

Analysis of local government budget behavior in South Sulawesi

Mediaty¹, Abdul Hamid², Sri Sundari³, Anis Anshari Mas'ud⁴

Hasanuddin University^{1,2,3}

Address Perintis Kemerdekaan Makassar, 90245, Indonesia

Correspondence email: unhasmediaty@gmail.com

Received: 06th October 2021

Revised: 19th November 2021

Accepted: 06th December 2021

Abstract: This study is intended to analyze the behavior of individual budget preparers in determining the amount of the budget for the coming period and related to overreliance on past information and the existence of budgetary behavior, in taking overreaction or underreaction to current PAD information, which is the same as the current PAD information. Last year or current information that has changed. This research is a follow-up study, in which the overall results of previous studies conclude that the general PAD budget maker in South Sulawesi Province behaves in overreaction to the pattern of PAD last year and PAD this year which has an impact on the misestimation of the PAD budget for the following year. Came and contributed to the behavioral accounting literature, particularly regarding the behavior of individuals who are part of the budgeting of South Sulawesi Province. This research is a research with a quantitative approach with the type of research that is causality and explanatory. The population in this study is all Original Regional Income (PAD) in districts/cities in South Sulawesi. The sample was selected by purposive sampling. The sample criteria selected were the district and city governments in South Sulawesi from 2017 to 2020. Districts/municipalities of local governments in South Sulawesi were classified based on high class, medium class, and low class based on the total Regional Original Income (PAD), respectively. Each region in South Sulawesi. Based on purposive sampling obtained from 24 regencies/cities, this study uses data for a period of four years. Overall, this research tries to contribute to research progress in the scope of public sector budgeting in South Sulawesi. The results of this study, Regency/City Prediction Accuracy (KP), have no difference or the same. Thus, the average Prediction Accuracy (KP) does not affect districts/cities in South Sulawesi Province. The results show that the highest average Prediction Accuracy (KP) is in 2017, while the lowest is in 2019.

Keywords: budgeting behavior, budget makers, prediction accuracy, public sector

INTRODUCTION

The economic activity of a local government must increase from year to year. This can increase the area's economic potential and impact regional development, which in turn can improve the welfare of its people. With the increase in economic activity of a region, it can increase provincial revenues that reflect the level of independence of the area. The greater the part's original regional income (PAD), it indicates that the region can implement fiscal decentralization, and the dependence on the central government will be reduced. PAD has a significant role in improving the performance and development

of the local government concerned. The determination of PAD for the next period is discussed and determined by the local government PAD budget drafting team. At the end of the specified PAD period, the PAD is compared with the PAD realization, but there are always differences. These differences often occur in various regions in Indonesia, not least in the province of South Sulawesi. The difference between the PAD that has been determined and the realization of the PAD occurs because, among other things, there is a misestimation in deciding the amount of the budget for the future. Budget misestimations can be caused by measurements or the use of unreliable models. In addition, it can also occur due to heuristic bias factors.

This study deals with the phenomenon of individual behavior in local government in South Sulawesi in determining the amount of the budget for the coming period. In particular, this study aims to examine how the individual's behavior towards deciding the amount of the funding for the coming period is related to overreliance on past information and the behavior of the budgeting team doing overreaction to current information, which is the same as last year. And the existence of an underreaction to present information that undergoes extreme positive or negative changes.

This research is significant because it can provide helpful contributions such as empirical evidence about the use of the concept of representativeness and anchoring-adjustment on the behavior of public sector budget makers in determining the amount of the PAD budget for the coming period. With this contribution, it is increasingly understood that this approach is functional and has an essential role in making PAD budget decisions in the public sector. The contribution of this research also adds insight to the public sector budget drafting team. Experience can also help determine the size of the PAD budget for the coming period. Finally, the results of this study can also be used as a reference in further research related to decision-making using a heuristic approach.

