A Study of Productivity of Employees in Public Sector Commercial Banks of India and Nepal

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Abstract

India and Nepal both is a developing country. The main challenges before any developing country are to foster its sustainable growth. Therefore, banking industry is one of the fundamental instruments for economic growth. In banking services, human resources are most powerful and valuable input which play an important role to achieve high productivity. The management should change their mind set and consider manpower as the most important resource and should be taken care of properly. Productivity is defined as the goods and services produced per unit of labour or capital or both. So, skill and ability of employee can be judge through productivity by using some of the selected financial ratios.

The present study has been focused to estimate employee productivity in public sector commercial bank of India and Nepal. To analyse employee productivity of these banks two main parameters like 'Business per Employee' and 'Profit per Employee' are selected. To find out the hidden fact some statistical tools like average, compound annual growth rate, Anova, co-relation and coefficient of determination have been used on tabulated data.

This study is very significant for public sector commercial banks of both the countries and potential investors to take managerial and financial decisions.

Key Words: *Productivity, Employee, public sector commercial bank, Business per Employee, Profit per Employee, Anova*

INTRODUCTION

India and Nepal both is a developing country. The main challenges before any developing country are to foster its sustainable growth. An important issue in the development agenda of any economy related to the problem of the provision and delivery of the financial services and credit. Therefore, banking industry is one of the fundamental instruments for economic growth.

The nationalisation process bestowed upon banks a variety of new obligations in the area of social banking. The major achievements of the nationalised banks are in the sphere of branch expansion, deposit mobilisation, and expansion of credit to neglected sectors which are important for the national economy in term of their contribution to growth, employment generation, and diversify the public savings.

Now a days, the major concern is the productivity and profitability of public sector banks. It was believed that the new direction given to banks now and then has led to declining trend in the productivity and profitability of these banks. But the banking system must be on a sound footing not only to instil public confidence but also to make bank capable of discharging their social responsibility.

CONCEPTUAL FRAMEWORK

In service sector like banking services, human resources are most powerful and valuable input which play an

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important role to achieve high productivity in banks. Productivity refers to the amount of goods and services produced with the resources used. Stated more clearly productivity is defined as the goods and services produced per unit of labour or capital or both. It is a relationship between given output and relative means used to produce it. So, skill and ability of employee can be judge through productivity by using some of the selected financial ratios. There is no. of parameters to measure the productivity in banking sectors. These parameters are mainly the ratio that's computed at employee level are as follows:

REVIEW OF LITERATURE

A number of studies have been conducted to compare productivity of different types of banks based on different parameters/criteria from time to time. The Reserve Bank of India (RBI) constituted a number of committee i.e. Tondon committee (1975), Luther committee (1977), Chakravarty committee (1986), Narsimham committee (1991) etc. which inter-alia examined various parameters of productivity and efficiency and suggest various refinement for the same. Karam and Puja (2008) compare the productivity of public, private and foreign banks using ACGR and regression and found that public sector banks are growing with consistent pace and intra group variations are also less than other sector. K.V.N. Prasad (2012) compares the performance of public and private sector banks through CAMEL model and concluded that there is no significant difference between performance of public and private sector banks. R.V. Sommanek (2014) compares the productivity of employees among private sector banks and concludes there is no significant difference of business per employee and profit per employee among selected banks.

Rakesh Mohan, the deputy governor of the RBI (2005) has carried out a study on "Reforms, Productivity and Efficiency in Banking: The Indian Experience" and emphasised that the business per employee of Indian banks increased over three-fold in real terms exhibiting an annual compound growth rate of nearly 9 percent. At the same time, the profit per employee increased more than five-fold over the same period, implying a compound growth of around 17 per cent. Such productivity improvement in the banking sector could be driven by two factors: technological improvements, which expands the range of production possibilities and peer pressure among banks compels them to raise their productivity levels. He also concludes that the top three public sector banks in India recorded much lower employee productivity than that of Chinese banks. Singh and Kamlesh (2013) conducted a study on "Employee productivity of private sector banks in India" and concludes that from the financial year 2001 -02 to 2005-06 the performance of new private sector bank is better than old private sector bank regarding selected productivity indicators but after 2005-06 the old private sector banks compete with the new private sector banks and perform better than new private sector banks.

OBJECTIVE OF THE STUDY

1. To review the theoretical phase of productivity in banking sector.
2. To analyse the productivity of employees in public sector commercial bank in India and Nepal.
3. To find out the relationship between productivity indicators in selected banks.
4. To have a comparative analysis of productivity and profitability of employees in public sector commercial bank in India and Nepal.

HYPOTHESES

1. H_0: There is no significant difference in Business per Employee among the selected banks.
   H_1: There is significant difference in Business per Employee among the selected banks.
2. H_0: There is no significant difference in Profit per Employee among the selected banks.
   H_1: There is significant difference in Profit per Employee among the selected banks.

