

# DETERMINATION OF KEY PERFORMANCE INDICATOR WITH BALANCED SCORECARD APPROACH IN PUBLIC SECTOR

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**Abstract:** Performance measurement in the Secretariat of the Ministry of Administrative Reform and Bureaucratic Reform (PANRB) were not comprehensive and thorough yet, so it is necessary to design a new performance measurement by performance indicators. The approach used is balanced scorecard (BSC). This research was conducted in July-August 2016 using primary and secondary data sources. A number of 53 high officials of the Secretariat of the Ministry of PANRB of echelons I, II, III, and IV were included as the study sample. Data were analyzed with descriptive analysis, crosstab, Chi-square, Eckenrode, and Importance Performance Analysis (IPA). The results showed that a major priority for the BSC was the customer's perspective (10 sub-perspectives), followed by internal business (20 sub-perspectives), finance (10 sub-perspectives), learning and growth (20 sub-perspectives). Four perspectives of BSC showed its position on the quadrant of IPA showed at 'keep up the good work', 'concentrate here', 'possible overkill', and 'low priority'. In general, the three priority indicators on each perspective shows good performance with a high level of importance. Nevertheless, there are indicators that still having low performance despite its high level of importance, and vice versa.

**Keyword:** balanced scorecard, Eckenrode, Performance, Importance Performance Analysis, PANRB.



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So far, the performance of government agencies in carrying out their main task and function is more emphasized on the skill in absorbing budget (means measure) rather than outcome (end measure). A government agency will be considered to have a good performance if it can absorb budget close to 100%. Such measurement only focuses

on the explanation of how busy the government agencies are, but it does not explain the real impact of government activities on society.

Many parties argue that public accountability is only limited to financial accountability report that only includes budgetary accountability without measuring the results, benefits, or outcomes that are actually felt by the society. Consequently, a government agency that has reported its allocation of funds or budget used is considered to be sufficiently accountable, regardless of whether the funds or budget used can be beneficial to the welfare of the society or not. This is, in turn, opens up great

opportunities for deviation of the use of funds and other resources. Therefore, it is important that all activities of government agencies should be measurable, and do not only emphasize input but also emphasize the output, impact, and benefit.

Secretariat of Ministry of State Apparatus Empowerment and Bureaucracy Reform (PANRB) is the element of government agencies under and responsible to Minister of State Apparatus Empowerment and Bureaucracy Reform and has a task of coordinating the implementation of tasks, guiding and supporting all organizational units in the Ministry of State Apparatus Empowerment and Bureaucracy Reform. Until now, the performance measurement of the Secretariat of the Ministry of State Apparatus Empowerment and Bureaucracy Reform

is done by preparing the Performance Report of Government Institution as a form of the responsibility of government agency. The performance report of the Secretariat of Ministry of State Apparatus Empowerment and Bureaucracy Reform in 2015 was very successful with the average performance achievement of over 100%. The level of performance achievement of the Secretariat of Ministry of State Apparatus Empowerment and Bureaucracy Reform in 2015 was measured by comparing the target of performance indicator with the realization. The details of each performance achievement can be seen in Table 1.

Based on Table 1, it can be seen that the performance measurement in the performance report of the Secretariat of the Ministry of State Appara-

**Table 1 Performance Achievement of Secretariat of Ministry of State Apparatus Empowerment and Bureaucracy Reform in Performance Report of 2015**