RESEARCH METHOD

Research Model

This research is a research with a quantitative approach with the type of research that is causality and explanatory. A causal relationship is a causal relationship between the independent variable and the dependent variable. The independent variable in this study is information on last year's PAD budget and current year's PAD budget, while the determination of the PAD budget for the coming period is the dependent variable in this study.

Population and Samples

The population in this study is all Original Regional Income (PAD) in districts/cities in South Sulawesi. The sample was selected by purposive sampling. The chosen sample criteria are: (1) Districts/municipalities of local government in South Sulawesi are classified based on high class, medium class, and low class based on the total Regional Original Income (PAD) of each region in South Sulawesi. Based on purposive sampling obtained from 24 regencies/cities, this study uses data for four years.

Data Collection Method

The data collection method in this study is secondary data tracing, through questionnaires in previous studies by studying document data information such as the realization of budget data that has relevance to the problems raised in this study, also obtained through local government websites.

Data Analysis

Descriptive data analysis is a statistic used to analyze data by describing or describing the data that has been collected as it is without intending to make conclusions that apply to the public or generalizations. Descriptive statistics consist of the mean, median, standard deviation, maximum, and minimum of each sample data. The descriptive statistics in this study were processed using Microsoft Excel 2019 computer software, SPSS version 23 software to simplify data calculations and estimates. Hypothesis testing in this study was carried out using multiple linear regression analysis, which aims to examine the relationship between one variable and another and private analysis. The affected variable is the dependent variable (endogenous), while the influencing variable is the independent variable (exogenous). The following is the equation model to test the H1, H2, and H3 hypotheses, namely:

$$Y = a_0 + a_1X_1 + a_2X_2 + e$$

Information :

Y = Prediction Accuracy (KP)

X1 = Estimated PAD

X2 = PAD Target

The budget maker's behavior is a phenomenon of cognitive psychology that connects dependence on information on the amount of past and present PAD, which is the same or unexpected, with individual behavior (overreaction and underreaction) in making decisions such as determining the PAD budget for the future period.

RESULTS AND DISCUSSION

Bivariat Analysis

Bivariate analysis is an analysis used on two variables that are suspected to be related or correlated. In this study, before analyzing the data, the data normality test was first carried out to determine whether the existing data was standard or not. The normality test was carried out using the Shapiro-Wilk test. If the data has been normally distributed, the bivariate analysis was carried out using the correlation test. The results of the bivariate analysis using the correlation test are as follows:

Correlations

		KP	PAD_E	PAD_T
KP	Pearson Correlation	1	,143	-,017
	Sig. (2-tailed)		,166	,872
	N	96	96	96
PAD_E	Pearson Correlation	,143	1	,987**
	Sig. (2-tailed)	,166		,000
	N	96	96	96
PAD_T	Pearson Correlation	-,017	,987**	1
	Sig. (2-tailed)	,872	,000	
	N	96	96	96

** . Correlation is significant at the 0.01 level (2-tailed).

Based on the results of the analysis above, it is explained that:

1. The significant (2-tailed) value of Estimated PAD against Prediction Accuracy (KP) is 0.166, which means that there is no relationship between Estimated PAD and KP because the significant level is more than 0.05 ($0.166 > 0.05$).
2. The significant (2-tailed) value of Target PAD against Prediction Accuracy (KP) is 0.872, which means that there is no relationship between Target PAD and KP because the significant level is more than 0.05 ($0.872 > 0.05$).
3. The significant (2-tailed) value of the Estimated PAD against the Target PAD is 0.000, which means that there is a relationship between the Estimated PAD and the Target PAD because the significant level is less than 0.05 ($0.000 < 0.05$).

ANALISIS ONE WAY ANOVA

Prediction Accuracy (KP) in Each Regency/City

Descriptive Statistical Analysis

Descriptive statistics are statistics related to informative data presentation so that data users are easy to process. Descriptive statistical analysis provides an overview of the data numerically from the maximum, minimum, and mean, and standard deviation. The indicators used in this study were 24 districts/cities in South Sulawesi for four years.

