Tuijin Jishu/Journal of Propulsion Technology
ISSN: 1001-4055
Vol. 44 No. 6 (2023)

A Comprehensive Analysis of the Performance Metrics of Commercial Banks in India

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Abstract

The report uncovers a steady example of higher monetary execution in confidential area banks contrasted with public area banks over the whole review period. The review utilizes board information assessments, explicitly Fixed Impact and Arbitrary Impact models, to investigate the impacts of liquidity, dissolvability, and effectiveness on the benefit of chosen banks. The observational outcomes show that the productivity of explicit public and confidential area banks is complicatedly attached to key monetary proportions. Liquidity, dissolvability, and turnover proportions are huge determinants influencing the productivity of these banks. Keeps money with higher liquidity levels will quite often perform better monetarily, as having adequate fluid resources permits banks to explore vulnerabilities, meet momentary commitments, and gain by potential speculation valuable open doors. Saves money with higher dissolvability proportions show improved benefit, demonstrating a vigorous monetary design and ability to retain misfortunes. Productive turnover proportions demonstrate that resources are successfully utilized to create income, contributing emphatically to by and large monetary execution. The discoveries give significant experiences into the nuanced transaction between liquidity, dissolvability, effectiveness, and benefit in both public and confidential area banks, directing vital navigation and underlining the significance of keeping up with ideal degrees of liquidity, dissolvability, and functional productivity for supported monetary achievement.

Keywords: *Financial performance, Solvency, Commercial banks, Profitability, Net interest margin*

1 Introduction

A nation's ability to develop economically depends heavily on its banks. In today's world, banks are crucial for a nation's financial stability in addition to its economic prosperity. Three key factors make banks unique in an emerging economy. They first assume a prominent part in the growth of the markets and financial intermediaries. Second, the business sector mainly relies on banks to meet its financing needs because there aren't strong equities and bond markets. Thirdly, due to their insufficient ability to manage financial risks, banks in emerging markets like India serve a sizable portion of the home saver population, who desire steady income, liquidity, and financial security.

Modern trade and commerce rely on banking as a vital component and accelerator. It is essential to all commercial endeavours and social gatherings. A fiercely competitive, intricate market where services are always being improved has emerged as a result of the banking system's swift transition of its offerings. Thus, the growing significance of banking in India's economic growth and the corresponding shifts in the business environment have resulted in heightened pressure on them. These adjustments are forcing the banks to restructure so they can handle the current environment. Banking's original intent has been reinterpreted in light of current modifications to banks' functional orientation.

1.1 Importance of bank

In India, the growth of the economy is significantly influenced by commercial banks. Since large banks were nationalised, they have been called upon to play an increasingly important role in supporting the country's economy, which has already been acknowledged. Commercial banks in India have expanded their horizons and are now more aware of national issues, which has led to a social and economic revolution in our nation.

The majority of the Indian economy is agrarian, with low income levels, high population density, and limited domestic savings capacity, all of which contribute to the country's low rate of capital formation. These factors make India's economy undeveloped. The majority of savings are either not used at all or are hoarded as cash, gold, or silver, or they are invested in real estate. The poor capital formation can also be attributed to people's strange preferences. Consequently, in order to support economic growth, banks must mobilise and allocate domestic financial resources in a way that promotes profitable economic investment.

1.2 Definition

Various financial experts have given differing definitions to the expression "bank." Among the definitions are:

A monetary foundation that gives financial records administrations, makes various sorts of credits, acknowledges stores, and gives endorsements of store (Cds) and bank accounts to people and independent ventures is alluded to as a "business bank." most of individuals lead their keeping money with business banks.

A bank, in the expressions of Walter Leaf, is an individual or association that pronounces to acknowledge stores from the overall population, which are from that point receivable with a money order upon request.

Banking is characterized under the Financial Organizations Act, 1949 Sec., 5(b) as "the tolerant of stores from people in general to loan or effective money management, repayable on request etc., and withdrawable by checks, drafts, orders, or different means."

