

## **Measuring the Performance of District Local Government of Batam City Using the Balanced Scorecard**

**Dwi Kartikasari<sup>1</sup>**

<sup>1</sup>Department of Business and Management, Politeknik Negeri Batam  
[dwi@polibatam.ac.id](mailto:dwi@polibatam.ac.id)

**Saronto<sup>2</sup>**

<sup>2</sup>Department of Applied Business Administration, Politeknik Negeri Batam  
[saronto\\_nugroho@yahoo.com](mailto:saronto_nugroho@yahoo.com)

**ABSTRACT.** The Balanced Scorecard (BSC) is a management system that has been applied by many organizations across the globe but has not been really implemented by governments. In the mean time, Indonesian government, especially local one like city of Batam, is demanded to operate as effectively and efficiently as possible. Therefore, the BSC has been becoming more relevant nowadays. Although the literature of the BSC implementation in the public sector in many developed countries is abundant, it is not well supplied in Indonesia due to its newly adaptation. This study aims to describe the implementation of the BSC to measure the the performance of local government. The object of this study is Batam city government, Bengkong district. A survey to 100 customers/residents was conducted to score their satisfaction towards customers and stakeholders as well as internal business process perspectives. Whilst in-depth interview was conducted to 67 civil servants working in the district government to score the financial perspective as well as learning and growth perspective based on 2012 to 2014 data collected. Although the customers are satisfied with the performance of Bengkong district' services, the score of financial as well as learning and growth perspectives are low leading to a total of 0.8 of the BSC score. Thus the authors consider the performance of the district local government is fair. The authors hope the local government use the results of this study as feedback to continuously improve its performance, especially the performance of perspectives that underperform.

**KEYWORDS:** The Balanced Scorecard; Performance; Measurement; Batam City Government

### **1 INTRODUCTION**

Indonesian bureaucracy is notorious for its ineffective and inefficient public services, corruption and static working culture (Budiati, 2005). However, the government is making efforts for creating good governance. The earliest effort that endorsed the Balanced Scorecard (BSC) was in 2007 by the Finance Minister under the Centre of the Bureaucracy Reform Team. With the BSC as a tool to design and evaluate key performance indicators based on the balanced perspectives to improve performance, the bureaucracy reform in the Ministry of Finance has been promising (Budiarso, 2014).

In 2013, Professor Kaplan provided a lecture at the Office of Vice President of Indonesia. This initiative, along with the succesful implementation of the BSC by the Ministry of Finance, has inspired other government agencies to apply the BSC, for example the Ministry of Foreign Affairs, the Ministry of Religion, etc. This trend has influenced people, including those in Batam city, to consider the idea of the BSC.

According to Indonesian Law No. 22 of 1999 on Local Government, the Indonesian government systems change from centralized to decentralized system. The Act gives an

autonomous authority to local government to regulate and manage the interests of local people. Because the citizens, particularly those in Batam, basically demand the government to improve the efficiency and effectiveness of its programs, the local government, has been searching for strategies to meet the constituents's need. The decentralized systems has given Batam city government more authority to implement the BSC.

Until now, performance measurement in government organizations is based on the Performance Agreement Document. The result of performance measurement is presented in Government Performance Accountability Report (LAKIP). LAKIP covers a comprehensive performance measurement, not only financial aspects but also non-financial aspects. However, Surawijaya and Wibisono (2013) notes that sometimes LAKIP rings a false alarm as is the case of the Ministry of Energy and Mineral Resources where it was always awarded as one of the government institutions with the best LAKIP Report but the public and other stakeholders do not feel the improvement in the management of energy and mineral resources. At last, the two authors last mentioned recommend the BSC as the framework of performance measurement system (PMS).

The BSC based PMS is considered appropriate to be implemented by local government because it measures the organization's performance through four perspectives which are the financial perspective, customer perspective, internal business process perspective, and learning and growth perspective. With the BSC's perspectives, the local government should take into account the customer perspective (or the public) and growth perspective the way it does to financial perspective. Not surprisingly, with its comprehensive perspectives, the BSC has been applied by many organizations across the globe although it has not been widely implemented by governments. In Indonesia, the number of government agencies implementing the BSC has been increasing each year.

