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# Analyzing Long Term Liquidity of Foreign Banks in India

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**Abstract**

Historically, the foreign banks were known as 'exchange banks' as they performed the exchange transactions relating to foreign trade and foreign exchange. These banks have been showing their presence in India since the nineteenth century. In the colonial era, only 3 foreign banks were present in India. By the time of independence, the number of foreign banks in India had increased to 15 with a prominent business share in the banking industry. After financial reforms in the nineties; new foreign banks entered the Indian banking industry. Foreign banks brought with them modern methods of banking, concept of profitability, competition and customer service, technology and global best practices into India. Despite recent changes in banking regulations related to the presence of foreign banks in India, nearly 14 new foreign banks have been granted license over the past decade. The number of foreign banks in India has increased steadily from 26 in 1995 to 44 in 2016. The present research endeavor aims to study the foreign banks in India over the post financial crisis period from 2008-09 to 2016-17. The study attempts to measure and analyze the long-term liquidity position of selected Indian foreign banks; and also compare the performance of these foreign banks on the basis of their long-term liquidity ratio. Three banks were selected for the purpose, namely, Standard Chartered Bank, Citibank and HSBC Bank. These banks were evaluated for their long-term liquidity management by analyzing the behavior of their debt-equity ratios. Across the selected banks, the average debt-equity ratios were found to be greater than 7, which is much higher than the RBI criteria of 3:1. Student's t-test results for comparison of the long-term liquidity position between the foreign banks reveals that the three banks fail to differ significantly in their liquidity performance.

***Keywords:*** Foreign Bank, Liquidity Management, Long Term, Debt Equity Ratio, Standard Chartered Bank, Citibank, HSBC Bank, India

## 1. Introduction

A strong banking system plays an important role towards economic growth and development of a nation. Banking in India has a long history dating back to the 18$^{th}$ century. The banking sector in India has grown over time and undergone major transitions. It has faced major challenges over different phases of time. In 1870s, the banking sector witnessed the closure of several banks; mergers of the earlier presidency banks happened in the pre-independence phase; nationalization of major commercial banks in 1969; bank consolidation and computerization in the 1980s; economic and financial reforms in the 1990s followed by deregulation of interest rates and bank liberalization; era of digitalization by the end of 2000s; and now the phase of bank recapitalization driven by rising bad debts. Banking in India has traversed a long journey. It has moved on from traditional methods of banking to newer modern methods of banking with the economy going cashless. Today, people have shifted from cash to card banking; alternative channels of banking have become the highlights as masses adopt the new technology, e-banking and digital platforms.

The Indian banking system consists of scheduled and non-scheduled commercial banks. The scheduled commercial banks comprised of 27 public sector banks, 21 private sector banks, 44 foreign banks and 56 regional rural banks in 2016. Scheduled commercial banks are the oldest, largest and fastest growing financial intermediaries in India. They play a crucial role in providing financial services like deposit mobilization, credit deployment, investment services, merchant services, and fulfillment of social goals. An integral segment of the financial system, these banks have wide geographical coverage with a vast network of bank branches catering to urban as well as medium and rural sections of the national economy.

Foreign banks have been showing their presence in India since the nineteenth century. In the colonial era, only 3 foreign banks were present in India with

deposits worth 5.2 million as in 1870. Historically, the foreign banks were known as 'exchange banks' as they performed the exchange transactions relating to foreign trade and foreign exchange. Foreign banks were mainly focused on facilitating international trade between their country and the host country. By the time of independence, the number of foreign banks in India had increased to 15 with a prominent business share in the banking industry. The foreign banks held a ratio of around 14% deposits of the total banking sector deposits; and a 17% share in total credit of the banking industry.

