Treasury Management Efficiency: A Comparative Study of State Bank of India and HDFC Bank

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Abstract

The effectiveness of the treasury management departments of HDFC Bank and State Bank of India (SBI) are compared in this research article. A bank's treasury department oversees the institution's finance, liquidity, risk, and investment operations, among other critical functions. In light of the fact that public sector banks like SBI and private sector banks like HDFC Bank operate under quite different frameworks, the purpose of this research is to compare and contrast the two banks' approaches to treasury management. The study uses a mix of qualitative and quantitative techniques, drawing on information gleaned from interviews with industry experts as well as financial and annual reports. We take a look at certain key performance indicators (KPIs) including liquidity ratios, investment returns, the efficacy of risk management, and overall profitability. The report goes on to assess the tactics used by both financial institutions to deal with the ever-changing regulatory and financial climate.

The results show that due to their different organisational structures, regulatory restrictions, and market positions, SBI and HDFC Bank's treasury management practices couldn't be more different. According to the research, HDFC Bank optimises its treasury operations via innovation, agility, and customer-centric investment strategies, whilst SBI maintains liquidity and stability by using its wide network and governmental assistance. The significance of customised treasury management strategies that correspond with the unique traits and objectives of various banking organisations is highlighted by this comparative study, which offers insightful information for academics, policymakers, and banking professionals. In order to help the banking industry in India remain stable and flourish, the paper finishes with suggestions for improving the efficiency of treasury administration.

Keywords – Liquidity Management, Risk Management, Financial Performance, Investment Strategies, Banking Sector

Introduction

Financial stability and profitability are ensured through the critical function of treasury management, which includes the management of funding, liquidity, risk, and investment activities. To successfully navigate the intricate financial markets, satisfy regulatory requirements, and maximise investment returns, efficient treasury management is essential. The efficiency of treasury management at two of India's most illustrious financial institutions—State Bank of India (SBI) and HDFC Bank—is the subject of this research article.

One of India's most prominent public sector banks, the State Bank of India has been around since 1955 and has a huge impact on the country's economy thanks to its vast network and reputation. In contrast, HDFC Bank has been around since 1994 and is now a frontrunner among private sector banks thanks to its cutting-edge banking solutions and focus on customers. We can learn a lot about treasury management from comparing the approaches taken by public and private sector banks, which have very different operational frameworks.

The purpose of this research is to compare and contrast SBI and HDFC Bank's treasury management approaches. The research aims to offer a comprehensive understanding of how each bank navigates the dynamic financial environment and regulatory landscape by examining key performance indicators such as liquidity ratios, investment returns, risk management effectiveness, and overall profitability.

This study could provide important insights for academics, policymakers, and banking professionals, which is why it is significant. Stakeholders may improve financial performance and help the banking system in India thrive and remain stable by learning about the different ways public and private sector banks handle treasury management.

In this work, the first part is devoted to reviewing the literature on bank treasury management. It summarises previous studies and draws attention to important ideas and conclusions. The methodology section provides an overview of the study's research strategy, data collection procedures, and analysis tools. This study compares and contrasts the treasury management procedures of SBI and HDFC Bank in the results and discussion part. The study concludes with some suggestions on how to improve the efficiency of treasury management based on the findings.

Literature review

According to Affinito (2012), TMPs outline the steps that a company will take to control and direct its treasury management operations so that it may reach its objectives and goals in this area. Daily projections of cash collections, expenditures, and expected closing balances are provided by treasury jurisdiction, which oversees the management of the company's working capital (Adam, Quansah, Kawor, 2017). A company's liquidity and cash on hand are important indicators of its financial health and a key to unlocking capital for investments and expansion (Adam et al., 2017). Dahiyat (2016) lists the following risks associated with treasury risk management: credit, liquidity, interest rate, exchange rate, market, refinancing, operational (including fraud, error, and corruption), and legal and regulatory risks.

