

ANALYSIS OF EFFECTIVENESS OF BUDGET ABSORPTION AND GROWTH RATE OF BUDGET INCOME AND EXPENDITURE OF THE MINISTRY OF HEALTH, TIMOR-LESTE

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ABSTRACT

The purpose of this study was to analyse the effectiveness of budget absorption and growth rate of income and expenditure budget of the ministry of health in Timor-Leste also to assist the planning and finance department of ministry of health as a basis information for decision making taking into consideration for the future budget allocation to the Ministry as well as this study also give the empiric contribution to the theory of financial management and will be the references for the future investigation.

This study use the data collection techniques documentation were collected the data through the ministry of health financial report 2015-2019. The data was processed with the descriptive method were the effectiveness of budget measured using the Mardiasomo (2004:4) formula and the growth rate measured using the Halim (2002:291).

The result of study showed that the ration effectiveness of budget income and expenditure the ministry of health 2015-2019 "effective" with rate of effectiveness about 93% and each years within 93%-97%. The ration of growth rate 2015-2019 fluctuated between quite successful to very successful with rate growth within 65%-103%.

Keywords : effectiveness, growth rate , budget absorption.

1. INTRODUCTION

Become us upper middle income with quality of life to all citizens by 2030 is dreams for Timor-Leste according to the Timor-Leste strategic Plan 2011-2030, budget is a statement about the performance to be achieved in a certain period of time expressed in financial measures and budgeting is a process to prepare the budget". Mardiasmo (2009:61). Therefore the state budgeting of budget income and budget expenditure it is highly important as well as the budget the effectiveness of state budget income and expenditure absorption budget rate growth.

Mardiasmo (2009:61) reveals that budget is a statement regarding the estimated performance that need to be achieved in a certain period stated in the financial measures, while budgeting is a process or method for preparing a budget. The Financial Management in the public sector includes planning, implementation, administration, pioneering and budget accountability. Furthermore, budget effectiveness and efficiency are defined: "Efficiency is the achievement of maximum output with certain inputs or the use of the lowest inputs to achieve certain outputs. Efficiency is a comparison of output/input associated with performance standards or set targets". Then, "Effectivity is the level of achievement of program results with the set targets. In simple terms, effectiveness is a comparison between outcome and output.

The development of the world technology and new theories in the public sector finance, which demands clean and good governance in managing a budget, relies on three main principles - professionalism, transparency and accountability. This change occurs because the budget system that has been used so far is still based on the conventional financial system such as the line-item budgeting system, zero-based budgeting or incremental. This traditional financial management system focuses on an annual budget that has weaknesses such as an inadequate relationship between the annual budget and long-term development planning, which is the input-oriented than outputs. This was also found in a previous study by Amaral (2015) explaining that the line-item budgeting system and zero-base budgeting in its absorption could provide opportunities for waste and budget savings and the results of his research titled "The effectiveness of budget absorption at the Ministry of Public Work in East Timor" states that the absorption of the budget is quite effective.

Performance of the Financial Management department can be measured through financial reports, with the financial ratio analysis, by obtaining financial data from the financial reports prepared by the finance department. The performance is analysed using financial ratios of effectiveness and efficiency from year to year. Previous study conducted by Novita Sari, et al, 2018, focused on the analysis of the effectiveness and efficiency of the implementation of the Samarinda city government budget in 2011-2015. The result of her study is the level of effectiveness and efficiency are varied from 2011-2015. The year 2014 was included in the criteria of being quite effective, while in 2011, 2012, 2013 and 2015 being less effective. This is due to the realization of the expenditure

budget indicate a significant difference from the budget target. In 2011 it is categorised as very efficient while in 2012, 2013, 2014 and 2015 are efficient.

