

The Effectiveness of Learning Activity Based Costing (LABC) in Teacher Education Institution Based on Science Cluster in Cost Unification Context

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Abstract: Learning Activity Based Cost model is applied and adopted in higher education. The prior concept is Activity based cost. When it based on student learning activity at undergraduate program (S1, the researcher named this model as LABC. ABC model is developed in higher education and set by directorate general of Higher Indonesian in calculating cost unification. For higher education. But unfortunately, the problem rose that teacher education institution in adopting and implementing cost unification(UKT/BKT) still received small amount and insufficient than by public university. Meanwhile learning portion for learning practices and theory in this institution used more money than public universities with learning ratio 70:30. For practices and theory due to this institution developed vocational model. The problem is how department or study program in every cluster both UPI and UM as a representative of teacher education with smaller money will able to adopt and implement LABC model effectively suitable with student cost they received and reached high productivity index. Actually, there is a gap between actual and expected result by every cluster with fund they received. On the other hand, department or study program face the barrier in implementing LABC due to university still using money budget and implement LABC inconsistently. The impact is not only tri dharma unreachd the highly level, but also productivity index is low specifically for research and writing academic journal.

1 INTRODUCTION

Indonesian government set and granted operational cost for public higher education since year 2012, and this program continued until now. It 's strategic policy for actualilizing equaity and equality but in implementing this program university faces the chalenges. The grants is not only for regular university but also for autonomuos public university which open several student recruitment, e.g public national student selection and local university selection with different tariff.

Developing higher education is viewed as human investmen for manpower needs and benefits for global competitiveness nationwide and international. Now adays the cheap cost for every citizen to enter public higher education is the national problem to be solved. The trend is that cost for public universities rise every year and higher than private one. It can be said that private is lower cost than public

universities in general. On the other cases, The government has differenciated the cost of student fees for public universities and teacher education intitutions and it set by ministry of research and higher education. According to prior research result that there are gap both of them on cost unification tariff. For example cost unification in mechanical engineering program in public university 9 million rupiahs and 6.5 million rupiahs per smester for teacher education institution and implied that cost must be accompanied with more government subsidies. Implementing operational cost for public universities is based on ministry of education regulation number 58, year 2012. Sentence 1, which Said:

Operational cost of public higher education is held by government and called BOPTN is as cost assistant from government was given to Public higher education for costing the lack of operational cost by impact of no elevating education fees in public higher education.

The difference of Higher education performance based on learning activity based cost model both public universities and teacher education institution is caused by the portion of practice and learning theory with ratio 70:30 in teacher education as vocational institution. It means that a lot of money spent for buying practice stuff and doing workshop in student learning activity. The criteria of adequacy, equity, appropriateness and effectiveness for costing study program as a research focus and correlated with Productivity indeces in every teacher education.

For conceptual framework on analyzing data and theory, the reseacher hold the financing theory about cost-quality relationship and the ‘laws’ of higher education cost from R. Bowen (1981) and its impact for university productivity (Sulivan, et al, 2012). The research problem is how LABC implemented effectively and its impact in improving academic performance, output profile and productivity indices from UPI and UM.

2 METHODS

This research used mix method both quantitative and qualitative as policy evaluation in financing higher education. This model is related with quantitiatave and qualitative analysis in reaching policy objectives to be quit or continue, (Patton Sawicki, 1986:305). It s also related with making decision (Levin and Mc Ewan, (2001:10). The Approach in evaluation of higher education financing policy is the cost oriented evaluation. It assumed that its government institution and others has a lot of budget for financing their porgrams. Two method were used both cost benefit analysis and cost effectiveness approach and use cross section and time series data.

Two sample for this research are Universitas Pendidikan Indonesia (UPI) located in Bandung, west Java and Univesrsitas Negeri Malang (UM) located in East Java. Finally, for data analysis the reseacher compare two sample related to cost effectiveness and productivity of each institution. Unit analysis for two sample represented as in table 1.

Table 1: The research sample form two university.

No	Science Cluster	UPI	UM
1	Technology/ Engineering	Architecture	Electric engineering
2	Science education	Chemistry science education	Chemistry science education
3	Social education	Economics Education	Accounting Education

For analyzing the productivity, the researcher uses category for measuring Productivity Indexes as in table 2:

Table 2: Productivity index.

81-100	Very High
61-80	High enough
51-60	Lower
- 50	Very lower

And the productivity Calculation can be broken down into four steps:

1. Allocate the quality and expenditure data to the education function.
2. Calculate the change in the quantity data from periode to periode.
3. Calculate the input index
4. Calculate the productive index, (Sulivan, et al, 2012:69-71)

3 RESULTS AND DISCUSSION

UPI and UM were founded in 1954 as higher education of teacher education (PTPG). For adapting the changing these two institutions have became the University since 1999 and set by government regulation and has wider mandate and cross-fertalization for science educations program and non science educations program. UPI with Leading and outstanding vision as an autonomous university but UM still struggle for reaching those status. UM is positioning his campus with “the learning university”. Both universities reach own prestige for academic and non academic manner. The calculating and implementing of cost unification for study program in each instituion is deliberately done by their university. UPI places his status as corporate university and planed to became World Class University (WCU). For describing the improvement of each institution indicated by academic performance, Output profile and Productivity indices can be present as follow.