Based on descriptive statistical analysis, it can be seen that the amount of data is 96 research samples. The above analysis results show that the highest average Prediction Accuracy (KP) is Soppeng Regency of 18.4825 while the lowest is North Luwu Regency of (46.0161).

Homogeneity Test

If the normality test results of the data are normally distributed, then the homogeneity test is carried out with the Levene test. The results of the homogeneity test with Levene's test are as follows:

Test of Homogeneity of Variances

PROSENTASE_KP

Levene Statistic	df1	df2	Sig.
1,135	23	72	,332

Based on the homogeneity test results above, it is known that the data is homogeneous with a significance value of 0.332 which means that the significant matter is more than 0.05 ($0.332 > 0.05$).

One Way Anova Test

One-way analysis of variance is a parametric statistical technique used to test the difference between several groups of means, where there is only one independent or independent variable divided into several groups and one dependent or dependent variable.

The results of the one-way ANOVA test are as follows:

ANOVA

PROSENTASE_KP

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	22978,435	23	999,062	,658	,870
Within Groups	109315,983	72	1518,278		
Total	132294,417	95			

Based on the results of the one-way ANOVA test above, it is known that the average Regency/City Prediction Accuracy (KP) is the same, with a significance value of 0.870 which means that the significant matter is more than 0.05 ($0.870 > 0.05$).

PROSENTASE_KP

Tukey HSD^{a,b}

City	N	Subset for alpha = 0.05
		1
KabupatenLuwu Utara	4	-46,0161
Kabupaten Pare-Pare	4	-40,0122
KabupatenPangkep	4	-30,4068
KabupatenPinrang	4	-23,3201
KabupatenWajo	5	-20,0369
Kabupaten Tana Toraja	4	-16,2154
KabupatenToraja Utara	4	-13,8901
Kabupaten Bone	4	-13,1070
KabupatenGowa	4	-12,1194
KabupatenLuwu	4	-12,1164
KabupatenTakalar	4	-10,3225
Kota Makassar	4	-9,2870
KabupatenSinjai	4	-5,5353
KabupatenBulukumba	4	-4,0531
KabupatenPalopo	4	-2,8308
KabupatenMaros	4	-1,6605
KabupatenEnrekang	4	-1,1029
KabupatenSidrap	4	-,0859
KabupatenJeneponto	4	5,4073
KabupatenLuwu Timur	4	6,4422
KabupatenKepulauanSelayar	4	7,4929
KabupatenBarro	4	10,2767
KabupatenBantaeng	4	14,6361
KabupatenSoppeng	3	18,4825
Sig.		,782

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3,978.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Based on the results above, it is known that the Regency/City Average Prediction Accuracy (KP) has a significant value of more than 0.05 ($0.782 > 0.05$), so there is no significant difference, or in other words, the average Prediction Accuracy (KP) Regency/City are the same.

Multiple Comparison Test

If Anova H_0 is accepted, the work is completed to conclude that all averages are relatively the same. If the analysis of variance results in a rejection of H_0 , then it is between different means. The multiple comparison test in this study is the turkey test.

Multiple Comparisons

Dependent Variable: PROSENTASE_KP

Tukey HSD

(I) Year	(J) Year	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
2017	2018	26,95799*	7,73169	,004	6,7271	47,1888
	2019	71,64465*	7,73169	,000	51,4138	91,8755
	2020	19,03187	7,73169	,073	-1,1990	39,2627
2018	2017	-26,95799*	7,73169	,004	-47,1888	-6,7271
	2019	44,68666*	7,73169	,000	24,4558	64,9175
	2020	-7,92611	7,73169	,735	-28,1570	12,3047
2019	2017	-71,64465*	7,73169	,000	-91,8755	-51,4138
	2018	-44,68666*	7,73169	,000	-64,9175	-24,4558
	2020	-52,61277*	7,73169	,000	-72,8436	-32,3819
2020	2017	-19,03187	7,73169	,073	-39,2627	1,1990
	2018	7,92611	7,73169	,735	-12,3047	28,1570
	2019	52,61277*	7,73169	,000	32,3819	72,8436

*. The mean difference is significant at the 0.05 level.

