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Determination of Profitability and Liquidity Analysis of Banking Industry in India

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Abstract

The banking industry has a key function in the public sector, and the majority of people profit from it. It also plays a significant role in global commerce. This study focuses on the financial performance of selected commercial banks, including Bank of Baroda, Bank of India, Bank of Maharashtra, Canara Bank, Central Bank of India, Indian Bank, Indian Overseas Bank, Punjab & Sind Bank, Punjab National Bank, and State Bank of India. Secondary data is acquired from the bank's balance sheets and websites. The following financial ratios were employed in this study: net profit margin, return on assets, return on net worth, and return on long-term funds, current ratio, and quick ratio. To investigate the financial performance of selected banks and organisations that demonstrate strong profitability and liquidity maintenance.

Keywords: Commercial Bank, Profitability, Liquidity, Financial performance

Introduction

The terms "banking fundamentals" refer to the ideas and guidelines that govern the activity of the banking. Credit facilities, cash storage, investments, and any other financial operations are all handled by the banking sector. Since the banking sector distributes the money to borrowers who make profitable investments, it is one of the main engines of most economies.

In addition to handling the deposits and withdrawals, banks also deal in currency exchange, forex trading, and wealth management. Additionally, they serve as a middleman between depositors and borrowers, utilizing the money that clients to deposit to offer credit facilities to those who wish to borrow.

Banks generate revenue by the levying an interest rate on loans, which allows them to charge a higher interest rate than what they have to pay on deposits from customers. They must, however, abide by the rules of the established by the national government or central bank.

The Federal Reserve oversees bank regulations in the US. Banks can lend out the remaining 90% of the deposits, but they must hold onto at least 10% of each one in reserve. The Reserve Bank of India (RBI) claims that the banking industry in India is adequately to capitalized and subject to strict regulations.The nation has significantly better financial and the economic circumstances than any other nation on the planet.Studies on credit, market, and the liquidity risk indicate that Indian banks have fared well during the global financial crisis and are generally robust. Through a number of initiatives, including the Pradhan Mantri Jan Dhan Yojana and Post Payment Banks, India has also

concentrated on expanding the reach of the banking systemin recent years.
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Objectives of this study

- To analyze the financial performance of selected Commercial Banks in India.
- To know about the Banking sector performance in India.

Methodology:

Research Methodology

In this study focused on Secondary data's, they are data's collected from balance sheets, journals, websites and there are 10 banking firms selected in this study they are

S.No	Name of the Bank
1	Bank of Baroda
2	Bank of India
3	Bank of Maharashtra
4	Canara Bank
5	Central Bank of India
6	Indian Bank
7	Indian Overseas Bank
8	Punjab & Sind Bank
9	Punjab National Bank
10	State Bank of India

Financial Ratios used in this study are Net Profit Margin, Return on Assets, Return on Net Worth,Return on Long Term Fund, Current Ratio, and Quick Ratio.

Review of Literature

Güven Sayilgan, Onur Yildirim (2009) The authors using monthly data and the aggregate balance sheet of the banks, the multi-variable single-equation regression method was used in this article to investigate that the factors that determine return on assets (ROA) and return on equity (ROE) for the Turkish banks over the 2002–2007 period. The results of the regression show that the ratio of equity to total assets, the ratio of budget balance to the industrial production index, andthe first difference of the ratio off-balance sheet transactions to total assets all have a statistically significant of the positive impact on profitability indicators, while the consumer price index inflation and the ratio of budget balance to total assets have a statistically significant negative impact.

Mustafa Tevfik Kartal (2021) Author discovers this tendency raises to concerns about bank credit availability being restricted. As such, TBS's profitability level is significant. To maintain the stability in profitability, it is important to identify the factors that have an impact on it first. 11 explanatory variables, quarterly data, and the Multivariate Adaptive Regression Splines (MARS) approach are utilized in this context from 2006 to 2018. The nonperforming loans (NPL)/total credits, capital, net earnings, total assets, and the USD/TL foreign exchange rate (FER) are foundto have an impact on the profitability of the Turkish banking industry. Regulatory bodies should take the necessary actions to maintain a steady the net profit and boost the sector's profitability above its existing level. As a result, banks may be able to offer economic growth.