Although the literature of the BSC implementation in the public sector in many developed countries is abundant, it is not well supplied in Indonesia due to its newly adaptation. Thus, this paper aims to enrich the literature in the area of the BSC implementation of local government performance measurement. The authors hope the local government use the results of this study as feedbacks to continuously improve its performance.

## **2 LITERATURE REVIEW**

### **Bengkong District, Batam City**

District of Bengkong was formed on June 1, 2006 according to Batam City Regulation No. 2 of 2005 on Redistricting, Changes and Formation of sub-district or village in Batam. There are 12 districts in Batam, and out of 1.153.860 residents in Batam City per April 2012, 68.873 residents live in Bengkong district.

### **The Balanced Score Card (BSC)**

According to Kaplan and Norton (1996), the BSC is coherent set of measures to translate a company's vision. The four perspectives of the BSC offer a balance between short-term and long-term objective, between outcomes desired and performance drivers of those outcomes, along with between hard objective measure and subjective one. While Mulyadi (2011) details the BSC in two words, first is a scorecard, and the second is balanced. A score card is a card that describes the results of the performance of one entity, commonly used in sports. In another view point, a score card can also be used to plan the scores to be realized by an entity in the future. The word 'balanced' means that to realize that targeted performance, some aspects should be measured in balance of two aspects: the financial and non-financial, short-term and long-term, internal and external aspects. The perspectives when implemented to public sector according to Howard Rohm (2004) in Imelda (2004) can be translated to the following map.

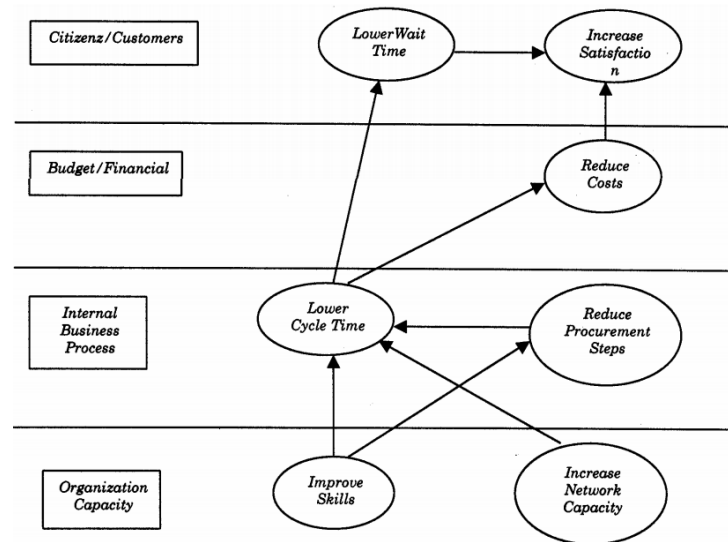


Figure 1: Public Sector Strategy Map

### 3 METHODOLOGY

To elaborate customer and stakeholder as well as internal business process perspective, the authors obtained primary data from questionnaires. The survey was conducted at different times of day and a couple of times per week from January to April 2015. The authors use Slovin's (sometimes Sloven's) formula (see Tejada and Punzalan, 2012) with the margin of error of 10 percent as follows:

$$n = N / (N \cdot e^2 + 1) \tag{1}$$

$$99.85 = 68,873 / (68,873 \times 10\% \times 10\% + 1)$$

where n is the sample size, N is the population size and e is the margin of error.

So, sample size is 99.85 rounded up to 100 people. Using accidental sampling technique, we collected 100 respondents out of 4 sub districts in Bengkong, Batam. Using five level Likert (1932), the questionnaire mainly covered the following variables:

Table 1: Operationalization of Variables (Rohm 2004, Imelda (2004))

Variables	Dimension	Content	Type of Scale
Customer and Stakeholder (Parasuraman et. al, 1988)	Tangible	Facilities and infrastructure to support services	Ordinal
	Reliability	Settlement process of a document	Ordinal
	Responsiveness	The time required to complete a document	Ordinal
	Assurance	The ability and knowledge of employees who provide the services	Ordinal
	Empathy	Ease in dealing with public servant	Ordinal
Financial (Pitriani et al, 2013, Nugroho, 2011, Nor,	Budget spending and variance	The growth of the difference between the actual spending and the budgeted amount	Ratio