After reforms in the nineties; the atmosphere of liberalization, privatization and globalization encouraged the entry of new foreign banks which wanted to operate or open branches in India. Foreign banks entered India for several reasons and opportunities. India's GDP has been growing at a robust pace of around 7%. The credit of banks has been rising over the past decade. RBI adopted a liberal approach of branch licensing policy for foreign banks looking to expand into the unbanked areas. These are some attractive motives throwing up lucrative business opportunities for the profit oriented foreign banks. The recession and downfall in the world's developed markets is yet another reason why foreign banks tend to look out for Asian markets. India offered higher marginal returns as compared to some of the developed economies since India's financial market has been less volatile growing at a steady rate. This has further attracted foreign banks to start their operations in India.

In addition to traditional banking, foreign banks brought with it varied financial services benefitting the commerce and industry in the country. It enabled the availability of a wide choice of financial instruments to its customers in tune with the demands of modern-age banking. Foreign banks also brought along the modern methods of banking, concept of profitability, competition and customer service, technology and global best practices into India. The fruits of which are shared by the foreign banks and other stakeholders in the banking sector and economy as well.

In 2005, the RBI issued new regulations for foreign banks that directed them to operate as wholly owned subsidiary in India. The recommendations were designed to bring the wholly owned subsidiary of foreign banks at par with Indian domestic banks. However, there has been a lot of speculation on these guidelines. There are views suggesting accrual of benefits to foreign banks through the new guidelines while many dread a loss of working style, flexibility in operations, and future tax implications that may adversely affect the foreign banks. Still, India has granted license to nearly 14 new foreign banks over the past decade. Economic reforms and liberalization in the financial sector has surged the inflow of foreign direct investment in the banking sector. The number of foreign banks in India has increased steadily from 26 in 1995 to 44 in 2016.

Against this backdrop, the present research endeavor aims to study the foreign banks in India over the post financial crisis period. The objective of the study is to examine the long-term liquidity management of foreign banks in India. The study attempts to measure and analyze the long-term liquidity position of selected Indian foreign banks; and also compare the performance of the selected foreign banks on the basis of their long-term liquidity ratio.

The study is divided into six sections. *Section 1* is the present section on introduction of the study. *Section 2* presents a snapshot of the existing foreign banks in India. *Section 3* reviews the literature related to the subject. *Section 4* discusses the research methodology adopted in the study. *Section 5* reports the estimated results and analysis. The last *section 6* concludes the study.

## 2. Foreign Banks in India: A Snapshot

| Indicators | 2005 | 2008 | 2016 |
|---|---|---|---|
| Number of Foreign Banks | 29 | 31 | 44 |
| Number of Operating Offices | 265 | 302 | 301 |
| Number of Employees | 13232 | 29582 | 24817 |
| Return on Assets (%) | 1.1 | 1.03 | 1.62 |
| Return on Equity (%) | 11.97 | 18.05 | 9.12 |
| Credit-Deposit Ratio (%) | 68.01 | 72.17 | 71.39 |
| Gross NPAs to Gross Advances (%) | 2.12 | 4.37 | 3.96 |
| Priority Sector Lending to Total Advances (%) | 36.18 | 30.87 | 28.93 |

Economic liberalization in the early nineties and the subsequent opening up of the banking sector resulted in increased competition and transformation of the sector. Since then, the Indian banking sector has seen unprecedented growth. A brief overview of the foreign bank group in India shows how these banks have moved ahead with time. The number of foreign banks escalated from mere 29 in 2005 to 44 in 2016 alongside an increase in the number of operating offices. Employment generated by foreign banks nearly doubled between 2005 and 2016. The return on assets and credit-deposit ratio remained fairly stable while return on equity witnessed major fluctuations. Indian foreign banks have been able to maintain their NPAs at relatively lower levels in

the current times of crisis and rising bad debts faced by the domestic banks.

## 3. Review of Literature

Sabi (1996) tried to compare the performance of banks during the process of transition into a market oriented economy in Hungary. Student's t-test and Kruskal-Wallis test was applied to various ratios of foreign banks and domestic banks for the period 1992 and 1993. The study concluded that foreign banks were more profitable and unexposed to credit or liquidity risks as compared to domestic banks.

