

## ACTIVITY BASED COSTING FOR HUMAN RESOURCE DEVELOPMENT (INDONESIA EXPERIENCE)

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### ABSTRACT

*Tax is one of the most significant components in the revenue of the State Budget (APBN) in Indonesia. In aims to achieve the specified revenue targets, employees within the Directorate General of Taxes (DGT) are required to have credibility and capability in their fields. These can be achieved by increasing the knowledge of DGT employees. One of the methods of education and training applied is e-learning. The purpose of this study is to determine the estimated total cost needed to educate and train one DGT employee through e-learning. Estimated cost calculation is conducted through Activity Based Costing, where each component of the activity to achieve the e-learning output will be charged in total. Activities for organizing e-learning are divided into two activities, namely, main activities and supporting activities. E-learning costs which incurred will be calculated proportionally. From this study, it was found that the most significant cost element to increase the capability of DGT employees through e-learning was supporting activities costs, especially at salaries and allowances.*

*Keywords:* ABC Costing, Human Resource, E-Learning, Indonesia

### INTRODUCTION

Tax is contributed about 80% of revenue in the Budget State of Indonesia. Tax employees are required to be capable and professional in generating revenue from the tax itself. Due to high requirements and capabilities that should be had by tax employees, The Directorate General of Taxation (DGT) cooperates with the Financial Education and Training Agency (FETA) - the Tax Education and Training Center - addressed to improve the quality of human resources as tax agency. Education and training programs that conduct by the Tax Education and Training Center are methods to gain and enrich the knowledge of tax agency around the Indonesia Ministry of Finance.

According to two regulations, namely, the Head of FETA Regulation No. 22/ PP/2019 concerning Guidelines for E-Learning in the Ministry of Finance and Regulation of the Minister of Finance Number 37/PMK.012/2014 concerning Guidelines for Identifying Non-Degree Education and Training Needs in the Ministry of Finance, the education and training program is held through 2 (two) alternatives, classical and non-classical training (e-learning). Classical training is a learning process carried out face-to-face in the classroom. Furthermore, classical training performs to provide facilities and supporting facilities for some physical activities. While e-learning training is competencies development carried out in the learning system by optimizing the utilization of information technology and communication to achieve learning objectives, performance improvement, and public education (Per-2/PP/2019, Article 1). The output of implementation on education and training is the number of participants. This study aims to analyze the number of costs which needed to increase the knowledge of DGT Employees especially in taxation. The DGT employees who as an object of this study are those participants of taxation education and training program, especially at e-learning base system. This study also use Activity-Based-Costing to measure how much the investation for improving human resource in DGT. Participant training cost is charging based on grouping of activities meet to produce one output (per participant of e-learning).

Indonesia uses output standard cost to measure cost per participant of education and training on a daily basis. Output standard cost is the amount to produce output/sub output. According to Minister of Finance Regulation No. 71/PMK.12/2013, the definition of output standard cost is the number of costs needed to produce an output of an activity, which is the accumulation cost of an activity input component. However, the output standard cost is considered not to reflect the total costs incurred of achieving the amount of cost per output (per training participants). Output standard cost does not calculate other costs that arise in supporting activities of the implementation of education and training. Besides, there is a cost distortion to measure how much the real budget to invest in improving human resources capabilities. This distortion makes a bias decision by the Human Resource Manager to plan a budget to enrich knowledge for DGT employees. The big picture is how to plan budgeting properly to meet efficient and effective state expenditures. Therefore, an accurate calculation is strongly needed to measure per output of training participants.

