process.
d. Identifying and setting cost object, direct labor cost, direct material, and overhead cost.
e. Identifying expense category, cost driver, and cost component.

CHAPTER IV
RESEARCH RESULT AND DISCUSSION

A. Results

1. General Data

a. Profile of SMA Negeri 1 Cipari

SMA Negeri 1 Cipari is a middle educational institution located in Cipari on MT. Haryono Street, Cipari, Cilacap. It was established on May 5, 1992 with a name of SMA Negeri Kedungreja based on the decree Number 0216/O/1992 that later was changed into SMA Negeri 1 Cipari on March 7, 1997 based on the decree Number 35/O/1997.

SMA N 1 Cipari is in the run to create and develop character and quality students with vision and mission as follows:

a) Vision: to be an advanced school in faith and good value.

b) Mission:

1) To implement active, creative, effective and enjoyable learning processes,

2) To give academic knowledge to students to continue to higher education,

3) To realize competitive academic and non-academic achievement,

4) To realize professional teachers and educational staffs,

5) To provide available learning needs,

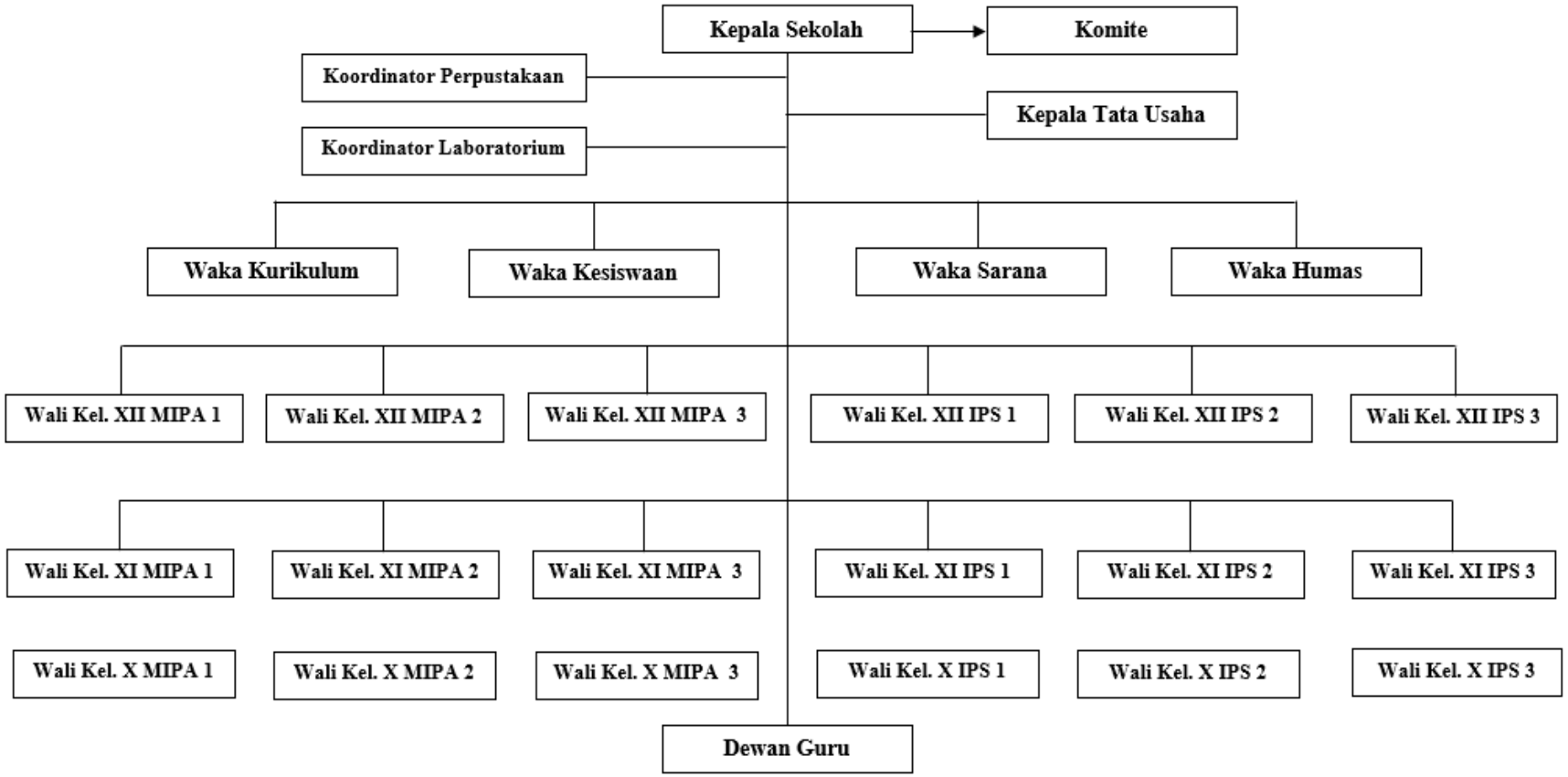
6) To create religious, culture, and adaptable characters,