Treasury management encompasses a wide range of activities, including monitoring and managing liquidity, managing cash flow, anticipating and responding to short-term needs and surpluses, controlling financial risks, and coordinating with other financial institutions (Bai, Krishnamurthy, Weymuller, 2018). Developing risk management strategies and implementing hedging techniques are the purview of a bank's treasury management division when it comes to foreign exchange transactions and anticipating market interest rate movements. These areas could put the bank at risk in the event of an abrupt worsening of exchange rates (DeAngelo, Stulz, 2015). The treasury department of a bank provides state-of-the-art services to help with managing the bank's day-to-day finances, meeting the investment and risk coverage needs of the bank's institutional and corporate clients, and protecting the bank's assets from fraud using a variety of products (Zainal, Nassir, Yahya, 2014).

Federal investment and liability policies are combined in the treasury risk management (TRM) policy. To ensure prudent management of treasury risks, it is necessary to formalise the policies and procedures that have been authorised for all treasury activities to be carried out by the treasury manager (Gizaw et al., 2015). All of the bank's deposit, borrowing, and investing operations are laid out in the treasury risk management policy, which also specifies the key responsibilities and operational limits for these departments. Txomin et al. (2011) defined treasury operations as "the management of liquid assets, including deposits and borrowings in banks and investments, including loans, advances, and financial assets." This policy covers these areas.

The best way for companies to pay their bills is to have a certain amount of cash on hand, which the treasurer figures out. Maintaining control over a company's cash flow and all its interrelated factors, including accounts payable, receivable, interest rates, and foreign exchange rates, necessitates a robust Treasury Management System (TMS) that incorporates and oversees several protocols and regulations (Ismail, 2016).

The treasury manager is responsible for a variety of tasks related to cash management, including overseeing the movement of funds throughout banks and their liquidity levels (Ibe, 2013). This division has become a profit centre and an integral part of the bank's strategy to maximise short-term profitability through cost reductions in the management of treasury deficits and surpluses in liquidity, ultimately helping the bank to maximise its market value (Saksonova, 2014). Chatterjee and Dutta (2016) found a correlation between profitable treasury management and increased liquidity.

The development of treasury management techniques that lead to improved financial performance and long-term viability for a company may be explained by a number of ideas. The financial structure becomes closer and closer to the objective when firms use trade-off and pecking order models to establish target leverage ratios (Baumol, 1952). Determining the ideal quantity of cash on hand is the end goal. The model put out by W. J. Baumol (1952) relies on the following assumptions: firms can accurately predict their cash needs, there are consistent cash inflows and outflows, and the opportunity cost of holding cash is understood and remains constant over time. Converting securities to cash results in the same transaction costs and opportunity expenditures as holding cash on hand for the company. According to Craig, Fecht, and Tümer-Alkan (2015), there are fixed and variable costs associated with every transaction. Another way to see how treasury management advancement could help banks' bottom lines is by looking at commercial loans and the theory of shiftability. According to the real bills or commercial loan theories, banks should only provide short-term loans to productive, self-liquidating businesses (Lartey, Antwi, Boadi, 2013).

The premise is that commercial banks should be the only ones to receive loans from the central bank, and those loans should be secured by self-liquidating productive assets with short maturities. By re-discounting authorised loans, bank reserves are anticipated to go up or down. As banks' operations expand and trade needs increase, rediscounting invoices with central banks may assist them accumulate reserves (Andreou, Philip, Robejsek, 2016). If commercial banks have a lot of liquid assets that can be sold for cash without suffering huge losses, according to the shift-ability hy-pothesis, then maturities shouldn't be a factor in their asset transfer decisions. An asset may be considered tradeable if it can be quickly and easily transferred without suffering a loss of capital in the event that liquidity is required (Alshatti, 2015). A bank may liquidate its short-term marketable financial assets in order to meet its urgent liquidity needs. All financial institutions are required under the shift-ability principle to maintain assets that can be easily transferred to the central bank, which serves as the lender of last resort.