1.3 Role of commercial banks

In an economic development of a country Commercial banks are seen as the frontrunners in economic progress in addition to being money exchangers. They serve as both the nation's wealthiest storage facilities and the wellspring of resources required for economic growth. They are essential to the growth of a nation's economy. Any nation's ability to develop depends on its banking system. A strong commercial banking system would have been necessary for the 19th-century European ―Industrial Revolution‖. In emerging nations such as India, commercial banks are regarded as the pillars of the national economy. The following are some ways that commercial banks support the economic growth of a nation:

i.Accelerating the Rate of Capital Formation

Financial advancement not entirely settled by capital development. The slow pace of capital arrangement is the essential issue confronting creating economies. Banks animate capital aggregation and the saving propensity among the overall population. For efficiency, they activate inactive assets. Improvement of the economy depends the expression "bank" has been characterized distinctively by various business analysts. Remembered for the definitions are:

"Business bank" alludes to a monetary organization that offers financial records administrations, different loaning choices, store acknowledgment, and testaments of store (Discs) and bank accounts to individuals and private ventures. Business banks handle the financial requirements of by far most of individuals. Walter Leaf characterized a bank as an element or individual that professes to acknowledge stores from the overall population, which are from that point reimbursable with a money order upon request. As expressed in Area 5(b) of the Financial Organizations Act, 1949, banking is "the tolerant of stores from the general population to loan or effective money management, repayable on request etc., and withdrawable by checks, drafts, orders, or other means. "arises from the exchange of monetary assets from capital development to utilization. Banks offer help with as well as being cash exchangers, business banks are viewed as pioneers in financial headway. As well as being the most extravagant storerooms in the country, they are a wellspring of assets required for financial extension. They are important for the economy of a country to develop. A nation's financial framework decides how far it can advance. The European ―Industrial Revolution‖ of the nineteenth century would have required a vigorous business banking framework. In non-industrial nations like India, business banks are considered the groundwork of the public economy. Coming up next are a few different ways that business banks help in a country's monetary turn of events: by advancing reserve funds and guiding them towards valuable undertakings.

ii.Monetisation of Economy

A sizable non-monetized industry is indicative of an underdeveloped economy. The nation's economic development is hampered by the existence of this unmonetized industry. By establishing branches in underdeveloped and rural areas, banks can facilitate the process of monetization, or turning debt into cash, within the nation's economy.

iii. Innovations

Innovations are a necessary precondition for economic growth. In industrialised countries, bank financing is the primary source of funding for these inventions. Capital formation largely drives economic growth. The main problem facing developing economies is the slow rate of capital formation. Banks encourage the public's habit of saving and capital accumulation. To enhance efficiency, they mobilize underutilized resources. Economic growth is dependent on Various economists have defined the word "bank" in different ways. Among the definitions are the following: "Commercial bank" designates a financial organisation that provides small businesses and individuals with certificates of deposit (CDs), savings accounts, and a range of lending options in addition to accepting deposits. The great majority of people's banking needs are met by commercial banks. According to Walter Leaf, a bank is any organisation or individual that makes the claim to receive deposits from the general public, which are thereafter repayable by cheque upon request. The Banking Companies Act, 1949 defines banking as "the accepting of deposits from the public for the purpose of lending or investing, repayable on demand or otherwise, and withdrawable by checks, drafts, orders, or other means." This definition is supported by Section 5(b) of the Act.originates from the financial resources that are moved from capital formation to consumption. Banks provide support in Apart from their role as money changers, commercial banks are regarded as trailblazers in economic development. Not only are they the richest storage facilities in the nation, but they also provide resources required for economic growth. They are required for a nation's economy to expand. How far a nation may advance is determined by its banking system. An extensive commercial banking system would have been necessary for the 19th-century European ―Industrial Revolution‖. Commercial banks are regarded as the cornerstone of the national economy in developing nations like India. Commercial banks contribute to the economic development of a nation in a number of ways, including by encouraging savings and directing them towards worthwhile pursuits. However, a lack of capital and other resources makes entrepreneurs in developing nations hesitant to engage in fresh projects and innovate. Bank credit facilities give business owners the ability to increase their investments in innovation, adopt new technologically based production techniques, and raise the economy's potential for productivity.

iv.Promote Commercial Virtues

A banker poses a greater threat to the businesspeople than a preacher. A businessman should possess specific attributes such as diligence, planning, inventiveness, integrity, and timeliness. These attributes, referred to as "commercial virtues," are necessary for quick economic development. It is more advantageous for the banker to advocate for business virtues. The phrase "public conservators of commercial virtues" refers to banks.

v.Finance to Government

In developing nations, the government is the industry's promoter. Money is required for the establishment of industries in addition to the developmental activities. Banks give the government short-term financing through the purchase of Treasury Bills and long-term credit through their investments in government assets. As a result, banks lend money to people, businesses, and the government to launch, maintain, and grow industries and generate wealth.