Bhattacharya, Lovell and Sahay (1997) examined the productive efficiency of 70 commercial banks in India for the period 1986 to 1991. Stochastic frontier approach was used to analyze the efficiency level. The study reported that state owned banks were more efficient as compared to privately owned banks in terms of utilizing their resources in delivering financial services to their customers. It was found that foreign banks show only temporal improvement in their performance.

Bashir (2001) examined the performance determinants of Islamic banks across eight Middle Eastern countries for the period 1993 to 1998. Cross country bank-level data were compiled for 14 Islamic banks. Regression analysis was used to identify the determinants of performance; and various ratios were also used as an internal measure. The results indicated that foreign owned banks were more profitable as compared to domestic banks.

Chandan and Rajput (2002) evaluated the performance of public sector, private sector and foreign banks in India on the basis of their profitability. Factors determining profitability of banks were analyzed using multiple regression technique. The study revealed that net interest income is an important source of income for banks, and public sector banks lag behind foreign banks as well as private sector banks in India in their profitability position.

Bhaumik and Dimova (2004) analyzed the impact of competition and ownership on performance of banks in India for the period 1995 to 2001. Regression analysis was used to assess the measures of profitability and efficiency of public sector, private sector and foreign banks. It was found that foreign banks and private sector banks performed better in the initial phase as against the public sector banks. However, after 1998, ownership and competition failed to show significant effect on bank's performance.

De Haas and Lelyveld (2006) tried to explore whether foreign banks and domestic banks in Central and Eastern Europe react differently to apprehensions in the economy and more specifically to that in the banking sector. Panel database was used for 250 banks for the period 1993-2000 and regression analysis was carried out to study the difference between domestic banks and foreign banks with regard to their credit behavior. It was found that during the crisis period, domestic banks majorly concentrated on their credit base while foreign banks were not worried about their credit base. The study also found that credit growth of foreign banks gets influenced by the health of their parent bank.

Lensink, Meesters and Naaborg (2008) investigated whether the efficiency of foreign banks depends upon the institutional quality of host country and institutional difference between host and home country for the period 1998 to 2003. Stochastic frontier analysis was used on the sample of 2095 commercial banks from 105 countries. The extensive study revealed that foreign ownership negatively affected bank efficiency. The study also found that higher similarities in institutional quality between home country and host country reduce inefficiency in foreign banks.

Rakhe (2010) assessed the financial performance of foreign banks in India with that of other bank groups. The study used different financial ratios and panel data regression analysis for examining determinants of profitability for the period 2002-03 to 2008-09. In total, 59 scheduled commercial banks were analyzed which included 26 public sector banks, 19 private sector banks and 14 foreign banks. It was found that foreign banks had low cost funds, adequate income to finance their operating expenses, and diversify their income, which lead to higher profits. Results indicate that efficiency of fund management was the most important factor determining profitability of banking sector.

Matthew and Esther (2012) tried to compare the performance of foreign banks with that of local banks in Ghana for the period 2005 to 2010. Ratios for the parameters like asset quality, management efficiency, earning performance, capital adequacy, liquidity and bank size were used to analyze and compare the performance of banks. The results revealed that local banks performed better in terms of return on assets, return on equity and management efficiency; while foreign banks performed well on other parameters as capital adequacy, asset quality, earning efficiency, liquidity, and were larger in terms of bank size too.

Ongore and Kusa (2013) examined the effect of ownership structure on bank performance in Kenya. The study examined 13 foreign banks and 24 domestic banks for the period 2001 to 2010. CAMEL analysis and multiple regression models were carried out on panel data to estimate the performance determinants of commercial banks.

The study concluded that financial performance of Kenyan banks was majorly driven by management decisions while macroeconomic factors had an insignificant role to play.

Sharma and Singhal (2016) attempted to analyze the financial performance of foreign banks in India for the period 2008 to 2013. Ratios like business per employee, profit per employee, capital adequacy ratio, return on asset, return on equity, net NPA ratio, and other important financial parameters were examined for foreign banks. It was found that foreign banks had covered a large customer base because of their efficient working style and excellent customer service.