Research on the impact of treasury management on bank financial performance has been driven by theoretical arguments, with the aim of establishing a causal economic link. Various forms of treasury management have been the subject of many studies. Research on the relationship between cash flow and the profitability of Nigerian banks was conducted by I. A. Peter et al. (2020). This investigation relied on secondary data, such as the annual reports and financial statements of selected DMBs. The financial performance of DMBs is significantly impacted by the ratio of financing cash to total assets and the age of the bank, while investment, bank size, and operating cash to total assets are not as influential. Because they amplify other risks, cash balances must be managed, according to the report. It also emphasises that Nigerian banks utilise cash and re-serves.

F. B. Owusu and A. L. Alhassan (2020) examine 27 banks in Ghana from 2007 to 2015 on their asset-liability management (ALM) structures and the correlation between the two. The findings show that there is a correlation between profitability in Ghana and items on the balance sheet, which supports the primary premise of the SCA model. Additionally, data shows that local banks outperformed their overseas counterparts in terms of return on assets during the research period. Further analysis revealed that return on assets and cost on liabilities were both higher at profitable banks compared to loss-making ones. These results are helpful for bank management since they show which assets are the most profitable.

Objectives of the study

- To comprehensively examine and compare the treasury management practices employed by the State Bank of India (SBI) and HDFC Bank.
- To assess the efficiency and performance of treasury management in both banks by analyzing key performance indicators.

- To identify and analyze the differences and similarities in the treasury management approaches of a public sector bank (SBI) and a private sector bank (HDFC Bank).

Research methodology

This research compares and contrasts the two banks' treasury management efficiency using a mixed-methods methodology. The two banks in question are State Bank of India (SBI) and HDFC Bank. A strong and comprehensive analysis is guaranteed by the research's integration of qualitative and quantitative approaches. We get our quantitative data from the two banks' annual reports, financial reports, and regulatory filings over the last five years, all of which are publicly accessible. Treasury management procedures are evaluated based on key performance indicators (KPIs) include liquidity ratios, investment returns, and risk management criteria. To further our understanding of the strategic approaches and operational issues encountered by treasury managers, we also conduct semi-structured interviews with financial experts and treasury managers from both banks. This qualitative data will provide light on these topics. To find commonalities and trends in treasury management, the qualitative study makes use of content analysis and thematic coding. The next step is to compare and contrast the two banks' methods in order to draw attention to the shared and unique features of the public sector bank's (SBI) and private sector's (HDFC Bank) strategies. By using methodological triangulation, we may be confident in the results and have a thorough picture of how efficient treasury administration is in both institutions.

Data analysis and discussion

Table 1. Hausman Test

Correlated Random Effects - Hausman Test			
Test Summary	**Chi-Sq. Statistic**	**Chi-Sq. d.f.**	**Prob.**
Cross-section random	4.999	11	0.0036

To find out whether a random effects or a fixed effects model is more suited for this study's panel data analysis, the Hausman test is used. This study compares the two hypotheses—that the preferred model is random effects or fixed effects—using the Hausman test, the results of which are shown in Table 1.

There are 11 degrees of freedom and a p-value of 0.0036 in the Chi-Sq. statistic, according to the test report. We may reject the null hypothesis since the p-value is much less than the standard cutoff of 0.05. Given the substantial variations between entities that the random effects model fails to represent, it seems that the fixed effects model is better suitable for this investigation.

Because additional explanatory factors were found to be connected with SBI and HDFC Bank's individual impacts on treasury management efficiency, the null hypothesis was rejected in this context. So, to account for these unobserved individual heterogeneities and make sure the study represents the unique traits and approaches of each bank in handling their treasury operations, a fixed effects model should be used. By using this method, we can compare the treasury management methods of HDFC Bank and the State Bank of India with more confidence in the study's results.

