RESEARCH ARTICLE

MAJOR REASONS BEHIND THE WHITEWASH OF LAKSHMI VILAS BANK FROM THE INDIAN STOCK MARKET – AN ANALYSIS WITH MATHEMATICAL APPROACH

Vivek Prabu M.* and Dharani, K.S.
Department of Mathematics, Kongunadu Arts and Science College (Autonomous), Coimbatore – 641 029, Tamil Nadu, India

ABSTRACT

Banks play a pivotal role in India’s economic development. They sustain the country’s GDP growth through turning people’s static money into capital for investment and thus directing cash flow via dynamic market systems. Bank deposits provide secured and fixed return unlike the share market that holds higher risk of investment and offer a variable return which is uncertain. Whenever an individual or a company is at financial crisis, Banks lend their hands and offer loans and help them as much as possible to cut down the financial burden. But on the other hand, when the financial health of a bank itself is very weak which in turn will certainly affect the entire movement of the banking sector in the stock market and further that would lead to unreliable market circumstances. In this paper, we will be analyzing the major reasons behind the complete wash out of Lakshmi Vilas Bank from the Indian Stock Market and try to figure out the alarming indicators so as to be more cautious in the mere future to avoid such financial breakdown caused due to the bankrupted scenario.

Keywords: Lakshmi Vilas Bank, Technical Analysis, GDP, NSE, Nifty 50, Banking Sector, Stock Analysis, Statistical Methods.

1. INTRODUCTION

Stock market constitutes businesses, investors, and trading of stocks and shares. Businesses attract investors by offering lucrative projections in their growth margins. Stock and shares represent value of the capital poured into businesses by investors. Rise and fall of the value of stocks and shares entail the interplay of various market factors including the ongoing profit and loss of businesses. Big businesses cannot thrive without the existence of such an expansive network investment and benefit sharing. Indian economy is one of the largest and fastest expanding economies of the world in the twenty first century. Banks catalyze wealth generation by transforming static money into capital for investment, lending loans to entrepreneurial ventures, providing secure returns to fixed deposits and therefore play a critical role in augmenting the economic growth. Stock market underlies the fundamental fabric of our commercial systems, dynamic markets and drive the engines of economic prosperity throughout the world. Financial achievements of a bank, as well it’s contribution to the economic boom is partly influenced by its performance in the stock market. Banking sectors being the backbone to the economy plays the role of lending loan. Fixed deposits in banks provide secure returns and maintain the cash flow. As Banks play a crucial role in structuring the economy, invariably stock market also has a significant position. The nature of financial health of a bank entirely reflects in its functioning in the stock market. The stock market is designed on the Demand and Supply principle, which can underlie changes in the whole of the economy. So stock market has a significant influence in structuring the economy, as does the banks. In this paper, using technical analysis and fundamental analysis as a tool, we analyze the data obtained from the stocks of Lakshmi Vilas Bank Private Limited, to find “The Major Reasons behind the whitewash off Lakshmi Vilas Bank from the Indian Stock market” and understand the major factors influencing the dynamic of this process.

2. PRELIMINARIES

2.1. Profit and Loss Statement (P&L)

A P&L statement is also called an income statement. It is a financial statement that reports a company’s revenues and expenses for a given
period of time and also shows the profitable of a Company for a time period. P&L ratio shows all the company's income and expenses including revenues, cost of goods (or) services sold, operating expenses and financial expenses.

2.2. Relative Strength Index (RSI)

The Relative Strength Index is a leading momentum indicator that helps in identifying a trend reversal. It shows the internal strength by signaling during non-trending ranges.

\[ \text{RSI} = \frac{100 - \frac{1}{1+RS}}{100} \]

2.3. Simple Moving Average (SMA)

The Simple Moving Average is the easiest moving average to construct. It is simply the average price over the specified period. A simple moving average (SMA) calculates the average of a selected range of prices, usually closing prices, by the number of periods in that range.

\[ \text{SMA} = \frac{1}{n} \sum_{i=1}^{n} \text{Close Price}_i \]

2.4. Exponential Moving Average (EMA)

The Exponential Moving Average is a technical chart indicator that tracks the price of an investment (like a stock or commodity) over time. The EMA is a type of Weighted Moving Average (WMA) that gives more weighting or importance to recent price data.

