

## LINKAGE COMPARISON OF TRAINING ALLOCATION AND EMPLOYEE PRODUCTIVITY AGAINST THE COMPANY'S PROFIT IN STATE-OWNED BANK IN INDONESIA

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### Abstract

Based on the experience of performance management system application in several companies, the most suitable performance management system to be adapted in Indonesia is Integrated Performance Management System (IPMS), which thoroughly can integrate all perspectives that outlined as organizational result, internal process, and resources availability. The research is intended to study the linkage among several selected sub-perspective of resource availability against organizational result.

The authors were focusing only to evaluate training allocation and employee productivity in three major state-owned banks in Indonesia and analyze their linkage against company's net profit. Another background of the writing was the desire to exploit the data that has already been presented to be more helpful. The data is a series of secondary data which were collected, summarized, and processed to produce a detailed picture of the linkage (interrelationships) of each sub-perspective from within the human resource perspective which were used by these three state-owned banks, and finally in return is expected to become a feedback for the bank management that can be used to maintain or even for improvement of their performance management.

The research shows that the correlation is different in each bank, which shows a predictable variation, but also an interesting result.

**Keywords:** employee productivity, integrated performance management system, net profit, state-owned bank in Indonesia, training allocation.

### 1. INTRODUCTION

Bank is the oldest financial institution in the world. Banks are business entities that raise funds from the public in the form of savings and distribute them to the public in the form of credit and or other forms in order to improve the living standards of the people. Bank as a person or company carrying on the business of receiving moneys, and collecting drafts, for customer's subject to the obligation of honoring cheques drawn upon, from time to time by the customers to extent of the amounts available on their current accounts.

The main function of banks is an intermediary institution that connecting those who have a surplus of funds to those who experienced a lack of funds. Bank as an intermediary institution facilitating the circulation of money in the society. Continuously money circulation is able to maintain the stability of the economy, a stable economy is able to improve the welfare of society, so with its crucial function and purpose, causes banks have function that are strategic to national development.

Referring to the statement above, this paper will be focusing to the Bank function that act as a service provider institution, which is the capability of its human resources become the main factor that might influence the performance of a bank. In other words, the

company need to measure their own ability, therefore a company is also required to know the indicators that neither strengthen nor weaken their performance, in this case especially regarding to their human resources capability. Based on this, it would require a performance management system as a tool that sustainably identify, measuring and develop the performance of a company.

Indonesia has four state-owned company, the three largest are Bank Mandiri, Bank Rakyat Indonesia, and Bank Negara Indonesia. All these three banks are categorized as Bank in “Buku IV” based on Central Bank of Indonesia Regulation No.14/26/PBI/2012 dated 27 December 2012 about “Bank Activities and Divisions based on Capital”. Bank “Buku IV” is categorized as bank with capital value above Rp.30.000 trillion.

In this case, the authors were interested in examining the historical data from three major banks operating in Indonesia; they are Bank Mandiri, Bank Rakyat Indonesia (BRI) and Bank Negara Indonesia (BNI). Here the authors were interested in examining how strong linkage of human resources capability to the profits generated by the company, the human resources capability itself is represented by how effective costs incurred by the company to conduct a variety of training, and also the productivity of each employee, while the profits in question here is the net profit generated by the company.

## 2. RESEARCH PROBLEM

As described above, the problems raised and used as a basis for this paper writing is lack of utilization and processing of historical data to define which sub-perspectives affecting the company performance management in banking industry. The research is conducted only to measure the linkage between sub-perspectives of human resources against business result on specific indicators. There are many variable affecting each indicator, such as education level in number of employee or range of age in employee or even experience length of employee which may further affect the net income but did not calculated in this research. A further research is needed to study each sub-indicator deeper.

## 3. LITERATURE REVIEW

A company needs a well design performance management system that is able to accommodate company’s operational system. Prof Dermawan Wibisono in his book of “How to Create a World Class Company” explained the suitable performance management system in Indonesia is Integrated Performance Management System (IPMS). Furthermore, the IPMS thoroughly can integrate all perspectives which described as Figure 1 below.

