



## A comparative study of employees' productivity and cost of Indian public and private sector banks during 2017-2021

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### Abstract

Any country's economic growth will be on par with expectations only if the financial system inside it is efficient in resource generation and allocation. Economic history provides support for the fact that financial development makes a fundamental contribution to growth (Mohan *et al.* 2005) <sup>[10]</sup>. Each economic organisation must focus on improving productivity and labour efficiency to thrive in this ever-changing environment. This is true in the banking business as well. To survive in this competitive environment, each bank in India must focus on productivity at work. Nostalgic memories indicate that most problems in the banking sector in the past were due to low productivity. If banks deeply concentrate on improving productivity, it enables a high standard of living for the public. In the present scenario, employees' productivity becomes an important factor while measuring the overall efficiency and productivity of the banking sector. Therefore, the present study compares employee productivity by the means of different parameters among public and private sector banks. The scope of the study is limited to the analysis of the productivity of employees in public and private sector banks in India for the period of 2017 to 2021. The whole study is analytic in nature and is based on secondary data obtained from reports on the trend and advancement of banking in India, finance reports, and so on. The study observed that there is a need for increased attention to enhance profit per employee in the case of public sector banks. And both selected groups of banks must focus on lowering employee costs in relation to specific parameters.

**Keywords:** employee productivity, profit per employee, business per employee, gap index and cost ratios

### Introduction

Banks, regardless of their ownership or specialisation, play an important role in the development of an economy by implementing monetary policy in the context of ensuring its stability, attracting temporarily free funds on reasonable terms, providing funds to institutions and individuals who need them, and organising the issuance of the national currency (Sahoo, Sengupta, & Mandal, 2007). The Indian banking system, however, played a critical role in shaping the entire financial system. The economy will be in comfort only when the operational and financial efficiency of the banks is as expected. To survive in this competitive environment, each bank in India must focus on productivity at work. Nostalgic memories indicate that most problems in the banking sector in the past were due to low productivity. If banks deeply concentrate on improving productivity, which in turn enables a high standard of living for the public, employee productivity becomes an important factor while measuring overall efficiency and productivity. Therefore, the present study compares employee productivity by the means of different parameters among public and private sector banks from 2017 to 2021.

### Concept Employees Productivity

Productivity refers to the quantity of work an employee can complete in a given length of time. Productivity is defined as getting more output with fewer inputs. Many elements impact it, including staff well-being, communication effectiveness, management practises, access to infrastructural facilities, training, and so on (Chaturvedi,

n.d.). When it comes to measuring productivity, each approach used by an organisation should be able to answer two questions:

1. How fast is the work completed? (efficiency)
2. To what extent is work completed quickly qualitative? Effectiveness

It is hard to get the desired productivity from employees unless organisations adopt a strategy that promotes and rewards individuals by offering downtime, articulating what the company wants from them, developing healthy competition among employees, and motivating them. A high number of sales or business, a high amount of quality work performed, and less time spent quantitatively and qualitatively completing assigned tasks assist an organisation in determining whether an employee worked productively or not (Yadav, 2015).

### Measurement of employee productivity

Most companies are embracing Dick Klein's strategy of "a productive worker is a happy worker," which ranges from Theory X's out-of-time technique of dealing with workers ("Workers don't like to work; they must be compelled to work") to Elton Mayo's "a happy worker is a productive worker." The organisation that cherishes and supports a safe, secure, and trust-based environment in which everyone can create, learn, and grow together will be the ultimate global winner. HR professionals from all walks of life are working hard to create work that makes employees feel challenged, empowered, and safe. It is an employee's duty to

figure out how productive he was by every evening once hired? Here's where determining staff productivity becomes critical. According to Sauerman (2016), while assessing staff productivity, the following factors must be considered: 1. Measurement must be objective. 2. Availability: Not just at the team or corporate level, but also at the individual level, measures must be available. 3. Comparability: tasks and metrics must be consistent across all employees and time periods. 4. Quality and control (controllability): employees must have a fair share of the outcomes, for example, and can pick the level that best suits their abilities (Thudaa *et al* 2019) <sup>[17]</sup>. The company's performance is dependent on employee productivity. An organisation or senior management might assess employees' performance in a variety of methods. They are:

- a. Management by objectives: Measuring productivity in a way that specifies how well an employee's output is contributing to the company's goals and targets.
- b. Quantitative method: In this method, productivity is measured based on the number of products produced by an employee in a particular period.
- c. The 360-degree feedback method measures productivity by soliciting feedback from co-workers.
- d. Sales productivity: the number of units sold is the basis for measuring productivity.
- e. Service productivity: an employee's productivity is measured by the number of service units he provides.
- f. The time management method determines employee productivity by recording how they use their work time.
- g. Productivity by profit: profit generated by an employee is the basis of this method.
- h. Measuring the Quality of Tasks Completed

Even though there are a number of software tools available to measure productivity, in banks productivity will be measured by taking important measures such as: profit per employee, cost per employee, and business per employee etc.

### Literature review on employee productivity

Many studies that looked at banking performance employed either parametric or nonparametric models. Studies, such as Berger *et al.* (1993) and Beger and Humphrey (1997), examined the world's empirical studies on banking efficiency. Many studies on public sector banks in India focused on analysing financial and operational efficiency using operating expenses, production, and economic output (Rangrajan and Mempilly 1972, Thyagrajan 1975, and Angadi 1983). The Lutheran Committee examined the performance of nationalised banks from 1969 to 1975. The research used specific efficiency indicators to quantify operational efficiency. Factor analysis was used by Divatia and Venkatachalam (1978) to create a composite indicator of efficiency and productivity for fifteen major public sector banks. Principal component analysis was used by Hansda and Venkatachalam (1995) to create a composite measure of performance for twenty-eight public sector banks. Using principal component analysis, Sarkar and Das (1997) <sup>[11]</sup> established a composite indicator of bank efficiency. The study looks at the productivity and profitability differences amongst 73 main banks (public, private, and international) in 1994-95. To measure the technical efficiency of foreign and local banks, Keshari and Paul (1994) used a frontier method with one-year cross-sectional data. De (2004)

employed panel data from 1985 to 1995-96 to assess the technical efficiency of Indian banks using an econometric technique. A Cobb-Douglas technology was used, with two output measurements (gross income and total earning assets) and four inputs (sum of deposits and borrowings, fixed capital, number of officers, and number of other workers). According to the study, efficiency did not increase following deregulation, and foreign banks had the highest efficiency as a group. This paper is based on study made by Sharad Kumar and M. Sreeramulu, who analysed staff productivity and employee cost ratios in traditional and contemporary banks. The study shows that modern banks (foreign and new private sector banks) outperformed older banks by a wide margin (public sector and old private sector banks). However, the performance disparity between modern and traditional banks on all five factors has been narrowing, and the gap has narrowed considerably throughout the research period of 12 years, owing to the steps implemented by traditional banks during that time.

## Research methodology

### 1. Objectives

1. To analyse the employee productivity of Indian banking sector in general.
2. To compare employee productivity of public and private sector banks in India over last five years using different parameters. The parameters used to analyse and compare employee productivity are:
  - A. Business per employee
  - B. Profit per employee
  - C. Employee cost to total operating expenses
  - D. Business per unit of employee cost
  - E. Profit per unit of employee cost

### 2. Period of the study

Knowing that the demonetization of specified bank notes in November 2016 had an influence on the Indian banking sector's performance in the form of an increase in low-cost deposits and an excess of liquidity in the system, researcher decides to begin present study from 2017. The financial system of the whole globe was challenged by the unforeseen COVID-19 epidemic which brought change in a bank's balance sheet structure and a steady fall in interest rates. The banking system took almost two years to recover from the stress caused by the COVID-19 outbreak. In light of this, present study examines productivity from 2017 to 2021 using data from the RBI database

### 3. Data collection

The data had been collected mainly from secondary source. The sources are

1. Annual report published by RBI
2. Various journal articles from Google scholar
3. Website of RBI

### 4. Sample size

The universe of study is banking sector in India. But for the purpose of study author considered only two groups in it. They are: public and private sector banks.