\[ \text{EMA} = (\text{Close price} - \text{Previous day EMA}) \times (\text{WMA} + \text{Previous day EMA}) \]

2.5. Moving Average Convergence and Divergence (MACD)

MACD is about the convergence and divergence of the two moving averages. Convergence occurs when the two moving averages move towards each other, and a divergence occurs when the moving averages move away from each other. Moving average convergence divergence (MACD) is a trend-following momentum indicator that shows the relationship between two moving averages of a security's price. The MACD is calculated by subtracting the 12-period exponential moving average (EMA) from the 26-period EMA.

\[ \text{MACD} = 12\text{D EMA} - 26\text{D EMA} \]

3. FUNDAMENTAL ANALYSIS OF LAKSHMI VILAS BANK

Fundamental analysis (FA) is a method of measuring an intrinsic value by examining related economic and financial factors. Fundamental analysts study anything that can affect the security's value, from macroeconomic factors such as the state of the economy and industry conditions to microeconomic factors like the effectiveness of the company's management. The end goal is to arrive at a number that an investor can compare with a security's current price in order to see whether the security is undervalued or overvalued.

3.1. BALANCE SHEET (in thousands)

|                  | 16-Mar   | 17-Mar   |
|------------------|----------|----------|
| SHARE CAPITAL    | 17,94,616| 19,14,467|
| RESERVES         | 1,58,41,325| 1,94,48,950|
| BORROWINGS       | 72,30,078| 1,77,31,321|
| OTHER LIABILITIES| 75,29,167| 78,18,932|
| TOTAL LIABILITIES| 28,67,04,801| 35,24,47,205|
| FIXED ASSETS     | 35,91,190| 36,99,878|
| INVESTMENTS      | 6,54,54,046| 8,65,17,303|
| OTHER ASSETS     | 74,57,265| 88,10,833|
| TOTAL ASSETS     | 28,67,04,801| 35,24,47,205|

|                  | 18-Mar   | 19-Mar   | 20-Mar   |
|------------------|----------|----------|----------|
| SHARE CAPITAL    | 25,59,938| 19,14,467| 33,67,138|
| RESERVES         | 2,07,16,745| 1,57,26,731| 89,30,912|
| BORROWINGS       | 4,01,27,803| 92,12,590| 75,57,000|
| OTHER LIABILITIES| 77,92,945| 95,28,868| 99,28,160|
| TOTAL LIABILITIES| 40,42,92,260| 33,04,61,629| 24,42,15,151|
| FIXED ASSETS     | 40,24,535| 46,99,543| 46,34,213|
| INVESTMENTS      | 10,76,77,483| 8,43,01,653| 5,38,38,295|
| OTHER ASSETS     | 1,47,58,589| 1,87,36,712| 1,87,36,712|
| TOTAL ASSETS     | 40,42,92,260| 33,04,61,629| 24,42,15,151|
3.2 PROFIT & LOSS STATEMENT

|                | 16-Mar       | 17-Mar       |
|----------------|--------------|--------------|
| REVENUE        | 2,87,28,315  | 3,34,94,253  |
| EXPENSES       | 2,69,25,957  | 2,69,25,957  |
| FINANCIAL PROFIT | 18,10,448    | 25,60,765    |
| OTHER INCOME   | 30,45,324    | 50,27,678    |
| NET PROFIT     | 18,10,448    | 25,60,765    |
| NET PROFIT %   | 6.3          | 7.6          |
| EPS in Rs      | 10.05        | 14.07        |

|                | 18-Mar       | 19-Mar       | 20-Mar       |
|----------------|--------------|--------------|--------------|
| Revenue        | -4,73,11,390 | -17,05,980   | -42,49,938   |
| Expenses       | -10,23,596   | -11,72,534   | -7,67,995    |
| Financial Profit | 62,49,499    | 44,20,006    | 17,28,049    |
| Other Income   | -4,20,85,487 | -15,41,492   | -32,89,884   |

INTERPRETATION
(i) The Total Asset & Liabilities decreased from Rs.28,67,04,801 in 2016 to Rs.24,42,15,151 in 2020. The values have increased initially till 2018 to Rs.40,42,92,260 and has reduced down.
(ii) The investments of the company has been increased from FY – 16 to FY – 18 and has declined towards FY -20.
(iii) The Net Profit of the company has gradually decreased from FY- 16 and has drip down completely in FY-20, which shows the functioning of the company and the trouble encountered.
(iv) The EPS has decreased from Rs.10.05 in FY – 16 to Rs. -25.16 in FY – 20, which clearly shows the fall of the company.
(v) The Net Cash flow decreases to a negative trend, from Rs.4,98,903 in FY – 16 to a negative cash flow of Rs. -32,89,884 in FY-20.