2 Literature Review

Barth, Caprio and Levine (2001): conducted a study titled "Banking System around the Globe: Deregulation and Ownership Affect Performance and Stability," which provided extensive and in-depth details on the ownership and regulatory framework of commercial banks in numerous nations worldwide. They also examined cross-national data on bank ownership and regulation in order to assess the relationships between various regulatory ownership practices and the stability of the banking system as well as the performance of the financial industry.

Richard S. et.al, (2002): Examined the U.S. Commercial Banks' performance and productivity from 1984 to 1998. The analysis discovered a robust and steady correlation between our input and output, as well as independent indicators of bank performance, and efficiency. This study indicates that the relative efficiency of the banks that operate in these situations may act as a moderator of the effects of different economic conditions. The study conducted by Ali Ataullah et al. (2004)11 revealed that the banking sector in both nations experienced a progressive improvement in technical efficiency over time, particularly after 1995. As opposed to public sector banks in India, Pakistan, and other countries, these banks have only seen improvements in scale efficiency and have discovered that they are comparatively more efficient at producing earning assets than revenue. The high number of non-performing loans was given credit for this. Furthermore, it has been observed that there has been a decrease over time in the disparity between the technical proficiency of various group sizes.

Saveetha Sagar (2005): An analysis of Indian commercial banks during the post-nationalization era has been attempted in the book Commercial Banks in India. Additionally, productivity patterns across various commercial bank categories have been analyzed. Additionally, an analysis of the new profit and profitability patterns as well as the different causes of the decline in bank profitability is attempted. The book also seeks to determine which of the listed factors has made a substantial contribution, positive or negative, to bank profitability. For this, a variety of statistical tools have been used.

Nimalathasan (2008): utilized the Capital Ampleness, Resources Quality, The board Quality, Ability to acquire, Liquidity (CAMEL) evaluating framework with 6,562 parts of 48 banks in Bangladesh to break down the monetary execution of the financial business in that country. Utilizing CAMEL reviewing procedure, the review found that three banks were areas of strength for named, one banks as good, seven banks as fair, five banks as minimal, and two banks as unsuitable.

Uddin MR and Bristy JF (2014) : Assessed of a few confidential business banks in Bangladesh according to the point of view of execution have directed an assessment of the exhibition of a choice of private business banks. In view of the discoveries of this examination, it has been resolved that the chose banks are all equipped for accomplishing a maintainable development concerning their branches, workers, credits and advances, characterized advances, stores, net gain, and profit per share over the span of the time of 2007-2011, yet with infrequent varieties. In light of the discoveries of the review, it was resolved that Bangladesh has an exceptionally encouraging future for private business banks.

3 Research Methodology

The liquidity proportion, which is addressed by the fast proportion, current proportion, and credits to store proportion, as well as the productivity proportion, which is estimated by the profit from resource (ROA), return on value (ROE), and cost profit proportion (P/E proportion), were used to research the monetary exhibition of a choice of Indian business banks so the outcomes could be dissected. The review included four business banks, two of which addressed the public area and two of which addressed the confidential area. Thought about the accessibility of information. In Table 1, you will see a rundown of the business banks in India that were picked for the request.

Table 1. List of Indian commercial banks selected for the study

S.No.	Name of the selected public sector commercial banks	S.NO.	Name of the selected private sector commercial banks
1.	State Bank of India (SBI)	1.	Axis Bank
2.	Canara Bank	2.	ICICI Bank

A thorough examination of the yearly measurements for the years 2018/2019 through 2021/2022, as well as the material that is expected for this review, is introduced in this review. To survey whether there is a massive distinction between the method for monetary proportions of public and confidential area banks, the One-way Examination of Change (ANOVA) study was used. Also, the exploration used board information assessments, explicitly the Decent Impact and Irregular Impact models, to examine the impact of liquidity, dissolvability, and productivity on the benefit of the chose public area banks and confidential area banks, in addition to other things. Both the decent impact model and the arbitrary impact model think about the time impact. The proper impact model considers the firm-explicit impact.