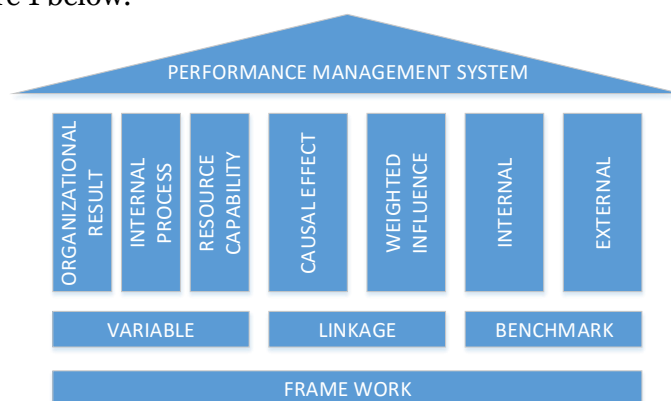


Figure1: Performance Management Framework

There are three perspectives in IPMS as shown in Table 1 below:

Table 1: Perspectives of Performance Management System

Perspectives	Sub-Prerspective
Organizational Result	Financial
	Non-Financial
Internal Process	Innovation
	Operation Processes
	Marketing
	After Sales Service
Resource Availability	Human Resource
	Technology Resource
	Organizational Resource

Source: Wibisono, Dermawan (2012), How to Create a World Class Company: Panduan bagi Manager dan Direktur, PT Gramedia Pustaka Utama, Jakarta

#### 4. METHODOLOGY

The methodology of this research is as follows:

1. Problem Identification: lack of utilization and processing of historical data to define which sub-perspectives affecting the company performance management in banking industry
2. Research Purpose: to study the linkage among the selected sub perspective of resource availability with business result
3. Data Collection: secondary data, which are collected from three major bank annual reports
4. Data Analysis: calculation of selected data using linear regression
5. Conclusion

#### 5. DATA ANALYSIS

Based on the company's annual report, several key sub-perspectives as indicators are selected as follows:

- Business Result (Financial) : Net Profit
- Resource Availability (Human Resources) : Number of Employee
- Resource Availability (Human Resources) : Employee Productivity
- Resource Availability (Human Resources) : Training Allocation

Central Bank of Indonesia made a regulation that banks must allocate the budget for training their employee, minimum of 5% from total employee's expenses. The research study the linkage between training allocation and employee productivity to company's net profit. The data were taken from each company's annual report from year 2006 to 2014. The data later on calculated using linear regression which will resulted in  $R^2$ . If  $R^2$  is larger than 0.5 means that the indicator is strongly correlated. The results are as follows:

Table 2. Linear Regression Calculation Result

Bank	Linkage Indicators		Linear Regression Calculation Result
	Indicator-X	Indicator-Y	
Mandiri	Training Allocation	Net Profit	0.91

	Employee Productivity	Net Profit	0.97
BRI	Training Allocation	Net Profit	0.97
	Employee Productivity	Net Profit	0.47
BNI	Training Allocation	Net Profit	0.60
	Employee Productivity	Net Profit	0.99

The Linkage schemes of each bank are as follows:

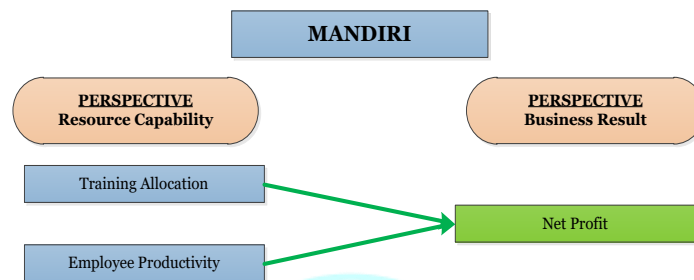


Figure 2: Indicator Linkage in Bank Mandiri

In Bank Mandiri, training allocation is strongly correlated to net income. Employee productivity is also strongly correlated to net income. This shows that the company is on the right track, and have a good strategy of human resource.

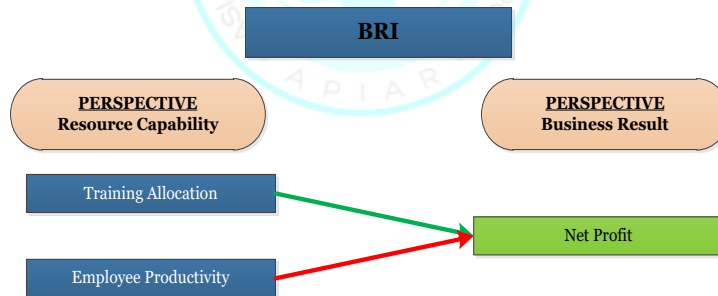


Figure 3: Indicators Linkage in Bank BRI

In BRI, training allocation is strongly correlated to net income. But employee productivity is not correlated to net income. This shows that the company is already setting the right training allocation, but still need to increase their productivity which may result in a higher net income.