3.3 CASH FLOW STATEMENT

|                | 16-Mar       | 17-Mar       |
|----------------|--------------|--------------|
| CASH FOR OPERATING ACTIVITY | 11,05,706   | 22,70,654    |
| CASH FOR INVESTING ACTIVITY  | -6,74,841   | -3,99,614    |
| CASH FOR FINANCIAL ACTIVITY  | 68,038      | 6,81,612     |
| NET CASH FLOW          | 4,98,903    | 25,52,652    |

4. TECHNICAL ANALYSIS OF LAKSHMI VILAS BANK

Technical analysis seeks to predict price movements by examining historical data. It helps traders and investors navigate the gap between intrinsic value and market price by leveraging techniques like statistical analysis and behavioral
economics. Technical analysis helps to guide traders to know what is most likely to happen given past information.

4.1. 10D – SMA

![10 Day - SMA](image)

4.2. 12D - EMA & 26D – EMA

![12 Day EMA & 26 Day EMA](image)

4.3. MACD

![MACD](image)

4.4. PROFIT & LOSS %

![Profit & Loss %](image)

4.5. RSI

![RSI](image)

**INTERPRETATION**

(i) SMA has fallen drastically over the period from April to October and has followed the moderate downtrend till December.

(ii) Both 12 D EMA and 26 D EMA where declined drastically from April to October, and both have maintained equalized position, where 26 D EMA catch up the 12 D EMA.

(iii) MACD value has resulted the reduction of price value as since after the sudden fall above the signal line during November, and continuous swing up and down the signal line during January to December.

(iv) P / L shows the average movement of the close price, as of its continuous variation of profit and loss. But it faced the major loss starting from April.

(v) RSI chart of Lakshmi Vilas Bank shows a bullish trend. It shows that stock price neither falls under over brought position nor in oversold position.
5. CONCLUSION

The NAV of the company has variably dropped down since FY-2018, and the Net Profit Percentage has declined drastically from 6.3% in FY-16 to -93.87% at the recent year. This interprets the unstable functioning of the Bank. Eventually the market price has reached down to Rs.166.40 in FY-16 to Rs.10.95 in FY-20. Clearly looking at the progression of last five years of data, and with our fundamental and technical analysis we can distinctly seek the downline progression of the bank with respect to the stock market and the influential factors falling apart on the negative trend set. The inferences acquired from our Technical analysis and Fundamental analysis clearly conveys that the whitewash off Lakshmi Vilas Bank, Pvt Ltd from the Indian Stock Market is inevitable. Hence the depositors and investors should track the balance sheet, income statement and the cash flow of the respective bank which they are interested in and they should notice the technical indicators like RSI and MACD. Fluctuation is quite common in the market but when the bearish behaviour prolongs and it tends to go out of control, then that should be considered as the alarm and further investment and deposit in that company should be truncated from there on to prevent oneself from heavy loss.

REFERENCES

1. Investment Analysis and Portfolio Management, Prasanna Chandra, Published by Tata McGraw-Hill Education Private Limited, 2012 (4 th edition).

2. M, V. P., S, K., & M, R. (2020). Research article Fundamental analysis of banking sectors. Kongunadu Research Journal, 7(2), 143-148. https://doi.org/10.26524/kri.2020.34

3. Vivek Prabu, M. and Karthika, R. (2021). Impact of Lockdown in the FMCG sector of the Indian Stock Market – Analysis using Statistical Methods. Turkish Journal of Computer and Mathematics Education, Vol. 12 No. 1S (2021).

4. www.yahoofinance.com and www.moneycontrol.com -Secondary data.

5. www.nseindia.com - Data of NSE.