Sanderson Abel Pierre Le Roux (2016) the goal of the study was to identify the factors that influenced the Zimbabwe's banking sector's profitability from 2009 to 2014. With Zimbabwe's adoption of a multicurrency system, the study focused on the evolution and the factors of profitability in the banking sector. The study, which makes use of fixed effects panel regression models, demonstrates that the quality of the decisions made by bank management regarding capital size, expense management, asset composition and management, credit risk, and the liquidity risk determines the profitability of the banking system in Zimbabwe. The findings suggest that to raising asset quality, enhancing capital levels, expense control, and the liquidity can all boost theprofitability of the banking industry in Zimbabwe. The study attests to the fact that bank managers

Mehmet Sabri TOPAK, Nimet Hülya TALU (2016) the author stated that ROA and ROE are positively impacted by the ratios of net fees and the commissions to total expenses and interest onloans to interest on deposits. It has been discovered that there is a negative correlation between theprofitability and the size, as shown by the natural logarithm of total assets, and the ratio of other operating expenses to total operating income. Although it has been determined that the ratio of thelong-term subordinated loans and equity to total assets does not significantly explain ROE, it doespositively affect ROA. The ratio of other expenses to total operating the income has been determined to negatively affect ROA and ROE in each of the 12 banks, based on the results for individual institutions.

Fadi Mashharawi, Khaled Al-Zu'bi (2009) this study looks at the factors that has affected the Jordanian bank's profitability between 1992 and 2006. Ten Jordanian banks are included in the sample of the data set. There are three types of explanatory variables that are used: macroeconomicfactors, variables specific to banks, and variables related to financial structures. The most significant elements influencing a bank's profitability, according to the results of the pooled data regression under ordinary least square (OLS) and to seemingly unrelated regression (SUR), are the overhead ratio (OVERHD), relative size (RSIZE), concentration ratio (CR3), and the economic growth (GRTH). As a result, banks must be better control and keep an eye on their overhead costs.Additionally, minor banks should work to become more the competitive in order to counter largebanks' concentration.