No.	Strategic Target	Performance Indicator	Target	Realization	Achievement
1	Effective and Efficient Organization of Ministry of State Apparatus Empowerment and Bureaucracy Reform	1. "Good" RB Index	BB	BB%	100%
		2. Effectiveness of organization	Category II (60)	Category II (60)	100%
		3. Percentage of the placement of ASN which is appropriate with the terms of position (professionalism of ASN)	50%	100%	200%
		4. Index			
		5. Implementation of e-government	2.66	n/a	n/a
2	Clean, accountable, and good performance of Ministry of State Apparatus Empowerment and Bureaucracy Reform	1. Opinion of BPK			
		2. Accountability value			
		3. "Good" performance	WTP	WTP	100%
		4. Maturity level	A	BB	90%
		5. Implementation of SPIP	100%	100%	100%
		6. Percentage of the use of e-procurement on the total procurement	30 %	87.58 %	292%
3	Qualified public service of Ministry of State Apparatus Empowerment and Bureaucracy Reform	1. Satisfaction level of stakeholders on the service of Ministry of State Apparatus Empowerment and Bureaucracy Reform	7.22	7.96	110 %
		2. (Integrity Index of Public Service)			

tus Empowerment and Bureaucracy Reform in 2015 has not been comprehensive. The measurement of other aspects, such as measuring the performance of services to customers/ stakeholders, measuring the level of employee satisfaction in carrying out their daily basic tasks, and other aspects of measurement has not been done. According to Wibowo (2013), performance has a broader meaning, not just in the terms of work outcomes, but including how the work process takes place. The Secretariat of Ministry of State Apparatus Empowerment and Bureaucracy Reform tend to only measure the results of work, without measuring how the work process takes place.

Ministry of State Apparatus Empowerment and Bureaucracy Reform needs to set performance indicators in order to create reasonable process used both by executors and leaders in managing the efforts of organizations in order to achieve results or good performance. Mahmudi (2007) further explains the objectives of performance measurement in the public sector, namely: (1) knowing the level of achievement of organizational goals; (2) providing the means of employee learning; (3) improving performance in the next period; (4) as consideration in giving award and punishment; (5) motivating employees; and (6) creating accountability of public institutions

Performance measurement by using balanced scorecard (BSC)-based Key Performance Indicators (KPI), consisting of 4 main perspectives: finance, customer, internal business, learning, and growth, which are selected because they can be used to detect the achievement of organization's strategic goals and objectives. Through KPI approach in balanced scorecard-based perspective, it is expected that the performance measurement of Secretariat of Ministry of State Apparatus Empowerment and Bureaucracy Reform can be performed more comprehensively, and can interpret the vision and mission of organization into interrelated performance measures, in accordance with organizational strategy to achieve organizational goals and objectives into measurable performance indicators.

Performance measurement in the public sector such as Secretariat of Ministry of State Apparatus

Empowerment and Bureaucracy Reform is different from the performance measurement in private sector. This is due to the definition and measurement of public sector performance problems as a difficult task, which is regulated by complex rules (Diana, 2016). In addition, Mahmudi (2007) also stated that the measurement of performance in public sector is very complex and multidimensional. Therefore, this study used balanced scorecard-based KPI approach, which is expected to provide recommendations for developing accurate and precise measurement program and can be understood by all parties.