Vinila (2016) studied the history, origin and growth of foreign banks in India since the colonial era. The growth performance of foreign banks was measured in terms of deposits and credit. It was concluded that foreign banks had achieved considerable growth in terms of parameters like deposits and credit but their relative share in total deposits and credit in the banking industry had reduced over time.

Nabeel and Hussain (2017) examined the effects of liquidity management on profitability of banking sector in Pakistan. The study analyzed ten banks for the period 2006 to 2015 using correlation, regression, and descriptive statistics. Ratios were used to analyze the effects of liquidity on profitability. The findings of the study reveal that quick ratio, capital adequacy ratio and interest coverage ratio had positive effects on profitability. The cash ratio and current ratio had negative effects on banks' profitability in Pakistan.

## 4. Research Methodology

The research methodology of the study briefly covers the variable description and statistical method used for analysis, selection of foreign banks, overview of the selected foreign banks, time period of the study and sources of data.

## Variable Description and Statistical Method

The study examines the long-term liquidity position of foreign banks in India over the post financial crisis period. The liquidity of foreign banks is evaluated on the basis of their long-term liquidity ratio. Debt-equity ratio of foreign banks has been worked out for measuring long-term liquidity. The debt-equity ratio has been calculated by expressing Total Liabilities of Banks as a ratio of Share Holder's Funds. The behavior and pattern of long-term liquidity ratio for foreign banks has been analyzed on the basis of their Mean and CAGR values. Also, Student's t-test has been used to for a comparison of the long-term liquidity performance between selected foreign banks. The t-test has been carried out for the average values of long-term liquidity ratios (debt-equity ratio) for foreign banks.

## Selection of Foreign Banks

The study on long-term liquidity management of foreign banks is focused on case study of three individual foreign banks. The three foreign banks have been selected on the basis of the extent of their branch network in India. Standard Chartered Bank is currently the largest foreign bank in India with 100 branch outlets spread across the country. The second largest bank is Citibank with 35 operational branches in India. The Hongkong and Shanghai Banking Corporation Limited (HSBC) is the third largest bank in terms of its Indian branch outlets with 26 branches operating in the country. The three foreign banks – Standard Chartered Bank, Citibank and HSBC Bank are taken for further analysis of bank's long-term liquidity position, as these are the top three foreign banks in terms of branch expansion in India.

## About the Selected Foreign Banks

Foreign banks in India today, such as Standard Chartered Bank and HSBC, found their roots in financing the growing trade between Asia and the rest of the world. The Indian banking sector is well regulated and offers considerable access and scope for business and growth to foreign banks in the country. The three selected foreign banks for the study, with the largest branch network in India today, have a history as old or even earlier to the colonial era in the country.

### Standard Chartered Bank

The origin of Standard Chartered Bank can be traced to Africa. With a history of over 160 years, Standard Chartered is a leading international banking group in some of the world's most dynamic markets showing its existence in 62 countries and territories. It has a network of over 1,000 branches and around 3,000 ATMs. The bank has absorbed more than 86,000 employees and a presence in 60 markets, their network serves customers in nearly 150 markets worldwide. It is among the top 100 companies to be listed on the London Stock Exchange.

Standard Chartered Bank has been operating in India since 1858 as the Standard Bank of British South Africa. The birth of Standard Chartered Bank in India is linked to the merging of Standard Bank of British South Africa and Chartered Bank of India, Australia and China in 1969. Standard Chartered Bank is India's largest international bank with 100 branches covering 43 cities. Presently

headquartered in London, United Kingdom; Standard Chartered Bank concentrates on business segments as corporate and Institutional banking, commercial and private banking, retail banking, as well as treasury services. In 2017, it has been awarded as the Best Private Bank - India Domestic at the Asian Private Banker Awards for Distinction.

**Citibank**

Citibank was established in the year 1812 as City Bank of New York. Later, it became the first National City Bank of New York. The bank has over 2600 branches operating in 19 countries. It is a global brand in banking with a client base that runs close to hundreds of millions.