### 5. Parameters used to analyse productivity

Financial and non-financial indicators can be used to assess a bank's success. Operational efficiency is assigned the highest priority among non-financial metrics. This study

makes use of profit per employee and business per employee as indicators of productivity, which in turn demonstrates efficiency and productivity of employee. The current study also analyses measuring costs, such as "employee cost to operational expenditures," "employee cost to the entire company," and "employee cost to total assets," which are commonly utilised in various studies to quantify employee productivity as well as employee cost. The trend and impact of steps taken by public and private sector banks in India to meet the difficulties provided by the ever-changing financial industry were examined using time series data on above specified parameters from 2017 to 2021.

**6. Tools used for analysis**

Data on public and private sector banks productivity over five years are analysed taking percentage methods and gap index as base.

**Discussion**

The parameters selected, to measure productivity "business per employee" and "profit per employee" had been applied for the selected groups of banks. Tables 1 and 2, as well as

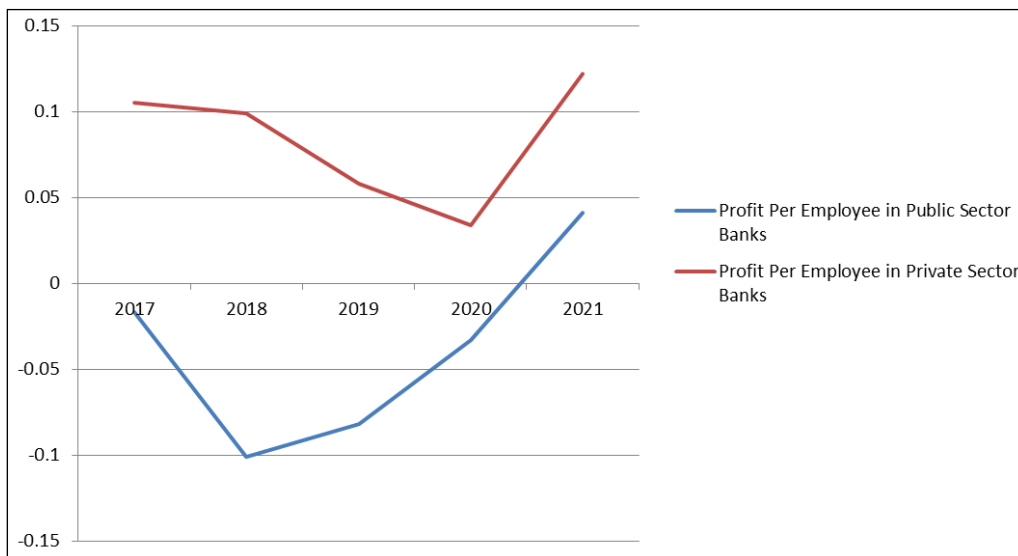
charts 1-a and 1-b below, show the employee productivity ratios, which are represented by "business per employee" and "profit per employee" for the research period in public and private sector banks. Annexure A also includes detailed bank group-level statistics on these metrics, as well as the number of workers in each group of banks.

**Table 1: Profit Per Employee (in Crores of rupees)**

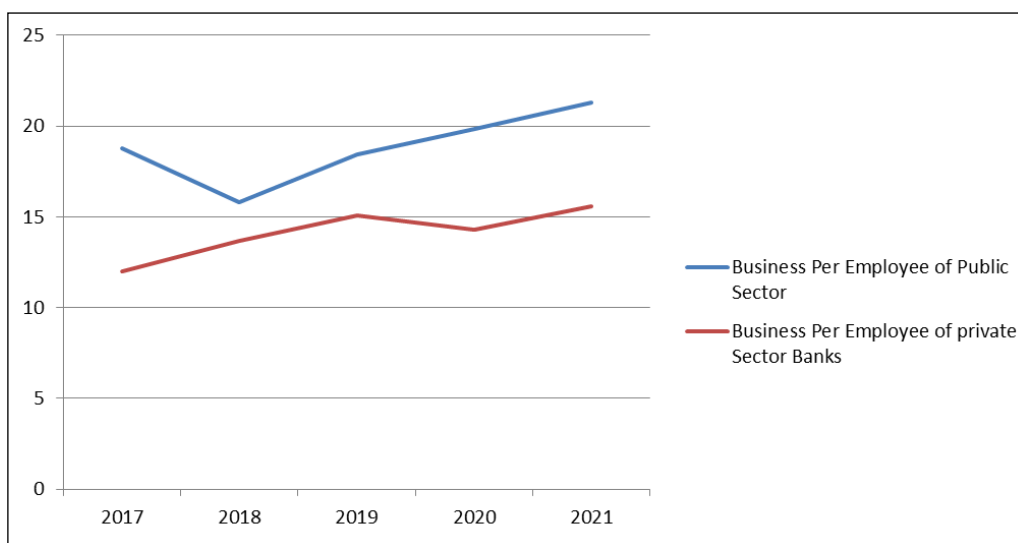
YEAR	Public Sector Banks	Private Sector Banks
2017	(.017)	.105
2018	(.101)	.099
2019	(.082)	.058
2020	(.033)	.034
2021	.041	.122