Analysis and Interpretation

To analyze Mean and Standard Deviation of Net Profit Margin

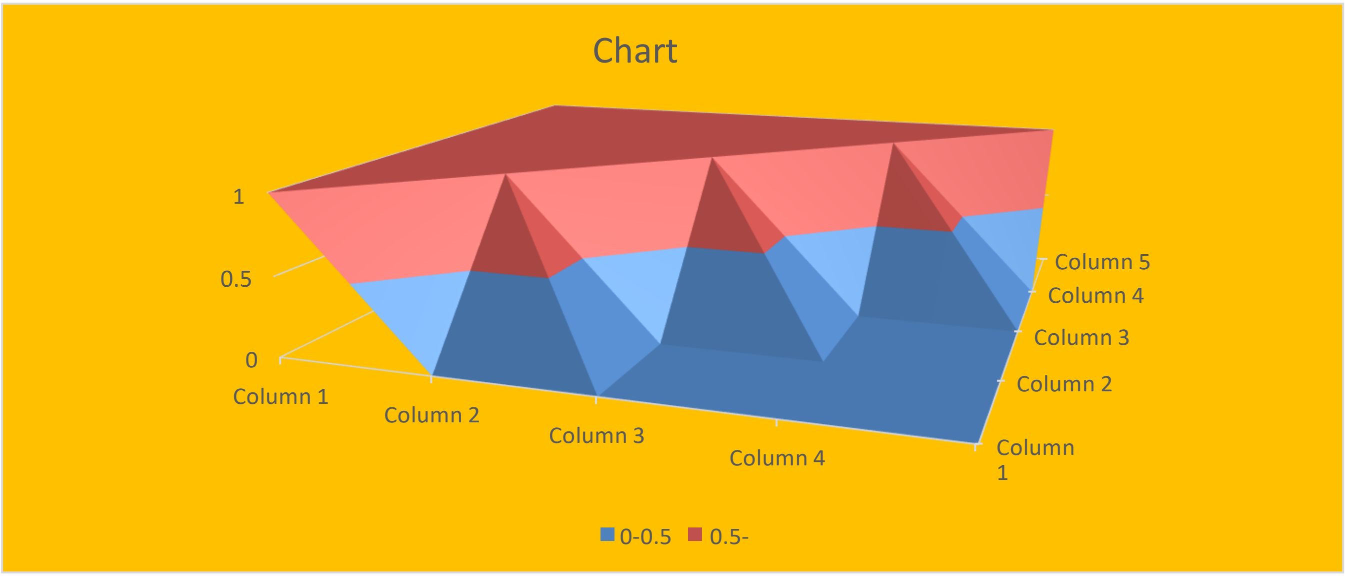
Net Profit Margin

Name of the Bank	2023	2022	2021	2020	2019	Mean	Standard Deviation
Bank of Baroda	15.74	10.4	1.17	0.71	0.87	5.778	6.921182702
Bank of India	8.44	8.94	5.32	-6.98	-13.6	0.424	10.15186091
Bank of Maharashtra	16.36	8.84	4.63	3.38	-44.09	-2.176	23.97347347
Canara Bank	12.56	8.18	3.69	-4.56	0.74	4.122	6.608117735
Central Bank of India	6.19	4.58	-3.9	-4.75	-24.91	-4.558	12.38644703
Indian Bank	11.75	10.15	7.68	3.51	1.67	6.952	4.287332504
Indian Overseas Bank	10.81	10.21	4.9	-48.99	-21.2	-8.854	25.99328625