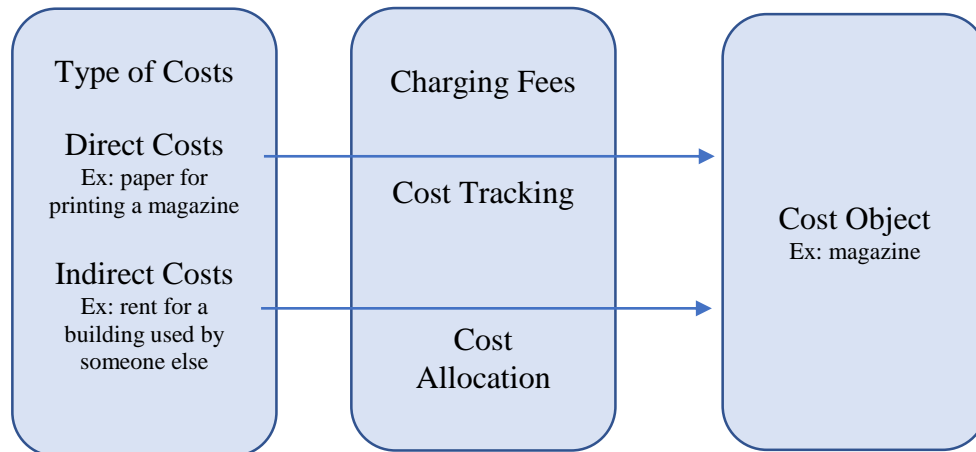
One of the alternative methods that use in Indonesia and other countries to calculate the accurate cost is through the Activity-Based Costing (ABC) approach. Baker (1998,16) defines Activity-Based Costing (ABC) as a "methodology that measures the cost and performance of activities, resources, and cost objects. Resources are assigned to activities, and then activities are determined to cost objects based on their utilization". Kjollesdal (2013,15) quotes the statement of Horngren et al. and Cooper & Kaplan that "One of the best tools for refining a costing system is activity-based costing. Activity-Based Costing (ABC) refines a costing system by identifying individual activities as the fundamental cost object". Consider these statements, and it can be concluded that the ABC method can produce unbiased information on costs because it focuses on each activity. ABC method is considered to be able to provide more accurate calculation results because indirect costs will be allocated using a causal relationship to find out what output absorbs costs and what causes the costs to be absorbed.

Hornigren et al. (2009,54) classify costs into direct costs and indirect costs. Direct cost is related to a particular cost object and can be traced to the cost object in an economically feasible (cost-effective) way. Cost tracing is carrying out to charge costs directly to particular cost objects. Indirect cost is related to specific cost objects but cannot be traced to those cost objects. The imposition of indirect costs to the cost object could demonstrate by performing a cost allocation.

Meanwhile, based on its behavior pattern, costs consist of two basic types, namely variable costs, and fixed costs. Changes in total variable costs are proportional during the changes in overall activity or volume. Fixed cost is unchanged totally for a certain period, even though there is a change in levels related to total activity or volume.

Mulyadi (2005,13) classifying costs according to these expenditures:

- a. Direct Materials is the direct cost of raw materials used for production.
- b. Direct Labor is the direct labor cost used for production.
- c. Factory Overhead is indirect raw material costs, indirect labor costs, and other costs related to the production of goods.



Source: Hornigren (2006, 2-2)

## THE IMPLEMENTATION OF ACTIVITY BASED COSTING

According to (Hansen & Mowen, 2012, pp. 175-185), the imposition of factory overhead costs in Activity Based Costing (ABC) is as follows:

Identify the activities and attributes, including observing and registering work carried out in an organization. The work or action taken is work that absorbs resources—imposing costs on activities through the calculation of resource consumption by activities—a breakdown of activity classification. Activities are grouped to form a collection of similar types. The meaning is being grouped based on the attribute level of the activity and the attributes of the activity activator (cost pooling). The costs of grouped activities are summed to define the same cost groups. The group of overhead calculate by dividing group costs by the practical capacity of activating activities—imposing costs from each overhead group to the product. Loading is done using group rates calculated at the first stage and a measure of the number of resources consumed by each product.

Therefore, this research presents six chapters. The first chapter will provide an introduction that contains background, research problems, and research questions. The second chapter will discuss literature from previous studies. The third chapter presents the data and methodology used in this study to answer research objections and research questions. The Fourth chapter focus on the result and findings. The next chapter will reveal the conclusions. Finally, implications and recommendations will be presented in the last section.