Almost a century ago, Citi began its operations in India in 1902 in Kolkata. Today, it is a significant foreign investor in the Indian financial market. Citi India helped lay the foundation of the Indian software industry by establishing Citicorp Overseas Software Ltd. and Iflex Solutions Ltd. In addition to its primary profile of banking, Citi India has its global network of Citi Service Centres, providing employment opportunities in the areas of technology, processing, analytics and financial processes. The Citibank has 35 branches in 19 major Indian cities and an ATM network of over 500 ATMs. It has an employee base of over 12,000. Citibank offers a broad range of financial services like consumer banking, corporate banking, investment banking, wealth management, and securities brokerage. It has to its credit the launch of first Smart Banking Branch in India.

**HSBC Bank**

Hongkong and Shanghai Banking Corporation Limited in India had its origin in 1853 with the establishment of the Mercantile Bank of India in Mumbai. In 1950, the bank set up its head office in Mumbai at Flora Fountain building. In 1959, the Mercantile Bank was bought by The Hongkong and Shanghai Banking Corporation Limited. Since then, the bank has grown steadily. It is one of the world's largest organization offering banking and financial services. It serves more than 38 million clients, 66 countries and territories in Europe, Asia, the Middle East and Africa, North America and Latin America.

Headquartered in London, United Kingdom; the HSBC Limited in India shows its presence in 26 branches across 14 cities. HSBC is one of India's leading financial services groups, with over 36,000 employees in its banking, investment banking and capital markets, asset management, insurance, software development and global resourcing operations in the country. Nearly 6% of India's trade passes through HSBC. HSBC in India has played an active role in the development of the Indian banking industry, giving India its first ATM in 1987.

## Time Period and Sources of Data

The global financial crisis wreaked the world economy in 2007. The larger part of the world including developed economies could not sustain the worst impacts of the financial crisis and slipped into severe recession. However, India stood strong in the face of the crisis. The classic inbuilt characteristic of resilience of the Indian economy parallel with prudent fiscal actions by the government enabled India to reverse its economic slowdown and remain largely unaffected by the global crisis. Hence, the study carries out analysis of the long-term liquidity management by foreign banks for the post financial crisis period from 2008-09 to 2016-17. The data for the study have been obtained from various issues of RBI publications such as Statistical Tables Relating to Banks in India, Handbook of Statistics on Indian Economy, Prowess IQ, and Annual Reports of banks.

## 5. Estimated Results and Analysis

The results estimated for assessing long-term liquidity management by foreign banks are reported in two sub-sections. The results for long-term liquidity position of foreign banks as measured by debt-equity ratio have been presented in section 5.1. The position of selected foreign banks in terms of their long-term liquidity performance as determined by student's t-test is reported in section 5.2. The estimated results have been discussed in the respective section.

### 5.1 Long-Term Liquidity of Foreign Banks: *Debt-Equity Ratio*

Debt-equity ratios have been computed for measuring long-term liquidity position of the three selected foreign banks – Standard Chartered Bank, Citibank and HSBC Bank for the period 2008-09 to 2016-17. Debt-Equity ratio has been estimated by expressing total liabilities of the bank to shareholder's fund. Mean and CAGR for debt-equity ratio of foreign banks have been presented as graphs in figures 1 and 2.

The debt-equity ratio is a financial leverage ratio that compares a firm's total liabilities to its shareholder equity. High debt-equity ratio is an indication of high borrowings in relation to firm's own funds. However, it affects the viability of the enterprise as higher borrowings means higher costs and lower operating margins. In general, a high debt-equity ratio signifies that a company may not be able to generate enough cash to satisfy its debt obligations in the long-run. However, low

debt-equity ratio may also indicate that a company is not taking advantage of the increased profits that financial leverage may bring. From a risk perspective, lower ratios are considered better debt ratios. Though suitable debt-equity ratio differs from industry to industry; the suggested debt-equity ratio for banks is not more than 3:1 (RBI, 2015).