Punjab & Sind Bank	16.42	14.64	-39.18	-12.49	-6.35	-5.392	22.74847621
Punjab National Bank	2.94	4.61	2.5	0.62	-19.44	-1.754	9.988257105
State Bank of India	15.12	7.69	5.63	0.35	-2.96	5.166	6.980217045

Correlation analysis of Net Profit Margin

	Column 1	*Column 2*	*Column 3*	*Column 4*	*Column 5*
Column 1	1				
Column 2	0.99999	1			
Column 3	0.9997	0.9997	1		
Column 4	0.99969	0.99966	0.99953	1	
Column 5	0.99975	0.99976	0.99946	0.99952	1

Graph showing Net Profit Margin



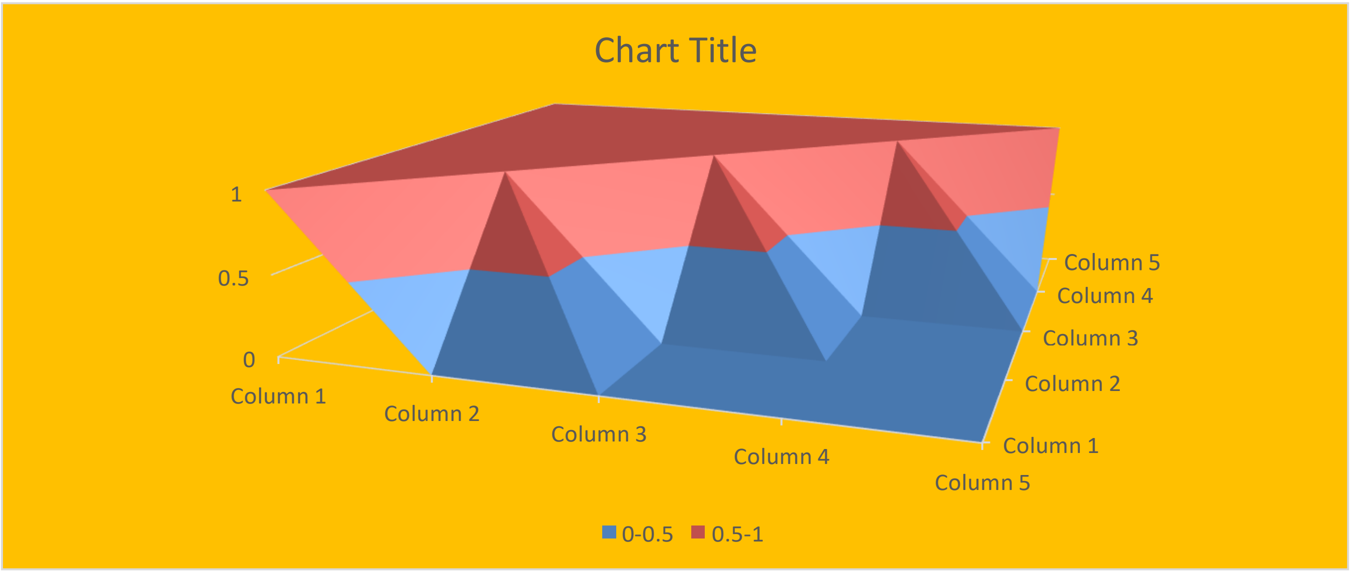
To analyze Mean and Standard Deviation of Return on Long Term Fund