## PREVIOUS RESEARCH

(Amrullah & Kisworo, 2013), conducted a study entitled "Cost Behavior Analysis and Cost Per Output of Education and Training with an Activity Based Costing System Approach through Budget and Treasury Education and Training Center in 2013". This study aims to determine the behavior of the costs and costs per output of training participants in the Budget and Treasury Education and Training Center. From these studies, it was concluded that the Budget and Treasury Training Center in Fiscal Year of 2013 spent costs that were indirectly related to the implementation of education and training at 81.59% of the total cost associated with the implementation of education and training. This value is magnificent. Therefore, the Budget and Treasury Training Center need to rearrange the budget planning to driver cost forward the primary task and function of Budget and Treasury Training Center - the implementation of education and training activities.

The research, entitled "Activity-Based Costing in Public Sector," implements the ABC method to calculate operational costs per activity at the Grevena Prefectural and Payment Department in Greece in 2007 (Vazakidis, Karagiannis, & Tsialta, 2010). They formulated the stages of ABC application in the public sector as follows:

1. Define the activities per department and employees associated with these activities.
2. Calculate the cost of each activity.
3. Set a weekly work schedule spent by employees for each activity.
4. Measure the cost of each activity based on the working hours needed by each employee for each activity.
5. Calculate salary costs for each employee.
6. Allocate costs for each employee to the department involved, and the activities carried out.
7. Transfer the total cost of each activity to the affected cost object.

Consider to (Nopilia, 2012), conducted research entitled "Estimated Calculation of the Cost of Organizing Hajj with Activity-Based Costing." This study aims to determine the cost per pilgrimage participant at the Jakarta - Pondok Gede embarkation in 2010. The conclusion obtained from this study is that the cost of performing the pilgrimage charged by the government to pilgrims is less than the estimated price of the KBIH on consumption and accommodation costs incurred government.

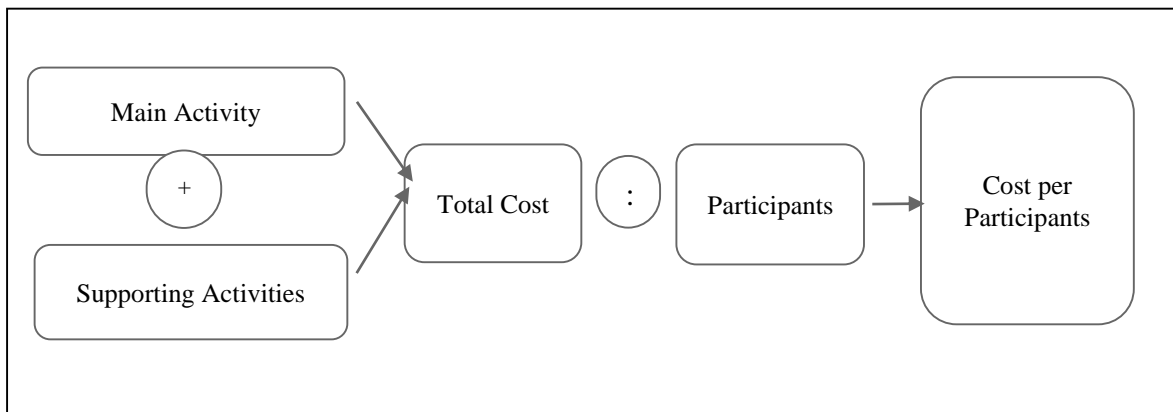
(Al-Halabi & Shaqqour, 2018), their study shows the significant effect of applying activity-based costing on the efficiency of performance in Jordanian manufacturing corporation. The results found that the application of ABC has an enormous impact on managing resources, performance efficiency, cost reduction, and cost unused capacity in Jordanian Manufacturing Corporation. The main difficulties were differentiated between value-added, and non-value-added activities.

(Oseifuah, 2014), his study that held in South Africa found that the key elements of efficient organizational decision making are using reliable information like operational and managerial accounting data. This cannot be achieved by using activity-based costing (ABC) method. There is a unique characteristic of public sector organizations as overhead-intensive service entities. The public sector uses ABC because it can provide cost information related to government services for strategic decisions.

## RESEARCH METHOD

The research method used is descriptive-quantitative. The secondary data are taken and processed using a grouping of activities through the Activity-Based Costing (ABC) method. The types of driver activities are grouped into main activities and supporting activities. The scope of this study is limited to measure the cost per training participant (DGT employee) through e-learning in 2019. The data obtained from Work Plan and Budget of The Tax Education and Training Center for Fiscal Year (FY) 2019, Performance Report of Tax Education and Training Staff for FY 2019, Depreciation Report of State Property Tax Training Center for FY 2019, Salary List of Tax Education and Training Center's Employee for FY 2019, and direct observation at the Tax Education and Training Center in 2019.