**Table 2: Business per Employee**

Year	Business Per Employee (Rupees in Crores)	
	Public Sector Banks	Private Sector Banks
2017	18.7753	12
2018	15.806	13.66
2019	18.411	15.10
2020	19.811	14.31
2021	21.277	15.59



**Chart 1: A Profit per Employee**



**Chart 2-A: Business per Employee of Public and Private Sector Banks Over 5 Years**

Table 1 and Chart I-A demonstrate that over the first four years of the research, profit per employee for public sector banks has been consistently negative. In 2017, it was -.017 billion, and by 2020, it reached to-.033 billion. However, after 2020, profit per employee grew and showed a positive improvement (from 2017 to 2019 -11389 crores to -66608 crores. However, in 2020, it was lowered to -26015 crores). In the case of private banks, profit per employee was Rs. .105 crores in 2017, but fell to Rs. 034 crores in 2020. In 2021, however, it was increased to .122 crore. The business-to-employee ratio of public sector banks has risen dramatically, from 18.7753 crores per employee to 21.277crores per employee. In the private sector, it grew from 12 crores to 15.59 crores in 2021. Chart 2-A shows that public sector banks' business per employee has increased over time. However, in the case of private sector

banks, it gets increased at first, from 2017 to 2019, but then began to decline, before returning to good position again.

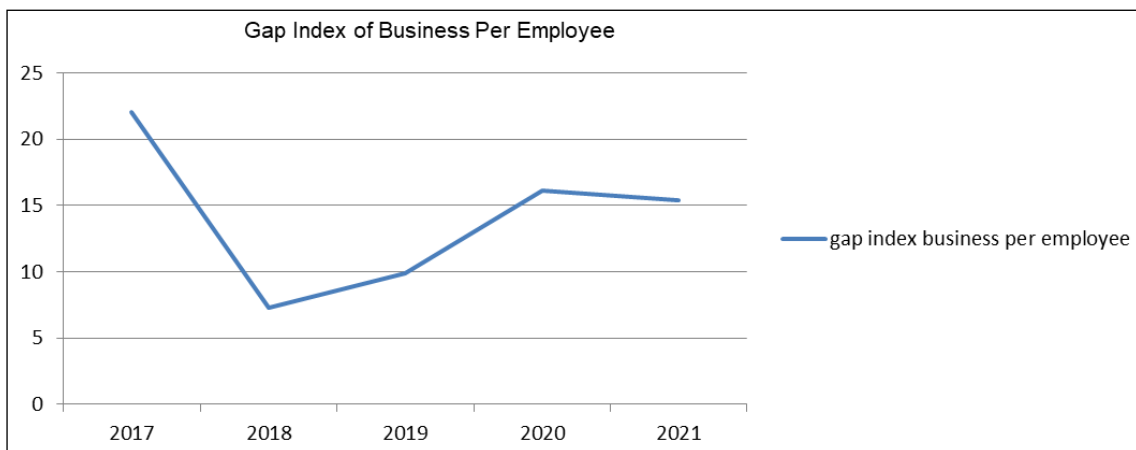
**GAP Index Analysis**

The Gap Index has been defined as the percentage of difference in the value of variables between Private Sector Banks (PVB) and Public Sector Banks (PUB) as a ratio of their aggregate value. Gap Index of profit per employee can be worked out as:  $PPE (PUB) - PPE (PVT) / PPE (PUB) + PPE (PVT) \times 100$ .

Tables 3 as well as charts 3-a and 13-b below, show gap index of employee productivity ratios, which are represented by " Gap Index of business per employee" and "Gap Index of profit per employee" for the research period in public and private sector banks.