Name of the Bank	2023	2022	2021	2020	2019	Mean	Standard Deviation
Bank of Baroda	69.18	54.29	61.31	65.03	69.62	63.886	12.7772
Bank of India	64.52	61.36	74.97	68.77	69.84	67.892	13.5784
Bank of Maharashtra	82.09	72.59	74.83	73.29	45.5	69.66	13.932
Canara Bank	101.55	90.24	96.6	103.32	100.92	98.526	19.7052
Central Bank of India	64.81	63.12	73.47	81.35	40.64	64.678	12.9356
Indian Bank	73.16	67.55	104.18	79.42	76.41	80.144	16.0288
Indian Overseas Bank	52.42	53.03	70.26	23.26	39.06	47.606	9.5212
Punjab & Sind Bank	41.91	40.19	16.9	79.2	95.06	54.652	10.9304
Punjab National Bank	60.1	57.1	64.19	64.41	45.64	58.288	11.6576
State Bank of India	84.86	79.02	88.37	79.55	66.97	79.754	15.9508

Correlation analysis of Return on Long Term Fund

	Column 1	*Column 2*	*Column 3*	*Column 4*	*Column 5*
Column 1	1				
Column 2	0.99997	1			
Column 3	0.99969	0.99972	1		
Column 4	0.99962	0.99962	0.999	1	
Column 5	0.99924	0.99925	0.99854	0.99956	1

Graph showing Return on Long Term Fund



To analyze Mean and Standard Deviation of Return on Net Worth

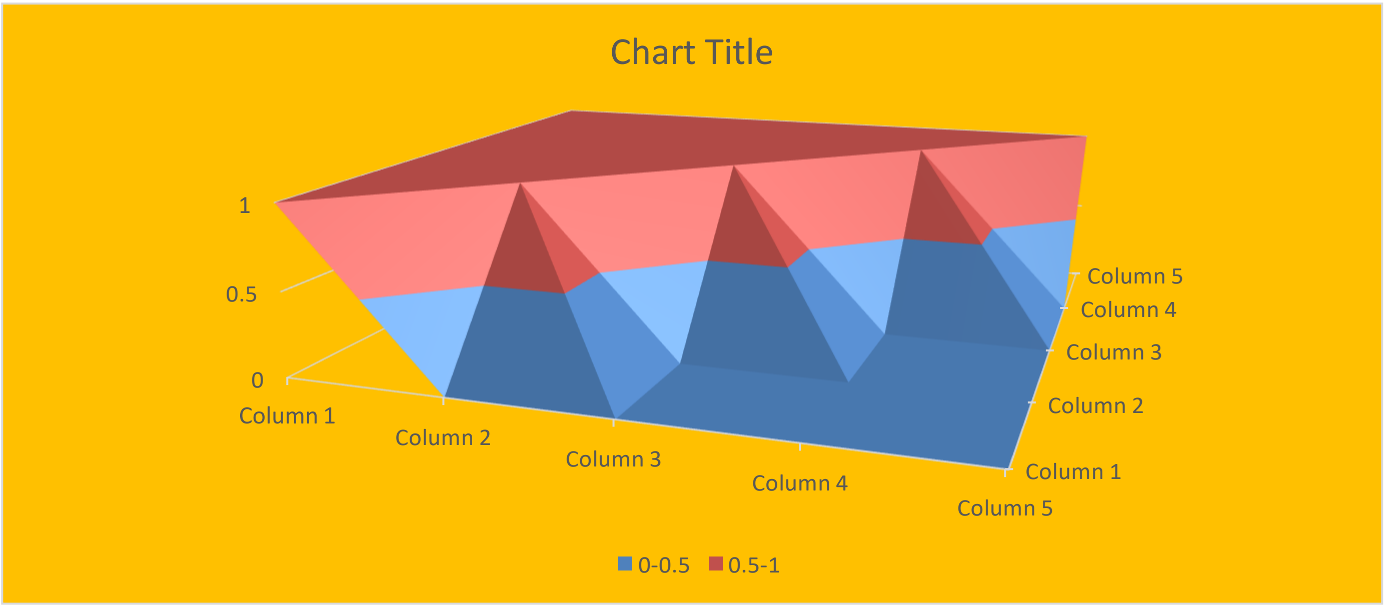
Name of the Bank	2023	2022	2021	2020	2019	Mean	Standard Deviation
Bank of Baroda	4.36	8.46	1.07	0.76	0.94	3.118	3.338325928
Bank of India	7.72	7.06	5.47	-7.88	-15.66	-0.658	10.54191728

