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## DESCRIPTIVE OF QUANTITATIVE DATA | SUPPLEMENTARY

# Effect of Internal Control System and Reward System on Managerial Performance with Locus of Control as Moderating Variable in Banking

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**Abstract:** This study aims to: (1) assess the effect of the internal control system on managerial performance, (2) To assess the effect of the reward system on managerial performance (3) assess the effect of the internal control system on managerial performance with the locus of control as a moderating variable; (4) To assess the effect of the reward system on managerial performance with the locus of control as a moderating variable. This study uses primary data through a survey of 36 managers divided into three groups in each pre-determined sub-branch office at Mandiri Bank, Indonesian People's Bank, State Savings Bank, and CIMB Niaga Makassar City. Data were analyzed using the statistical product and service solution (SPSS) program. The results of this study indicate that: (1) the internal control system has a negative and significant effect on managerial performance, (2) the reward system has a positive and significant effect on managerial performance, and (3) the internal control system has a positive and significant effect on managerial performance with a locus of control. as a moderating variable, (4) Reward system has a negative and significant effect on managerial performance with the locus of control as a moderating variable.

**Keywords:** Internal control, Reward System, Managerial Performance, Locus of Control  
**JEL Classification Code:** O15, J24,

## 1. INTRODUCTION

Banks as business entities have unique characteristics compared to other types of businesses. Banks in their unity with the banking system have a strategic role in the economy. There are three main functions of banks, namely collecting funds from the public, investing the funds they manage into various productive assets, and providing payment traffic services and other banking services (Gandapradja, 2004). With such functions, banks act as intermediary institutions that bring together two parties with different interests. As a business entity, within the bank there are various kinds of interests from related parties such as owners, management, employees and customers. although there are differences in interests between related parties, in essence these interests have the same goal, namely the achievement of a healthy bank and able to develop reasonably.

For the sake of achieving healthy banking and being able to develop reasonably is not an easy thing, it requires a long process. banking is currently experiencing changes both in terms of competition and regulations that force it to adapt to the new environment. Paradoxically, there is a threat of intense competition, but there is also potential market power on the other side (Vives, 2001). Banks are required to make various changes in order to remain competitive by creating quality service products and services, for that there needs to be consistency and commitment for all parties and to realize this, this is where the important role of a manager's performance.

The manager as someone who has a big responsibility in managing the company must be aware of his role. Managers must be able to carry out their duties to create value for consumers and increase shareholder value for the company organization. A manager is required to produce good performance through three main activities, namely designing products and services that are able to generate value



for consumers, producing products and services in a cost effective manner, and marketing products and services effectively to consumers (Zhu et al., 2021).

The concept of performance stands for work energy kinetics which in English is called performance. Performance is defined as an expression of one's work achievements. (Abbas, 2020; Hampton et al., 2021) states that manager performance is a factor that increases organizational effectiveness. A job or profession has a number of functions or indicators that can be used to measure the results of this work, the job indicators of a manager are planning work, organizing work, leading the implementation of work, and controlling the implementation of work (Degbey & Pelto, 2021; Kareem et al., 2022). From this performance concept, it can be concluded that managerial performance is the sum of the outputs of the indicators of a manager's professional implementation. A person who holds a managerial position is expected to be able to produce good managerial performance. Unlike employee performance which is generally concrete, managerial performance is abstract and complex. Managers produce performance by mobilizing the talents and abilities and efforts of several other people within their area of authority. With good managerial performance, it is expected to be able to bring success to the company, especially banking.