2011, Jiang and Liu 2014)	Budget growth	The increase in budget approved over time	Ratio
Internal Business Process	Waiting time (Nugroho, 2011; Jiang and Liu 2014)	Customer satisfaction on the minimum service standards	Ordinal
	Efficiency and efficacy (Nor, 2011)	Customer satisfaction on the efficiency and efficacy of business process	Ordinal
Learning and Growth Perspective: Employees and Organization Improvement Capacity (Pitriani dkk, 2013)	Training attended (Nor, 2011)	The increase in number of employees participating training	Ratio
	Employee retention rate (Nor, 2011)	The organization keeps a growth retention rate of employees	Ratio
	Procurement and technology adaptation (Kaplan, 1999)	The increase in number of procurement of technological devices	Ratio

The authors use Pearson Product Moment Correlations (Sugiyono, 2008) to test the validity of the questionnaire with the significant level of 5 percent. Because the value of  $r_{xy} > r_{\text{table product moment}}$  for all questions tested, then the authors declare that the instrument is valid to reveal the data of the variables studied. Next, to test the reliability of the questionnaire, we use Method Alpha using SPSS. Because the value of Cronbach's Alpha obtained for customer and stakeholder perspective is 0.963 and that for internal business process perspective is 0.716 which both are more than 0.9, we conclude that our instrument has a high degree of reliability.

On the other's hand, to detail financial as well as learning and growth (a.k.a employee and organization capacity) perspective, the authors collect data from in-depth interviews to 67 civil servants who work at Bengkong district and observations to the management and operational activities in Batam City Government District Bengkong. In addition, the authors study some documents related such as budget reports from 2012 – 2014.

After analyzing each variable, the authors give scores to each variable in order to be able to compare the performance of the balanced perspectives (Mulyadi, 2001), under the following rule:

Table 2: the BSC-based Scoring System

Variables	Scoring system
Financial perspective	-1 = when decline
Learning and growth perspective	0 = fluctuate
	1 = increase
Customer and stakeholder persepective	-1 = when not at all to slightly satisfied
Internal business process perspective	0 = moderately satisfied
	1 = very and extremely satisfied

Last but not least, the total score of all perspectives is compared with maximum score one can achieve. The authors classify an entity underperforms when the ratio of performance is less than 50 percent and outperforms when the ratio of performance is more than 80 percent. Normal performance will be between 50 to 80 percent. When translated to scale of -1 to 1, normal performance will be 0 to 0.6.

## 4 RESULTS AND DISCUSSIONS

### 4.1 Characteristics of the respondents

The data presented at table 3 below are based on respondents' answers to survey questions. Most respondents are male, who represent their families for administering family card. Generally, the residents taking the survey are 17 – 22 years with senior high school certificate who come from proportionally diverse part of sub districts. The authors believe that the distribution of respondents reflects in some extent the actual demographic data in terms of education level and sub district.

Table 3: Characteristics of the respondents

Characteristics	Options	Percentage (%)
Gender	Male	59
	Female	41
Age	17 – 22 years	25
	23 – 28 years	24
	35 – 40 years	19
	29 – 34 years	17
	41 - 46 years	10
	> 46 years	5
Education level	Senior high school	63
	Junior high school	13
	D4/S1 bachelor	8
	Elementary school	4
	D1	4
	D2	3
	D3	3
	S2	2
S3	-	
Documents Needed	ID Card/Family Card	72
	ID-home base change/move	13
	Job Seekers card / AK1	6
	Letter of acknowledgement	5
	Introduction to SKCK	3
	Certificate of Business Domicile etc	1
Sub districts	Tanjung Buntung	31
	Bengkong Indah	28
	Bengkong Laut	21
	Sadai	20

### 4.2 The District Government Performance

#### a. Customer and stakeholder perspective

Based on the survey, the index of consumer satisfaction on the services of the district government aspect is 72.84 percent which falls within the interval of 60 to 80 percent to be concluded that customer and stakeholders are very satisfied. The authors give score of 1 for the satisfaction of customer and stakeholders.

b. Financial Perspective

In the financial perspective, there are two parameters used for assessment, namely, budget spending and budget growth.