7) To realize clean, healthy, beautiful, and neat school environment,
8) To conduct curricular activities and self-development according to the students' interests and skills,
9) To realize affordable, proper, and fair educational cost,
10) To realize transparent, sophisticated and accountable school management.

b. Organization Structure of SMA Negeri 1 Cipari

There is the organization structure of SMA Negeri 1 Cipari that shown on the following chart:

ORGANIZATION STRUCTURE
SMA NEGERI 1 CIPARI



Source: SMA Negeri 1 Cipari

Figure 2. Organization Structure of SMA Negeri 1

2. Specific Data

a. The Students and Study Clubs

SMA N 1 Cipari is a senior high school that has two study programs: Natural Science and Social Science Programs. The following is the table of the number of classes:

Table 2. The Total Number of Students

Classes	Number of Classes	Number of Students
X IPA	3	91
XI IPA	3	84
XII IPA	3	93
X IPS	3	90
XI IPS	3	91
XII IPS	3	90
TOTAL	**18**	**539**

Source: SMA Negeri 1 Cipari

b. Teachers and Educational Staffs

The school are supported by 37 teachers and 14 staffs. Below is the details:

Table 3. Data of the Number of Teachers

The Employee Status	Level of PNS			Total
	II	III	IV	
1. Govermental Teacher				
- Diknas/Pemda's PNS	-	12	11	23
- Depag's PNS	-	1	-	1
2. Non Govermental Teacher	-	-	-	13
Total				37

Source: SMA Negeri 1 Cipari

Table 4. The Number of Staffs

Position	PTT	Level of PNS				Total
		I	II	III	IV	
Head of School Administration	-	-	-	1	-	1
Finance Staff	1	-	-	-	-	1
School Administration Staff	3	1	1	-	-	5
Library's Official	1	-	-	-	-	1
Laboran	1	-	-	-	-	1
Students Staff	1	-	-	-	-	1
School Guard	1	-	-	-	-	1
Gardener	1	-	-	-	-	1
Security	1	-	-	-	-	1
Helped	1	-	-	-	-	1
Total						14

Source: SMA Negeri 1 Cipari

c. Infrastructure

Table 5. Detail of Rooms

No	Rooms	Total	Large
1	Office Building	1	$216\ m^2$
2	Pantry	1	$24\ m^2$
3	IPA's Lab	1	$144\ m^2$
4	IPS's Lab	1	$120\ m^2$
5	Computer's Lab	1	$120\ m^2$
6	Multimedia's Lab	1	$120\ m^2$
7	Mosque	1	$64\ m^2$
8	Class Rooms	22	$1656\ m^2$
9	BK's Room	1	$24\ m^2$
10	UKS's Room	1	$27\ m^2$
11	Kopsis's Room	1	$40\ m^2$
12	Library	1	$120\ m^2$
13	Toilet	3	$63\ m^2$
14	Basket's Room	1	$403\ m^2$
15	Garage	1	$135\ m^2$
16	Education's Building etc.	6	$460\ m^2$
Total		44	$3736\ m^2$

Source: SMA Negeri 1 Cipari

d. Total of Effective Learning Hours

The total of effective learning hours is the total days allocated by the school to conduct teaching and learning processes effectively. According to the calculation, the total detail of effective learning hours of the whole study levels and programs was identified. The following is a table of total detail of effective hours.

Table 6. The Total Detail of Learning Hours

Classes	Total Hour 1 Week/ Class	Total Lesson's Hour 1 Week/Level	Total of Effective's Week	Total Effective Lesson's Week
Kelas X	42,5	255	32	8.160
Kelas XI	42,5	255	32	8.160
Kelas XII	42,5	255	27	6.885
Total	127,5	765	91	23.205

Source: SMA Negeri 1 Cipari

e. Policy of Financial Management

1) Plans and Budgeting

The financial management process in SMA N 1 Cipari was started with planning or budgeting through arrangement of RKAS or APBS by the related parties of the school, such as the school principal, the vice principal, school committee, school financial staff, and the head of administration. APBS is arranged according to the school's needs for one academic year. The planned needs were summarized by the school management based on request of different parties, such as teachers, staffs, head of school administration, and vice school principal that later would be discussed and put in APBS.