Bank of Maharashtra	18.4	9.35	5.02	4.09	-109.56	-14.54	53.41873875
Canara Bank	16.03	9.85	5.05	-6.78	1.16	5.062	8.641190312
Central Bank of India	6.21	4.38	-4.95	-6.07	-29.79	-6.044	14.35174484
Indian Bank	12.61	10.52	11.88	3.94	1.97	8.184	4.881908438
Indian Overseas Bank	8.3	7.43	4.9	-52.78	-22.84	-10.998	26.69606188
Punjab & Sind Bank	8.69	7.41	-32.67	-17.7	-9.53	-8.76	17.45118907
Punjab National Bank	2.74	3.9	2.41	0.58	-24.2	-2.914	11.95873237
State Bank of India	16.75	8.86	6.95	0.43	-3.37	5.924	7.801242209

Correlation analysis of Return on Net Worth

	Column 1	*Column 2*	*Column 3*	*Column 4*	*Column 5*
Column 1	1				
Column 2	0.99998	1			
Column 3	0.99982	0.99983	1		
Column 4	0.99966	0.99966	0.99957	1	
Column 5	0.99852	0.9987	0.99844	0.99821	1

Graph showing Return on Net Worth



To analyze Mean and Standard Deviation of Return on Assets

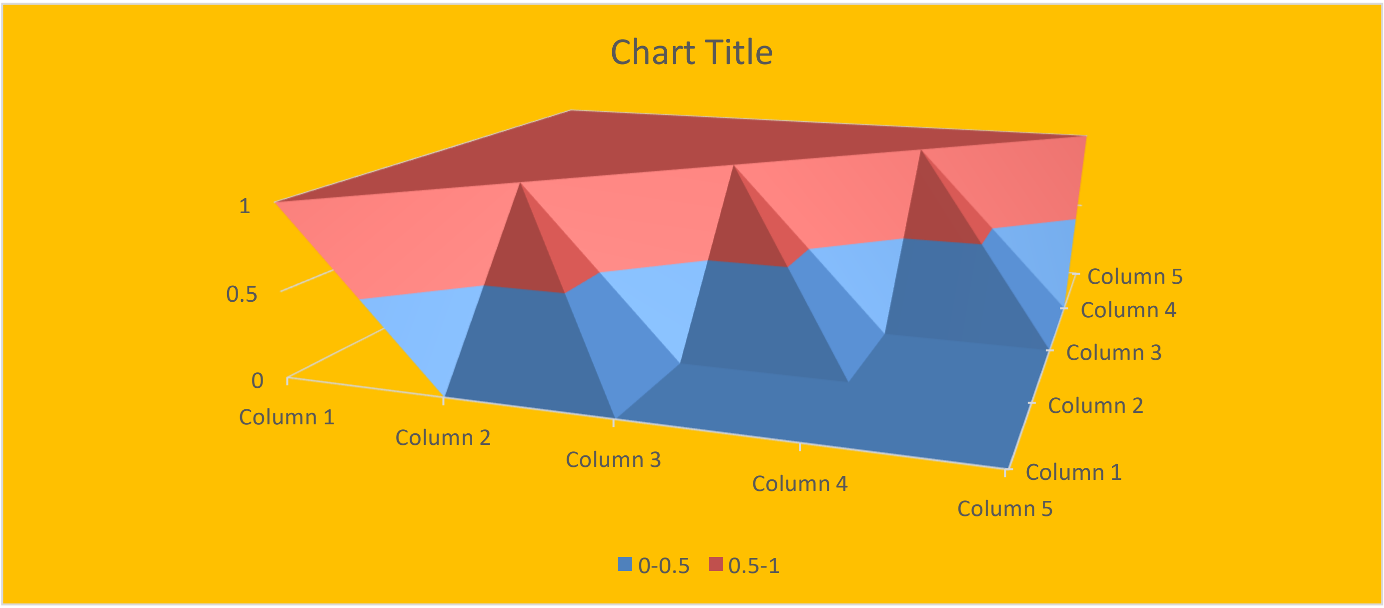
Name of the Bank	2023	2022	2021	2020	2019	Mean	Standard Deviation
Bank of Baroda	189.94	166.13	148.99	155.51	173.66	166.846	16.02823852
Bank of India	126.9	117.47	120.34	114.42	128.32	121.49	5.987169615
Bank of Maharashtra	21.01	18.29	16.71	16.3	15.86	17.634	2.098101523
Canara Bank	364.54	317.54	307.28	319.93	394.68	340.794	37.3055516
Central Bank of India	29.33	27.43	30.49	32.34	46.79	33.276	7.762292187
Indian Bank	336.15	301.08	223.91	313.76	339.24	302.828	46.86897769

Indian Overseas Bank	13.36	12.17	10.31	9.83	17.9	12.714	3.228951842
Punjab & Sind Bank	8.69	7.41	-32.67	-17.7	-9.53	-8.76	17.45118907
Punjab National Bank	83.01	80.32	79.92	85.49	89.5	83.648	3.969240482
State Bank of India	335.98	258.05	233.34	219.91	217.69	252.994	49.09033133

Correlation analysis of Return on Assets

	Column 1	*Column 2*	*Column 3*	*Column 4*	*Column 5*
Column 1	1				
Column 2	0.99905	1			
Column 3	0.99748	0.99913	1		
Column 4	0.99827	0.99969	0.99888	1	
Column 5	0.99778	0.99867	0.99766	0.99931	1