Table 4: Parameters of financial perspective

Year	Budget	Actual	Budget Spending (%)	Variance (%)	Budget Growth (%)
2012	Rp2,229,877,000.00	Rp2,196,567,302.00	99	1	105
2013	Rp3,124,790,400.00	Rp2,988,998,909.00	96	4	40
2014	Rp4,096,756,199.76	Rp3,976,963,454.00	97	3	31

Source: LAKIP District Bengkong 2012 – 2013

The above table shows that the percentage of budget spending from 2012 to 2014 fluctuated, namely in 2012 budget spending was 99 percent, in 2013 down to 96 percent, and in 2014 rose to 97 percent. In the local government perspective, the higher budget spending, the less the budget variance, the better. In fact, LAKIP as Indonesian government performance measurement was mainly based on this rule. The perspective of government contradicts that of private companies which focuses on budget efficiency and the least budget spending. However, Indonesian government has been encouraging more on outcomes and outputs. In other words, the more budget spending should be accompanied with more outcomes.

In the mean time, budget growth decreased during the study period. Based on the above table, it can be seen that there was a decline in budget growth from 105 percent in 2012 to 40 percent in 2013 and finally to 31 percent in 2014. Thus, the authors give score of 0 for budget spending because its volatility and score of -1 (minus 1) for budget growth due to its decline.

c. Internal Business Process Perspective

The survey results in the index of consumer satisfaction on internal business process by 73.80 percent which is within the interval of 60 to 80 percent. The score means that the customers and stakeholders are very satisfied with the Bengkong district's business process. The authors give score of 1 for the satisfaction of customer and stakeholders for the efficiency of business process of Bengkong District.

d. Learning and growth perspective

Indicators in this perspective are three, namely the ratio of employee training, employee retention rate, and the growth of the procurement and technology utilization. The three measurement of the ratio is as follows:

Table 5: Parameters of learning and growth perspective

Year	Number of employee	Number of employees participating training	Employees participating training (%)	Number of employee resigns	Retention rate (%)	Growth of Procurement of Technological Devices (%)
2012	64	13	20%	1	98	4,5
2013	65	19	29%	0	100	0,33
2014	67	11	16%	0	100	550

Based on the table above, the percentage of employees who attend training in District Bengkong experienced fluctuation, i.e. the percentage employee participating training rose

from 20 percent in 2012 to 29 percent in 2013, then fell to 16 percent in 2014. Whilst the number of civil servants attending training fluctuated, the number of those resign was very low to zero, thus tend to decrease each year. In 2012 the number of employees who resign at 0.02 percent, in 2013 0 percent, and in 2014 amounted 0 percent. Last, the ratio of the procurement of technological devices fluctuated during the study period, decline from 4.5 percent in 2012 to 0.33 percent in 2013 and rose to 550 percent in 2014. Thus, the authors give score of 0 for the number of employee participating training, score of 1 for employee retention because of its very high and increasing retention rate, and score of 0 for its uncertainties in procuring technological devices.

By totaling all the scores given, we summarize as follows:

Table 6: Total score of the district government performance

Perspective	Status	Score
Customer and Stakeholder	Satisfied	1
Financial		
a. Budget spending	High rate but fluctuate	0
b. Budget growth	Positive growth but decline	-1
Internal Business Process	Satisfied	1
Learning and Growth		
a. Training for employees	Fluctuate	0
b. Retention rate	Good	1
c. Procurement and utilization of technological devices	Fluctuate	0
Total score out of maximum score		2 of 7

Table 6 above shows that the total score of Bengkong district government is 2 of 7 or 0.28 on -1 to 1 scale or 57.14 percent. Thus, the authors argue that the performance of the district government is considered normal. When compared with previous studies, the results of this study are consistent with research of Pitriani, et.al (2013) who got close value of the BSC-based performance. By concluding to 0.5 point, she stated that the performance of Riau Islands provincial tourism office is considered normal as well. Another researches that are conducted by Effendi (2012), Fathoni and Inda Kesuma (2011), Muhammad (2011), and Shu-Hsin Huang et. al. (2004) concluded by an excellent outperformance of the government under scrutiny. With a more balanced perspective, the authors hope that Bengkong district of Batam city government can consider the BSC-based performance measurement as the basis and guidelines for the mission of continuous improvement of performance of the district government in the future.