Table: 1 Long-term Liquidity: Debt-Equity Ratio

(In Million)

| Years | Standard Chartered Bank | Citibank | HSBC Bank |
|---|---|---|---|
| 2008-09 | 10.78 | 9.42 | 8.87 |
| 2009-10 | 8.56 | 7.25 | 7.88 |
| 2010-11 | 8.98 | 7.64 | 7.01 |
| 2011-12 | 9.30 | 8.22 | 7.66 |
| 2012-13 | 6.60 | 7.57 | 7.35 |
| 2013-14 | 6.92 | 7.99 | 8.54 |
| 2014-15 | 5.20 | 7.13 | 8.27 |
| 2015-16 | 5.39 | 7.63 | 7.80 |
| 2016-17 | 5.62 | 6.93 | 6.55 |
| *Mean* | *7.48* | *7.75* | *7.77* |
| *CAGR (%)* | *-7.82* | *-3.77* | *-3.73* |

Table 1 shows long-term liquidity position of the three selected foreign banks in India for the post financial crisis phase. Standard Chartered bank has shown a continuous and sharp decline in its debt-equity ratio falling by almost 50% from 10.8 in 2008-09 to 5.6 in 2016-17. Debt-equity ratio for Standard Chartered bank finally averaged at 7.5. Debt-equity ratio for Citibank has also declined from 9.4 in 2008-09 to 6.9 in 2016-17. Even HSBC bank reports an overall declining trend in its leverage ratios. The highest decline was witnessed in debt-equity ratio for Standard Chartered bank at a CAGR of-7.8%. The leverage position of Standard Chartered bank is better as compared to the other two foreign banks as it depends more on its equity than on debts, minimizing its risks.

**Long-Term Liquidity: Mean and CAGR**

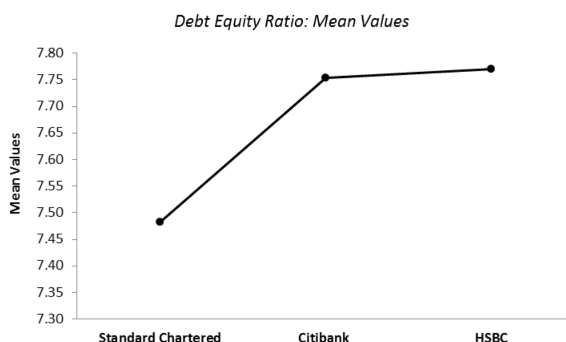


Figure: 1 Debt-Equity Ratio: Mean

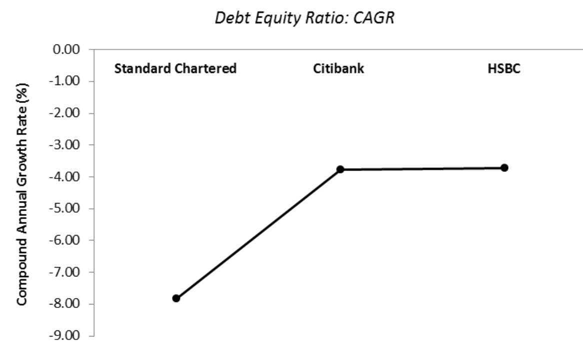


Figure: 2 Debt-Equity Ratio: CAGR

Figure 1 reports mean of debt-equity ratios of the selected foreign banks. Citibank and HSBC bank reveal similar debt-equity averages at 7.7 and 7.8 respectively. Standard Chartered bank has a relatively low debt-equity ratio of 7.5:1. Although the three foreign banks do not hold true to the ideal debt-equity ratio of 3:1 as proposed by RBI, Standard Chartered bank definitely stands better off than the other two banks. All the three foreign banks need to reduce their debt-equity ratios in order to reduce their long-term risks. Figure 2 presents the CAGR in debt-equity ratios of the three foreign banks over the analysis period. Standard Chartered bank exhibits a debt-equity ratio at -7.8% CAGR, followed by a CAGR of -3.7% in debt-equity ratios of Citibank and HSBC bank.