**Table 3:** Gap Index

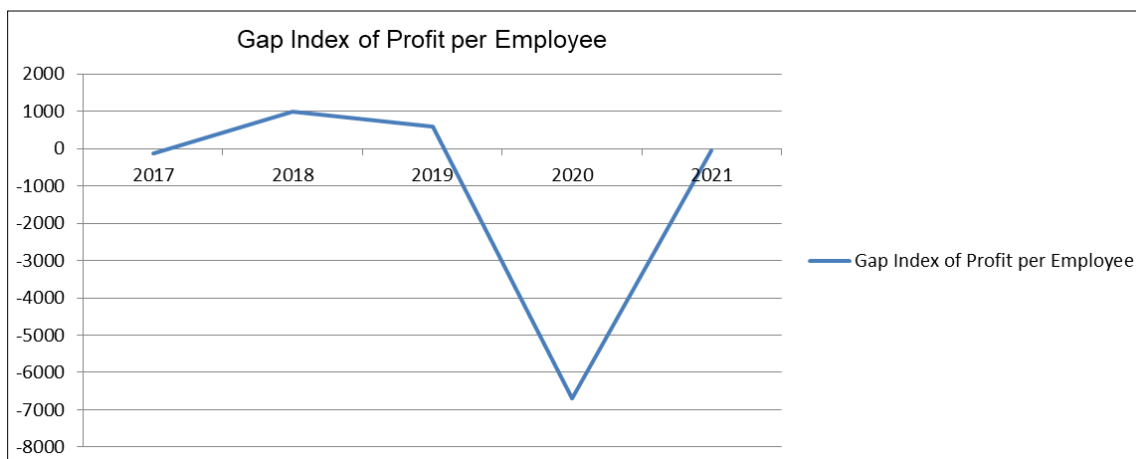
Gap Index		
Year	Profit per Employee	Business per Employee
2017	-138.63	22.02
2018	+1000	7.28
2019	+583.33	9.88
2020	-6700	16.122
2021	-49.69	15.425
Percentage change from 2017 to 2022		14.22



**Chart 3-a:** Gap Index of Business Per Employee

Tale 3 and chart 3-a indicates that, gap in business per employee was too high during 2017 but it get decreased by 2018. But after words it increased and later i.e. from 2020 it

remained constant. This is mainly because of slow growth in business of private sector banks when compared with public sector banks



**Chart 3-b:** Gap Index of Profit Per Employee

Above figure clearly indicates that gap index of profit per employee increased over a period of 2017 to 2018. But it gets widened negatively from 2017 to 2021. This is purely because of negative profit earned by public sector banks in all first four years except in case of 2021.