## RESEARCH METHOD

### Conceptual Framework

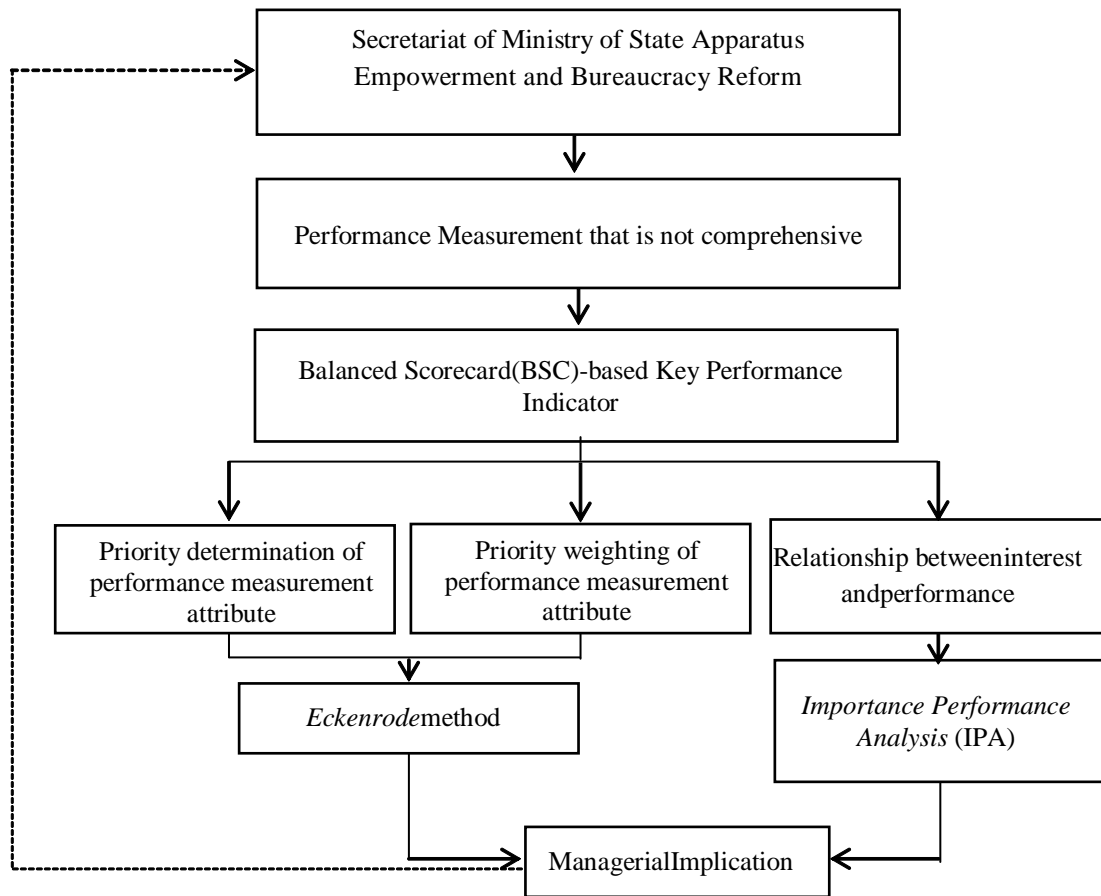
Performance measurement in the performance report of Secretariat of Ministry of State Apparatus Empowerment and Bureaucracy Reform in 2015 has not been comprehensive. Performance measurement by using balanced scorecard-based KPI (BSC) was chosen because it can be used to detect the achievement of organizational goals and objectives. This approach has not been done in Secretariat of Ministry of State Apparatus Empowerment and Bureaucracy Reform in determining key performance indicators. Key performance indicators that have been drawn up by Secretariat of Ministry of State Apparatus Empowerment and Bureaucracy Reform are determined based on the parts of organizational structure; it does not differentiate them into those four BSC perspectives yet.

### Time and Place of Research

This research was conducted from July to August 2016 in Secretariat of Ministry of Administrative Reform and Bureaucracy Reform.

### Data Collection Method

The data used in this research were the form of primary data and secondary data. Primary data were obtained through direct interviews or by using questionnaire containing closed questions, which were compiled based on preliminary studies of KPI determination with experts. Secondary data were ob-



**Figure 2 Research Framework**

tained through literature studies from relevant sources.

**Sampling Method**

This research used purposive sampling method, which is a sampling method that involves respondents in accordance with the objectives of the researcher by involving 53 high officials of Secretariat of Ministry of State Apparatus Empowerment and Bureaucracy Reform from Echelon I, II, III, and IV as research samples.

**Data Analysis Method**

**Descriptive Analysis**

Descriptive analysis was used to analyze the characteristics of respondents, KPI that has been

obtained, and the relationship between the importance and performance of KPI based on the results of the analysis.