## 5 CONCLUSIONS

The authors conducted a survey to 100 customers/residents conducted to score their satisfaction towards customers and stakeholders as well as internal business process perspectives of Bengkong district of Batam city government. The survey was conducted at different times of day and a couple of times per week from January to April 2015. On the other's hand, to detail financial as well as learning and growth (a.k.a employee and organization capacity) perspective, the authors collect data from in-depth interviews to 67 civil servants who work at Bengkong district and observations to the management and operational activities in Batam City Government District Bengkong. In addition, the authors study some documents related such as budget reports from 2012 – 2014.

Although the customers are satisfied with the performance of Bengkong district' services, the score of financial as well as learning and growth perspectives are low leading

to a total of 0.28 of the BSC score. Thus the authors consider the performance of the district local government is fair. The authors hope the local government use the results of this study as feedback to continuously improve its performance, especially the performance of perspectives that underperform.

The authors understand that this study limits its application to one district out of 12 districts in addition to its technique of non-probability sampling which lead to its limitation with regard to generalization. The authors recognize that because the respondents do not truly represent a population, we cannot make valid inferences about the larger group from Batam city or even larger Indonesia citizens. In order to increase validity, the authors suggest to switch current sampling technique to random sampling and avoid bias into sample selection.

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## 7 REFERENCE

- Budiarmo, A. (2014). Improving government performance in indonesia: the experience of the balanced scorecard in the ministry of finance. A doctorate thesis of The University of Canberra. Retrieved from [http://www.canberra.edu.au/researchrepository/file/1a2c8cf2-bdca-47bd-86d5-674f3a216b70/1/full\\_text.pdf](http://www.canberra.edu.au/researchrepository/file/1a2c8cf2-bdca-47bd-86d5-674f3a216b70/1/full_text.pdf)
- Budiati, A. (2005). The role of bureaucratic reform and e-government in eradicating corruption and improving public service delivery in indonesia (a strategic action to create harmonious society in indonesia. Network of Asia-Pacific Schools and Institutes of Public Administration and Governance (NAPSIPAG) Annual Conference, Beijing, 5-7 December 2005. Retrieved from [http://napsipag.org/pdf/Eradicating\\_Corruption.pdf](http://napsipag.org/pdf/Eradicating_Corruption.pdf)
- Effendi, R. (2012). Pengukuran Kinerja Sektor Publik dengan Menggunakan Balanced Scorecard: Studi Kasus Kanwil DJP Sumsel dan Kep. Babel, *Jurnal Ilmiah STIE MDP*, 1 (2), p.67-73. Retrieved from: [http://eprints.mdp.ac.id/669/1/1.%20Pengukuran%20Kinerja%20Sektor%20Publik%20Dengan%20Menggunakan%20Balanced%20Scorecard%20\(Studi%20Kasus%20Kanwil%20DJP%20Sumsel%20dan%20Kep.%20Babel\)%20.pdf](http://eprints.mdp.ac.id/669/1/1.%20Pengukuran%20Kinerja%20Sektor%20Publik%20Dengan%20Menggunakan%20Balanced%20Scorecard%20(Studi%20Kasus%20Kanwil%20DJP%20Sumsel%20dan%20Kep.%20Babel)%20.pdf)
- Fathoni, Inda, K.S. (2011). Analisis Penilaian Kerja Rumah Sakit dengan Penerapan Balanced Scorecard : Studi kasus Rumah “ABC”, *Jurnal Sistem Informasi (JSI)*, 3 (1), p. 327-335. Retrieved from: <http://ejournal.unsri.ac.id/index.php/jsi/index>
- Huang S.S. et.al. (2004). Using a Balanced Scorecard to Improve the performance of an Emergency Department, *Scholarly Journals of Nursing Economics*, 22 (3). p.140-146.
- Imelda, R. H. N. (2004). Implementasi balanced scorecard pada organisasi publik. *Jurnal Akuntansi & Keuangan*. 6(2), p.106-122. Retrieved from: [jurnalakuntansi.petra.ac.id/index.php/](http://jurnalakuntansi.petra.ac.id/index.php/)
- Jiang, D.K, Liu, Z.K. (2014). Research on Application of Balanced Scorecard in the Government Performance Appraisal. *Open Journal of Social Sciences*, 2, p.91-96 Retrieved from: <http://www.scirp.org/journal/jss> <http://dx.doi.org/10.4236/jss.2014.29016>.
- Kaplan, R.S., Norton, D.P. (1996). *The Balanced Scorecard: Translating Strategy into Action*. 1st ed. Harvard Business Review Press. USA.