The fixed effects model is defined as:

$$\Pi_{it} = \alpha_i + \beta' X_{it} + u_{it}, \; i = 1, \cdots, N; \; t = 1, \cdots, T \qquad \text{...... (1)}$$

bank having a place with a specific financial area bunch during the t th period; Xit addresses a vector of k logical factors for the I th bank having a place with the t th period; β′ addresses the boundary that should be assessed; and uit addresses the blunder term, with the presumption that it is somewhere in the range of 0 and σ2. There are consistent coefficients that are particular to each bank of different industry groupings. These coefficients are signified by \i ∊ N. Their presence is predicated with the understanding that distinctions in the consistent term are the way by which differences in the banks that are considered to be essential for the different financial area groupings manifest themselves. This vector of boundaries β is utilized related to these particular coefficients to assess their qualities.

In the random effects case, the model is defined as:

$$\Pi_{it} = \alpha_i + \beta' X_{it} + u_{it}, \; i = 1, \cdots, N; \; t = 1, \cdots, T \qquad \text{..........(2)}$$

As a component of the irregular impacts worldview, the αi are not viewed as fixed constants yet rather are dealt with as arbitrary factors. In particular, it is normal that the αi are not impacted by the missteps uit, which can be communicated as () 2 ^ IID 0, α σ I α, and () 2 ^ IID 0, it u σ. The,, Πit it β′ X are characterized in a similar way as determined before. Since αi are irregular, the mistakes currently are υit = αi + uit and the presence of αi produces a connection among the blunders of a similar cross-segment unit however the P. Hypothetical Financial matters Letters mistakes from the different cross-segment units are free. Thusly, the methodology of summed up least squares will be used to appraise the model that was introduced before.

The Hausman determination test is used to examine the distinctions and similitudes between the two sorts of prerequisites. Rather than an irregular impact model, which explores potential varieties in mistake changes, a proper impact model assumes that there are contrasts in blocks between gatherings or time spans. Under the suspicion that the singular impacts are not associated with the other regressors in the model, the Hausman determination test is liable for deciding if the impacts are fixed or arbitrary. If the information is connected (H0 is dismissed), an irregular impact model will create one-sided assessors, which will disregard one of the Gauss-Markov prerequisites. In this manner, a proper impact model is the most reasonable choice. The Hausman measurement is given an asymptotically disseminated chi-square appropriation with k levels of opportunity when the invalid speculation is thought of.

The general specification of the parameters of the model is as follows:

$$\mathrm{ROA}_{it} = a_i + b_1\mathrm{QR}_{it} + b_2\mathrm{TATR}_{it} + b_3\mathrm{ICR}_{it} + b_4\mathrm{CAR}_{it} + u_{it} \quad \ldots\ldots(3)$$

The profit from resources (ROA) of the chose public and confidential area banks in India is addressed by the abbreviation ROA. Speedy proportion, all out resource turnover proportion, interest inclusion proportion, and capital ampleness proportion are the illustrative factors that are indicated by the abbreviations QR, TATR, ICR, and Vehicle, separately.

4 Data Analysis

Table 2. Liquidity ratios of selected commercial banks.

		PUBLIC SECTOR BANKS		**PRIVATE SECTOR BANKS**	
	Name of the banks	**SBI**	**Canara Bank**	**Axis**	**ICICI**
Current Ratio	2018	0.04	0.02	0.02	0.02
	2019	0.03	0.06	0.03	0.04
	2020	0.04	0.05	0.04	0.03
	2021	0.07	0.04	0.05	0.02
	2022	0.07	0.03	0.1	0.01
Quick Ratio	2018	12.05	23.15	20.14	18.16
	2019	11.2	22.15	25.12	20.25
	2020	15.13	23.17	21.22	22.2
	2021	11.1	24.15	22.25	24.51
	2022	13.12	24.16	28.35	29.15
Loan to deposit Ratio	2018	90.6	66.61	77.1	100.15
	2019	90.15	65.52	78.15	102.11
	2020	92.15	68.6	85.21	105.45
	2021	93.52	69.22	95.12	115.65
	2022	95.31	70.14	98.12	98.51

Figure 1: Liquidity ratios of selected commercial banks.