Based on observations, obstacles that Timor-Leste currently faced is that its financial system is still based on cash basis accounting with a conventional budget/traditional budget system. Although in 2017 there has been a reform in the financial system to use a program-based financial system or program budgeting. Based on the budgetary governance roadmap in 2017 approved with the government resolution no. 17/2017 and in 2017. The roll-out of programme-based budgeting was piloting to 15 government entities and in 2019 expanded to 30 institutions. However, the implementation is still in its infancy (i.e., effectiveness and efficiency) due to the lack of professional expertise financial planning, non-controllable transfers of staff to other departments, ongoing political instability started in 2017. Thus, the budget execution/absorption are well aligned with the planned activities in the Budget Book 2 – The Annual Action Plans.

The Timor-Leste Budgetary Governance Roadmap reviewed and updated in 2018 with the support from the OECD. This document contains policy and technical recommendations for the continuation of Programmed-Based Budgeting reform which has already rolled-out to all the government entities, including state organs. In addition, it also included the design and implementation of the Medium-Term Expenditure Framework (MTEF).

The researcher observed that constraints, so far, experienced by the Ministry of Health are a lack of effective evaluation of revenue and expenditure, and the budget (revenue and expenditure) growth rate. Therefore, the Health Ministry is to not able to measure and control the financial performance. The level of effectiveness of budget absorption reflects the Ministry's programmes and activities of in line with the vision and mission stipulated in the Strategic Development Plan (SDP) whereas the budget growth rate reflects the economic improvements of a country because an increase in budget allows more programmes to be financed.

Formulation of Problem.

In the background description the formulation of problems are :

1. How the effectiveness of budget absorption of budget income and budget expenditure at the Ministry of health?
2. How the effectiveness growth rate of budget income and budget expenditure at the Ministry of health?
3. What are outputs has being delivery and challenges facing in period of implementing the budget?

Research purpose:

- To analyse the effectiveness of budget absorption of budget income and Expenditure of the Ministry of Health.
- To analyse the growth rate of budget income and expenditure budget of the ministry of health in Timor-Leste.
- Identify outputs and challenges facing in period time of implementation the budget and

Theoretical and practical benefits.

To assist the Ministry of health as a basis information for decision making to taking consideration for the future budget allocation to the Ministry and to contribution to the empiric study and it will be serve as references for the future investigation.

2. LITERATURE REVIEW

The Public financial reform is based on the principles of good governance and sound governance where good governance includes: accountability, democratic, responsibility and the rule of law and sound governance principles include: process structure, cognition and values, constitution, organization and institution, management and performance, policy sector, international globalization forces and ethics, accountability and transparency (Franzmad, 2004).

Mardiasmo (2004:62) The public expenditure budget as an plan which is representing in form of revenue and expenditure as monitor and also the budget function as social and economic development, response to the social welfare and the Government responsibility to the citizen.

Bastian (2006) 5 financial system: Line item budgeting, Incremental budgeting, Planning Programing Budgeting system (PPBS) , Zero based budgeting and Performance budgeting system (PBS).

Budget category and budget revenue in Timor-Leste according to public finance management law no.13/2009 : 5 categories of Public expenditure such each : Salary & Wages, good & service, minor capital, capital development and Public Transfer fund and 2 source of budget revenue such each : domestic revenue and petroleum revenue.

Mardiasmo (2004:4) Effectiveness is the level of achievement of program results with targets simply effectiveness is a comparison between the realization and target.

The growth rate is the process of increasing output in the long term, if applied to the State budget Revenue and Expenditure, the growth rate of the State budget revenue and expenditure is the difference between the budget state revenue and expenditure for a certain year compared to the previous year's budget State. Halim (2007:291).

3. RESERACH METHOD

Type and Scope of Research

Based on the existing problems, this research is a qualitative descriptive research that is the calculations of financial data obtained from the finance department. Particularly, the calculation of the rate of effectiveness of absorption of funds is based on the Mardiasomo formula (2004:4) and the ratio of the budget growth rate is based on the Halim formula (2007: 291).

Research Sites

This research was conducted at the Directorate of Planning, Budgeting and Finance of the Ministry of Health in Timor-Leste.

