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An Analytical Study of Employee's Productivity in Some Selected Nationalized Banks of India

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ABSTRACT

Productivity is one of the important measures to check the growth of any organization. The concept of productivity differs according to the nature of organization. The present research focuses on banking sector in terms of employees' productivity. The researchers have made a humble attempt to check the productivity of the employees using the financial ratio of business per employee and profit per employee in some selected nationalized banks viz. Bank of India (BOI), Central Bank of India (CBI), Indian Overseas Bank (IOB) and Punjab National Bank (PNB).

Keywords : BOI, CBI, IOB, PNB, Productivity

Introduction:

If the output of goods and services over a period of time increases, it reflects the economic growth of a country. The high rate of growth can be achieved only through the promotion of productivity and efficiency. The low level of development or under-development of countries like India is mainly caused by low productivity. Hence, the pressing need today is to increase productivity in all sectors of the national economy with a view to accelerating the economic growth providing opportunities for more employment and improving standards of living of the people.

Concept of employee's productivity in banking sector:

The Term 'Productivity' has been in usage for many years and poorly understood by the users, who used it. Simply, productivity is defined as the ration of output to input. Productivity in mathematical formulae defined as follows:

$$\text{Productivity} = \frac{\text{Output}}{\text{Input}}$$

OR

$$\text{Productivity} = \frac{\text{Value of goods/services produced}}{\text{Resources consumed}}$$

Productivity is commonly interpreted as output in terms of physical volume per employee or per man-hour. In other words, it is equated with, "productivity of labour".

In banking sector, human skills are very important to achieve high productivity. Here employee productivity means, the volume of output achieved in a particular period in relation to the sum of direct and indirect efforts involved in the production of given output. The following selected ratios are used by RBI to measure the employee productivity of the bank:

No.	Ratios	Formulae
1.	Business per Employee	Business No. of employees
2.	Profit per Employee	Net Profit No. of employees

The present study is focused on the "productivity of employees" working in some selected nationalized banks of India. In terms of banking sector employee productivity is focused on Business and profit per employee.

Objectives of the Study:

- To clear the concept of productivity of employees' in banking sector.

- To compare the productivity of employees in terms of business and profit.

Period of the study:

The present research paper has been made covering the period of last 5 years i.e. financial year 2006-'07 to financial year 2010-'11.

Selection of Sample units:

Universe of the study consists of all the banks working in India. From the universe, the researchers have randomly selected four nationalized banks viz. Bank of India (BOI), Central Bank of India (CBI), Indian Overseas Bank (IOB) and Punjab National Bank (PNB). Sources of the Data:

The present research study is based on secondary data, obtained from the various issues of IBA Bulletin, IBA and RBI website.

Techniques Applied for the Analysis of the Data:

Financial details collected through the secondary sources, mentioned above, converted in to various ratios, which reflect productivity of employee working in the banking sector. Computed productivity ratios analyzed through the F-test using two way ANOVA table to test the hypothesis.

Hypothesis of the Study:

- Business per employee:

H0R: There is no significant difference between businesses per employee between the sample units.

H0C: There is no significant difference between businesses per employee within the sample units during the period of study.

- Profit per employee:

H0R: There is no significant difference between profits per employee between the sample units.

H0C: There is no significant difference between profits per employee within the sample units during the period of study.

Statistical Analysis of Productivity:

- Business per Employee:

Table-1
A table showing amount of Business per Employee*
[Rs. in Crores]

Bank	2006-'07	2007-'08	2008-'09	2009-'10	2010-'11
BOI	4.98	6.52	8.33	10.11	12.84
CBI	3.04	4.00	5.60	7.11	8.35
IOB	4.67	5.83	6.90	7.12	10.05
PNB	4.07	5.04	6.55	8.08	10.17

*Source: Compiled from RBI, IBA websites (www.iba.org.in, www.rbi.org.in)

Table-2
A table showing Summary Statistics

SUMMARY	Count	Sum	Average	Variance
BOI	5	42.78	8.556	9.43793
CBI	5	28.1	5.62	4.73855
IOB	5	34.57	6.914	4.02193
PNB	5	33.91	6.782	5.90167
2006-07	4	16.76	4.19	0.730467
2007-08	4	21.39	5.3475	1.172625
2008-09	4	27.38	6.845	1.281767
2009-10	4	32.42	8.105	1.993633
2010-11	4	41.41	10.3525	3.440825

Table-3
A table showing Analysis of Variance (ANOVA)

Source of Variation	SS	dof	MS	F _{cal}	F _{tab}
Between the Banks	21.8818	3	7.293933	22.01	3.49
Within the Banks	92.42417	4	23.10604	69.73	3.26
Error	3.97615	12	0.331346		
Total	118.2821	19			

2. Profit per Employee:

Table-4
A table showing amount of Profit per Employee*
[Rs. in Lacs]

Bank	2006-'07	2007-'08	2008-'09	2009-'10	2010-'11
BOI	2.71	4.95	7.49	4.39	6.20
CBI	1.35	1.56	1.71	3.30	3.96
IOB	4.04	4.82	5.20	2.63	4.16
PNB	2.68	3.66	5.64	7.31	8.35

*Source: Compiled from RBI, IBA websites (www.iba.org.in, www.rbi.org.in)

Table-5
A table showing Summary Statistics

SUMMARY	Count	Sum	Average	Variance
BOI	5	25.74	5.148	3.28732
CBI	5	11.88	2.376	1.38123
IOB	5	20.85	4.17	0.968

PNB	5	27.64	5.528	5.68807
2006-07	4	10.78	2.695	1.206167
2007-08	4	14.99	3.7475	2.463025
2008-09	4	20.04	5.01	5.824467
2009-10	4	17.63	4.4075	4.270292
2010-11	4	22.67	5.6675	4.222492

Table-6
A table showing Analysis of Variance (ANOVA)

Source of Variation	SS	dof	MS	F _{cal}	F _{tab}
Between the Banks	29.72822	3	9.909405	4.91	3.49
Within the Banks	21.06737	4	5.266843	2.61	3.26
Error	24.23111	12	2.019259		
Total	75.0267	19			

Interpretation and Findings:

From the above mentioned calculations the researches have summarized followings findings and interpretation:

Table-7
Findings of the Study

Productivity Ratio	F _{cal}	F _{tab}	Findings
Business per Employee: Between the Banks (R-Row)	22.01	3.49	The null-hypothesis H _{0R} is rejected, so the researchers may conclude that there is significant difference in business per employee between the banks.
Within the Banks (C- Column)	69.73	3.26	The null-hypothesis H _{0C} is rejected, so the researchers may conclude that there is significant difference in business per employee within the banks over the period of study.
Profit per Employee: Between the Banks (R-Row)	4.91	3.49	The null-hypothesis H _{0R} is rejected, so the researchers may conclude that there is significant difference in profit per employee between the banks.
Within the Banks (C- Column)	2.61	3.26	The null-hypothesis H _{0C} is accepted, so the researchers may conclude that there is no significant difference in profit per employee within the banks over the period of study.

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