2) Implementation and Management

The stages of costing implementation was done through cost management and each cost resource in which each cost would be managed by different financial staffs. Cost earned from the school committee was used according to APBS, while the cost from the government, such as BOS, APBN and APBD were managed according to each instruction and were distributed via bank. Below is the detail of educational cost gained by SMA Negeri 1 Cipari in the academic year of 2015/2016.

3) Reporting

Reporting stage was carried out through arrangement of costing realization reports. The financial report included several reports, such as monthly report to the school principal, central BOS realization report, committee realization report to be reported to the person in charge of division, and the last was to report it to the plenary meeting attended by the school committees, students' parents, teachers and staffs.

Table 7. Financial Report

No.	Kind of Report	Report Period	Recipient Report
1.	Report of Committee Realization	Monthly (Routine)	School Principal
		Quarterly	-
		Semesterly	Committee
		Yearly	-
2.	Report of Central BOS	Quarterly	Central Departement (*Dinas Pusat*)
3.	Annual Meeting	Yearly	Student's Parents

Source: Interview Result

B. Data Analysis

In this stages the activities at SMA Negeri 1 Cipari divided into two activities, the operational activities and development activities, the operational activities and development activities classified into direct material, direct labor and overhead cost. Implementation of ABC model could be applied in SMA Negeri 1 Cipari implemented the following stages:

a. Review of financial data and business process identification of SMA Negeri 1 Cipari, in this stages the business process divided into three level, they are: the managerial process, main process and support process, managerial process relating to activities implemented planning, organizing, actuating and controlling. As for the activities of:

   1) Determining of the visions, missions and objective of the school

      Activities include the annual meeting held at the beginning of new year academic to determine the direction and policies of the school.

   2) Strategic Making

      Includes activity coordination meetings for the divisions of work assignment to all the teachers and their structural position.

   3) Monitoring and Evaluating

      Includes internal and external supervisions activities on teacher performance or supervisions was conducted in the financial system at the school, other activities such as evaluation in the end of the year.

b. The next process is main process includes:

1) Identification of need and the development of SMA Negeri 1 Cipari products, include the activity of the preparation needs of the students in natural science program (IPA), the preparation of curriculum, the preparation sports practice and tool requirements, preparation of instructional equipment needs.
2) The process of transformation and fulfillment SMA products, activities include teaching, charity program and other activities related to product needs.
3) An additional process in SMA as follows: Olympiad of National Science, activities of leadership exercise and other support activities.

The third levels is supporting process, as follows:

a) Human Resource development process

Includes educational activities and training for teachers, requiring teachers workshop and other various development activities.

b) Procurement Infrastructure process

Procurement activity include the internet hotspot, the procurement computer lab tools.

c) Financial and Administration process

Administration activity such as arrangement of KBM ware, facilities and infrastructure student, curriculum and other activities related to administration and finance.

d) Maintenance

Activities include the maintenance of school buildings, maintenance of facilities and infrastructure belonging to school. The third levels of the above, all of activities undertaken with regard to managerial process, main process and supporting process and contained in a finance-managed with the receipt and expenditure of school, here is the resource of the budget accepted by the SMA Negeri 1 Cipari in 2015/2016

Table 8. SMA Negeri 1 Cipari Budget in 2015/2016

No	Source of Fund	Total (Rp)	Proportion
I.	**Government Assistance**		33.12 %
	a. APBN	646,800,000	
	b. APBD of District	60,627,550	
2.	**DPPOT/DPPM**		66,88%
	a. Operational Non BOS (Rp 185,000 x 12 months)		
	- Rp 0 x 12 months x 10 students	0	
	- Rp 85,000 x 12 months x 85 students	86,700,000	
	- Rp 135,000 x 12 months x 197 students	319,140,000	
	- Rp 175,000 x 12 months x 247 students	518,700,000	
	b. Cost of Infrastructure		
	1) Class X non BOS (Rp 1,400,000 x 190 students)		
	- Rp 0 x 3 students	0	
	- Rp 500,000 x 44 students	22,000,000	
	- Rp 800,000 x 32 students	25,600,000	
	- Rp 1,400,000 x 111students	155,400,000	
	2) Class XI non BOS (Rp 850,000 x 168 students		
	- Rp 0 x 3 students	0	
	- Rp 400,000 x 23 students	9,200,000	