PROSENTASE_KP

Tukey HSD^a

Year	N	Subset for alpha = 0.05		
		1	2	3
2019	24	-50,9448	-6,2581	1,6680
2018	24			
2020	24			
2017	24	1,000	,735	20,6999
Sig.				
				,073

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 24,000.

DISCUSSION

Prediction Accuracy (KP) in Each Regency/City

In this study, the Regency/City Prediction Accuracy (KP) does not have a difference or the same. Thus, the average Prediction Accuracy (KP) does not affect districts/cities in South Sulawesi Province. It can

be seen that the amount of data as many as 96 research samples. The results of the above analysis show that the highest average Prediction Accuracy (KP) is in 2017 (20.6999), while the lowest is in 2019 (50.9448).

1. The average difference in Prediction Accuracy (KP) in 2017 and 2018 is 26.95799, while the average difference in Prediction Accuracy (KP) ranges from 6.7271 (Lower Bound) to 47,1888 (Upper Bound).) at the 95% confidence level. Based on the output, it is known the value of sig. $0.004 < 0.05$, so it can be concluded that the Prediction Accuracy (KP) in 2017 and Prediction Accuracy (KP) in 2018 are not the same, and the average difference in Predictive Uncertainty (KP) descriptively between the two years is significant. There is Prediction Accuracy (KP) data for 24 districts/cities in 2019, meaning that the average Prediction Accuracy (KP) for 24 districts/cities in 2019 does not have a significant difference. In other words, the average KP for 24 districts/cities in 2019 is the same.
2. The average difference in Prediction Accuracy (KP) in 2017 and 2019 is 71.64465, while the average difference in Prediction Accuracy (KP) ranges from 51.4138 (Lower Bound) to 91.8755 (Upper Bound).) at the 95% confidence level. Based on the output, it is known the value of sig. $0.000 < 0.05$, so it can be concluded that the Prediction Accuracy (KP) in 2017 and Prediction Accuracy (KP) in 2019 are not the same, and the average difference in Predictive Uncertainty (KP) descriptively between the two years is significant. There is data on Prediction Accuracy (KP) for 24 districts/cities in 2018 and 2020, meaning that the average Prediction Accuracy (KP) for 24 districts/cities in 2018 and 2020 does not have a significant difference; in other words, the average KP for 24 districts/cities 2018 and 2020 are the same.
3. The average difference in Prediction Accuracy (KP) in 2017 and 2020 is 19,03187, while the average difference in Prediction Accuracy (KP) ranges from -1.1990 (Lower Bound) to 39.2627 (Upper Bound). Bound) at the 95% confidence level. Based on the output, it is known the value of sig. $0.073 > 0.05$, so it is concluded that the Prediction Accuracy (KP) in 2017 and Prediction Accuracy (KP) in 2020 are the same, and the average difference in Predictive Uncertainty (KP) descriptively between the two years is not significant. There are data on KP for 24 districts/cities in 2020 and 2017, meaning that the average Prediction Accuracy (KP) for 24 districts/cities in 2020 and 2017 does not have a significant difference; in other words, the average Prediction Accuracy (KP) for 24 districts/cities 2020 and 2017 are the same.

CONCLUSIONS

In this study, Regency/City Prediction Accuracy (KP) does not have the same difference or difference. Thus, the average Prediction Accuracy (KP) does not affect districts/cities in South Sulawesi Province, the Prediction Accuracy (KP) in each year, the average Prediction Accuracy (KP) of 25 districts/cities from 2019 compared to 2020 is different, and the difference is significant. Meanwhile, 2017 compared to 2018 and 2020 is the same, and the difference is not significant.

REFERENCES

- Alwathainani, A.M. 2012. Consisten Winner and Losers. *International Review of Economics and Finance*, 21, 210-220.
- Barberis, N., Shleifer, A., dan Vishny, R. 1998. A Model of Investor Sentiment. *Journal of Financial Economics*, 49,1-53.