Different business banks' liquidity proportions are introduced in Table 2, which might be seen as here. Throughout the span of the review time frame, most of the public area banks have kept a steady current proportion. Contrasted with the proportions of public area banks, the current proportions of private area still up in the air to be generally better. It is feasible for them to satisfy their momentary responsibilities utilizing the resources that they right now have. The consequences of the table exhibit that there was a critical expansion in the fast proportions of both public area banks and confidential area banks all through the span of the example. It is entirely expected for business banks to have changes in their fluid resources. Over the timeframe from 2018 to 2016, the ICICI exhibits an example of development, specifically from 0.02 to 29.15 on the scale. Contingent upon the organization's plan of action, the ideal proportion of advances to stores for banks ought to fall anyplace in the locale of 80 to 90 percent. A descending propensity was seen no matter how you look at it in the public financial area all through the period viable. To put it briefly, as per the proportion of credits to stores, the confidential area banks keep on having a more good situation than the public area banks.

Table 3. Profitability ratios of selected commercial banks

		SBI	**Canara Bank**	**Axis**	**ICICI**
	Public Sector banks			**Private Sector banks**	
Ratio of Assets(%)	2018	0.09	0.7	1.45	1.22
	2019	0.75	0.5	1.23	1.25
	2020	0.084	-0.60	0.65	0.25
	2021	0.55	0.25	0.36	0.58
	2022	0.38	0.05	0.6	4.25
Ratio of equity (%)	2018	14.15	12.20	15.25	15.36
	2019	9.8	10.25	16.52	14.52
	2020	15.12	11.12	15.14	25.36
	2021	7.75	22.25	5.65	15.25
	2022	5.45	15.12	6.25	12.35
Earning per share (Rs)	2018	15.12	50.48	119.26	75.25
	2019	17.68	65.23	135.15	45.25
	2020	17.36	-55.36	31	25.26
	2021	20.56	-60.52	35	12.52
	2022	16.31	75.45	15	48.26