As a banking institution, it should remain consistent in showing the best performance. The phenomenon that is then faced, some banks have not been able to perfectly obtain maximum results, characterized by the existence of customer complaints. Based on the YLPKI survey, complaints against financial institutions still dominate during 2016, there are 160 complaints said the daily chairman of the YLPKI board during a press conference at the YLPKI office in Pancoran, South Jakarta, Monday (23/1/2017). According to him, the high number of complaints of financial institutions shows that the internal financial services business actors are unable to solve consumer problems so that consumers seek help from third parties such as defaults, break-ins, interest services, certificates, transaction systems, information, misuse of data, fees and fraud. Bank Mandiri, Bank Rakyat Indonesia, Bank Tabungan Negara (BTN), and CIMB Niaga topped the list of complaints. For banking products that consumers complain about, including credit problems 38%, credit cards 33%, home ownership loans (KPR) 16%, savings 6%, ATMs 4%, finally deposits and current accounts 2% (kompas.com). the cause of this is not solely due to the inadequacy of the strategy implemented but the lack of system and process development that can energize employees to implement the strategy effectively. The problem that then occurs is that managerial performance becomes low due to dependence on the company's management accounting system which fails to determine the right goals.

Developing, and implementing an internal control system answers the challenges of banks that face problems in showing good performance, especially managerial performance. Internal control is a process carried out by the board of commissioners, management, and other business personnel designed to obtain reasonable assurance about the achievement of objectives (IAI, 2001). Therefore, large companies and developing companies require a greater role for internal control as well. Because the larger the size of the company, the more people involved in the company's activities that are specialized in certain fields, it allows errors to occur.

A person's performance is also related to the applicable reward system (Turner et al., 2021). The reward system according to Marrucci et al., (2021) is a system or program implemented by management by providing additional revenue for employees or managers in an effort to further improve their performance. The reward system is made with several objectives, namely: the reward system is made to increase employee work productivity, improve work discipline, and reduce employee absenteeism, increase loyalty and reduce employee turnover, provide peace, security, health, and employee welfare, improve employees' physical, mental, and attitudinal conditions, reduce conflict and create a harmonious atmosphere and streamline employee procurement (Marrucci et al., 2021; Omrani et al., 2021). So with the implementation of the reward system, it can be one of the solutions for banks to make a good contribution to improving performance. Many have conducted empirical studies to examine the effect of the reward system on managerial performance, (Rodríguez-Rivera et al., 2021; Wilkialis et al., 2021) found that the reward system can improve managerial performance in this case it means that the reward system has a significant effect on managerial

performance but different results were found by Filbey et al (2021) who concluded that the reward system has no significant effect on managerial performance.

The success of the internal control system and the reward system developed to contribute to the company depends on the individual in implementing it. In this case the personality factor is locus of control. The indifference of company leaders in managing performance can be a major factor in the internal control system and the reward system not contributing well to improving managerial performance. For this reason, researchers are interested in adding the locus of control variable as a moderating variable in this study. Research has been conducted on the effect of locus of control in improving managerial performance. Febrianto (2016) found that locus of control has a significant positive effect on managerial performance which concludes that the higher the internal locus of control owned by managers, the higher the budget preparation participation and its effect on performance. The results of this study are reinforced by Ayudiyati's research (2010) which concludes that internal locus of control can make a good contribution to improving employee performance while external locus of control only has a negative impact on employee performance. These results are also in line with the results of Similian's research (2013) that locus of control has a significant effect on managerial performance.

Through the differences in the results found in several previous studies as well as from the phenomenon that there are still problems in the performance of bank mandiri, bank rakyat Indonesia, bank tabungan Negara and cimb niaga, the authors intend to retest whether the internal control system and the reward system have a significant effect or not on managerial performance by adding locus of control as a moderating variable with the object.

#### Value of the Data

- Does the internal control system affect managerial performance.
- Does the reward system affect managerial performance
- Does the internal control system affect managerial performance with locus of control as a moderating variable.
- Does the reward system affect managerial performance with locus of control as a moderating variable?.