No	Source of Fund	Total (Rp)	Proportion
	- Rp 550,000 x 77 students	42,350,000	
	- Rp 850,000 x 65 students	55,250,000	
	3) Class XII non BOS (Rp 750,000 x 181 students)		
	- Rp 0 x 10 students	0	
	- Rp 350,000 x 18 students	6,300,000	
	- Rp 500,000 x 87 students	43,500,000	
	- Rp 750,000 x 66 students	49,500,000	
	c. Students Activities (Class X,XI,XII= 539 students)		
	- Rp 0 x 10 students	0	
	- Rp 180,000 x 187 students	33,660,000	
	- Rp 180,000 x 167 students	30,060,000	
	- Rp 180,000 x 175 students	31,500,000	
	Total Income	**2,136,287,550**	**100%**

Source: SMA Negeri 1 Cipari

SMA Negeri 1 Cipari have activities that can be grouped into operational activities and development, here are the operational activity of SMA Negeri 1 Cipari:

Table 9. Operational Activities of SMA Negeri 1 Cipari in 2015/2016

No	Operational Cost
1	Teachers salary and Incentives
2	Education Staffs salary and Incentives
3	Learning activities
4	Student activities
5	Stationary of study program
6	Supplies
7	Equipment
8	Transport
9	Procurement of exam papers
10	Maintenance
11	The other expenses

Source: SMA Negeri 1 Cipari

Activities related to operational activities in SMA Negeri 1 Cipari in 2015/2016 there are 11 activities. As for the development of activities presented in the following:

Table 10. Development Activities of SMA Negeri 1 Cipari in 2015/2016

No	Development Activities
1	The development of Curriculum
2	Assessors/competence exam
3	Investment and development of programs

Source: SMA Negeri 1 Cipari

Activities related to development activities in SMA Negeri 1 Cipari 2015/2016 there are 3 activities, so that the number of operational and development activities are 14 activities.

c. Identification cost object, direct labor cost, direct material cost and overhead cost. Operational and development activities are grouped into the direct labor cost, direct material cost and overhead cost, below was a table assignment cost object:

Table 11. Determining cost object, direct labor cost, direct material cost and overhead cost

	Description	Details
Cost Object	The overall cost of activities	Education
Direct Labor Cost	Peoples involved in educational activities	Teachers and Staff
Direct Material Cost	The cost of raw materials directly used in education activities	Supplies and equipment
Overhead Cost	Indirect raw materials cost, indirect labor cost and the others indirect cost	Cost of facilities and infrastructures maintenance

Source: SMA Negeri 1 Cipari

Direct cost in this case is the direct labor and direct material costs. Direct labor is cost that used for teachers to produce a competence student. Direct material cost is incurred for material and practice in carrying out activities of teaching and learning in school. Indirect cost namely overhead cost, overhead cost was used in order to supported the activities of primary produce in the form of general activities, routine administration and indirectly contributed in creating quality students.

d. Identification of expense category, cost driver and cost component.

   For easy in doing the calculation of activity based costing models, we need to defined expense category, cost drivers and cost component.

Table 12. Determining expense category, cost driver and cost component

Determining	Description	Details
Expense Category	Fund of education activities expense	Routine expense: supplies, teacher and educational staff expense, maintenance. Development expense: procurement of learning materials.
Cost Driver	Factors that influence cost of activities	Number of students and number of teacher.
Cost Behavior	The scheme of cost absorption that influence by the types of cost drivers	Maintenance, Supplies, procurement of exam papers.
Activity Center	The place of activities	SMA Negeri 1 Cipari

Source: SMA Negeri 1 Cipari

e. Implementation Activity Based Costing (ABC) Model

In implemented the design of ABC model that can be applied in SMA Negeri 1 Cipari, then held the following stages:

1) Cost Drivers analysis

The following data related to the cost drivers research. Data used was collected for academic year 2015/2016, as much:

Table 13. Recapitulation of the Number Students Class X IPA in SMA Negeri 1 Cipari 2015/2016

Classes	**Number of Student**	**Proportion**
X IPA 1	30	33%
X IPA 2	31	34%
X IPA 3	30	33%
Total Students	91	100%

Source: SMA Negeri 1 Cipari

SMA Negeri 1 Cipari has 3 groups of Natural Science Program with the student each class are 31 students.