RESEARCH METHODOLOGY

Scope

This is a micro level study. The study is confined to analyse the productivity of employees in public sector commercial bank in India and Nepal for two major economic parameters only i.e. Business Per Employee (**BpE**) and Profit Per Employee (**PpE**). Three banks from India i.e. State Bank of India (**SBI**) that is leading commercial bank of public sector in India, Panjab National Bank (**PNB**), Bank of Baroda (**BOB**) and same from Nepal i.e. Nepal Bank Limited (**NBL**) that is lead commercial bank of public sector in Nepal, Nepal Investment Bank LTD. (**NIBL**), Standard Chartered Bank Napal Limited (**SCB**) are selected on random basis for the purpose of case study. The period of study extends from the financial year 2009-2010 to 2013-2014. Thus period of 5 years has been taken for the purpose of objective analysis of the study.

Data collection

The data and information is the base of any study. This study is based on the information collected mainly through secondary authentic sources. The annual reports of related banks, reports of Reserve Bank of India and reports of Nepal Rastra Bank are included in secondary sources.

Analysis of data

The analysis has been carried out by making use of various statistical tools such as different ratio analysis, Compound annual growth rate, co-relation, Anova, etc. as per the requirement on the tabulated data with the help of MS-Excel to analyse the same and bring out the hidden fact. Besides, graphical representation of data has also been made using statistical methods like graphs and bar diagrams.

Limitations of the Study:

- The study limits to two parameters only i.e. BpE and PpE. There are certain other parameters which influence the productivity of employees have not studied here.
- This study is based on secondary data sources. So the limitations of secondary data have also been occurred in this study.
- Present study confined 5 years data only. The results may be varied for more periods.

Result and Discussion:

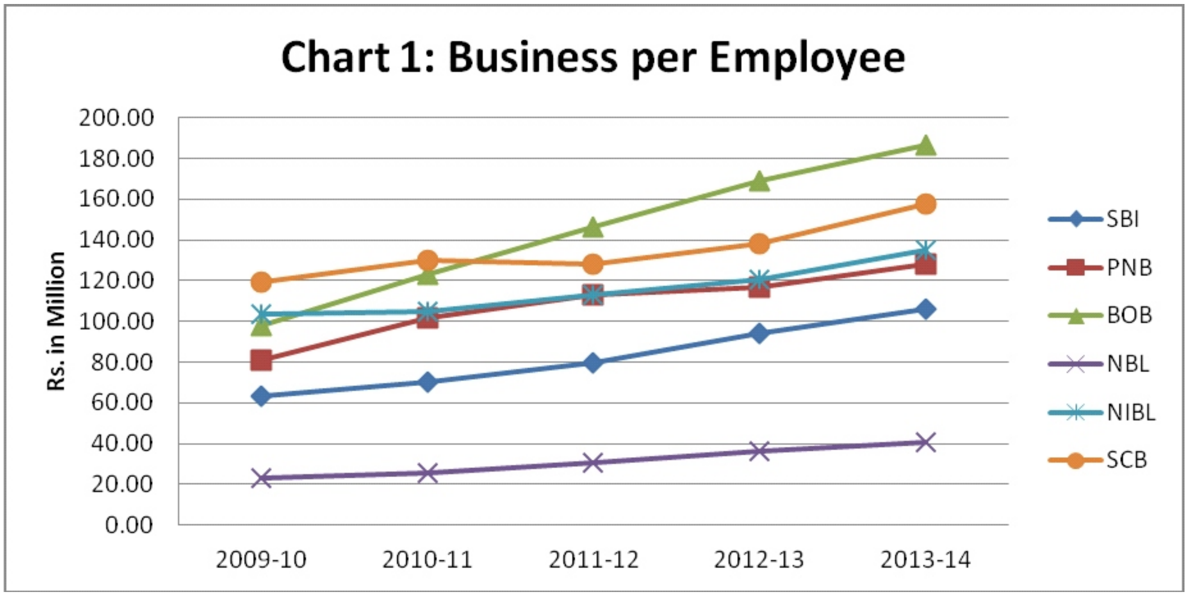
1. **Business per Employee:**
   This ratio has been computed by dividing the sum of core deposit and total advances by the number of employees. This is the most common productivity indicator used by bank.