**Crosstab Function and Chi-Square Test**

Crosstab function is a statistical analysis used to display cross-tabulation showing a shared distribution between variables, bivariate descriptive statistics, and test of two or more variables that are prioritized in categorical-scale variables (Ridwan, et al., 2011). In this research, crosstab function was used to see the joint distribution of a variable of the type of position with gender, age, education, and length of work of respondents y. Chi-Square test is a statistical test used to determine the level of relationship between two variables, whether they have a significant relationship or not.

**Eckenrode Method**

Eckenrode method is by weight 4 perspectives and each key performance indicator (KPI), a namely perspective of the customer, finance, internal business process, learning and growth, and each indicator. The concept used in this weighting method is ranking.

**Importance Performance Analysis**

Importance-Performance Analysis (IPA) is an analysis method that is a combination of aspects of importance and performance level of a criterion. Assessment of this analysis is based on the respondent's assessment of the criteria and sub-criteria of interest and performance level by using Likert scale from 1 to 5, namely weight (1) very not important/ disagree (2) not important/ agree, (3) quite important/ agree 4) important/ agree, and (5) very important/ agree. The results of IPA analysis are used as suggestions for the preparation of

policies into a quadrant of IPA, namely keep up to good work, possible overkill, low priority, and concentrate here.

**RESULTS AND DISCUSSIONS**

**Characteristics of Respondents**

The research conducted to determine the priority and weighting of key performance indicator (KPI) of performance measurement and to measure the relationship between importance and performance of each KPI through Balanced Scorecard (BSC) approach in Secretariat of Ministry of State Apparatus Empowerment and Bureaucracy Reform (KEMENPANRB) involved 53 people of Echelon I, II, III, and IV who served in the current period as respondents of this research; respectively 1 person, 12 people, 4 people, and 36 people.

Based on the results of cross-tabulation in Table 2, 72% of staffs in Secretariat of Ministry of State Apparatus Empowerment and Bureaucracy Reform

**Table 2 Cross Tabulation of Type of Position and Sex**

		Type of Position				Total
		Echelon IV	Echelon III	Echelon II	Echelon I	
Sex	Male	22	11	4	1	38
	Female	14	1	0	0	15
Total		36	12	4	1	53
Results of <i>Chi-square</i> test of type of position and sex, with correlation value = 6.320						
Value of <i>Asymtop Sig. (2 sided)</i> = 0.097				No significant relationship		

involved in this study were male. The proportion of male civil servants (ASN) in the work environment of Secretariat of Ministry of State Apparatus Empowerment and Bureaucracy Reform was greater than female civil servants, in echelon I to IV (72%). However, gender and type of position indicate an insignificant relationship, so that the determination of occupation in the Secretariat of Ministry of State Apparatus Empowerment and Bureaucracy Reform does not take gender into account, but it takes other factors into account.

Most of the respondents (42%) in this study were 46 to 55 years old, as presented in Table 3. Only 1 respondent was over 55 years old, but he/she is in Echelon I, who served as secretary of the ministry. The age of respondents has a significant relationship in determining the type of position attached to an employee in Secretariat of Ministry of State Apparatus Empowerment and Bureaucracy Reform at a significance level of 5%. This is not in line with the results of the research conducted by Nuh (2012).

**Table 3 Cross Tabulation of Type of Position and Age of Respondents**

		Type of Position				Total
		Echelon IV	Echelon III	Echelon II	Echelon I	
Age (years old)	29 – 36	11	1	0	0	12
	37 - 45	11	3	0	0	14
	46 - 55	11	7	4	0	22
	> 55	3	1	0	1	5
Total		36	12	4	1	53

Results of *Chi-square* test of type of position and age of respondents with value of correlation = 19.480  
 Value of *Asymtop Sig. (2 sided)* = 0.021\* There is significant relationship

The education level of a person will show the competence and knowledge he/ she has through formal education. In Table 4, it can be seen that the last education of most respondents (30 people (57%)) who became employees of Echelon I to IV is Strata 1 (S1). The determination of the type of position of an employee of Secretariat of Ministry

of State Apparatus Empowerment and Bureaucracy Reform has no significant relationship with the education of employees at a significance level of 5%. Nevertheless, the education level of the workforce of the public sector will positively influence performance through workforce discipline (Astono 2013).