Table 14. The List of Teachers that teaching in Class X IPA academic year 2015/2016

No	**Name of Teachers**	**Subject**
1	Drs. Bambang Setiawan, MM	Mathematic
2	Drs. Haryono	Indonesia
3	Susilaningsih, S.Pd	Biology
4	Darto, S.Pd	Physics
5	Drs. Sukoya	Sport
6	Rasmin, S.Pd	Chemistry
7	Sri Murni Hidayati,S.Pd	Islamic Education
8	Drs. Jumingan	Nationality Education
9	Lien Sudarlina, S.Pd	History of Indonesia
10	Eni Widiastuti, S.Pd	English Language
11	Istiati, S.Pd	Art and Culture
12	Heru Budoyo, S.Pd	Technology Computer

No	Name of Teachers	Subject
13	Sri Lestari, S.Pd	Counseling
14	Hardiyanto Tri K, S.Pd	Java Language

Source: SMA Negeri 1 Cipari

The number of teacher that are teaching in class X of Natural Science Program are 14 teachers, so that one teacher in every subject.

The number of educational staff in SMA Negeri 1 Cipari 2015/2016 would be presented in the following table:

Table 15. The List of Educational Staffs in SMA Negeri 1 Cipari 2015/2016

No	Name	Position
1	Aminatun	Head of school administration
2	Lusmi Hartati	Administration staff
3	Rakun	Administration staff
4	Eni Sulistyaninsih	Finance Staff
5	Erni Marlinah	Administration staff
6	Puji Wahyuni	Administration staff
7	Yusup Romli	Administration staff
8	Suripno	Laboran
9	Alam Hari Setiawan	Library's official
10	Miftakhur Rohman	Students staff
11	Mursad	School guard
12	Dalimin	Gardener
13	Abdul Majid	Security
14	Koriyanto	Helped

Source: SMA Negeri 1 Cipari

Next was identification of the value of expense activity associated with a specific budget that resulted value of expenditure of funds. The following matrices in general that can be shown:

Table 16. Expense Activity Matrices

No	Activities	Total (Rp)
1	Teachers salary and incentives	611,031,672.02
2	Education staff salary and incentives	283,201,793
3	Leaning activities	73,632,730
4	Students activities	222,031,286
5	Stationary of study program	111,580,000
6	Supplies	184,313,623
7	Equipment	19,031,625
8	Transport	57,988,006
9	Exam papers	43,255,000
10	Maintenance	322,619,372
11	Investment and development of program	57,100,000
12	Other expenses	232,184,400
13	Development of curriculum	2,500,000
14	Assessors/competence exam	117,870,000
	Total	**2,338,339,507.02**

Source: SMA Negeri 1Cipari

Overhead cost allocation used ABC model, after we knew about activity occurred in academic year 2015/216, then the next step would be identified as cost drivers related to activity. The principle of the selection of cost drivers with a basic convenience and availability of data based on exciting data that allocating overhead absorption appropriate activity. Allocation budget of exiting activity is done by calculating the proportion of cost driver against the exciting budget then look for the nominal value of the activity of each class.

f. Calculation of Direct Labor Cost, Direct Material Cost and Overhead Cost in SMA Negeri 1 Cipari

After determined of the overhead cost then proceed with the calculation to determined direct labor cost, direct material cost and

overhead cost in the management of the services in SMA Negeri 1 Cipari.

1. Calculation of Direct Labor Cost

Calculation of direct labor cost comprises the whole of the known expenditures relating to direct cost in SMA Negeri 1 Cipari were teacher salaries and allowances and the driver is total effective hour/class.

Table 17. Direct Labor Cost Education in SMA Negeri 1 Cipari 2015/2016

No	Classes	Total Teacher's Salaries	Total Effective Hour in a year	Direct Labor
1	X IPA 1	611,031,672.02	1,360	449,287.994
2	X IPA 2		1,360	449,287.994
3	X IPA 3		1,360	449,287.994
Number of Teacher		14		

Source: SMA Negeri 1 Cipari

2. Calculation of Direct Material Cost

Calculation of direct material cost also related to activity in SMA Negeri 1 Cipari, the entire expenditure related to direct material cost in each class which consists of stationary educational program, Supplies, Equipment, procurement papers exam would be presented in the following table:

Table 18. Direct Material Cost Calculation in SMA Negeri 1 Cipari 2015/2016

No	Classes	Total (Rp)
1	X IPA 1	118,199,481.84
2	X IPA 2	121,781,284.32
3	X IPA 3	118,199,481.84
Total		**358,180,248**

Source: SMA Negeri 1 Cipari

3. Overhead Cost Calculation

Calculation overhead cost in SMA Negeri 1 Cipari was calculated used the proportion of the cost drivers that would be described there:

Table 19. Overhead Cost Calculation

No	Activities	Overhead Cost			Total
		X IPA 1	X IPA 2	X IPA 3	
1	Educational Staff Salary and allowances	93,456,591.69	96,288,609.62	93,456,591.69	283,201,793
2	Teachers and education staff Development Expense	40,123,333.33	40,123,333.33	40,123,333.33	120,370,000
3	Learning Activities	24,298,800.9	25,035,128.2	24,298,800.9	73,632,730
4	Student Activities	73,270,324.38	75,490,637.24	73,270,324.38	222,031,286
5	Transport	19,329,335.33	19,329,335.33	19,329,335.33	57,988,006
6	Maintenance	106,464,392.76	109,690,586.48	106,464,392.76	322,619,372
7	Investment and development program	18,843,000	19,414,000	18,843,000	57,100,000
8	Others expense	76,620,852	78,942,696	76,620,852	232,184,400
Total		**452,406,630.39**	**464,314,326.2**	**452,406,630.39**	**1,369,127,587**

Source: SMA Negeri 1 Cipari

Table 20. Cost per student class X IPA 1 SMA Negeri 1 Cipari

No	Activities	Cost of indicators			Total (Rp)
		Direct Labor	Direct Material	Overhead Cost	
1	Teachers salary and allowances	449,287.994			449,287.994
2	Educational Staff salary and allowances			94,400,597	94,400,597
3	Learning Activities			24,298,800.9	24,298,800.9
4	Student Activities			73,270,324.38	73,270,324.38
5	Stationary of study program		36,821,400		36,821,400
6	Supplies		60,823,495.59		60,823,495.59
7	Equipment		6,280,436.25		6,280,436.25
8	Exam papers		14,274,150		14,274,150
9	Transport			19,329,335.33	19,329,335.33
10	Maintenance			106,464,392.76	106,464,392.76
11	Other Expense			76,620,852	76,620,852
12	Teachers and Educational Staff Development Expenses			40,123,333.33	40,123,333.33
13	Investment and development			18,843,000	18,843,000
Total		**449,287.994**	**118,199,481.84**	**453,350,635.7**	**571,999,405.534**
Number of student		30	Unit Cost per student/year		19,066,646.85
			Unit Cost per student/month		1,588,887.23

Source: SMA Negeri 1 Cipari

From the table above, it can be explained that the cost of the class X IPA 1 for Direct labor (DL) was Rp 449,287.994 for Direct Material (DM) was Rp 118,199,481.84 and Overhead (OH) was Rp 453,350,635.7. The number of students of class X IPA 1 was 30 students with total expenditure was Rp 571,999,405.534, so the unit cost of class X IPA 1 per year was Rp 19,066,646.85and unit cost per month was Rp 1,588,887.23 per student.

Table 21. Cost per student class X IPA 2 SMA Negeri 1 Cipari

No	Activities	Cost of indicators			Total (Rp)
		Direct Labor	Direct Material	Overhead Cost	
1	Teachers salary and allowances	449,287.994			449,287.994
2	Educational Staff salary and allowances			94,400,597	94,400,597
3	Learning Activities			25,035,128.2	25,035,128.2
4	Student Activities			75,490,637.24	75,490,637.24
5	Stationary of study program		37,937,200		37,937,200
6	Supplies		62,666,631.82		62,666,631.82
7	Equipment		6,470,752.5		6,470,752.5
8	Exam papers		14,706,700		14,706,700
9	Transport			19,329,335.33	19,329,335.33
10	Maintenance			109,690,586.48	109,690,586.48
11	Other Expenses			78,942,696	78,942,696
12	Teachers and Educational Staff Development Expense			40,123,333.33	40,123,333.33
13	Investment and development			19,414,000	19,414,000
Total		**449,287.994**	**121,781,284.32**	**462,426,313.58**	**584,656,885.894**
Number of student		31	Unit Cost per student/year		18,859,899.54
			Unit Cost per student/month		1,571,658.295

Source: SMA Negeri 1 Cipari

From the table above, it can be explained that the cost of the class X IPA 2 for Direct labor (DL) was Rp 449,287.994 for Direct Material (DM) was Rp 121,781,284.32 and Overhead (OH)

was Rp 462,426,313.58. The number of students of class X IPA 2 was 31 students with total expenditure was Rp 584,656,885.894, so the unit cost of class X IPA 2 per year was Rp 18,859,899.54 and unit cost per month was Rp 1,571,658.295 per student.