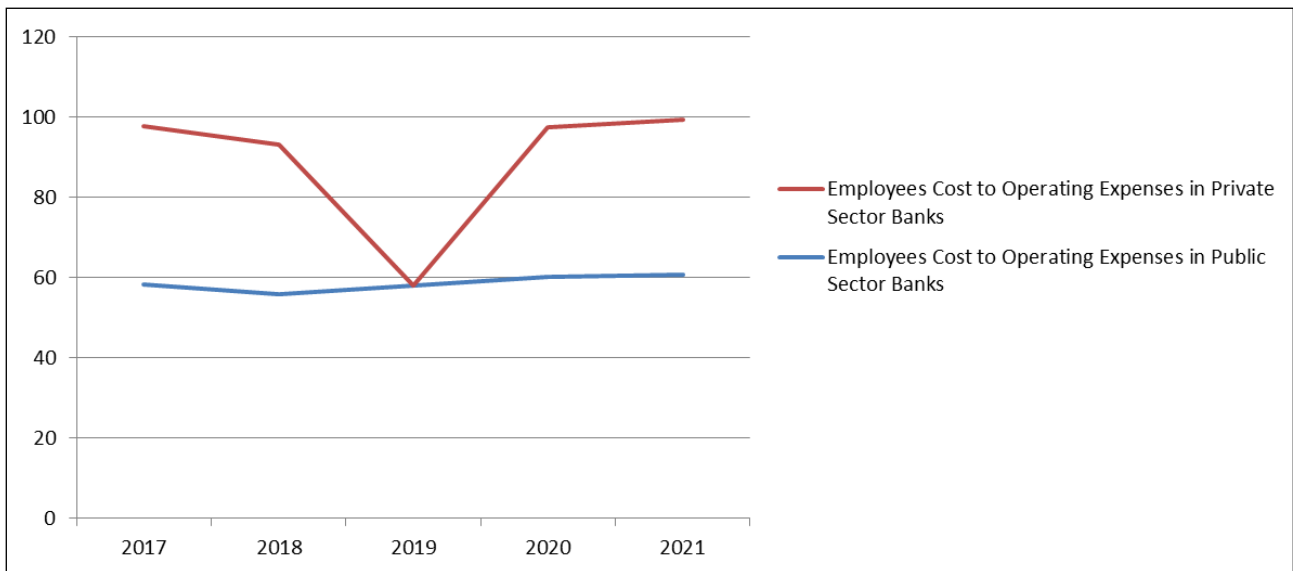
**Employee Cost Ratios**

The employees’ cost ratios, which are represented by "employee cost to operating expenses", "employee cost to total business" and "employee cost to total assets", are based on employee expenses in each group of banks. Employee cost ratios are critical factors for improving profitability,

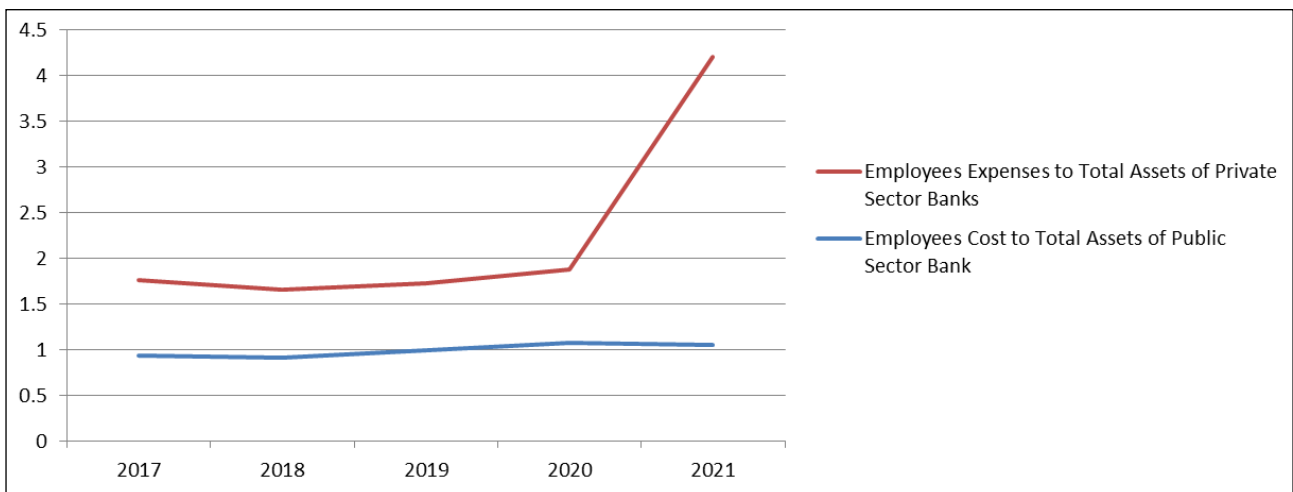
provided banks minimise such ratios in relation to total expenses, total business, and total assets. The employees’ cost in relation to these variables for the 5 year period under study in respect of public and private sector banks is presented in Table 4 and Charts 4-A, 4-B, and 4-C below. (Detailed bank group-wise data on these parameters is also given in annexure B). From Table 4 and Graph 4-A, it may be observed that employee costs to total operating expenses in public sector banks were reduced during 2019, but they increased and reached their highest level in 2020, after which they remained constant. But in private sector banks, it remained more or less constant throughout the study period.