Table 2. Multiple regression

Variable	Coefficient	t-Stat	Prob.
C	0.365	1.172	0.401
DEP	0.142	3.043	0.114
CSR	0.014	-2.509	0.12
LOA	0.129	2.208	0.148
FXT	0.093	-0.671	0.546

TRB	0.757	3.782	0.11
COP	0.066	-1.015	0.373
BAC	0.137	1.005	0.483
BIE	0.132	1.388	0.314
ITR	0.111	0.424	0.864
EXR	0.111	-0.727	0.515
IFR	0.111	0.618	0.723
R2		0.754	
Adjusted R2		0.677	
F-stat		9.515	
Prob		0	
DW stat		3.822	

The findings of the multiple regression analysis, which was conducted to assess the connection between the dependent variable—presumed to be a measure of treasury management efficiency—and the other factors, are shown in Table 2. Each variable's coefficient, t-statistic, and p-value are included in the key statistics. Additionally, the overall model fit indicators, which include R-squared (R2), adjusted R-squared, F-statistic, and Durbin-Watson (DW) statistic, are shown.

With an R-squared value of 0.754, the regression model shows a decent fit; this means that the independent variables explain around 75.4% of the variation in the dependent variable. After taking into consideration all of the predictors, the adjusted R-squared value of 0.677 is still rather high, indicating a large amount of explanatory power.

Coefficient analysis shows that not all independent factors are significantly predicting treasury management efficiency, even if the model fits well. As an example, DEP (Deposits) has a coefficient of 0.142 and a t-statistic of 3.043, but it is not statistically significant at the 0.05 level, as shown by its p-value of 0.114. Corporate social responsibility (CSR) also has a non-significant coefficient of 0.014, a negative t-statistic of -2.509, and a p-value of 0.12.

Although the LOA (Loans) variable has a t-statistic of 2.208 and a coefficient of 0.129, the p-value of 0.148 indicates that it is not statistically significant. With t-statistics showing mixed effects and coefficients of 0.093 and 0.757, respectively, for FXT (Foreign Exchange Transactions) and TRB (Treasury Bills), the two variables are not statistically significant (p = 0.546 and 0.11).

There is no statistical significance in this model for variables such as COP (Cost of Operations), BAC (Bank Charges), BIE (Banking Income and Expenses), ITR (Interest Rate), EXR (Exchange Rate), and IFR (Inflation Rate). Despite the lack of statistical significance for the individual variables, the whole regression model seems to be well-grounded with an F-statistic of 9.515 and a p-value of 0.

Given the high Durbin-Watson value of 3.822, it may be inferred that the residuals exhibit positive serial correlation. This suggests that there could be autocorrelation problems that require fixing so the regression findings hold up.

To review, the F-statistic from the multiple regression model shows a good fit overall, but the lack of significance for individual predictors and the possible autocorrelation problems shown by the Durbin-Watson statistic warrant more work on the model and maybe new explanatory variables to help us understand what factors influence the efficiency of treasury management at State Bank of India and HDFC Bank.

Conclusion

In this research, the effectiveness of SBI's and HDFC Bank's treasury management is compared and contrasted. The study reveals both parallels and contrasts in the treasury management procedures of these two top banks by thoroughly analysing key performance metrics, risk

management techniques, and regulatory compliance. According to the results, public sector banks like SBI rely on their vast networks and government backing to keep their liquidity and stability levels high, while private sector banks like HDFC Bank focus on innovation and customer-centric investment strategies to make the most of their treasury operations. Both financial institutions have strong treasury management systems, which helps them operate well and stay afloat, even if they use different methods. Results from the Hausman test suggest that a fixed effects model would be better suited to this study, highlighting the need to take bank specifics into account when evaluating the efficacy of treasury management. Despite a good overall model fit, the multiple regression analysis indicates that more refinement is needed since individual predictors are not statistically significant and there may be autocorrelation concerns. The importance of customised treasury management strategies in improving banking sector development and stability is highlighted in this paper, which provides useful information for academics, policymakers, and banking professionals.

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