Table 22. Cost per student class X IPA 3 SMA Negeri 1 Cipari

No	Activities	Cost of indicators			Total (Rp)
		Direct Labor	Direct Material	Overhead Cost	
1	Teachers salary and allowances	449,287.994			449,287.994
2	Educational Staff salary and allowances			94,400,597	94,400,597
3	Learning Activities			24,298,800.9	24,298,800.9
4	Student Activities			73,270,324.38	73,270,324.38
5	Stationary of study program		36,821,400		36,821,400
6	Supplies		60,823,495.59		60,823,495.59
7	Equipment		6,280,436.25		6,280,436.25
8	Exam papers		14,274,150		14,274,150
9	Transport			19,329,335.33	19,329,335.33
10	Maintenance			106,464,392.76	106,464,392.76
11	Other Expense			76,620,852	76,620,852
12	Teachers and Educational Staff Development Expense			40,123,333.33	40,123,333.33
13	Investment and development			18,843,000	18,843,000
Total		**449,287.994**	**118,199,481.84**	**453,350,635.7**	**571,999,405.534**
Number of student		30	Unit Cost per student/year		19,066,646.85
			Unit Cost per student/month		1,588,887.23

Source: SMA Negeri 1 Cipari

From the table above, it can be explained that the cost of the class X IPA 3 for Direct labor (DL) was Rp 449,287.994 for Direct Material (DM) was Rp 118,199,481.84 and Overhead (OH) was Rp 453,350,635.7. The number of students of class X IPA 3 was 30 students with total expenditure was Rp 571,999,405.534, so the unit cost of class X IPA 3 per year was Rp 19,066,646.85 and unit cost per month was Rp 1,588,887.23 per student.

C. Discussion

The implementation ABC model to determine the unit cost each student per month in SMA Negeri 1 Cipari are through 2 stage, the first stage, there are fourth steps (1) identifying and classifying of activities (2) determining cost driver of activities (3) classifying of cost are homogenous (4) calculating of rate group overhead, the second stage, multiplying the overhead rates per group costs by the amount of the cost drivers that are consumed each product.

After identifying and classifying all activities, we can calculate cost driver for each activity cost. Teachers salary and allowances used total effective hour in a year as driver, the total effective hour in a year was 1,360 hour/class. Educational Staff salary and allowance used the number of student as driver. Learning Activities, student activities, stationary of study program, material of consumables, tools of consumables, other expense, power and services, investment and development, used the number of student as a driver. The

teachers and educational staff development expense used the number of teacher and educational staff as driver.

Some activities such as educational staff salary and allowances, learning activities, student activities, stationary of study program, supplies, equipment, exam paper, maintenance, and investment and development are divided by number of student because every student were provided the same opportunity to enjoy the facilities or services.

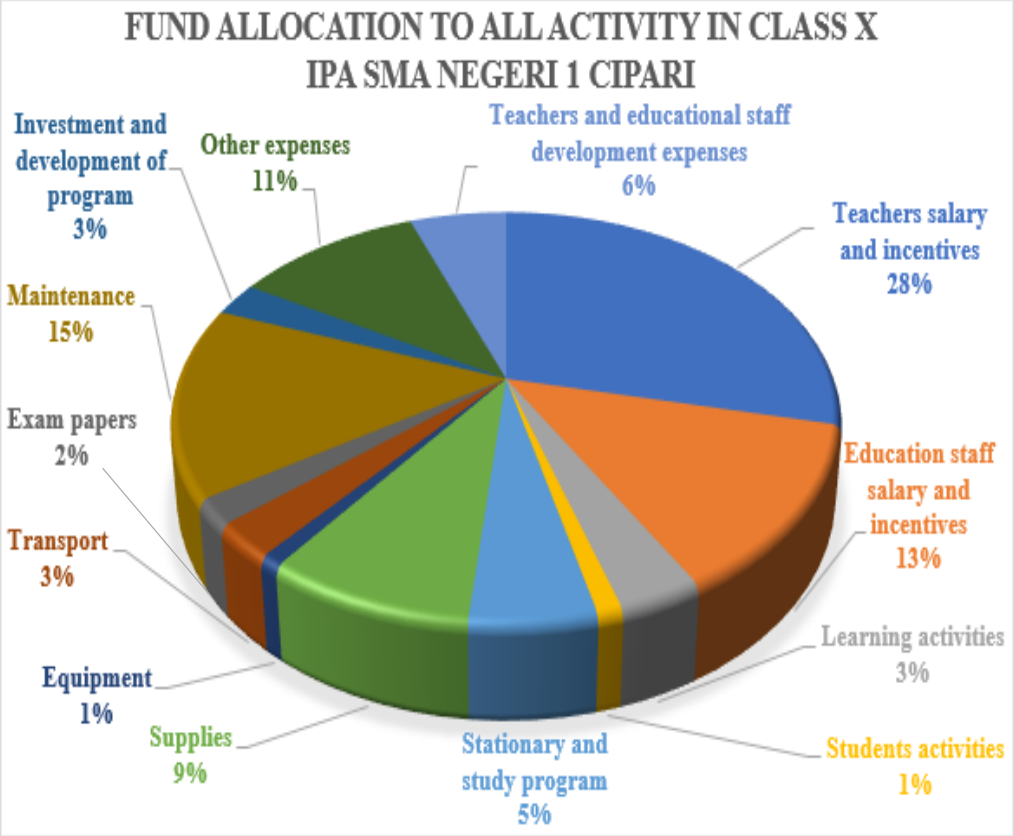


Figure 3. Allocation of educational funds to all activities

Based on the allocation of school total operation cost, teachers salary and incentives were the largest component (28%) followed by maintenance