**Table 4:** Employee Expenses in relation to total operating expenses, total assets and total business of public and private sector banks over 5 years Period

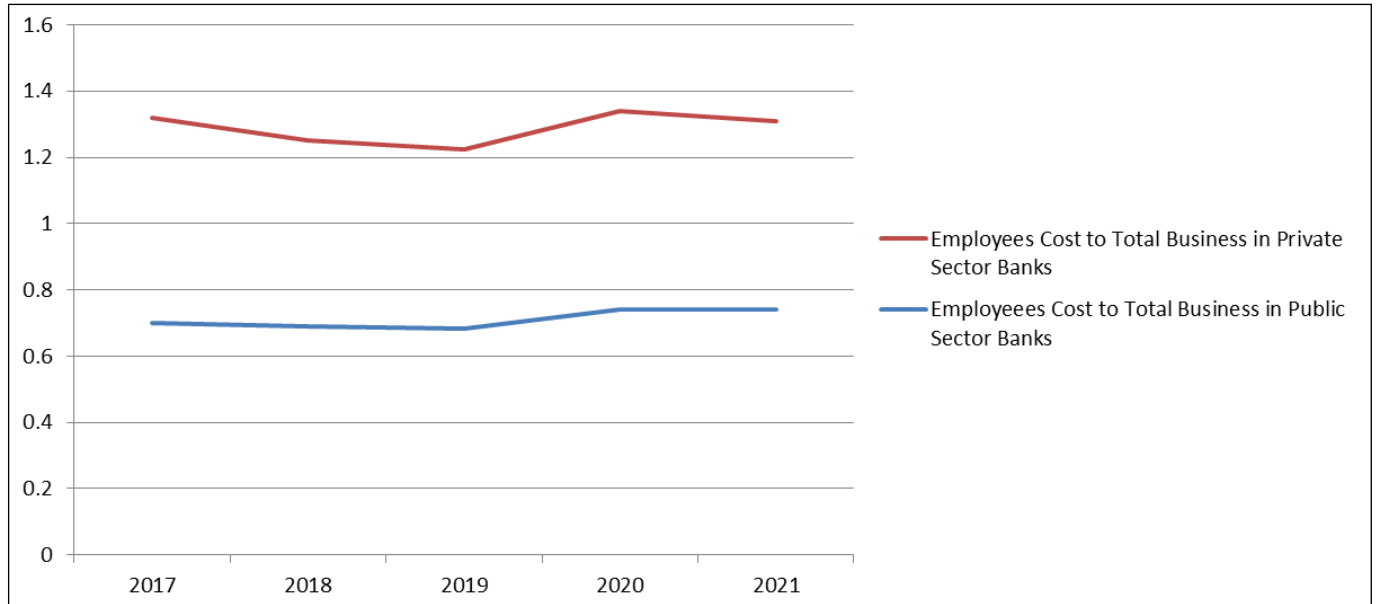
Year	Employees Cost to Operating Expenses		Employees Cost to Total Assets		Employees Cost to Total Business	
	Pub	Pvt	Pub	Pvt	Pub	Pvt
2017	58.36	39.34	.93	.83	.70	.62
2018	55.89	37.29	.91	.75	.69	.56
2019	57.96	35.87	.99	.74	.683	.54
2020	60.10	37.38	1.07	.81	.74	.60
2021	60.81	38.53	1.05	3.15	.74	.57