**Table 4 Cross Tabulation of Type of Position and Education Level of Respondents**

		Type of Position				Total
		Echelon IV	Echelon III	Echelon II	Echelon I	
Education	SMA	6	0	0	0	6
	D3	1	0	0	0	1
	S1	21	8	1	0	30
	S2	8	4	3	1	16
Total		36	12	4	1	53

Results of *Chi-square* test of type of position and sex, with correlation value= 9.882  
 Value of *Asymtop Sig. (2 sided)* = 0.360 No significant relationship

The length of work period is in line with the amount of work experience that a person has during joining an organization. Most ASNs (38%) have a length of working period of 5 - 14 years, which are occupied only by officials at level IV and III. In Table 5, 17 respondents have devoted themselves as ASN for 25-34 years, who occupy the position at level IV to I. Respondents who have long range of work period from 25 to 34 years certainly have a lot of work experience, knowledge, skill, and competence, either through formal education, non-for-

mal education or training gained by the workforce. Thus, the work period of ASN is one of the factors which are considered in determining ASN's type of position; it is supported by significant analysis results at 5% significance level.

**Balanced Scorecard (BSC) Approach-based Key Performance Indicator (KPI) in Perspectives of BSC**

Based on the measurement results of four perspectives of BSC by using Eckenrode method pre-



perspective occupies the last priority, with a weight of 0.151, which is in a low priority condition, meaning that this perspective has low performance and low importance.

**Balanced Scorecard(BSC) Approach- based Key Performance Indicator(KPI) in Financial Sub Perspective**

The Secretariat of Ministry of State Apparatus Empowerment and Bureaucracy Reform prepares financial accountability report of the programs which have been conducted in one year at every end of the year. The financial statements will be audited by BPK, which review the implementation of programs by auditing the report with a relevant material of evidence, whether it is appropriate within the financial statements that have been made. If there is a discrepancy or deviation between those two with Governmental Accounting Standard (SAP), BPK will provide its opinion for the improvement of the report, such as incomplete evi-

dence of responsibility, procurement contracts of goods and services that do not comply with SAP. BPK is assisting Secretariat of Ministry of State Apparatus Empowerment and Bureaucracy Reform in making improvements. However, before the report is audited by BPK, the report will be reviewed by the Inspectorate of Ministry first to ensure the completeness and accuracy of the financial statements with evidence of accountability, so that reports can be submitted on time and in accordance with the existing SAP. So far, the Secretariat the Ministry of Finance has shown a good financial performance in those processes.

This is in line with the results of Eckenrode and IPA analysis of 10 KPI presented in Table 7. It is known that there are 4 KPI that is in a position of keeping up to good work, which means that those KPI already have good performance and high importance to be an indicator of performance measurement of financial perspective in the work environment of Secretariat of Ministry of Ministry of

**Table 7 Results of Weighting, Priority and IPA of Sub Financial Perspective**

No	Sub Financial Perspective	Weight	Priority	IPA
1	Percentage of financial management aberration (including asset) in the form of material	0.124	2	Keep up to good work
2	Opinion of BPK	0.146	1	Keep up to good work
3	Percentage of financial audit recommendation which is followed up.	0.116	4	Keep up to good work
4	Percentage of budget absorption	0.121	3	Possible overkill
5	Timely financial statements	0.109	5	Keep up to good work
6	Percentage of BAST grant that is recorded timely	0.045	10	Low priority
7	Percentage offinancial administration document finished timely	0.093	7	Low priority
8	Percentage of document of financial statements which comply with SAP	0.094	6	Low priority
9	Percentage of financial reconciliation finished timely	0.076	9	Low priority
10	Percentage of fund availability for activity funding	0.077	8	Low priority



State Apparatus Empowerment and Bureaucracy Reform. Those four KPI are the opinion of Audit Board of Indonesia (BPK), the percentage of financial management aberration (including assets), the percentage of followed up audit recommendations, and timely financial reports. KPI percentage of financial statement documents in accordance with SAP is in the 6th priority, with a weight of 0.094, which is in a quadrant of concentrate here, which requires special attention to improve the performance.

