

“Application of Information Technology in Management Education”



Management

KEYWORDS :

Mr. Ankit Katrodia Assistant Professor Shri H D Gardi MBA College PhD Scholar Singhania University

Dr. Vijay Pithadia Director , H D Gardi MBA College Rajkot-Gujarat

ABSTRACT

The productivity concept as applied in manufacturing industries cannot be applied in service sector like bank. Bank provides various types of services like acceptance of deposits, borrowings of loans and advances, creation of credit, foreign exchange business, merchant banking activity, remittance of funds etc. Thus, bank is a multi product service industry that's why it is complicated to measure the output of banks. As banking is basically a service industry, quantitative specification of real output and input are hard to define and determine. The universal yard sticks of banking economics are profit per square foot and profit per employee. The working group appointed by RBI under the chairmanship of Mr. J.C. Luthare observed that the operational costs of the banking system have increased steadily due to factors are not under the control of the banks management no systematic attempts have been made so far to adopt scientific methods to improve productivity and efficiency in the banking system. For measuring productivity in banking industries the indicators can be divided into parts: (I)The indicators measure output considering number of employees i.e. Productivity per Employee, (II)The indicators measure output considering number of branches i.e. Productivity per Branch.

Employee Productivity Ratios:

Productivity is the ratio of output to input. In other words, productivity is the relationship between output of goods and services and the inputs of human and physical resources. Thus, productivity is measured not only for physical resources but also for human resources.

Employee productivity ratio means measurement of employees' efficiency or skills.

Employee productivity ratio measures the productivity of input of a number of employees for output factors like Income, Expenditure and Spread.

1. Income per employee:

The ratio Income per Employee establishes the relationship between total income and employee employed in the unit. The following formula is applied for calculation of the ratio:

$$\text{Income per Employee} = \text{Income} / \text{No. of Employees}$$

Table 1.1 presents the data of Income per Employee in SBI and in its Other Banks for the period from 2006-07 to 2010-11. It provides the average of Income per Employee in-group of banks and overall average of Income per Employee in-group of banks. It also provides calculated and tabulated "T" value.

Table 1.1
Income per Employee (Rs.In Crores)
(Base Year 2006-07)

BANKS	2010-11	2009-10	2008-09	2007-08	2006-07
SBI	0.44	0.43	0.37	0.32	0.24
BOB	0.63	0.5	0.49	0.37	0.27
BOI	0.61	0.52	0.48	0.34	0.26
PNB	0.54	0.47	0.41	0.29	0.22
IDBI	1.52	1.44	1.28	1.17	0.99

Source: Performance Highlights of Public Sector Banks

State Bank of India:

Income per Employee of SBI was Rs. 0.24 crores in 2006-07. It registered upward movement during the study period and rose to Rs. 0.32 crores, Rs. 0.37 crores, Rs. 0.43 crores and Rs. 0.44 crores in 2007-08, in 2008-09, in 2009-10, in 2010-11 respectively. Aggregate income per employee was worked out to Rs. 0.36 crores per employee for the study period.

Other Banks:

Bank of Baroda:

Income per Employee of BOB remarked increasing movement

during the study period. It was worked out to Rs. 0.27 crores, Rs. 0.37 crores, Rs. 0.49 crores, Rs. 0.50 crores and Rs. 0.63 crores for 2006-07, in 2007-08 in 2008-09, in 2009-10 and for 2010-11 respectively. The aggregate income per employee of BOB was worked out to Rs. 0.45 crores per employee during the study period.

Bank of India:

Income per Employee of BOI registered upward movement during the study period, which was worked out to Rs. 0.26 crores, Rs. 0.34 crores, Rs. 0.48 crores, Rs. 0.52 crores and Rs. 0.61 crores for 2006-07, 2007-08, 2008-09, 2009-10, and for 2010-11 respectively. Aggregate income per employee of BOI was worked out to Rs. 0.44 crores per employee during the study period.

Punjab National Bank:

Income per Employee was worked out to Rs. 0.22 crores, Rs. 0.29 crores, Rs. 0.41 crores, Rs. 0.47 crores and Rs. 0.54 crores for 2006-07, 2008-09, 2009-10 and for 2010-11 respectively. It remarked upward trend during the study period. Aggregate income per employee of PNB was worked out to Rs. 0.39 crores per employee during the study period.

Industrial Development Bank of India:

Income per Employee of IDBI remarked upward movement during the study period. It was worked out to Rs. 0.99 crores, Rs. 1.17 crores, Rs. 1.28 crores, Rs. 1.44 crores and Rs. 1.52 crores for 2006-07, 2007-08, 2008-09, 2009-10 and 2010-11 respectively. Aggregate income per employee of IDBI was worked out to Rs. 1.28 crores per employee during the study period.