Graph showing Return on Assets



To analyze Mean and Standard Deviation of Current Ratio

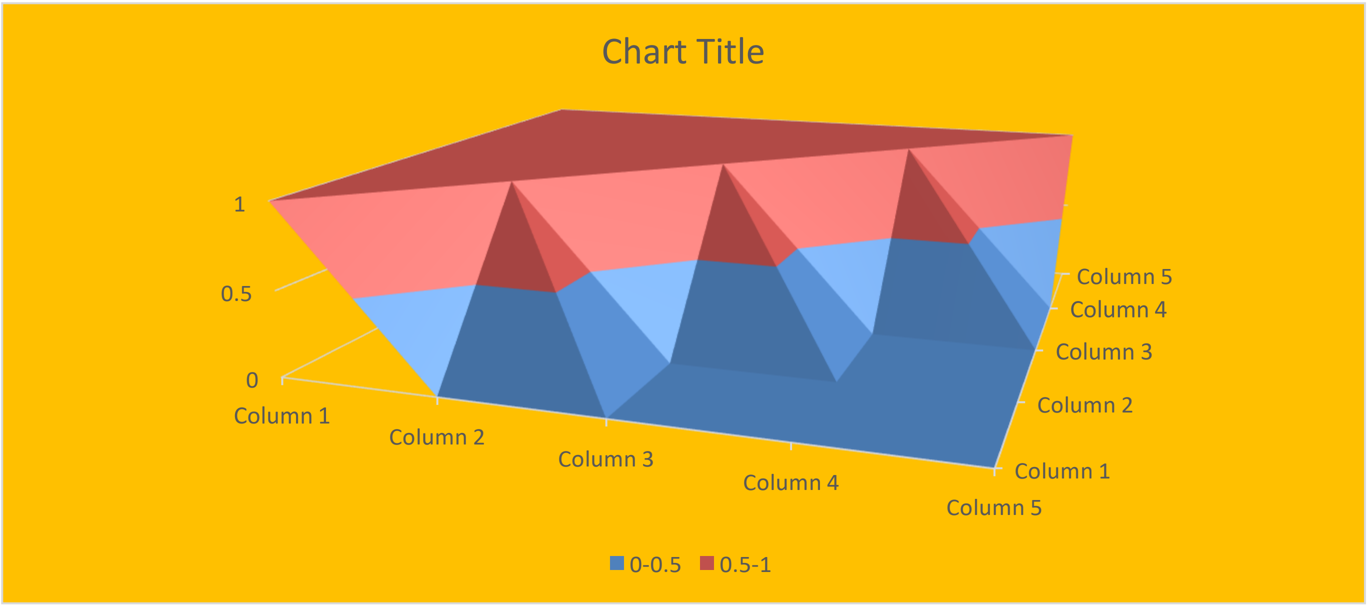
Name of the Bank	2023	2022	2021	2020	2019	Mean	Standard Deviation
Bank of Baroda	0.04	0.05	0.06	0.06	0.05	0.052	0.0083666
Bank of India	0.04	0.06	0.06	0.06	0.06	0.056	0.008944272
Bank of Maharashtra	0.03	0.04	0.06	0.08	0.08	0.058	0.022803509
Canara Bank	0.04	0.04	0.06	0.06	0.06	0.052	0.010954451
Central Bank of India	0.05	0.06	0.06	0.07	0.08	0.064	0.011401754
Indian Bank	0.03	0.03	0.04	0.05	0.04	0.038	0.0083666
Indian Overseas Bank	0.06	0.06	0.07	0.14	0.07	0.08	0.03391165
Punjab & Sind Bank	0.06	0.07	0.08	0.07	0.06	0.068	0.0083666
Punjab National Bank	0.05	0.06	0.06	0.05	0.05	0.054	0.005477226

State Bank of India	0.08	0.09	0.09	0.09	0.08	0.086	0.005477226

Correlation analysis of Current Ratio

	Column 1	*Column 2*	*Column 3*	*Column 4*	*Column 5*
Column 1	1				
Column 2	1	1			
Column 3	1	1	1		
Column 4	1	1	1	1	
Column 5	1	1	1	1	1