- Kaplan, R.S. (1999). The Balanced Scorecard for Public Sector Organizations, *Balanced Scorecard Report*, Harvard Business School Publishing and Balanced Scorecard Collaborative, 1(2). Retrieved from: [http://mjfgroup.biz/Templates/BalancedScorecard/Articles/BSR\\_The%20BSC%20for%20Public%20Sector\\_v1n2.pdf](http://mjfgroup.biz/Templates/BalancedScorecard/Articles/BSR_The%20BSC%20for%20Public%20Sector_v1n2.pdf)
- Likert, R. (1932). A Technique for the Measurement of Attitudes. *Archives of Psychology*, 140. p.1–55.
- Muhammad, S. M. (2011). Analisis Balanced Scorecard (BSC) untuk Evaluasi Kinerja Pada PT PLN (Persero) Makassar, Skripsi, Fakultas Ekonomi Jurusan Manajemen Universitas Hasanuddin Makassar. Retrieved from: <http://repository.unhas.ac.id/bitstream/handle/123456789/413/Laporan%20Skripsi.pdf>
- Mulyadi. (2001). *Balanced Scorecard: Alat Manajemen Kontemporer untuk Pelipatganda Kinerja Keuangan Perusahaan*, Salemba Empat, Jakarta.
- Nor, W., (2012). Penerapan Balanced Scorecard pada Pemerintah Daerah, *AUDI Jurnal Akuntansi & Bisnis*, 7 (2), p. 280-292. Retrieved from: <http://download.portalgaruda.org/article.php?article=162665&val=945&title=PENERAPAN%20BALANCED%20SCORECARD%20PADA%20PEMERINTAH%20DAERAH>
- Nugroho, B., (2011). Perencanaan Strategis Berbasis Kerangka Kerja Balanced Scorecard (BSC) pada Lembaga Pemerintahan Non Departemen (LPND), Studi Kasus: Lembaga Ilmu Pengetahuan Indonesia (LIPI). Pusat Dokumentasi Dan Informasi Ilmiah Lembaga Ilmu Pengetahuan Indonesia. Retrieved from: <http://www.pdii.lipi.go.id/wp-content/uploads/2011/08/budinugroho-analisis-BSC1.pdf>
- Parasuraman, A., Zeithame, Valerie A., Berry, Leonard L. (1988). Servqual: Multiple – Item Scale for Measuring Consumer Perception of Service Quality, *Journal of Retailing*, 64(1) p. 13-40. Retrieved from <http://areas.kenan-flagler.unc.edu/Marketing/FacultyStaff/zeithaml/Selected%20Publications/SERVQUAL-%20A%20Multiple-Item%20Scale%20for%20Measuring%20Consumer%20Perceptions%20of%20Service%20Quality.pdf>
- Pitriani, A., Uzaimi, A., and Suryadi. (2013). Analisis Kinerja Melalui Balanced Scorecard : Studi pada Dinas Pariwisata Provinsi Kepulauan Riau, Fakultas Ekonomi Universitas Maritim Raja Ali Haji, Tanjungpinang.
- Rohm, H. (2004), “Improve Public Sector results With A Balanced Scorecard: Nine Steps To Success”, <http://www.balancedscorecard.org>.
- Sugiyono. (2008). *Metode Penelitian Bisnis*, Alfabeta, Bandung.
- Surawijaya, A., Dermawan, W. (2013). Analysis and proposed of performance measurement system framework at ministry of ESDM. *The Indonesian Journal of Business Administration*. 2 (1), p.29-38. Retrieved from <http://download.portalgaruda.org/article.php?article=88698&val=2219>
- Tejada, J.J., Punzalan, J.R.B. (2012) On the Misuse of Slovin’s Formula. *The Philippine Statistician*, 61(1) p. 129-136. Retrieved from: [http://www.philstat.org.ph/files/images/2012\\_611\\_9\\_On\\_the\\_Misuse\\_of\\_Slovin\\_s\\_Formula.pdf](http://www.philstat.org.ph/files/images/2012_611_9_On_the_Misuse_of_Slovin_s_Formula.pdf)