#### Data Description

This research uses a quantitative approach method because the data taken in conducting research is in the form of numbers and uses statistical analysis with the aim of testing the hypothesis that has been set. The location that will be used as the object of research by researchers is banks in Makassar. In this study, the estimated time that will be used to conduct research is starting after conducting a research proposal seminar and is estimated to be approximately three months. According to Sugiyono (2016) population is defined as a generalization area consisting of objects / subjects that have certain qualities and characteristics set by researchers to study and then draw conclusions. The criteria for determining the population in this study are the top 3 of KCP Bank Mandiri, Bank Rakyat Indonesia, Bank Tabungan Negara and CIMB Niaga which have good market potential. Adapun Sampling In this study involved branch heads, operational managers and business managers in 12 predetermined populations so that the sample in this study amounted to 36 people, for more details can be observed in table 1.

Table 1: Number of research samples

No	Company	Sample Size (Person)
1	Bank Mandiri – KCP Kartini	3
2	Bank Mandiri – KCP BTP	3
3	Bank Mandiri – KCP Urip Sumohardjo	3
4	Bank BRI – KCP BTP	3
5	Bank BRI – KCP Sumbo opu	3
6	Bank BRI – KCP Boulevard	3



No	Company	Sample Size (Person)
7	BTN – KCP Tamalanrea	3
8	BTN – KCP Sultan Alauddin	3
9	BTN – KCP Perintis	3
10	CIMB NIAGA – KCP Cendrawasih	3
11	CIMB NIAGA – KCP Ratulangi	3
12	CIMB NIAGA – KCP Perintis	3
Total	12 KCP	36

**Table 2: Respondent Characteristics**

Measurement	F	%
<b>Gender of respondent</b>		
Male	26	90.0
Female	10	10.0
<b>Education Level</b>		
D3	-	-
S1	36	100.0
S2	-	-
S3	-	-
<b>Length of time in the respondent's position (Years)</b>		
1 – 5	36	100
5 – 10	-	-
>10	-	-
<b>Respondent's Position</b>		
Branch head	12	33.3
Operations Manager	12	33.3
Business manager	12	33.3

**Tabel 3: Statistik Deskriptif**

	Mean	Median	Std. deviation	Minimum	Maximum
Managerial Performance	31.97	33.00	3.605	26	38
Internal Control System	28.31	28.50	2.447	24	33
Reward System	24.75	25.00	2.347	21	29
Locus Of Control	27.94	28.00	2.366	23	33

**Table 4: The smallest Corrected Item-Total Correlation value**

Variable Instruments	The smallest Corrected Item-Total Correlation value
Managerial Performance	0.540
Internal Control System	0.336
Reward System	0.484
Locus Of Control	0.361

**Table 5: Reliability Static**

Variable Instruments	Cronbach's Alpha	N of Items
Managerial Performance	0.807	8
Internal Control System	0.670	7
Reward System	0.739	6
Locus Of Control	0.626	7



**Table 6: One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual
N		36
Normal Parameters <sup>a</sup>	Mean	.0000000
	Std. Deviation	3.34616592
Most Extreme Differences	Absolute	.078
	Positive	.078
	Negative	-.069
Kolmogorov-Smirnov Z		.471
Asymp. Sig. (2-tailed)		.980

**Table 7: Multicollinearity test**

	Collinearity Statistics	
	Tolerance	VIF
(Constant) Internal Control	.609	1.642
Reward	.767	1.304
Locus of Control	.561	1.783

**Table 8: Heteroscedasticity Test**

Model	Sig.
(Constant) Internal Control Reward Locus of Control	.746
	.588
	.421
	.718

**Table 9: Adjusted Determinant (Adj R<sup>2</sup>)**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.532 <sup>a</sup>	.283	.191	3.243

**Table 10: Moderate Regression Analysis (MRA)**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	28.205	9.533		2.959	.006
Internal Control Reward Interaction X1*X3 Interaction X2*X3	-8.913	3.436	-6.050	-2.594	.014
	9.788	3.813	6.371	2.567	.015
	.317	.121	10.550	2.632	.013
	-.343	.136	-9.954	-2.521	.017

**Table 11: F-test**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	128.879	4	32.220	3.063	.031 <sup>a</sup>
Residual	326.093	31	10.519		
Total	454.972	35			