## 5.2 Long-Term Liquidity Management of Selected Foreign Banks: *Student's t-test*

Student's t-test has been used to compare the long-term liquidity performance of the three foreign banks – Standard Chartered Bank, Citibank and HSBC Bank, on the basis of the means of their long-term liquidity ratio or debt-equity ratio. The results of t-test are reported in Table 2.

Table: 2 Comparison of Long-Term Liquidity Management of Selected Foreign Banks: *Student's t-test*

| Foreign Banks | Mean | Testing of Hypothesis | |
|---|---|---|---|
| | | *t-calculated** | *Acceptance/ Rejection of $H_0$* |
| Standard Chartered Bank | 7.48 | -0.38 | Accept $H_0$ |
| Citibank | 7.75 | | |
| Citibank | 7.75 | -0.05 | Accept $H_0$ |
| HSBC Bank | 7.77 | | |
| HSBC Bank | 7.77 | 0.41 | Accept $H_0$ |
| Standard Chartered Bank | 7.48 | | |

**t-tabulated = 2.12 for two-tailed t-test at 5% level of significance*

**Interpretation and Results:**

The null hypothesis ($H_0$) states that there is no significant difference in the long-term liquidity performance between the three foreign banks. The alternative hypothesis ($H_a$) advocates significant difference between the long-term liquidity management of foreign banks. The results for student's t-test have been analyzed at 5% level of significance. The $|t|$ calculated values are compared with't' tabulated values to determine whether there is any significant difference between the means of debt-equity ratio of selected foreign banks, for assessing their liquidity performance. If calculated $|t|$ is greater than tabulated't', $H_0$ is rejected implying there is significant difference between the long-term liquidity performance of selected foreign banks. If calculated $|t|$ is less than tabulated't', $H_0$ will be accepted implying that there is no significant difference between the long-term liquidity management of selected banks.

**Standard Chartered Bank and Citibank:**

The t-calculated value (0.38) is less than t-tabulated value (2.12). Therefore, $H_0$ is accepted. This indicates that there is no significant difference between the long-term liquidity position of Standard Chartered bank and Citibank.

**Citibank and HSBC Bank:**

In this case too; t-calculated (0.05) is lower than t-tabulated (2.12). $H_0$ is accepted, emphasizing the lack of any significant difference in the long-term liquidity performance of Citibank and HSBC bank.

**HSBC Bank and Standard Chartered Bank:**

There is a smaller t-calculated value (0.41) than t-tabulated value (2.12) for this pair of banks. Therefore, $H_0$ is accepted against the alternative hypothesis, implying there is no significant difference between the HSBC bank and Standard Chartered bank in terms of their long-term liquidity positions.

## 6. Conclusion

The present study has examined the long-term liquidity management of selected foreign banks in India for the post financial crisis period from 2008-09 to 2016-17. Three banks were selected for the purpose following the criterion of maximum extent of branch expansion in India. The selected banks, namely, Standard Chartered Bank, Citibank and HSBC Bank were evaluated for their long-term liquidity performance by studying the behavior of their debt-equity ratios. The debt-equity ratios were analyzed on the basis of their mean and CAGR values. The selected banks have also been subjected to student's t-test for comparing their long-term liquidity management capacities to determine whether the individual banks significantly differ from each other.

Across the selected banks, the average debt-equity ratios are > 7 which is much higher than the RBI criteria of 3:1. Although Standard Chartered bank has a high debt-equity ratio of 7.48, it is still relatively lower than that of its competitors. Student's t-test results for comparison of the long-term liquidity position of the foreign banks reveals that the three banks fail to differ significantly in their liquidity performance. The three banks are following similar benchmarks for their long-term liquidity. However, a look at the average of debt-equity ratio of banks suggests that Standard Chartered bank is moderately better in long-term liquidity management, followed by Citibank (7.75) and then HSBC bank (7.77).

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