Table 3: Performance gain of two institutions.

Study Program performance	UPI			UM		
	Accounting	Architecture	Chemistry	economics	Electric engineering	chemistry
Accreditation	B	B	A	A	A	B
Research	85	17	30	45	9	15
Journal	65	70	10	60	30	50
Patten	-	-	1	-	1	1
Cooperation and collaboration with external	-	80	-	-	20	2
Lecturer	12	12	22	31	36	31
Unification cost	11 million	16 million	17, 6 million	8,4 million	9 million	18 million

Table 3 shows that UPI and UM reach different academic performance. Each institution has accredited from B to A. UM has two A's and one B accreditation study program. UPI has two B's and one A accreditation study program. Research and science journal is vary between two university and UPI is more productive in doing research and writing

journal. We can analys it from ratio journal and researcH with lecturer from each study program/ department. Cooperation element describe how study program collaborative with external institution. Cost unification between university shows the strengH of learning activity and UPI is higher than UM.

Table 4: Profile of Output between Two Institutions.

Output Profile	UPI			UM		
	Accounting Ed	Architecture Ed	Chemistry Ed.	Economics Ed	Electric engineering Ed.	Chemistry Ed.
Study time	4 years	5,2 years	4,3 years	4 years	4,7 years	4,2 years
yudisium	3,22	3,22	3,24	3,4	3,23	3,01
Waiting time	3 months	3 months	2-3 months	3,5-5 months	5 months	4 months

Table 2. shows that three cluster of study program at UPI and UM reach academic achievement by each study program by average of study time range from 4-5,2 years and 4- 4,7 years. It means student finish their studies from 8 – 10 for UPI and 8-9 smesters for UM. Average of student yudisium is range from 3,01

– 3,4 at UM and 3,22-3,24 at UPI or good achievement. Finally, the waiting time to work is range from 2-3 months for UPI, and 3-5,5 months for UM. It means the ouput from UPI is relatively faster than UM to get their jobs (see in table 4).

Table.5: Productivity Index on Tridarma of HE.

NO	Tridharma and support	UPI (Percent)	UM (Percent)
1	Educatons (teaching)	82	81
2	Research	74	72
3	Public service	76	75
4	Supporting elemen	72	73
5	Cooperation-collaboation	58	55

Table 5 indicates that productivity index for tridharma achievement of two universities almost the same. It range from 55-82 percents. It means that education (teaching) element gain the very high rank. Research, public service and support element range

72-76 percents or good enough rank, but cooperation or collaboration between universities is only 55-58 percents or lower. It indicated that cooperation and collaboration of these clusters with external element must be elevated and need struggle from the leader of

study program/department. Tridharma of higher education both universities show not only the strength and weakness but also the opportunity and treat. Teaching element is strong but the others still weak and treat for competitiveness. Teacher education as vocational institution use cost by portion 70:30 for practice and theory learning. Doing practices need more resources and need much money. According to research finding for tridharma shows that study programs has a problem for budgeting their study program in their own capacities because of financing these elements is regulated by university finance policy. The university grant the funds to all study program/department and all units in university after they proposed budget by RKAT (annual plan and budget) and the funds drop to them periodically. Every units is monitored and evaluated by internal auditor just in case they find problem in using money effectively and efficiently.

4 CONCLUSIONS

Implementing of learning activity based cost (LABC) in teacher education institution is the new way of budgeting system that set by ministry of research and higher education. This budget model generates the direct cost for academic and indirect cost for managerial aspect on financing university and also study program and departement. This model reflects the managing cost of university that accompanied with government regulation in operational cost for HE (BOPTN) for eligible public university and fund received yearly. On the other hand, teacher education institution (university) implements cost unification for managing fund resource from their students. These new public institution must be race with old public university. They must be competete their academic performance, output and productivity with public university. According to core business of the institution, intitution budget and fligh hour of managing university seems to be far different among them. Cost and productity seems to be corelated and indicated that there are cost-quality relatinship in these institution, but their cost effectiveness still lower. It can be implied that enough and proportional budget for them can elevate their productivity index on tri dharma of Higher education. In this case, teacher education instituion must achieve the higher achievement but got smaller portion in receiving grant from government than public university. It seems to be second level to received the fund from minstry. Finally, they ordered to be contibuted to achieve higher rank unversity globally.

REFERENCES

- Bowen R., H., 1980. *The Cost of Higher Education, HOW much Do Colleges and Universities Spend per Student and How Much Should They Spend?* Jossey-Bass Publisher, San Francisco.
- Hicks T. D., 1992. *Activity –Based Costing for small and Mid-Sized Businesses, Implementation Guide*, New York: John Wiley and Sons.
- Levin., Mc Ewan, 2001. *Cost Effectiveness Analysis, Method and Application* (Second Edition), California: Sage Publications, Inc.
- Patton., Sawicki. 1986, *Basic Method of Policy analysis and Planning*, New Jersey: Prentice Hall, engglewood Cliffs.
- Sulivan A.T, et.al., 2012, *Improving Measurement of productivity in Higher Education*, Washington: The National Academies Press.