**References**

Abbas, J. (2020). HEISQUAL: A modern approach to measure service quality in higher education institutions. *Studies in Educational Evaluation*, 67, 100933. <https://doi.org/https://doi.org/10.1016/j.stueduc.2020.100933>

Degbey, W. Y., & Pelto, E. (2021). Customer knowledge sharing in cross-border mergers and acquisitions: The



- role of customer motivation and promise management. *Journal of International Management*, 27(4), 100858. <https://doi.org/https://doi.org/10.1016/j.intman.2021.100858>
- Filbey, F. M., Beaton, D., & Prashad, S. (2021). The contributions of the endocannabinoid system and stress on the neural processing of reward stimuli. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, 106, 110183. <https://doi.org/https://doi.org/10.1016/j.pnpbp.2020.110183>
- Hampton, K. N., Robertson, C. T., Fernandez, L., Shin, I., & Bauer, J. M. (2021). How variation in internet access, digital skills, and media use are related to rural student outcomes: GPA, SAT, and educational aspirations. *Telematics and Informatics*, 63, 101666. <https://doi.org/https://doi.org/10.1016/j.tele.2021.101666>
- Kareem, J., Patrick, H. A., Tantia, V., & Valarmathi B, S. (2022). Dataset exploring organizational culture of K-12 schools. *Data in Brief*, 42, 108179. <https://doi.org/https://doi.org/10.1016/j.dib.2022.108179>
- Marrucci, L., Daddi, T., & Iraldo, F. (2021). The contribution of green human resource management to the circular economy and performance of environmental certified organisations. *Journal of Cleaner Production*, 319, 128859. <https://doi.org/https://doi.org/10.1016/j.jclepro.2021.128859>
- Omrani, A., de Vrind, V. A. J., Lodder, B., Stoltenborg, I., Kooij, K., Wolterink-Donselaar, I. G., Luijendijk-Berg, M. C. M., Garner, K. M., van't Sant, L. J., Rozeboom, A., Dickson, S. L., Meye, F. J., & Adan, R. A. H. (2021). Identification of Novel Neurocircuitry Through Which Leptin Targets Multiple Inputs to the Dopamine System to Reduce Food Reward Seeking. *Biological Psychiatry*, 90(12), 843–852. <https://doi.org/https://doi.org/10.1016/j.biopsych.2021.02.017>
- Rodríguez-Rivera, C., Pérez-Ortiz, J. M., Pook, E., Conjaerts, N., Alguacil, L. F., & González-Martín, C. (2021). Clusterin overexpression as a potential neuroprotective response to the pathological effects of high fat dieting on the brain reward system. *Food and Chemical Toxicology*, 152, 112186. <https://doi.org/https://doi.org/10.1016/j.fct.2021.112186>
- Turner, N., Barling, J., Dawson, J. F., Deng, C., Parker, S. K., Patterson, M. G., & Stride, C. B. (2021). Human resource management practices and organizational injury rates. *Journal of Safety Research*, 78, 69–79. <https://doi.org/https://doi.org/10.1016/j.jsr.2021.06.003>
- Wilkialis, L., Rodrigues, N., Majeed, A., Lee, Y., Lipsitz, O., Gill, H., Tamura, J., Nasri, F., Lui, L. M. W., Siegel, A., Mansur, R. B., Rosenblat, J. D., & McIntyre, R. S. (2021). Loneliness-based impaired reward system pathway: Theoretical and clinical analysis and application. *Psychiatry Research*, 298, 113800. <https://doi.org/https://doi.org/10.1016/j.psychres.2021.113800>
- Zhu, F., Wang, X., Wang, L., & Yu, M. (2021). Project manager's emotional intelligence and project performance: The mediating role of project commitment. *International Journal of Project Management*, 39(7), 788–798. <https://doi.org/https://doi.org/10.1016/j.ijproman.2021.08.002>