Population and Sample of Research

Population of this study is the reports on the absorption of Ministry of Health for the period of 2015 to 2019. The data was collected from the government financial management system, the *FreeBalance* system and from the online report on the Ministry of Finance website www.mof.gov.tl. Sampling of data was carried out by census that the researcher observed all reports regarding budget absorption of the Ministry of Health from 2015 to 2019.

Type and Source of Data

The data used for this research is based on secondary data collection. Financial reports of the Ministry of Health for 2015 to 2019 was collected from the Ministry of Finance website at www.mof.gov.tl as well as the financial statements for 2015 to 2017 was directly collected from the Ministry of Health.

Research Variable

Identification of Variables

This research was carried out in accordance with scientific expectations, and is necessary to understand the various elements that form the basis of a research. In this study, the variables to be measured are the effectiveness of absorption and growth rate of revenue and Expenditure.

Definition of Variables

1) Effectiveness of Budget Revenue and Expenditure

The effectiveness of budget absorption is the realization of the Ministry of Health's revenue and expenditure compared with the targets established in 2015-2019 using the formula from Mariasomo (2004:4):

$$\text{Effectiveness} = \frac{\text{Realisation of Revenue and Expenditure}}{\text{3.1.1 Target Revenue and Expenditure}} \times 100\% \dots (1)$$

2) Growth rate absorption of Budget Revenue and Expenditure

The growth rate is the process of increasing a long-term output. If this applies to the state revenue and expenditure, then the growth rate of the state budget and expenditure is the difference between the revenue and expenditure budget of a certain year compared to the previous year's budget. Halim (2002:291) provides the following formula:

$$G_x = \frac{X_t - X_{(t-1)}}{X_{(t-1)}} \times 100\% \dots \dots \dots (2)$$

Explanation:

- Gx: The annual growth rate of revenue and expenditure
- Xt: State revenue and expenditure of a particular year
- X(t-1): Previous year's state revenue and expenditure

Method of Data Collection

The data collection method used was a non-participant observation, where the collection of financial data of the Ministry of Health were conducted through online search at the Ministry of Finance Website www.mof.gov.tl as well as collection directly from the Ministry of Health.

Method of Data Analysis

This research is a quantitative descriptive study focuses on the effectiveness of absorption of revenue and expenditure, and the rate of growth of budget and expenditure of the Ministry of Health.

1) Effectiveness Ratio of Budget and Expenditure

The Effectiveness Ratio is measured using the criteria for the level of budget effectiveness based on the criteria from Mahmudi (2015):

Table 4.1
Effectiveness Criteria

Percentage	Criteria
.....>100 %	Very Effective
90%-100%	Effective
80%-90%	Quite effective
60%-80%	Less Effective
.....< 60%	Not Effective

Source: Mahmudi (2015)

2) Revenue and Expenditure Growth Rate

The revenue and expenditure growth rate are measured using the growth rate criteria, **Halim (2007: 291)**.

Growth rate criteria

Percentage	Criteria
85 % - 100%	Very Successful
70% - 85%	Successful
55% - 70%	Quite Successful
30 %- 55%	Less Successful
.....< 30%	Not Successful

Source: Halim (2007: 291)

4. RESULTS OF RESEARCH

Result of the analysis – Effectiveness ratio of Ministry of Health Revenue and Expenditure for year 2015 to 2019.

Based on the results of the calculation of effectiveness using the Mardiasomo formula (2004:4). And the criteria from Mahmudi (2015) are the level of budget effectiveness at the ministry of health as shown in the table below.