- Barus, Andreani Caroline dan Christina. 2014. Pengaruhreaksi pasar Terhadap Harga Saham Perusahaan yang Terdaftar di Bursa Efek Indonesia. *JurnalwiraEkonomiMikroskil*, 4 (1), 41-56.
- Bloomfield, R. Libby, R. dan Nelson, M.W. (2000). Underreactions, Overreactions and Moderated Confidence. *Journal of Financial Markets*, 3, 113-137.
- Bloomfield, R. dan Hals, J. (2002). Predicting The Next Step of a Random Walk: Experimental, Evidence of Regime-Shifting Belief. *Journal of Financial Economy*. 65 (3), 397-414.
- Bloomfield, R. dan Libby, R. Nelson, M.W. (2003). Do Investors Overrely on Old Elements of The Earnings Time Series? *Contemporary Accounting Research*, 3, 1-31.
- Boussaidi, Ramzi. (2013). Representativeness Heuristics, Investor Sentiment and Overreaction to Accounting Earnings: the Case of the Tunisian Stock Market. *Procedia-Social and Behavioral Sciences*, 81, 9-21.
- De Bondt, W. F. M., dan Thaler, R. M. 1985. Does the Stock Market Overreact?. *Journal of Finance*, 40, 793-805.
- Epley, N. dan Gilovich, T. (2006). The Anchoring and Adjustment Heuristics: Why The Adjustments Are Insufficient. *Psychological Science*. 17, 311-318.
- Fadillah , I. (2017). AnalisisKomparatifAnggaran dan RealisasiKegiatan pada RumahSakit Jiwa AtmaHusada Mahakam di Samarinda. *e Journal AdministrasiBisnis* , 5 (1), 67-78.
- Fama, E.F. 1998. Market Efficiency, Long-Term Returns and Behavioral Finance. *Journal of Financial Economics*. 49, 283-306.
- Frances, P.H. 2007. Experts Adjusting Model-Based Forecast and The Law of Small Numbers. *Econometric Institute Report No. 4*.
- Fuller, R.J. 2000. Behavioral Finance and the Sources of Alpha. Working Paper.
- Gigerenzer, G. dan Gaissmaier, W. (2011). Heuristics Decision Making. *Annual Review of Psychology*, 62, 451-482.
- Gilovich, T. Griffin, D. dan Kahneman, D. 2013. *Heuristics and Biases*, New York: Cambridge University Press.
- Habbe, Abdul Hamid. (2017). Estimation Error of Earnings Information: A Test of Representativeness and Anchoring-adjustment Heuristics. *International Journal of Economics and Financial Issues*. 7 (1), 224-233.
- Halim, Abdul. (2002). Analisis Varian Pendapatan Asli Daerah dalamLaporanPerhitunganAnggaranPendapatan dan Belanja Daerah Kabupaten/Kota di Indonesia. DisertasiDoktordalamIlmuEkonomi, UGM, Yogyakarta, TidakDiterbitkan.
- Hardin, W. (1999). Bihavioral Research into Heuristics and Bias as an Academic Pursuit: Lessons from Other Disciplines and Implications fir Real Estate. *Journal of Property Investment & Finance*. 17 (4), 333-352.
- Kaestner, M. (2006). Anomalous Price BehaviourFollowis Earnings Surprises: Does Representativeness Cause Overreaction?. *Revue de l Association Francaise de Finance*. 27, 5-31.
- Kahneman, D. dan Tversky, A. (1974). Subjective Probability: A Judgment of Representativeness. *Cognitive Psychology*, 3, 430-454.
- Kahneman, D. dan Riepe, M.W. (1998). Aspects of Investor Psychology: Belief, Preferences and Biases Investment Advisors Should Know About. *Journal of Porfolio Management*. 24 (4), 52-65.
- Kannadhasan, M dan Nandagopal. R. 2010. Influence of Decision Maker's Characteristic on Risk Analysis in Strategic Investment Decision. *Journal of Modern Accounting and Auditing*. 38-44.
- Kuncoro, H. (2008). VariansiAnggaran dan RealisasiAnggaranBelanja, StudiKasusPemerintahan Daerah Provinsi DKI Jakarta. *JurnalManajemenTeori dan Terapan*, 1 (2), 126-143.
- Lakonishok, J., Shleifer, A., dan Vishny, R., 1994. Contrarian Investment, Extrapolation, and Risk. *Journal of Finance* 49, 1541-1579.
- Mardiasmo. 2009. *Otonomi dan ManajemenKeuangan Daerah*. Yogyakarta: Andi Offset.