Table 1 : Business per Employee

Year	BANKS						Rs. In Million	
	India				Nepal			
	SBI	PNB	BOB	Combined (India)	NBL	NIBL	SCBNL	Combined (Nepal)
2009-10	63.60	80.80	98.10	80.83	22.97	103.52	119.15	81.88
2010-11	70.47	101.78	122.90	98.38	25.60	104.68	129.83	86.70
2011-12	79.84	113.20	146.60	113.21	30.36	112.71	128.16	90.41

2012 -13	94.39	116.51	168.90	126.60	36.19	120.66	137.87	98.24
2013 -14	106.38	128.33	186.50	140.40	40.52	134.74	157.86	111.04
Average	**82.93**	**108.12**	**144.60**	**111.89**	**31.13**	**115.26**	**134.57**	**93.65**
CAGR(%)	**13.72**	**12.26**	**17.42**	**14.80**	**15.25**	**6.81**	**7.29**	**7.91**

Source: Compiled from different Reports of RBI, Reports of Nepal Rastra Bank and Annual Report of Banks



The ratio has shown upward trend (in absolute term) in general as shown in table 1 and chart 1. The business per employee ratio was highest in case of BOB in 2013-14 with Rs. 186.5 million followed by SCB with Rs. 157.86 million and the lowest in 2009-10 in case of NBL. The analysis propounded that average business per employee was also highest in case of BOB (144.6 million) and lowest in case of NBL (31.13 million). An analysis of data on basis of Compound Annual growth rate over the previous years (as shown in table 1) ascertains that the highest growth rate was witnessed by BOB (17.42%) followed by NBL (15.25%) then SBI (13.72%), PNB (12.26%), SCB (7.29%) and NIBL (6.81%).

In combined figure, the average business per employee of Indian banks shows Rs. 111.89 million with CAGR 14.80 % whereas Nepalese banks testifies Rs. 93.65 million with CAGR 7.91 %.

Table 2 : Showing Analysis of Variance (ANOVA) of Business Per Employee

Source of Variation	*SS*	*df*	*MS*	*F cal*	*F crit*
Between Banks	42359.7	5	8471.939	22.0404	2.620654
Within Banks	9225.176	24	384.3823		
Total	51584.87	29			

The ANOVA table 2 of Business Per Employee observed that calculated value of 'F' is much greater than the tabulated value hence H_0 is rejected and it shows that there is significant difference in Business per Employee among the selected banks.

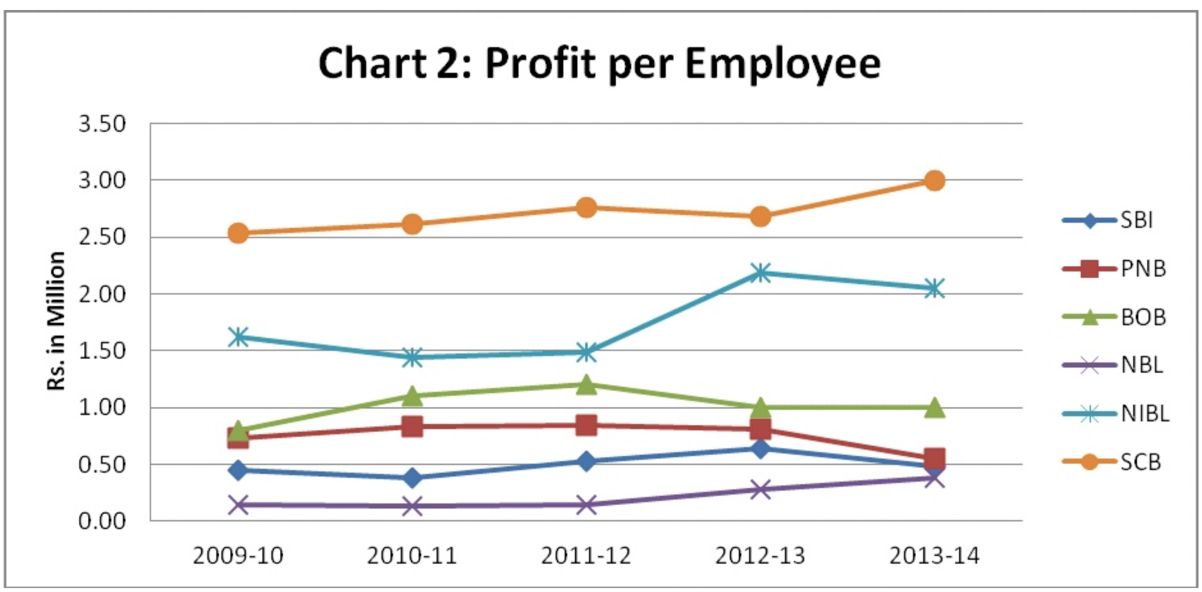
2 Profit Per Employee

The profit per employee is calculated by dividing the amount of net profit by the no. of employees. Every Business exists to earn profit. Profit earning and timely growth in profit earning is an essential feature for the continuous success of a bank.