Year	Budget (US\$)	Actual expenditure (US\$)	Effectiveness (%)	Criteria
2015	67,543,000.00	62,565,303.00	93	Effective
2016	43,887,000.00	41,782,118.52	95	Effective
2017	45,376,754.00	42,309,123.65	93	Effective
2018	44,708,893.00	43,196,727.63	97	Effective
2019	46,156,635.00	42,897,157.70	93	Effective

Discussion:

Fiscal Year 2015, the Ministry of Health/MdS received a total budget allocation of US\$67.5 million and executed US\$62.6 million. Hence, the effectiveness rate is 93% using the calculation formula Mardiasomo (2004:4). This concludes that the absorption of the budget in 2015 was categorised as "Effective" according to the Mahmudi's (2015) criteria of "Effectiveness 90%-100%". The effectiveness of budget absorption can also be assumed that the Ministry of Health takes precautions in budget planning and adheres to the legal basis of planning i.e., the Public Financial Management Law (Lei gestão finanças publica no.13/2009). Moreover, in terms of the budget expenditures the Ministry of Health follows the execution rules outlined in the Government Decree (Decreto do Governo No.11/2015 de 7 de Janeiro) about procedures and regulations of the public budgeting and execution in 2015. The 2015 budget, meanwhile, has no longer included the budget amount for Oecusse district in the Ministry of Health Annual Budget because it has been transferred directly to the regional government of Oe-Cusse (i.e., ZEEMS-Zona a Económico Exclusivo Social de Mercado de Oe-Cusse-Ambeno).

For the fiscal year 2016, the Ministry of Health received a budget allocation of US\$43.9 million and executed US\$41.9 million. Thus, the budget effectiveness rate is 95% in accordance with the Mardiasomo formula (2004:4). Overall, it can be concluded that the absorption of the budget in 2016 is categorized as "Effective" by using Mahmudi (2015) "Effectiveness 90-100%". The effective budget absorption rate of 95% indicates that the Ministry of Health plans budget thoroughly and adheres to the Public Financial Management Law (Lei Gestão Finanças Publicas no.13/2009). In addition, the effective budget execution can be a result of the strictly follows budget planning and expenditures rules and regulations delineated in the Government Decree (Decreto do Governo No.1/2016 de 1 de Fevereiro). Similar to the 2015 budget, the Ministry of Health's budget for 2016 excluded budget allocation for Oe-Cusse district as it has been transferred to the regional government in Oe-Cusse known as ZEEMS (Zona Económico Exclusivo Social de Mercado de Oe-Cusse-Ambeno). Four health agencies, Hospital Nacional Guído Valadares, Serviço Autonomas de Medicamentos e Equipamentos de Saúde, Instituto Nacional de Saúde and Laboratório nacional. were also excluded from the Ministry of Health 2016 Budget.

Budget allotment for the Ministry of Health in 2017 is US\$45.4 million and the execution reached US\$42.3 million with an effectiveness rate of 93% calculated using Mardiasomo criteria (2004:4). It is concluded that the execution/absorption rate also falls in the "Effective" category according to the Mahmudi (2015) criteria of "90-100% effectiveness". This effective rate is due to the public sector reform particularly financial management reform, comprehensive budget planning, obeying rules and regulations stipulated in the Financial Management Law (Lei Gestão Finanças Pública no.13/2009), and strict application of budget execution rules specified in the Government Decree (i.e., Decreto do Governo No.1/2017 de 1 de Março).

For the 2018 fiscal year, the absorption rate of the ministry of health budget was US\$43.2 million from the allocation of US\$44.7 million with a budget absorption rate of 97%. This can be concluded that the overall budget absorption of the ministry of health falls into the category of "Effectiveness (90%-100%)". Effective rate in 2018 indicates that several health programs have been delegated to the local government to minimise the level of bureaucracy in budget expenditures (Decreto Lei No. 3/2016 de 16 de Março).

In 2019, Ministry of Health received a total budget of US\$46.1 million with actual expenditure of US\$42.9 million. The effectiveness rate is 93% which falls into the "Effective 90%-100%" category. This can be assumed that for the fiscal year of 2019 the Ministry of Health further delegated several programmes to the local government to minimise the level of bureaucracy in the budget execution based on the Decreto Lei no. 3/2016 de 16 de Março.

Result of Analysis – Growth rate of Ministry of Health Revenue and Expenditure for 2015-2019.

