KEY PERFORMANCE INDICATORS DEVELOPMENT FOR GOVERNMENT AGENCY

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ABSTRACT

Organizations perform all activities and operations within a framework, which are built on its vision and mission. The performance of each activity and operation can be measured using Key Performance Indicators (KPI), which indicate the organization's success in achieving its strategic objectives. KPI is widely used not only by profit-oriented organizations, but also by non-profit organizations such as government agencies. Government agencies have different characteristics in terms of funding, programs, and culture. This research describes the development of KPI in an Indonesia government agency. This research was conducted in three stages: evaluating the organization's vision and mission; determining the organization's position using Strength, Weakness, Opportunity, and Threat (SWOT) analysis; and preparing a strategic plan, and developing the priorities of that plan using the Analytical Hierarchy Process (AHP). The result of KPI development shows that the government agency has eight strategic objectives and five KPI.

Keywords:　AHP; Government agency; Key performance indicator; SWOT analysis

1.　INTRODUCTION

Each organization should measure its performance in terms of achieving a goal (Zakaria et al., 2011; Kennerly & Neely, 2003; Bourne et al., 2000). This measurement is intended to assess, both qualitatively and quantitatively, all activities that have been performed. Framework for the assessment includes effectiveness and efficiency in optimizing the use of available resources (Zakaria et al., 2011). Using the framework, the organization can strive to improve its performance.

The financial approach being used is a traditional measurement of organizational performance called 'profit-based' (Brander et al., 1995). Bruns (1998) states that the most convenient benchmarks are the financial criteria. The financial approach was reinforced by using a double entry accounting system to reduce any confusion on the assessment of the transaction between trading (Johnson, 1983). However, traditional performance measures, which are developed from costing and accounting systems, have been criticized for their biases and inappropriate uses (Bourne et al., 2000).

This approach is considered not accommodating in managing the organization to the modern market (Johnson & Kaplan, 1987), less is 'neutrality' (Emmanuel et al., 1990), as well as a poor

reflection of the unbalanced achievements (Eccles, 1991; Kaplan & Norton, 1992). The inability of the traditional approach is seen when measuring performance in non-profit organizations, in which profit is not the purpose of the organization.

Nowadays performance measurement frameworks have been developed to encourage a more balanced view. The new approach is being developed to measure the performance of the organization with a balanced score card, total quality management, management by objectives, quality control circle, and key performance indicator (KPI) (Zakaria et al., 2011). The increase of demand and variations in the market make it necessary to use a more responsive approach and focus on each organization's activities (Kennerly & Neely, 2003).

This government agency is classified as a non-profit organization because its main task is to perform the function of government. Furthermore, the government agency, in running the activities, will always refer to the rules and outline government policy. The government agency has two types of performance assessment ratings: rated by the public directly as the organization in charge of serving the people, and rated by the national government.

Strategy planning is developed by analyzing the government agency's mission and defining its goals. KPI provide a tool to measure progress toward agency goals and objectives. There are three types of indicators: the key result indicator, the performance indicator, and KPI (Parmenter, 2007). KPI is needed as a bridge between strategy planning and results because strategy planning and execution might breakdown. Ali M. Al-Khouri (2014) gave attention to strategy planning and implementation in the public sector in an attempt to explain some underlying factors that contributed to the overall success of the strategy. KPI is becoming a best measurement practiced by government sectors because the failure of the delivery system will be addressed accordingly (Zakaria et al., 2011). The use of KPI has been successful in measuring the government agency and contributed to several improvements in its administration and services.

The aim of this research is the implementation of KPI in the government agency as developing a pattern of strategic management planning. The government agency has different characteristics than profit-oriented organizations, in terms of financial aspects, activities, and culture. The KPI in the government agency will have implications on the development of strategic planning, including the determination of the vision and mission of the organization. KPI will be developed as one of the tools to assess the achievements and performance of the organization based on the vision and mission. This study was conducted on the government agency in Indonesia engaged in the education and training of the energy sector.

2. METHODOLOGY

This research was conducted in three stages. The initial stage is the evaluation of organization's vision and mission. The aim of this is to build a strategic baseline that will be used to develop the strategic plan at the final stage. The second stage is determining the position of the organization using SWOT analysis. The third stage is preparing a strategic plan based on the results of the SWOT analysis that use the Analytical Hierarchy Process (AHP) to determine the priority of the strategy.

AHP was introduced by Thomas L. Saaty. AHP is used to solve the problem of multi-objectives and multi-criteria based on comparison of the preferences of each element in the form of hierarchy. Formation of the elements is based on the opinion of experts as respondents of this research. The data processing is completed based on the geometric mean value to obtain a single datum. Furthermore, calculation of the vector is done as the basis of priorities. Consistency is determined based on consistency ratio value. The result is the priority of the strategy.