(15%), education staff salary and incentives (13%), other expenses (11%), supplies (9%), teachers and staff education development expenses (6%), stationary and study program (5%), investment and development of program (3%), learning activities (3%), transport (3%), exam paper (2%), student activities (1%) and equipment (1%) were the lowest component in allocation of school total operation cost.

From the allocation of school operation cost, can explained that the learning activities included the lowest component when learning activities was the main activity in education. To make every component has balance percentage can be done by save the budget on activities that are secondary and tertiary such as painting of building, it can be performed at least every two years.

From the calculation based on ABC model and the chosen stages, we can obtain the cost of class X IPA. The cost of the class X IPA 1 for Direct labor (DL) was Rp 449,287.994 for Direct Material (DM) was Rp 118,199,481.84 and Overhead (OH) was Rp 453,350,635.7. The number of students of class X IPA 1 was 30 students with total expenditure was Rp 571,999,405.534, so the unit cost of class X IPA 1 per year was Rp 19,066,646.85and unit cost per month was Rp 1,588,887.23 per student.

The cost of the class X IPA 2 for Direct labor (DL) was Rp 449,287.994 for Direct Material (DM) was Rp 121,781,284.32 and Overhead (OH) was Rp 462,426,313.58. The number of students of class X IPA 2 was 31 students with total expenditure was Rp 584,656,885.894, so the unit cost of class X IPA 2 per

year was Rp 18,859,899.54 and unit cost per month was Rp 1,571,658.295 per student.

The cost of the class X IPA 3 for Direct labor (DL) was Rp 449,287.994 for Direct Material (DM) was Rp 118,199,481.84 and Overhead (OH) was Rp 453,350,635.7. The number of students of class X IPA 3 was 30 students with total expenditure was Rp 571,999,405.534, so the unit cost of class X IPA 3 per year was Rp 19,066,646.85 and unit cost per month was Rp 1,588,887.23 per student.

D. Research Limitation

1. The calculation done in this research used *Anggaran Pendapatan & Belanja Sekolah* (APBS) 2015/ 2016 as a reference with an assumption that the budgets could be realized 100% as it had been planned.
2. The civil employees' salary was calculated using salary realization in 2015/ 2016 that was the same as that in 2015.
3. There were no details of civil employees' salary due to difficult data investigation in the field.
4. The researcher only used ABC method and did not compare with traditional method.

CHAPTER V
CONCLUSIONS AND SUGGESTIONS

A. Conclusions

According to the result of the calculating unit cost based on Activity Based Costing model, there are two stages to calculate the education unit cost based on Activity Based Costing, the first stage, there are fourth steps (1) identifying and classifying of activities (2) determining cost driver of activities (3) classifying of cost are homogenous (4) calculating of rate group overhead, the second stage, multiplying the overhead rates per group costs by the amount of the cost drivers that are consumed each product.

Based on ABC model analysis, we found that activities in SMA Negeri 1 Cipari included operational activities and development activities. The operational activities consist fourth activities, they are learning activities (the amount of students as cost driver), students activities (the amount of student as cost driver), maintenance activities (the amount of students as cost driver), other expenditure (the amount of student as cost driver). The development activities consist third activities, they are teacher and education staff development (the amount of teacher and educational staff as cost driver), transport fee (the amount of teacher and educational staff), investment and development of program (the amount of students as cost driver). The result show that education unit cost for each student class X IPA 1 Rp 1,588,887.23 per month, for class X IPA 2 Rp 1,571,658.295 per month, for class X IPA 3 Rp 1,588,887.23 per month.

B. Suggestions

According to the research, the researcher gave a couple of suggestions to the parties:

1. For the school

   This research can be used as resource study in determining unit cost. Besides, the school can make cost analysis that can be used for school evaluation as well.

2. For the government

   This research can be functioned as a resource study in analyzing educational cost and can be used to allocate cost needed.

3. For other researcher

   This research can be functioned as reference for the next research with observe this research limitation, so it will deliver a good quality of research.

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APPENDIX