The growth rate of the Ministry of Health's revenue and expenditure for the period of 2015 to 2019 is calculated using the formula and criteria of Halim (2007:291). The calculation is shown in the following table.

Calculation of Revenue and Expenditure Growth Rate of MoH 2015-2019

Year	Xt (Budget Revenue and Expenditure in certain year) (\$)	*\$100%	Result Xt*100% (\$)	X (t-1) Budget Revenue and Expenditure of previous year (\$)	GX (Budget Revenue and Expenditure Growth Rate per Year)	Criteria Halim (2007:291)
2015	67,543,000.00	100%	67,543,000.00	66,966,900	101%	Very Successful
2016	43,887,000.00	100%	43,887,000.00	67,543,000.00	65%	Quiet Successful
2017	45,376,754.00	100%	45,376,754.00	43,887,000.00	103%	Very Successful
2018	44,708,803.00	100%	44,708,803.00	45,376,754.00	99%	Very Successful

2019	46,156,625.00	100%	6,156,625.00	44,708,803.00	103%	Very Successful
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Source: Analysis report 2021 using Halim formula and criteria

Discussion on the Result of Analysis – Revenue and Expenditure Growth Rate for 2015 - 2019

In 2015, the Ministry of Health received a budget allocation of US\$67.5 million, compared with the budget allocation in 2014, the growth rate is 101% which falls into “very successful” category. Then, in 2016 MoH received a budget allocation of US\$43.9 million, in comparison with the 2015 budget allocation, the growth rate is 65% falling into the category of “Quite successful”. In the following year 2017, the MoH received an allocation US\$45.4 million by comparing with the 2016 budget allocation, the growth rate shows 103% falling into the “Very successful” category. In 2018 MoH received a budget allocation of US\$44.7 million compared with the 2017 budget allocation the growth rate is 99%. this falls into the category of “Very successful”. Lastly, in 2019 MoH received a budget allocation of US\$46.1 million, compared with the 2018 budget allocation, the revenue and expenditure growth rate is 103% which falls into the “Very successful” category.

5. CONCLUSIONS, LIMITATION AND RECOMENDATIONS

Conclusions.

- The effectiveness of ratio of the revenue and expenditure budget from 2015-2019 generally effective with absorption rate 93%. However there are fluctuate absorption rate each year : 2015 budget absorption rate of 93% "effective" categorize , 2016 budget absorption rate of 95% "effective" categorize, 2017 budget absorption rate of 93% "effective" categorize 2018 budget absorption rate of 97% categorize “effective” and in 2019 budget absorption rate of 93% categorize effective.
- The Absorption of budget revenues and expenditures in line items level are fluctuate with budget absorption below 50% and above the 100% and not included the analysis of budget absorption in program level because of lack of data obtained for this study.
- The ratio growth of budget revenue and expenditure from 2015-2019 are fluctuated within quite successful to very successful : 2015 the growth rate of budget revenue and expenditure budget 101%, categorized as very successful, 2016 the budget expenditure growth rate of 65 % categorized as fairly successful, 2017 the budget growth rate of budget income and expenditure 103% categorized as very successful, 2018 budget income and expenditure growth rate 99% is categorized as very successful and 2019 the growth rate the income and expenditure budget 103% categorized as very successful.
- The Ministry of Health of Timor-Leste was successful achieving the short-term targets with variates levels of achievements such each some of targets had achieved 100% and some of targets still need to be implementing in future implementation.

Limitation and Recommendation.

Based on the research results and the implications the suggestion to the Ministry of health to keep maintain the current level of effectiveness of budget absorption as well the budget rate growth however the budget absorption in line items level need to be improve and data system also need be modernize through the digital data system .

This research lack of data therefore the analysis were limited only on the analysis of budget absorption and budget growth rate event though still incomplete the analysis to the budget absorption in Program level, therefor the future investigation recommend to do the deep investigation on performance result too see the comparation within the budget absorption and the outputs deliver over the period of time.

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