**Chart 4-a:** Employees Cost to Total Operating Expenses of Public and Private Sector Banks



**Chart 4-b:** Employees Cost to Total Assets of Public and Private Sector Banks



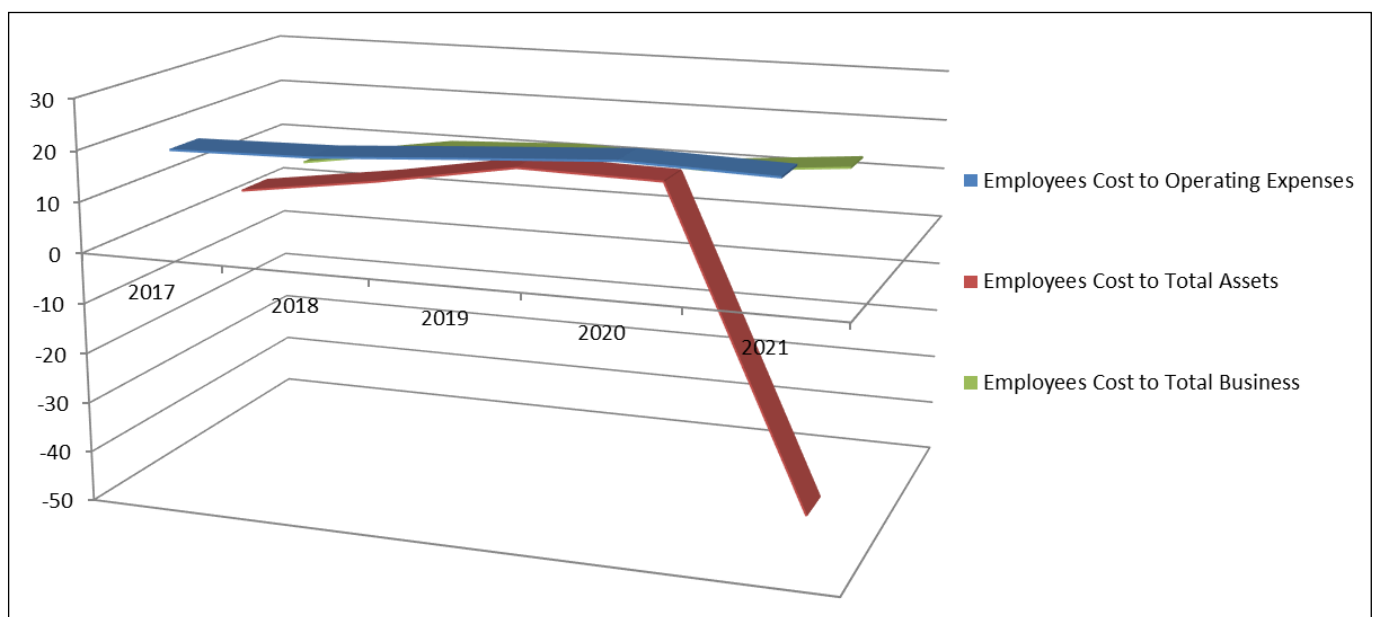
**Chart 4-c:** Employees Cost to Total business of Public and Private Sector Banks

From 2017 to 2019, the staff cost to total assets ratio of public and private sector banks decreased steadily, but it began to rise in 2020. Because of the growth in labour expenses in the private sector, the rate of increase in private sector banks is larger than in public sector banks. Both private and public-sector banks exhibit the same tendency when it comes to staff expenditures as a percentage of total

business. Between 2017 and 2019, it has decreased. Since the year 2019, it has climbed. However, public sector banks are growing at a faster rate than private sector banks. This pattern clearly shows that public-sector banks have reached a point where they can compete with private banks in terms of new business expansion (deposits plus advances).

**Table 5:** Gap Index

Year	Gap Index		
	Employees Cost to Operating Expenses	Employees Cost to Total Assets	Employees Cost to Total Business
2017	19.46	5.68	6.06
2018	19.96	9.63	10.4
2019	21.70	14.45	11.69
2020	23.31	13.83	10.45
2021	22.41	-50	12.98



**Chart 5-a**

It may be observed from Table 5 above and the Charts 5-A that the gaps between public and private sector banks on all employee cost ratios have been coming down except

employees cost to operating expenses from 2017 to 2021. The percentage reduction was highest in case of employee cost to total assets, which has drastically come down and

assumed negative value (-50) from 2021. The gap between public and private sector banks in respect of employee cost to total assets increased significantly from 6.06 in 2017 to 12.98 in 2021). Thus, the both public and private sector banks have to continue to take further steps to improve their productivity and cost reduction efforts. It will be interesting to monitor the trend of gap indices by the banks in future to get an idea about the existing gaps between private and public sector banks.

### Conclusion

The present study reveals that public-sector banks reported losses from 2017 to 2020, although their total businesses were reasonably strong. Evaluation of their position from 2017 to 2020 indicates that the losses resulted from heavy provisioning requirements for stressed assets showing an increasing trend throughout the study period. Steps such as reduction in stressed loans, improving profitability, and revival in credit growth must be taken to enhance profit, which in turn leads to higher profit per employee. The gap between public and private sector banks in respect of employee costs to total assets increased significantly from 6.06 in 2017 to 12.98 in 2021. Thus, public and private sector banks have to continue to take further steps to improve their productivity and cost reduction efforts. It will be interesting to monitor the trend of gap indices by the banks in the future to get an idea of the existing gaps between private and public sector banks.

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