Graph showing Current Ratio



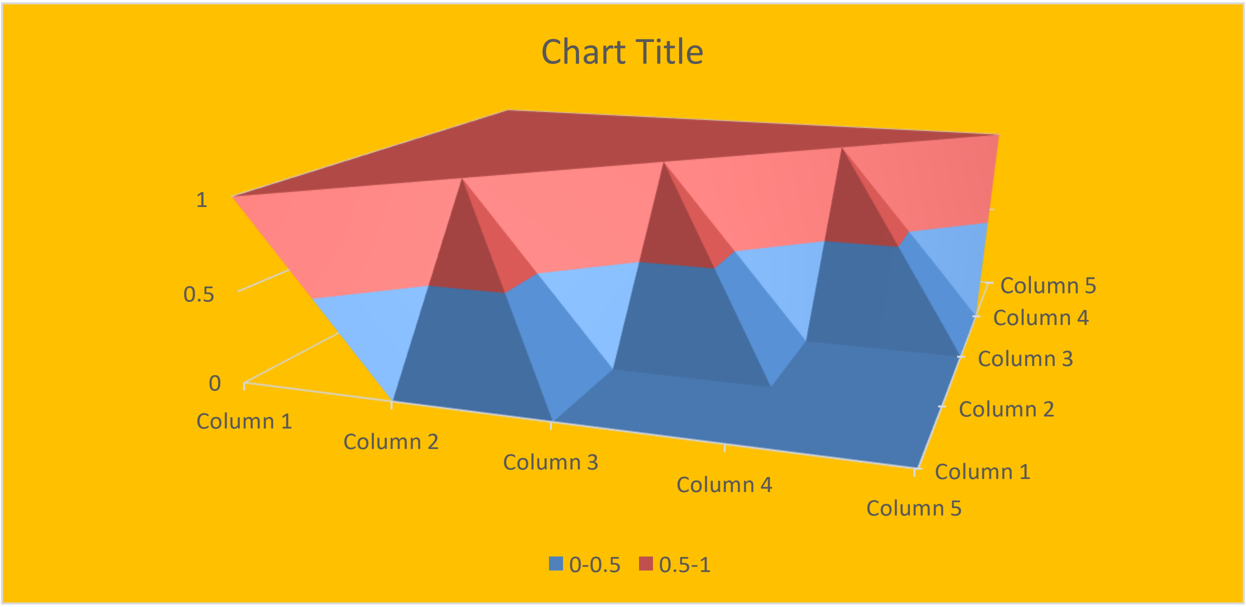
To analyze Mean and Standard Deviation of Quick Ratio

Name of the Bank	2023	2022	2021	2020	2019	Mean	Standard Deviation
Bank of Baroda	19.12	20.94	18.09	16.7	21.94	19.358	2.115353398
Bank of India	25.47	20.1	26.36	24.12	29.21	25.052	3.337869081
Bank of Maharashtra	27.33	23.87	20.17	24.99	12.73	21.818	5.700045614
Canara Bank	6.71	28.51	21.97	29.97	26.78	22.788	9.479315376
Central Bank of India	25.74	25.44	28.72	13.17	29.45	24.504	6.578391141
Indian Bank	25.9	25.21	17.8	34.19	31.38	26.896	6.322193448
Indian Overseas Bank	31.26	15.95	11.98	9.71	32.03	20.186	10.69979579
Punjab & Sind Bank	33.82	31.12	22.49	36.82	39.77	32.804	6.612490454
Punjab National Bank	33.09	31.22	38.46	38.31	35.35	35.286	3.185032182
State Bank of India	14.11	16.56	17.05	18.06	13.83	15.922	1.864824389

Correlation analysis of Quick Ratio

	Column 1	*Column 2*	*Column 3*	*Column 4*	*Column 5*
Column 1	1				
Column 2	0.99989	1			
Column 3	0.99988	0.99996	1		
Column 4	0.99982	0.99995	0.99989	1	
Column 5	0.99991	0.99993	0.99989	0.99987	1

Graph showing Quick Ratio



Interpretation for all the Variables

When analysing Net Profit Margin, Return on Assets, Return on Net Worth, Return on Long TermFund, Current Ratio, and Quick Ratio showing mean and standard deviation of the variables. Only few actors showing negative mean values and others are high value showing. When analyzing correlation for all the variables like Net Profit Margin, Return on Assets, Return on Net Worth, Return on Long Term Fund, Current Ratio, and Quick Ratio there is positive corrective when comparing the other banks and there is no negative correlation in the above analysis. And the graphs represent the correlation values.

Conclusion

Bank profitability is influenced by both bank-specific characteristics and developments in related industries. The empirical research examines three determinants: banking sector concentration, banking sector development, and stock market development. Credit and liquidity risk, management efficiency, business diversity, market concentration, and economic growth all have an impact on bank profits. High profits reduce risk in two ways. Profits tend to accumulate buffers against negative shocks. And the promise of future profits limits banks' risk-taking behaviour because they have more "skin in the game." While bank profitability is vital for financial stability, the source of a bank's profits is extremely important. This study examines the financial performance of selected banks, as well as institutions that demonstrate good performance in terms of profitability and liquidity maintenance.

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