T-TEST HYPOTHESIS

Ho1: There is no significant difference between SBI and other public sector Banks for income per employee.

Ha1: There is significant difference between SBI and other public sector Banks for income per employee.

Calculation:

BANKS	2010-11	2009-10	2008-09	2007-08	2006-07
SBI	0.44	0.43	0.37	0.32	0.24
Average of Other Banks	0.83	0.73	0.67	0.54	0.44

T-test two Tail

t-Test: Paired Two Sample for Means		
	SBI	Average of Other Banks
Mean	0.36	0.64

Variance	0.00685	0.023734375
Observations	5	5
Pearson Correlation	0.980828	
Hypothesized Mean Difference	0.28	
df	4	
t Stat	-16.77538	
t Critical two-tail	2.776445	

Conclusion:

$T_{cal} > T_{crit}$. So that, H_0 is accepted, i.e. there is significant difference between SBI and other public sector Banks for income per employee.

2. Expenditure per Employee:

Expenditure per Employee establishes the relationship between expenditure and employee employed in the unit. The following formula is applied for calculation of the ratio:

Expenditure per Employee = Expenditures/No. of Employees

Table 1.2 provide the data of Expenditure per Employee during the study period i.e. from 2006-07 to 2010-11 of SBI and its Other Banks. It shows the average of Expenditure per Employee in sample banks. It also shows calculated and tabulated 'F' value for two factors without replication.

Table 1.2**Expenditure per Employee (Rs. In Crores) (Base Year 2006-07)**

BANKS	2010-11	2009-10	2008-09	2007-08	2006-07
SBI	0.4	0.38	0.33	0.28	0.22
BOB	0.52	0.42	0.42	0.33	0.25
BOI	0.55	0.48	0.41	0.31	0.23
PNB	0.46	0.4	0.35	0.25	0.19
IDBI	1.4	1.35	1.19	1.08	0.91

Source: Performance Highlights of Public Sector Banks

State Bank of India:

Expenditure per Employee of SBI was Rs. 0.22 crores in 2006-07. It showed upward trend during the study period and reached to Rs. 0.40 crores at the end of the study period, 2010-11. Aggregate expenditure per employee was Rs. 0.11069 during the study period. It indicates SBI expended Rs. 0.32 crores per employee during the study period.

Other Banks:**Bank of Baroda:**

Expenditure per Employee of BOB remarked upward movement during the study period. It was worked out to Rs. 0.25 crores for 2006-07 which reached to Rs. 0.52 crores at the end of the study period, 2010-11. Aggregate expenditure per employee of BOB was Rs. 0.39 crores per employee during the study period.

Bank of India:

Expenditure per Employee of BOI was Rs. 0.23 crores for base year, 2006-07. It registered upward trend during the study period and reached to Rs. 0.55 crores at the end of the study period, 2010-11. Aggregate expenditure per employee of BOI was Rs. 0.40 crores per employee during the study period.

Punjab National Bank:

Expenditure per Employee of PNB was worked out to Rs. 0.19 crores for the base year, 2006-07. It remarked upward movement during the study period and reached to Rs. 0.46 crores at the end of the study period, 2010-11. Aggregate expenditure per employee of PNB was worked out to Rs. 0.33 crores which per employee during the study period.

Industrial Development Bank of India:

Expenditure per Employee of IDBI remarked upward movement during the study period. It was worked out to Rs. 0.91 crores for the base year, 2006-07 and reached to Rs. 1.4 crores at the end of the study period, 2010-11. Aggregate expenditure per employee of IDBI was worked out to Rs. 1.19 crores per employee during the study period.

T-TEST HYPOTHESIS

H_0 : There is no significant difference between SBI and other public sector Banks for expenditure per employee.

H_a : There is significant difference between SBI and other public sector Banks for expenditure per employee.

Calculation:

BANKS	2010-11	2009-10	2008-09	2007-08	2006-07
SBI	0.40	0.38	0.33	0.28	0.22
Average of Other Banks	0.73	0.66	0.59	0.49	0.40

T-test two Tail

t-Test: Paired Two Sample for Means	SBI	Average of Other Banks
Mean	0.32	0.58
Variance	0.005	0.018
Observations	5	5
Pearson Correlation	0.99	
Hypothesized Mean Difference	0.26	
df	4	
t Stat	-18.73	
t Critical two-tail	2.78	

Conclusion:

$T_{cal} > T_{crit}$. So that, H_0 is accepted, i.e. there is significant difference between SBI and other public sector Banks for expenditure per employee.

REFERENCE

Performance Highlights of Public Sector Banks 2006-07 to 2010-2011 | Indian Banks' Association | Dr. Parul Chotalia "Performance Appraisal of State Bank of India and Its Associate Banks" Sep. 2007