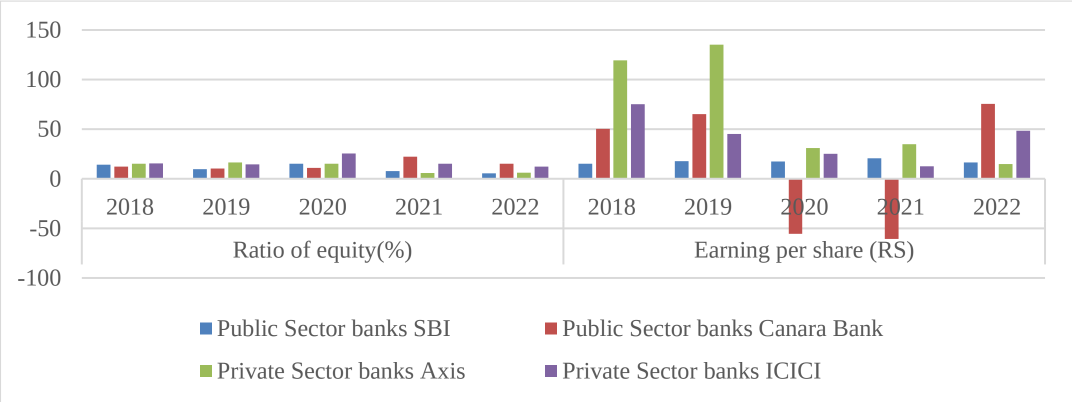

Figure 2: Profitability ratios of selected commercial banks

A choice of business banks' productivity proportions are introduced in Table 3, which gives the data. Because of the expanded profit from resource (ROA), the banks can create more benefits with a less measure of speculation. It is normal that the public area banks will have a huge decrease in their ROA after the year 2012, when they kept up with the best ROA. Confidential banks have a better yield on resources (ROA) than public banks, as should be visible from the table. In most of the banks that were addressed during the example time frame, their profit from resources (ROA) is higher than one percent. Then again, by uncovering how much benefit a bank brings in with the cash that investors have contributed, the profit from value (ROE) is a strategy that might be utilized to assess the productivity of a bank. Each and every public bank has seen a decrease in their ROA all through the time. The typical profit from value (ROE) delivered by confidential banks was higher than that given by state banks, coming in at 20.13 percent. The profit per share (EPS) of a bank is the extent of the bank's all out benefit that is dispersed to each portion of normal stock that is at present available for use. The income per share (EPS) might be negative in the event that the bank is encountering a misfortune. In light of the information introduced in Table 3, it is obvious that most of public area banks encountered a negative profit for each offer (EPS) all through the period viable. Reinvestment in a bank's tasks, obligation decrease, non-performing resources, and frail profit are a portion of the potential purposes behind this. To start, business banks might decide to spend their incomes in the formation of new items or in the obtaining of center organization resources. This is the most fundamental chance. This choice doesn't demonstrate that the bank is in poor monetary wellbeing, notwithstanding the way that it decides to keep a portion of its profit. This reinvestment could bring about an expansion in profit for every offer from now on. Throughout the period being referred to, confidential banks have furnished their investors with higher income per share (EPS), in spite of the way that their EPS have been on a descending pattern.

5 Conclusion

For the timeframe crossing from 2018 to 2022, the ongoing review really tries to look at the monetary presentation of a determination of business banks in India. Four business banks are remembered for the review; two of these banks are from the public area, while the other two come from the confidential area. The monetary proportions are utilized to investigate the monetary exhibitions of these business banks. When contrasted with public area banks, confidential area banks are seen to have an impressively higher liquidity proportion, which is shown by the ongoing proportion and the credits to store proportion. Notwithstanding, all through the exploration period, the fast proportions of both public and confidential area banks exhibit critical a long ways. All things considered, it has been noticed that private banks have a better yield on resources, return on value, cost to-income proportion, and profit per share than public banks do. A steady resource turnover proportion has been kept up with by open area banks over the entire examination period, rather than the confidential banks, which have seen a long ways in their net revenues. To the extent that the dissolvability proportion and the capital ampleness proportion are concerned, it has been found that private banks are altogether better than public area banks. By and large, better than those of public area banks. Through the use of board information assessments, in particular the Proper Impact and Irregular Impact models, the exploration researches the impact that liquidity, dissolvability, and productivity have on the benefit of a choice of business banks in India. The observational outcomes from the board information assessments uncovered that the liquidity proportion and dissolvability proportion, and the turnover proportion and dissolvability proportion are found to essentially affect the productivity of chosen public area and confidential area banks, individually, bearing declaration to the way that benefit is a component of those proportions. An expanded accentuation has been put on liquidity, dissolvability, functional effectiveness, and productivity among the confidential area banks that have been picked. This is a consequence of the extraordinary competition that exists in the Indian financial industry right now, as well as the strategy changes and functional climate that are at present set up. Nonetheless, the chose private area banks keep on having considerably more noteworthy productivity, liquidity, dissolvability, and great capital sufficiency proportions than most of the chose public area banks, which have seen a critical improvement in their resource turnover proportion and net revenues by and large. Eminently, the Indian financial framework, especially open area banks, is defied with the most troublesome test, which is the developing measure of non-performing resources (NPAs). This challenge should be handled in a proper way. Furthermore, there ought to be an expansion in the quantity of Obligation Recuperation Councils (DRTs), and there ought to be definitely no credit exceptions gave for any reason. Furthermore, the execution of the unique approach measures is expected to work on the functional productivity of the chose public area banks to unite the immense number of branches that are either unrewarding or create misfortunes. It is important to carry out essential developments to gain an upper hand to supplant branches that have low efficiency and inordinate labor, as well as old conventional strategies for activity. To build their benefit, it is suggested that the public area banks make the expected moves to work on their liquidity and dissolvability circumstance. With regards to expanding their benefits, confidential banks ought to attempt to build their turnover and fortify their dissolvability position.

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