## RESEARCH MODEL



## ANALYSIS AND RESULT

Tax Education and Training Center has the main task of fostering and organize education and training. Besides, they also have to upgrade the knowledge, especially in taxation. The Tax Education and Training Center has 6 (six) functions to implement education and training programs as follows: (1) Plan, compile, and develop the education and training program for state finances, especially in taxation. (2) Prepare and establish taxation curriculum education and training. (3) Prepare and develop competencies of teaching staff in the tax sector. (4) Organize the implementation of education and training in the tax sector. (5) Evaluate and report the performance of the application of education and training in the tax sector. (6) Implement all of the activities like administrative, financial, household affairs, asset management, staffing, and public relations.

The Tax Education and Training Center was supported by 111 employees to carry out the work program in 2019 (source: Employee Performance Report of Tax Education and Training Center in 2019). The Tax Education and Training Center receives a budget of Rp. 35,743,823,000. - to hold all of their functions and tasks. The budget allocation is presented in detail per output

in the Work Plan and Budget Document of Tax Education and Training Center 2019. The entire budget is used to produce 5 (five) main activities. The budget allocation per activities of Tax Education and Training Center consists of:

Table I. Budget Allocation on Work Plan and Budget of Tax Education and Training Center 2019

Code	Description	Budget Allocation (Rp)
1736.501	Knowledge Management and Research Services	435.022.000
1736.502	Learning Services in Taxation	15.199.840.000
1736.951	Internal Infrastructure Services and Facilities	1.24.568.000
1736.970	Work Unit Management Support Services	919.719.000
1736.994	Office Services	17.947.674.000
	Total Budget	35.743.823.000

Source: Processed from Work Plan and Budget of Tax Education and Training Center 2019

The Tax Education and Training Center targeted 26,406 training participants in 2019. These participants are number of total participants who attended a classical base system and e-learning system. The Tax Education and Training Center has 87 types of learning programs, include a Classical and E-learning base system. Meanwhile, there are only 18 programs conducted in the e-learning base system. This e-learning method realizes 16,335 participants as the output. The 18 types of learning programs are as follows:

Table II. Realization of Participants for Tax E-Learning Program 2019

No	E-Learning Program	Class	Participants
1	Account Representative Technical Training Class I and II	4	278
2	Annual SPT Reporting Technical Training for ASN Batch I and II	30	1292
3	Basic International Taxation Technical Training	1	29
4	PTPD Group II Equation Material Workshop	11	276
5	Basic Law of Tax Technical Training	15	1540
6	Technical Training on General Provisions and Basic Tax Procedures (KUP)	15	1540
7	Basic Income Tax (PPh) Technical Training	15	1538
8	Technical Training on Sales Tax and Value Added Tax and Sales Tax on Luxury Goods (VAT and PPn BM) Basic	15	1538
9	Technical Training on Income Tax Withholding and Basic Collection (Poupot PPh)	15	1537
10	Basic Tax Accounting Technical Training	15	1535
11	Technical Training on Financial Statement Analysis and Basic Notification (ALK and SPT)	15	1529
12	Basic International Tax Technical Training	15	1525
13	Technical Training on Property Evaluation of Land and Building Tax (PBB P3L), and Basic Stamp Duty	15	1519
14	Basic Tax Technical Training for DGT Employees	1	141
15	E-Learning System for Administrator	5	141
16	Taxation Technical Training for Non DGT Employees	1	1
17	Basic Tax E-Learning	8	290
18	DGT Business Process Technical Training	1	129
	Total	197	16.335

Source: Processed from Work Plan and Budget of Tax Education and Training Center 2019

The Internal infrastructure services activities received a budget allocation of Rp. 1,241,568,000, - with the following details:

Table III. Budget Allocation for Internal Tax Facilities and Infrastructure Service Activity 2019