Table 3 : Profit per Employee

Year	BANKS							Rs. in Million
	India				Nepal			
	SBI	PNB	BOB	Combined (India)	NBL	NIBL	SCBNL	Combined (Nepal)
2009 -10	0.45	0.73	0.80	0.66	0.15	1.62	2.53	1.43
2010 -11	0.39	0.84	1.10	0.77	0.13	1.44	2.61	1.40
2011 -12	0.53	0.84	1.20	0.86	0.14	1.49	2.77	1.47
2012 -13	0.65	0.81	1.00	0.82	0.28	2.19	2.68	1.72
2013 -14	0.49	0.55	1.00	0.68	0.38	2.05	2.99	1.81
Average	**0.50**	**0.75**	**1.02**	**0.76**	**0.22**	**1.76**	**2.72**	**1.56**
CAGR (%)	**2.12**	**-6.91**	**5.74**	**0.71**	**26.99**	**5.99**	**4.27**	**5.96**

Source: Compiled from different Reports of RBI, Reports of Nepal Rastra Bank and Annual Report of Banks



As per table 3 and chart 2, ratios indicates fluctuating trend in general but in absolute term it shows upward trend in all banks except PNB where the ratio shows negative slope. The profit per employee ratio was highest in the case of SCB in 2013-14 with Rs. 2.99 Million per employee and lowest in 2010-11 in case of NBL as far as India is concern the ratio was highest in 2011-12 in case of BOB and lowest in 2010-11 in case of SBI. An analysis of data on basis of Compound Annual growth rates over the previous year (as shown in table 2) shows that the highest growth rate in Profit per Employee was represented by NBL (26.99%) followed by NIBL (5.99%) then BOB (5.74%), SBI (2.12%), SCB (4.27%) and negative growth in PNB (-6.91%).

In combined figure, the average profit per employee of Indian banks shows Rs. 0.76 million with CAGR 0.71 % whereas Nepalese banks testifies Rs. 1.56 million with CAGR 5.96 %.

Table 4 : Showing Analysis of Variance (ANOVA) of Profit Per Employee

Source of Variation	*SS*	*df*	*MS*	*F cal*	*F crit*
Between Banks	21.47851	5	4.295703	126.022	2.620654
Within Banks	0.818086	24	0.034087		
Total	22.2966	29			

The ANOVA table of Profit Per Employee observed that calculated value of 'F' is much greater than the critical value hence H_0 is rejected and it shows that there is significant difference in Profit per Employee among the selected banks.

Table 5 :
Showing Correlation Matrix between Business per Employee and Profit per Employee of individual Bank

	Business per Employee (BpE)							
	INDIA				NEPAL			
Profit per Employee (PpE)		*SBI*	*PNB*	*BOB*		*NBL*	*NIBL*	*SCBNL*
	SBI	0.540 (0.291)			NBL	0.927 (0.859)		
	PNB		-0.360 (0.129)		NIBL		0.778 (0.605)	
	BOB			0.360 (0.129)	SCB			0.904 (0.817)

Note: Value in parentheses indicates coefficient of determination (R^2) where PpE is dependent variable.

Table 5 indicates that there is a moderate degree positive correlation between business per employee and profit per employee in case of SBI and BOB whereas negative correlation in case of PNB. However the coefficient of determination (R^2) represents that only 29.1% (in case of SBI), 12.9% (in case of PNB and BOB) to the observed variability in profit per employee can be explained by the differences in business per employee. As far as Nepal is concern there is a high degree positive correlation between business per employee and profit per employee in case of all Nepalese banks i.e. NBL, NIBL, and SCB. However the coefficient of determination (R^2) represents that the maximum value to the observed variability in profit per employee i.e. 85.9% (NBL), 60.5% (NIBL) and 81.7% (SCB) can be explained by the differences in business per employee.

CONCLUSION

It can be concluded that there are many more factors influencing productivity and several parameters to measure the productivity of employees in banking sector. Some parameters studied above but still there can be other indicators also. At a particular time one factor may play role and at other time the other factor may be responsible to affect the productivity and taking decisions. The data spread over a period of 5 years (2009-10 to 2013-14) in respect of public sector commercial banks in India and Nepal for two major economic indicators i.e. business per employee and profit per employee.

As per combined figure of BpE and PpE of Indian and Nepalese banks point out that in comparison to Nepalese bank the BpE and its growth rate are higher but PpE and its growth rate are lower in Indian banks during the studied period. The main reason of lower PpE in Indian banks is due to negative growth of PpE in PNB.

The correlation between BpE and PpE in Indian banks indicates moderate degree whereas, higher degree in Nepalese banks. The coefficient of determination (R^2) is also being represented that the maximum value to the observed variability in PpE can be explained by the differences in BpE in case of Nepalese banks and lesser value in case of Indian banks. It means remaining parts of variance in PpE of Indian banks is related to other variables. It may be operating cost, non-performing assets, etc. which needed to be controlled.

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