**Balanced Scorecard (BSC) Approach-based KeyPerformance Indicator(KPI) in Costumer Sub Perspective**

Public satisfaction index is the first customer sub-perspective, which has to be considered by Secretariat of Ministry of State Apparatus Empowerment and Bureaucracy Reform, with a weight of 0.143; it is presented in Table 8. However, this index of satisfaction is only seen through the satisfaction or dissatisfaction assessment of the services

received by the respondents; it has not provided the factors of satisfaction or dissatisfaction with the services they receive.

Based on the results of the Eckenrode analysis in Table 8, the level of public perception on Ministry of State Apparatus Empowerment and Bureaucracy Reform is in the second position (0.130) and the level of public perception on RB movement is the third priority (0.127). An indicator which becomes the fourth priority is the satisfaction level of employees on the office service (0.123) and the fifth priority is the satisfaction level of employees on employee administration service. Employees, who do administration service and public service, employees of government agency have to be supported by means and facility, which can support the success of their performance, such as complete office stationery (ATK), administration service for promotion, leave, and others.

In line with the results of IPA analysis presented in Table 8, it is found that from that five customer sub-perspective which become the first priority in-

**Table 8 Results of Weighting, Priority and IPA of Costumer Sub Perspective**

No	Customer Sub Perspective	Weight	Priority	IPA
1	Level of public perception on RB movement	0.127	3	Keep up to good work
2	Level of public perception on Ministry of State Apparatus Empowerment and Bureaucracy Reform	0.130	2	Keep up to good work
3	Level of public perception on office service	0.123	4	Low priority
4	Level of public perception on employee administration service	0.110	5	Concentrate here
5	Public satisfaction index	0.143	1	Keep up to good work
6	Percentage of complaintson Ministry of State Apparatus Empowerment and Bureaucracy Reform which is followed up	0.091	6	Keep up to good work
7	RB Index of Ministry of State Apparatus Empowerment and Bureaucracy Reform	0.091	7	Keep up to good work
8	Satisfaction level of the user of TIK application	0.064	9	Low priority
9	Safety level of work environment	0.078	8	Low priority
10	Percentage of need fulfillment of legal service	0.043	10	Low priority

indicator, it turns out that the first, second and third indicator have been able to show high performance with high importance, so that the good work of three main priorities of performance measurement indicator should be maintained (keep up to good work). While the indicator that occupies the fourth priority is the level of employee satisfaction of office service has low performance and low importance (low priority). The indicator that occupies the fifth priority is the level of employee satisfaction with the personnel administration service, which is in a quadrant of concentrate here, meaning that the importance of this indicator is high, but it has low performance. Therefore, Secretariat of Ministry of State Apparatus Empowerment and Bureaucracy Reform should improve the service of personnel administration, both in terms of material and immaterial.

#### **Balanced Scorecard (BSC) Approach-based Key Performance Indicator (KPI) in Business Internal Sub Perspective**

From the result of analysis with Eckenrode method to twenty sub-perspectives presented in Table 9, it is found that sub-perspective of first priority as an indicator of performance measurement is the percentage of work units that achieves the performance target, with weight of 0.070, with the performance level in quadrant of keep up to good work, so that this sub perspective as KPI to measure internal business perspectives has had a good performance and high level of importance. Percentage of officers who meet the competency standard is the second priority with a weight of 0.069, but it has low performance, in fact, they have a high interest (concentrate here) so that special attention is needed in the work environment of Secretariat of Ministry of State Apparatus Empowerment and Bureaucracy Reform. This is in contrast to KPI percentage of procurement of goods/ services performed in accordance with the rules that occupy the last priority (20th) with a weight of 0.026. This KPI has excessive performance, in fact, the level of importance is small.