Evaluation of the existing vision and mission statement is competed using the qualitative methods in the structure of interviews and observations of each respondent. Focus Group Discussions (FGD) were used to develop the SWOT analysis. The involvement of the respondents in the FGD greatly affects the strategic issues, which will be developed into the organization's strategic plan. This agency has been chosen a pioneer in the implementation of KPI in the field of education and training that serve directly for the people of Indonesia.

3. RESULTS

In stage one, components of the respondents were covering the top, middle management, and lower level of the organizations. The results of the evaluation are presented in Table 1. In general, both vision and mission were well known by all members of the organization at every level. The result shows that 83% of members of the organization textually know the vision and mission of the organization. However, the biggest obstacle facing organizations is the process of transferring the meaning of either the vision or mission, as shown by 68.3% of the respondents who state that the vision is not properly socialized.

Table 1 Vision and mission statements evaluation

No	Evaluation Parameters for Vision and Mission Statements	Score
1.	The vision statement well-known textually	83.00
2.	Clearly the vision of the organization (not ambiguous)	71.70
3.	The vision is achievable	76.70
4.	The vision reflects the organization's strategic task	81.70
5.	The organization's vision reflects the ideals and values of organization	81.70
6.	Publication of the organization's vision	68.30
7.	The mission statement well-known textually	83.00
8.	The mission describes the functions, duties, and the role of the organization	90.00
9.	The mission reflects the character and values of the organization	88.33
10.	The mission explained the existence of the organization	88.33
11.	The organization's mission give radical impact	68.33
12.	Publication of the organization's mission	70.00

Based on the results, the organization's vision and mission statement need to be revised, both textual changes and the pattern of transferring the mean on all members of the organization. However, for the government agency, most of the activities are

mandatory; therefore, the preparation of the vision and mission will be set by the national government. Thus, the evaluation of the organization's vision and mission is limited to the basic input of the framework preparation while developing strategic plan, which will be detailed as the organization's KPI.

In the second stage, SWOT analysis was used to generate the organization's alternative strategies. Qualitative data were collected through interviews, observation, FGD, as well as to see the priority of the each component of internal and external factors. SWOT analysis results are presented in Table 2, including information regarding alternative strategies that can be developed.

The third stage is to formulate KPI based on the result of SWOT analysis, created in the second stage. The KPI are presented in Table 3. Direction of the policy was built to facilitate the organization running the program. It is comprised by the improvement of human resources, strengthening the institutional capacity of the organization, improving the policies, improving facilities and infrastructure, increasing cooperation and management of organizational information systems.

The AHP approach was used to determine the priority of each internal factor and external factor in the SWOT analysis. AHP was widely applied in drawing up priorities as the selection of research proposals in government agency as a non-profit organization (Susila & Munadi, 2007), the development of decision-making process in industry as a profit-oriented organization (Triantaphyllou & Mann, 1995). The AHP was conducted with pairwise-comparison approach by the experts. The result is a decision matrix and the final priorities, A_AHP^i, of the alternatives are determined according to Equation 1 (Triantaphyllou & Mann, 1995).

$$A_{AHP}^{i} = \sum_{j=1}^{n} a_{ij}w_{j}, \; for \; i = 1, 2, 3 \dots M \tag{1}$$

Measurement of the performance is also done in a holistic manner; in other words, it needs to be a measured value of the organization's performance in general. The approach taken in the measurement of KPI at the organizational level is the result of combining the achievements of every activity, to facilitate measurement of organizational performance in general can be used Equation 2, where CH is the organization's performance and n is the number of KPI.

$$CH = \frac{\sum_{i=1}^{n} \frac{Achievement - KPIs_{i}}{Target - KPIs_{i}} x \, 100\%}{n} \tag{2}$$