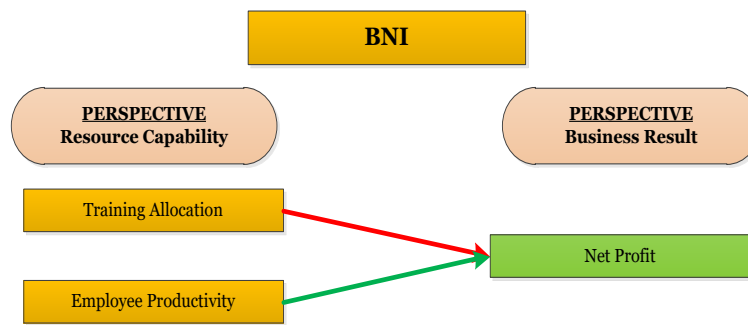


Figure 4: Indicators Linkage in Bank BNI

In BNI, training allocation is correlated to net income. Employee productivity is strongly correlated to net income. This shows that the company is on the right track, but may improve if they strengthen their strategy on training allocation.

### CONCLUSION

The research shows that the training allocation of these three state-owned banks in Indonesia is correlated with company's net profit, with the result as BRI, Mandiri, and BNI most-correlated respectively. BRI and Mandiri resulted in a quite similar result, but BNI shows a lower correlation result, which might be caused by several reason such as allocation of training on each level (clerical, staff, managerial, top management), training selection for each employee based on their needs to improve their competence, and the quality of each conducted training. For better result, it is recommended that BNI evaluate their training program so that the training is precisely as employee needs to improve their competence, and also to evaluate the training quality as well as the trainer quality of each training.

The indicator employee productivity shows that it is correlated to net profit in BNI and Mandiri, but resulted contrary in BRI. It indicates that BRI still have a large potential to increase their net income, if they are able to improve their employee productivity.

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## APPENDIXES

### Appendix 1: Annual report data summarize

No	Year	Q	MANDIRI			BRI			BNI		
			resource capability		net profit	resource capability		net profit	resource capability		net profit
			human resource	employee productivity		human resource	employee productivity		human resource	employee productivity	
training allocation (Rp billion)	employee productivity (Rp billion)	net profit (Rp billion)	training allocation (Rp billion)	employee productivity (Rp billion)	net profit (Rp billion)	training allocation (Rp billion)	employee productivity (Rp billion)	net profit (Rp billion)			
1	2006	Q4	123.367	0.11	2,421	134.83	0.11	4,257	149.38	0.10	1,929
		Q3	151.990	0.14	2,902	134.54	0.11	4,402	151.28	0.09	1,672
		Q2	180.614	0.16	3,384	134.26	0.12	4,548	153.17	0.08	1,416
		Q1	209.237	0.18	3,865	133.97	0.12	4,693	155.06	0.06	1,159
2	2007	Q4	237.860	0.20	4,346	133.69	0.13	4,838	156.96	0.05	902
		Q3	232.466	0.21	4,588	142.42	0.14	5,119	156.72	0.05	983
		Q2	227.073	0.22	4,830	151.14	0.14	5,399	156.48	0.06	1,064
		Q1	221.679	0.23	5,071	159.87	0.15	5,680	156.25	0.06	1,145
3	2008	Q4	216.285	0.24	5,313	168.60	0.16	5,960	156.01	0.07	1,226
		Q3	213.897	0.26	5,774	190.22	0.17	6,297	154.97	0.08	1,541
		Q2	211.509	0.27	6,234	211.83	0.18	6,634	153.94	0.10	1,857
		Q1	209.121	0.29	6,695	233.45	0.19	6,971	152.90	0.12	2,172
4	2009	Q4	206.733	0.31	7,155	255.06	0.20	7,308	151.86	0.13	2,487
		Q3	220.588	0.33	7,671	253.92	0.22	8,349	156.95	0.15	2,891
		Q2	234.443	0.34	8,187	252.77	0.25	9,390	162.05	0.17	3,295
		Q1	248.298	0.35	8,702	251.63	0.28	10,431	167.14	0.19	3,699
5	2010	Q4	262.153	0.37	9,218	250.48	0.30	11,472	172.24	0.21	4,103
		Q3	261.615	0.38	9,975	310.92	0.32	12,376	194.38	0.22	4,529
		Q2	261.077	0.40	10,732	371.37	0.34	13,280	216.53	0.23	4,956
		Q1	260.538	0.42	11,489	431.81	0.36	14,184	238.67	0.24	5,382
6	2011	Q4	260.000	0.44	12,246	492.25	0.38	15,088	260.82	0.25	5,808
		Q3	276.250	0.46	13,061	490.41	0.35	15,988	264.99	0.26	6,118
		Q2	292.500	0.47	13,875	488.58	0.32	16,888	269.16	0.26	6,428
		Q1	308.750	0.49	14,690	486.74	0.29	17,787	273.33	0.27	6,738
7	2012	Q4	325.000	0.50	15,504	484.90	0.26	18,687	277.50	0.28	7,048
		Q3	341.255	0.51	16,179	499.85	0.26	19,354	258.98	0.30	7,551
		Q2	357.510	0.52	16,854	514.80	0.26	20,021	240.45	0.32	8,053
		Q1	373.765	0.53	17,529	529.75	0.26	20,687	221.93	0.33	8,556
8	2013	Q4	390.020	0.54	18,204	544.70	0.26	21,354	203.40	0.35	9,058
		Q3	406.236	0.54	18,621	574.68	0.26	22,076	211.93	0.36	9,501
		Q2	422.453	0.55	19,038	604.65	0.26	22,798	220.45	0.38	9,944
		Q1	438.669	0.56	19,455	634.63	0.26	23,520	228.98	0.39	10,386
9	2014	Q4	454.885	0.57	19,872	664.60	0.27	24,242	237.50	0.41	10,829