- Marsden, A, Veeraraghavan, M. dan Ye, M. (2008). Heuristics of Representativeness, Anchoring and Adjustment, and Leniency: Impact on Earnings: Forecasts by Australian Analysts. *Quarterly Journal of Finance and Accounting*, Vol. 47 (2).
- Mendenhall, R.R. 1991. Evidence on The Possible Underwighting of Earnings Related Information. *Journal of Accounting Research* 29, 170-179.
- Nilsson, H. Juslin, P. dan Olsson, H. (2008). Exemplars in the Mist: The Cognitive Substrate of the Representativeness Heuristic. *Scandinavian Journal of Psychology*. 49, 201-212.
- Nofsinger, J.R. (2005). *Psychology of Investing*. Second Edition. New Jersey: Prentice-Hall, Inc.
- Pasaribu, Rowland Bismark Fernando. 2011. Anomali Overreaction di Bursa Efek Indonesia: Penelitian Saham LQ-45. *Jurnal Ekonomi & Bisnis*. 5 (2), 87-115.
- Plous, S. (1989). Thinking the Unthinkable: The Effect of Anchoring on Likelihood Estimates of Nuclear War. *Journal of Applied Social Psychology*, 19, 67-91.
- Puspitasari, Ratna. 2013. Studi Penganggaran Berbasis Kinerja Pada pemerintah Provinsi Jawa Timur, Jawa Barat dan DKI Jakarta. *Jejaring Administrasi Publik*. 5 (2).
- Rahmawati dan Tri Suryani. 2005. Over Reaksi Pasar Terhadap Harga Saham Perusahaan Manufaktur di Bursa Efek Jakarta. *SNA VIII*, Solo. 64-73.
- Saputro, F., Irianto, B.S. dan Herwiyanti, E. (2016). Faktor yang Memengaruhi Ketepatan Anggaran Sektor Publik. *Soedirman Accounting Review*, 1(1), 21-39.
- Shefrin, H. (2007). *Behavioral Corporate Finance: Decision That Create Value*. McGraw-Hill, Irwin.
- Shah, A.K. dan Oppenheimer, D.M. (2008). Heuristics Made Easy: An Effort-Reduction Framework. *Psychological Bulletin*, 134(2), 207-222.
- Solso, R.L. 2001. *Cognitive Psychology*. Sixth Edition. Allyn & Bacon: Needham Height, MA.
- Strack, F. Bahnik, S. dan Mussweiler, T. (2016). Anchoring: Accessibility as a Cause of Judgment Assimilation. *Current Opinion in Psychology*, 12, 67-70.
- Tamir, D.I dan Mitchell, J.P. (2013). Anchoring and Adjustment During Social Inferences. *Journal of Experimental Psychology: General*, 142 (1), 151-162.
- Turner, B. M. dan Schley, D.R. (2016). The Anchor Integration Model: A Descriptive Model of Anchoring Effects. *Cognitive Psychology*, 90, 1-47.
- Tversky, A. dan D. Kahneman. (1974). Judgment Under Uncertainty: Heuristics and Biases. *Science*, 185: 1124-1131.
- Wickham, P.A. (2003). The Representativeness Heuristics in Judgments Involving Entrepreneurial Success and Failure. *Management Decision*, 4 (2), 156-167.
- Yadav, S. M. (1994). How Buyers Evaluate Product Bundles: A Model of Anchoring and Adjustment. *Journal of Consumer Research*. 21, 342-353.
-