Percentage of the law arranged according to the procedure that occupies the 3rd priority, with a

weight of 0.064, has excessive performance, in fact, the level of importance is low (possibly overkill). In fact, in 3rd priority, KPI should have high importance. KPI percentage of requests for information served, which also occupy the main priority (8th priority) is in the same quadrant with KPI that is the 3rd priority.

#### **Balanced Scorecard (BSC) Approach-based Key Performance Indicator (KPI) in Sub Perspective of Learning and Growth**

In the current government era, changes in bureaucratic reform become one of the main focuses in addition to improving public services because the implementation of optimal and qualified public service is expected to increase public trust to the government. Therefore, the improvement of public services becomes one of the main focuses on bureaucracy reform in current government.

As an effort to improve public services, it is necessary to increase the competence of ASN through training activities. This is in line with the results of the Eckenrode analysis in Table 10 that the percentage of the employees in Ministry of State Apparatus Empowerment and Bureaucracy Reform attending structural and functional training and education, and other courses by 10% of working hours per year occupies the first priority, with a weight of 0.068. IPA analysis result also shows that this KPI has good performance at a high level of importance so that the performance needs to be maintained in order to improve public service. While KPI percentage of training evaluation result that gets criterion of "satisfactory" (structural & functional), which should be in the 3rd priority, has low performance; in fact it has high importance so that it should be paid more attention to improve its performance in the work environment of Secretariat of Ministry of State Apparatus Empowerment and Bureaucracy Reform.

#### **Managerial Implication**

This research proposes a performance measurement design through a balanced scorecard concept (BSC) approach that combines four main perspectives with finances, customers, internal business,

and learning and growth with each indicator. The weighting results of the indicators in Eckenrode become the basis for the Secretariat of Ministry of State Apparatus Empowerment and Bureaucracy Reform in formulating the priority of activities and policies regarding public service which is increasingly qualified and excellent.

The results of IPA analysis that describe the relationship between performance level and importance indicate the position of each indicator, and if there is an aberration, it will be easier to follow up and respond to it. The priority scale obtained from the results of the analysis can be used to allocate the APBN to priority indicators and reduce the State Budget (APBN) on indicators which have low priority so that there will be high budget absorption (financial efficiency).

## CONCLUSIONS AND SUGGESTIONS

### Conclusions

The main priority from the perspective of BSC is a customer, followed by internal business, finance, and learning and growth. Priority on each perspective and each indicator will facilitate the Secretariat of Ministry of State Apparatus Empowerment and Bureaucracy Reform in measuring the success rate of the performance of the organization, ASN, and activities were undertaken. The results of IPA analysis show four BSC perspectives, namely customer, internal business, finance, and learning and growth consecutively, showing their positions in the quadrant of keep up to good work, concentrate here, possible overkill, and low priority. In general, three indicators in each perspective show good performance with a high level of importance. Nevertheless, there are indicators that still have low performance; in fact, they have a high level of importance or vice versa.

### Suggestions

This research is based on BSC approach, which still needs further research to test the effectiveness

of the implementation of performance measurement system with BSC approach in the work environment of Secretariat of Ministry of State Apparatus Empowerment and Bureaucracy Reform, so that if in the implementation there are other performance indicators that have not included in this study, there should be update with more appropriate new design. Secretariat of Ministry of State Apparatus Empowerment and Bureaucracy Reform, which is a public organization with the main task of providing public services, certainly needs competent and qualified human resources. Therefore, to improve the performance of human resources, it is necessary to measure their performance with human resource scorecard approach (HRSC).

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