.ext : original data taken from annual report

.ext : original data taken from annual report (graphic reading)

.ext : interpolated data

### Appendix 2: Bank Mandiri summary output 1 – training allocation against net profit

#### SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.953526346
R Square	0.909212492
Adjusted R Square	0.906283863
Standard Error	1725.279894
Observations	33

#### ANOVA

	df	SS	MS	F	Significance F
Regression	1	924102436.1	924102436.1	310.4566683	1.05081E-17
Residual	31	92274312.14	2976590.714		
Total	32	1016376748			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-7240.050293	1046.013091	-6.921567577	9.19769E-08	-9373.408056	-5106.69253	-9373.408056	-5106.69253
training spending	64.46214432	3.658510046	17.6197806	1.05081E-17	57.00056389	71.92372475	57.00056389	71.92372475

### Appendix 3: Bank Mandiri summary output 2 – employee productivity against net profit

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.984913688
R Square	0.970054972
Adjusted R Square	0.969089003
Standard Error	990.8521959
Observations	33

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	985941318	985941318	1004.230285	3.48327E-25
Residual	31	30435430.3	981788.0741		
Total	32	1016376748			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-3907.94137	483.7536966	-8.078370041	4.016E-09	-4894.563539	-2921.319201	-4894.563539	-2921.319201
employee productivity	39074.8739	1233.050682	31.6895927	3.48327E-25	36560.05046	41589.69735	36560.05046	41589.69735

Appendix 4: BRI summary output 1 – training allocation against net profit

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.986222585
R Square	0.972634987
Adjusted R Square	0.971752244
Standard Error	1145.675461
Observations	33

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	1446235915	1446235915	1101.833366	8.60886E-26
Residual	31	40689740.15	1312572.263		
Total	32	1486925655			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-562.8796953	439.2104857	-1.281571624	0.209496179	-1458.655387	332.895996	-1458.655387	332.895996
training spending	37.87575715	1.141046553	33.19387543	8.60886E-26	35.54857736	40.20293694	35.54857736	40.20293694

Appendix 5: BRI summary output 2 – employee productivity against net profit

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.696218228
R Square	0.484719821
Adjusted R Square	0.46809788
Standard Error	4971.477735
Observations	33

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	720742337.8	720742337.8	29.16144476	6.81743E-06
Residual	31	766183317	24715590.87		
Total	32	1486925655			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-1440.291378	2709.777625	-0.531516448	0.598849355	-6966.919282	4086.336525	-6966.919282	4086.336525
employee productivity	59661.21898	11048.1002	5.400133772	6.81743E-06	37128.47008	82193.96789	37128.47008	82193.96789

Appendix 6: BNI summary output 1 – training allocation against net profit



SUMMARY OUTPUT

<i>Regression Statistics</i>	
Multiple R	0.782215962
R Square	0.611861811
Adjusted R Square	0.599341224
Standard Error	2040.061243
Observations	33

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	203383200.1	203383200.1	48.8684614	7.59831E-08
Residual	31	129017346.2	4161849.877		
Total	32	332400546.2			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-6197.741903	1595.991424	-3.883317798	0.000504703	-9452.787873	-2942.695933	-9452.787873	-2942.695933
training spending	55.37338244	7.921122323	6.990598072	7.59831E-08	39.21814695	71.52861792	39.21814695	71.52861792

Appendix 7: BRI summary output 2 – employee productivity against net profit

SUMMARY OUTPUT

<i>Regression Statistics</i>	
Multiple R	0.993199227
R Square	0.986444705
Adjusted R Square	0.986007437
Standard Error	381.2453077
Observations	33

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	327894758.7	327894758.7	2255.929173	1.59672E-30
Residual	31	4505787.523	145347.9846		
Total	32	332400546.2			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-968.638768	136.1821415	-7.112817856	5.42442E-08	-1246.384077	-690.8934592	-1246.384077	-690.8934592
employee productivity	28051.19407	590.5934452	47.49662275	1.59672E-30	26846.6708	29255.71734	26846.6708	29255.71734