Table 2 SWOT analysis

	Internal Factor	
	Strength: 1. Main Tasks Are Supported By Laws (S1) 2. Norms, Standards, Guidelines And Criteria (Nspk) Owned By Oragnization(s2) 3. Availability Of Laboratory Equipment And Workshop (S4) 4. Many Types Of Training Services (S6) 5. Infrastructures That Support Training Activites (S3) 6. Employee Development Implemented (S8) 7. The Availability Of Budget (S11) 8. Good Networking (S7) 9. Organization As Competency Test (S5) 10. Iso 9001:2008 Has Been Implemented (S10) 11. The Availability Of Employee Information System (S9)	**Weakness:** 1. The Limited Competence Of Employees (W1) 2. The Limited Of Competence And The Number Of Lecturers (W2) 3. Training Institutions Has Not Accredited Yet (W5) 4. Limited Of Competency-based Training Implementation (W4) 5. Employee Development Plans Have Not Been Managed Well (W3) 6. Limited Training Program That Has Been Certified (W6) 7. Promotion Of Education And Training Has Not Managed Professionally (W8) 8. The Utilization Of Training Facilities Has Not Optimal Yet (W7)
External Factor		
Opportunity: 1. Demands the availability of technicians who are competent in the field of energy (O1) 2. Competence as the terms of position in the ASN(O2) 3. Target of EBT development refers KEN by 25% in 2025(O4) 4. High demands in domestic and international for education and training program services(O3) 5. Training and education offering in cooperation from various parties (inside and outside of the country) (O5) 6. Training programs with a pattern of non-tax revenues(O6)	**S-O Strategy** **(S1, S2, S3, S4, S5, S7, S8, S10, O1, O3, O4, O5, O6)** Realize the satisfactory quality of education and training services **(S2, S3, S5, S6, S7, S10, O4)** Making Finance and Asset Management System Accountable	**W-O Strategy** **(W1, W2, W3, W4, W5, W6, O1, O2, O3, O4, O5, O6)** Develop a competency-based of human resource and customer needs **(W3, W6, W7, O1, O3, O4, O5, O6)** Realize reliable and modern infrastructure for education & training program **(W7, W8, O5, O6)** Improve the utilization of information and communication technology (ICT)
Threat: 1. The emergence of other education and training institutions in the field of energy (T1) 2. The absence of an obligation to follow training before certification process (T2) 3. Implementation "open bidding" system in ASN (T3)	**S-T Strategy** **(S2, S3, S4, S5, S8, T1)** Promote networking of organization cooperation with institutions within and outside the country in order to increase the capacity of the organization	**W-T Strategy** **(W1, W2, W5, T1, T2, T3)** Managing Human Resources with the support of good personnel administration system **(W3, W6, T1, T3)** Reforming to a modern organization

Table 3 The KPI of the organization

No	KPI	Target				
		Year 1	Year 2	Year 3	Year 4	Year 5
1.	The implementation of competency-based training in one year	98	100	104	106	110
2.	Competence enhancement employee / including lecturer	115	116	122	122	122
3.	Determination of NSPK	150	100	100	100	100
4.	Number of planning documents	6	4	4	5	5
5.	Monitoring and evaluation of education, training, and lLearning performance	8	7	7	7	7
6.	Reports of management, financial, administrative, and staffing	21	21	21	21	21
7.	Accredited training facilities	3	3	3	3	3
8.	Facilities and services for certification	-	-	-	-	-
9.	Accreditation and certification management	2	2	2	2	2
10.	Community services	-	-	-	-	-
11.	ICT development and implementation	3	2	2	2	2
12.	Cooperation, networking, and promotion	16	13	14	14	14
13.	Office services	12	12	12	12	12
14.	Procurement of vehicles	2	3	4	3	3
15.	Data processing and communication devices	12	8	8	8	8
16.	Office equipment	205	205	205	205	205
17.	Building	5000	1500	500	0	0

4. DISCUSSION

KPI is needed to measure organizational performance not only for profit organizations but also for non-profit organization that includes government agency. However, the primary consideration in determining the direction and policy of the government agency is to consider the interests of government policy at the national level, therefore all the activities and performance of government agency would be in synergy with the existing government policy. KPI development usually uses a Balance Score Card (BSC).

A BSC is a strategic planning tool developed by Robert Kaplan and David Norton. BSC uses measurement of non-financial aspects as a 'balancing' power to the tendency toward the financial aspect in performance measurement. However, BSC retains traditional financial performance measurement because the final perspective out of four perspectives in BSC is financial perspective with profit as main indicator.

In this research, KPI is developed for a government agency that is classified as a non-profit organization. A different approach to develop KPI is needed. This research uses three stages as KPI development, such as evaluating the organization's objectives in the existing condition, developing SWOT analysis to generate the organization's strategic plan, and determining the KPI of each the strategies agreed as a programs or activities.

KPI can be used to assess not only the functioning of the tasks of the government as a government agency, but also be able to see the aspect of customer and stakeholder satisfaction as a form of public services organization.

5. CONCLUSION

This study has formulated the organization's eight strategic objectives, which are as follows: (1) the realization of competency-based human resource development that is based on the needs of stakeholders; (2) the realization of a satisfactory quality of education and training services; (3) the realization of a service infrastructure that is reliable and modern; (4) the realization of the accountability system of management, financial and asset management; (5) the realization of the organization's personnel management professionally with the support of good personnel administration; (6) the realization of a good organizational management; (7) promote networking of organization cooperation with other institutions within and outside the country to increase the capacity of the organization; and (8) improve the utilization of information and communication technology (ICT) to support education and training services.

Based on the strategic objectives, further performance indicators have been formulated as a feature of the achievement of organization's goals and objectives. The five KPI are: (1) percentage of provision of education and competency-based training, (2) index service user satisfaction, (3) accreditation status and the number of certifications, (4) percentage of the number of the scientific papers which published by the lecturers, and (5) percentage of lecturers assessed by a minimum requirement (lecturer's evaluation protocols).

The targets of the education and training event for the period 2015–2019 are as many as 478 activities, an increase of 15.7% compared to the target in 2010–2014. The target of training participants will be increased (excluding the communication forum, seminar, workshop) to as much as 2225 participants, whereas the implementation of targeted communication such as forums, seminars, or workshops for the period 2015–2019 is 40 events.

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