Code	Description	Budget Allocation (Rp)
1736.951	Internal Facilities and Infrastructure Services	
052	Procurement of Data Processing and Communication Devices	371.246.000
053	Procurement of Office Facilities Equipment	152.119.000
054	Construction / Renovation and buildings	718.203.000
	Total	1.241.568.000

Source: Processed from Work Plan and Budget of Tax Education and Training Center 2019

### ASSETS DEPRECIATION IN 2019

The utilization of assets for implementing the primary function of in Tax Education and Training Center causes depreciation of the assets itself. The meaning of depreciation which represented in the Government Accounting Standards Statement (GAAS) as an adjustment in value concerning the decrease in capacity and benefits of an asset. Adjustment is needed to show a reduction in value through the consumption of potential benefits of assets due to utilization, obsolescence, and other evidence. The GAAS Article 07 states that there are 3 (three) depreciation methods that can be used, namely the straight-line method, the multiple declining balance method, and the unit of production method. The Tax Education and Training Center applies the straight-line method for calculating asset depreciation. This table shows a group of asset depreciation in Tax Education and Training Center FY of 2019:

Table IV. Asset Depreciations of Tax Education and Training Center FY of 2019

No.	Asset	Depreciation (Rp)
1	Equipment and Machinery	3.799.509.143
2	Buildings and Buildings	874.242.177
3	Irrigation	-
4	Network	-
5	Remodeling of Fixed Assets	-
6	Other Fixed Assets	-
7	Property, Plant and Equipment not used in government operations	4.380.444.734
	Total	9.054.196.054

Source: Processed from Annual Depreciation Report of Tax Education and Training Center FY of 2019

Employee costs (labor costs) consist of basic salary, structural/functional allowances, rounding up civil servant salaries, rice allowances, overtime pay, and special allowance for Ministry of Finance employee, called TKPKN. This study use the latest data of 2019 for employee salaries. The calculation of income for employee determined net income after deducting income tax. This net income reflects the amount of net income received by the Tax Education and Training Center employee in 1 (one) year. The table shows the details of employee costs:

Table V. The Income of Tax Education and Traing Center Staff in 2019

Description	Costs (Rp)
Net income of 111 Employees before tax	28.071.691.000
Income Tax (PPh)	3.071.038.650
Net Income 111 Employees after tax	25.000.652.350

Source: Processed from Employee Data, Salary Payment Recapitulation, TKPKN Payment Recapitulation, and Work Plan and Budget of Tax Education and Training Center 2019

### Simulation of E-learning Cost Calculation per Participant Output Based on Activity-Based Costing (ABC) Method Identification of Activities at Tax Education and Training Center

The Tax Education and Training Center necessary to identify what activities that carried out to calculate costs per output when applied ABC method. The activity identification aims to find out the main activities and supporting activities. These activities are the basis for distributing fees to each product. The activities group of Tax Education and Training Center is obtained by the main function of this company. This activity group will be used to trace the cost of training participants.

These activities are then grouped into the main activities and supporting activities as follows:

Table VI. Activity Grouping

No	Activity	Description	Type of Activity
1.	Study and Program Activities	Conducts education and training assessments as well as planning, compiling and developing state financial education and training programs in the tax sector	Main Activities
2.	Curriculum Activities	Preparing and developing of state financial education and training curriculum in the tax sector	Main Activities
3.	Teacher Activities	Preparing and developing the competence of state finance teaching staff in the tax sector	Main Activities
4.	Training Activities	Organizing education and training in state finance in the tax sector	Main Activities
5.	Evaluation Activities	Evaluate and report on the performance of education and training in state finance in the tax sector	Main Activities
6.	Supporting Service Activities	Implementation of administrative, financial, household affairs, asset management, staffing and public relations	Supporting Activities

Source: Processed from the functions of the Tax Education and Training Center

#### The Calculation of Allocated Costs and Non-Allocated Costs

The calculation of allocated costs (direct costs and indirect costs) and non-allocated costs establish by identifying the types of costs in the Budget and Work Plan of Tax Education and Training Center FY of 2019. Some of the other costs allocated to total costs. These costs generate from expenditure that presenting in Budget and Work Plan, salary costs, other employee allowances (include TKPKN allowance), and assets depreciation of Tax Education and Training Center FY of 2019. These costs will be charged between the number of an e-learning program and the total learning program at Tax Education and Training Center proportionally. This table below shows how all of the costs define into allocated costs and non-allocated costs:

Table VII. The Calculation of Allocated and Non-allocated Costs

Code	Output	Activity	Type of Activity	Costs (Rp)	Cost per E-Learning Participant (Rp)
1736.50 1	Research and Knowledge Management Services				
	Academic Study	Teacher Activity	Main Activities	155.440.000	1.969
	Knowledge Capture	Curriculum Activities	Main Activities	279.852.000	4.545
1736.50 2	Taxation Learning Services				
	Learning Plan and Development Services	Study and Program Activities	Main Activities	80.706.000	1.022
	Internal training for 3-5 days	Training Activities	Not allocated	3.399.986.000	Classical Training
	Training for 6-12 days internal boarding	Training Activities	Not allocated	2.584.432.000	Classical Training
	External boarding orientation training	Training Activities	Not allocated	3.591.551.000	Classical Training
	Seminar	Teaching Activity	Main Activities	224.196.000	6.862
	E-learning				

	Program preparation	Study and Program Activities	Main Activities	36.940.000	2.261
	E-learning services	Training Activities	Main Activities	97.107.000	5.944
	Competency Assessment	Evaluation Activity	Main Activities	1.273.000	78
	Other learning				
	1) Learning Preparation				
	A) Blended learning training	Study and Program Activities	Main Activities	85.636.000	2.621
	B) Basic taxation technical training (Blended learning)	Study and Program Activities	Main Activities	63.773.000	1.952
	C) Technical Training on Data Collection and Information	Study and Program Activities	Not allocated	35.083.000	Classical Training
	D) Training at the Financial Training Centre	Study and Program Activities	Not allocated	42.219.000	Classical Training
	2) Learning Implementation				
	A) Blended Learning	Training Activities	Main Activities	3.826.219.000	117.117
	B) PPNS Management Training	Training Activities	Not allocated	508.500.000	Classical Training
	C) Technical Training on Data Collection and Information	Training Activities	Not allocated	943.367.000	Classical Training
	D) Basic Taxation Technical Training (Blended Learning)	Training Activities	Main Activities	881.032.000	26,968
	E) Training at the Financial Training Centre	Training Activities	Not allocated	615.980.000	Classical Training
	3) Competency Assessment				
	A) Blended Learning Training	Evaluation Activity	Main Activities	41.942.000	1.283
	B) Basic Taxation Technical Training	Evaluation Activity	Main Activities	29.673.000	816
	Taxation Training in the Field of Digital Economics	Training Activities	Not allocated	333.875.000	Classical Training
	Quality Assurance Services	Evaluation Activity	Main Activities	204.816.000	2.594
1736.951	Internal infrastructure and services				
	The calculation of the cost component per participant of e-learning is excluded, but the cost of depreciation of fixed assets is included as an arrangement of e-learning participant components indirectly.				
	Accumulated depreciation expense for state assets in 2019	Support Service Activities	Supporting activities	9.054.196.054	114.679



1736.97 0	Company Management Support Services				
	1) Preparation of Program and budget plans	Support Service Activities	Supporting activities	6.726.000	85
	2) Financial and Treasury Management	Support Service Activities	Supporting activities	3.706.000	47
	3) Staffing Management	Support Service Activities	Not allocated	218.544.000	Related to internal employees of Tax Training Center
	4) General Services, Household Services and Equipment				
	A) Library and archive services	Support Service Activities	Not allocated	7.200.000	Related to internal employees of Tax Training Center
	B) Public Relations Services	Support Service Activities	Supporting activities	90.145.000	1,142
	C) Protocol and Guest Services	Support Service Activities	Not allocated	7.200.000	Related to internal employees of Tax Training Center and guest visits
	D) Implementation of Regional Credit Guarantee	Support Service Activities	Not allocated	12.840.000	Related to internal employees of Tax Training Center
	E) Provision of class and boarding equipment	Training Activities	Not allocated	299.770.000	Classical Training
	F) Assets State and Recording Management	Support Service Activities	Supporting activities	6.430.000	81
	G) Organizing other Administrative and Household Support	Support Service Activities	Supporting activities	78.008.000	988
1736.99 4	Office Services				
	Salaries and allowances	Support Service Activities	Supporting activities	25.000.652.350	316.654
	Office operations and maintenance	Support Service Activities	Supporting activities	9.956.117.000	126.103
	Power and service subscriptions	Support Service Activities	Supporting activities	2.864.568.000	36.282
	Office Maintenance	Support Service Activities	Supporting activities	2.144.128.000	27.157



	Office Operations	Support Service Activities	Supporting activities	726.871.000	9.206
	Total				808.456

Source: Processed from Budget and Work Plan of Tax Education and Training Center FY of 2019

According to the calculation simulation above, the cost to invest for improving the capability of 1 (one) human resource (employee) at the DGT through e-learning spent Rp. 808,456 per participant. These costs generate from the main activities (Rp. 176,032) and supporting activities (Rp. 632,424). The e-learning activity costs in blended learning implementation are created equally between classical and e-learning training. This cost spent Rp.117,117 per participant. While the smallest spending costs of the main activity to contribute to producing 1 (one) output at e-learning participants is the competency assessment of e-learning. It spent only Rp.78 per e-learning participant. This main activity considers an evaluation activity.

Furthermore, the most significant amount of cost that charged to e-learning participant is obtained from supporting activity. This supporting activity, which has prominent costs for allocating to improve tax capabilities of 1 (one) e-learning participant, is salaries and employee allowances. The salaries and employee allowances are charged proportionally between 18 e-learning programs and 87 total training programs. After that, the total realization of e-learning costs will be divided by the total realization of e-learning participants (16,335 participants). The measurement obtained cost to produce one e-learning participant is Rp316,654. Meanwhile, the lowest cost that generates from supporting activities is recording and managing state property, which is Rp.81 per e-learning participant. The accumulated depreciation expense of state assets cost is allocated as an indirect cost that charge to the implementation of e-learning base system training.

## CONCLUSIONS AND RECOMMENDATIONS

According to the analysis results and the calculation that carried out to determine the cost per e-learning participant based on Activity-Based Costing (ABC) in the Tax Education and Training Center, the author can formulate several conclusions as follows:

1. There are 2 (two) activities used to impose on the calculation of costs per e-learning participants, namely main activities and supporting activities. Main activities define to study and program activities, curriculum activities, teaching staff activities, education and training activities, and evaluation activities. While supporting service activities are considered in supporting activities.
2. The amount of cost to improve the capability of 1 (one) employee at DGT through e-learning is Rp. 808,456 per participant. This cost consists of main activities, which are Rp. 176,032 per participant and supporting activities Rp. 632,424 per participant.
3. The total cost obtained from the supporting activities is higher than the cost allocated to the main activities that distribute to per e-learning participant cost in 2019.

## RESEARCH LIMITATIONS

This study uses the data cost of Budget and Work Plan of Tax Education and Training Center FY of 2019. It has meant that the data is not the realization expense to generate per e-learning participant. The utilization of the Budget and Work Plan of Tax Education and Training Center FY of 2019 aims to simplify the calculation and the analysis. Then, the other advantages of Budget and Work Plan document are presenting in detail information on budgeting and activities planning. Furthermore, the scope of this study is limited to measure output costs that be produced from e-learning participants at DGT in the FY of 2019.

Based on the conclusions of the results study, the authors offer these following suggestions: (1) The management can use the Activity Based Costing (ABC) method as an alternative to calculating the participant's costs for preparing the need for education and training budget documents, especially in taxation. (2) The management has to consider improving the budget structure by using the ABC method. This activity intends to reduce the overhead expense from supporting activities which allocate to enhance the capabilities of one participant through the e-learning base system. The main objective is to make the expenditure from the state budget more effective and efficient. (3) For further study that is similar to this study, it is expected that the data used are the realization data like a financial report. It will describe the actual condition and the amount of money that spent to invest in improving the capabilities of DGT employees. Also, the next study could use more than one fiscal year. It will show the trend and the behavior of costs that produce one output (per participants of e-learning). (Al-Halabi & Shaqqour, 2018)

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