A PROJECT REPORT ON

" FUNDAMENTAL ANALYSIS USING DIVIDEND DISCOUNT MODEL (DDM) APPROACH ON SELECTED PRIVATE SECTOR BANKS"

Submitted by

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In partial fulfilment of the requirements for the award of the degree of

MASTER OF BUSINESS ADMINISTRATION

Under the guidance of

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STUDENT DECLARATION

I, Apoorva S, USN: 1GA21BA010 hereby declare that the Project report entitled as **"Fundamental analysis using dividend discount model (DDM) approach on selected private sector banks"** prepared by me under the guidance of, **Dr. Sriyank Levi Associate Professor**, Department of MBA, Global Academy of Technology, Bengaluru.

I also declare that this project work is towards the partial fulfillment of the requirements for the university regulations for the award of the degree of Master of Business Administration by Visvesvaraya Technological University, Belagavi. I have undergone a project work for a period of Eight weeks, I further declare that this project report is based on the original study undertaken by me and has not been submitted for the award of any degree/diploma from any other university/institution.

Signature

DATE: / /2023 NAME: APOORVA S

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ACKNOWLEDGEMENT

I am using this opportunity to express my gratitude to everyone who supported me through the course of my MBA Internship program. I am thankful for their aspiring guidance, constructive criticism and friendly advice during the course of the program. It gives me immense pleasure to express my deep sense of gratitude to **Dr. N RANAPRATAP REDDY** Principal at Global Academy of Technology and out Head of the Department **Prof. N VENKATESH KUMAR** for giving us an excellent academic environment at Global Academy of Technology, Raja Rajeshwari Nagar and whose words have always been a source of inspiration. I wish to thank my internal guide **Dr. Sriyank Levi and** external Guide **Mr**. **Mayur Sharma** for his continuous support and encouragement during the course of the internship program. I would also like to thank my parents and friends for their continued moral and material during the course of the internship program.

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Executive Summary

The research is conducted on the topic **Fundamental analysis using dividend discount model (DDM) approach on selected private sector bank**. This analysis is carried out to determine the financial performance of a few selected banks in the Indian banking industry in order to enable a buy or sell option using fundamental analysis and the intrinsic value of the shares and the current market price. The main goal is to inform investors of their potential investment opportunities when purchasing shares of banking firms. The DDM (Dividend Discounted Model) method links the anticipated cash flow from dividends paid by the company on the shares that are owned in order to do fundamental research or company analysis. The intrinsic value of shares is calculated using the Dividend Discounted Model (DDM), which compares the stock's intrinsic value to its market value. This value is determined by projecting upcoming dividend payments. Through fundamental analysis, it is possible to determine a stock's intrinsic worth. Fundamental analysis is the process of determining the fair price of shares using data from financial statements on the internal operations of the company.

1.1 INTRODUCTION TO FUNDAMENTAL ANALYSIS

Fundamental analysis is used to analyze the financial performance of a selected few banks in the Indian banking sector in order to permit a buy or sell option based on the determined model value of the shares and the current market price. The main goal is to inform investors of the best investment opportunities when purchasing shares of banking firms.

The analysis will give information on current investments made with banking businesses and if it would be prudent to hold or sell the shares. It is believed that the stock market is always changing and that the real value of the shares is equally unstable. A bank's share price is either low or overvalued. The pattern of share price changes will be shown by calculating the value of the stocks using model. Depending on how well the banks under consideration are performing, the share value of such institutions may be either cheap or overvalued.

RBI has determined that Indian banks are appropriately and efficiently regulated. India has a far superior economic and financial situation than any other country. Numerous prior research on India's credit market and liquidity risk management suggest that Indian banks are often able to weather the current economic downturn.

The worth of these banks' equities will be determined by looking at their important financial parameters, which will aid in locating investment opportunities. The best way to determine a company's or industry's financial success is always through fundamental analysis. Long-term investors will benefit from an exceptionally good return if the company is sound. As a result, before making any investment choice, the investor should analyze the conclusions of the fundamentals of the company.

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1.2 Dividend Discounted Model

The DDM (Dividend Discounted Model) method links the anticipated cash flow from dividends paid by the company on the shares that are owned in order to do fundamental research or company analysis. Thecalculated value of shares is calculated using the Dividend Discounted Model (DDM), which compares the stock'scalculated value to its market value. This value is determined by projecting upcoming dividend payments. Through fundamental analysis, it is possible to determine a stock's worth. Fundamental analysis is the process of determining the fair price of shares using data from financial statements on the internal operations of the company. This DDM (Dividend Discounted Model) approach is divided into three types, namely

1. DDM With Zero Growth: This model is employed with the presumption that the company will always pay stable dividends and that its growth rates won't fluctuate over an endless length of time. According to this methodology, stocks are evaluated using the following formula:

$$P0 = \frac{D}{K}$$

Information:

P0: thecalculated value of shares

D: dividend per share

K: expected rate of return

2. DDM Constant Growth: This strategy is applied under the presumption that the company will continue to increase its dividends over time. According to this methodology, stocks are evaluated using the following formula:

$$P0 = \frac{D}{k-g}$$

Information:

P0: thecalculated value of shares

D: dividend per share

K: expected rate of return

G: dividend growth rate

3. DDM Grows Indirectly (Non-Constant Growth): It is assumed in this model that a company's ordinary stock dividends are not constant but rather fluctuate throughout the course of its business life. According to this methodology, stocks are evaluated using the following formula:

$$P0 = \sum_{t=1}^{n} \frac{D0(1+gt)t}{(1+k)t} + \frac{Dn(1+gc)}{(k-gc)}\{1/(1+k)^n\}$$

Information:

P0: thecalculated value of shares

D0: current dividend

GT: growth above normal

GC: below-normal growth

n: Dividend growth period is above normal

DN: normal growth dividend

1.3 Statement of the problem:

The fact that the dividend discount model (DDM) primarily depends on the accuracy of payout estimates presents a possible issue when employing it for fundamental analysis. Based on the current value of anticipated future dividends, the DDM calculates the stock value of a corporation. Although dividends are influenced by a variety of factors, including economic conditions, corporate performance, and management actions, forecasting future payouts with any degree of accuracy can be difficult. Additionally, some businesses might not pay dividends or may have a track record of irregular dividend payments, making it challenging to apply the DDM to those businesses. Alternative models may need to be utilized in these circumstances for fundamental examination. Furthermore, the DDM bases its projections on a dividend growth rate that may not apply to all businesses. Companies may encounter swings in profits growth or changes in market circumstances, both of which may have an impact on dividend payments.

1.4 Objectives of study:

1. To determine the model value of the chosen firms, by using the Dividend Discount Method (DDM) technique.
2. To compare the calculated stock value with the prevailing market value of a selected company's share.
3. To Understand whether the selected stocks are underpriced or overpriced.

1.5 Scope of the study:

The scope of fundamental analysis using the Dividend Discount Model (DDM) for a private sector bank involves assessing its stock's value by estimating future dividend payments. This approach considers the bank's financial stability, growth potential, and dividend policies. It helps investors make informed decisions on investing in the bank's stock based on potential dividend income and capital gains.

1.6 Relevance of the Study

The relevance of employing the Dividend Discount Model (DDM) in fundamental analysis for a selected private sector bank lies in its ability to provide a quantitative assessment of the bank's stock. DDM focuses on expected future dividend payments, making it particularly relevant for income-oriented investors who seek dividends as a source of returns. By analyzing the bank's financial health, dividend history, and projected growth, DDM helps investors gauge the stock's calculated value and make informed decisions. However, it's essential to supplement DDM with other financial metrics and qualitative analysis for a comprehensive evaluation of the bank's investment potential.

2.1 The nation's Financial Services Industry Contributes to the Indian Economy:

The Indian banks includes cooperative credit institutions, 12 public banks, 22 private banks. As of September 2021, there were 213,145 ATMs in India, with 47.5% of them located in rural and semi-urban areas. Bank assets increased in all industries in 2020–2022. In 2022, the total assets of the banks (including both public and private sector banks) rose to US$ 2.67 trillion.

Credit growth is anticipated to reach 10% in 2022–2023, which would be a double-digit growth in eight years, according to India Ratings & Research (Ind-Ra). Bank credit totaled Rs. 129.26 lakh crore ($1.585.09 billion) as of November 4, 2022. According to the RBI's statement on Sectoral Deployment of Bank Credit, non-food bank credit increased by 17.6% in November 2022 compared to a growth of 7.1% a year earlier, driven by strong credit demand from sectors including services, industry, personal, and agriculture and allied activities.

It is projected that increasing infrastructure spending, prompt project completion, and ongoing reforms will significantly promote the growth. All signs suggest that India Financial Services is well-positioned for substantial growth as businesses that are developing quickly. Technology development has elevated the prominence of internet and mobile banking services. The banking industry is emphasizing offering their customers better services and modernizing their technological infrastructure to improve the customer experience.

India has seen a boom in fintech and microfinancing in recent years. Due to a five-fold growth in digital disbursements, India's digital lending, which was 75 billion dollars in FY18, has the potential to rise to $1 trillion by FY23. The Indian fintech market has so far (January 2017–July 2022) garnered US$ 29 billion in funding across 2,084 agreements, making up 14% of the world's funding and placing second in terms of deal volume. India's fintech business is anticipated to grow to 6.2 trillion rupees (US$ 83.48 billion) by 2025.

2.2 COMPANY PROFILE:

UNICAP FINANCIAL SERVICES PVT.LTD

About company

Unicap Financial Services is a fintech startup, established with group of professionals in the field of finance carrying decade of experience provides cutting-edge access to market data & world-class news feed that covers the Indian Financial Markets.

What they do

Our product Turboprofits and Smart-I (in association with "Kotak Securities") is leveraging its success for all its subscribers via Information, Curated News, and Basket Research helps to educate and guide investors about the opportunities that India's emerging growth story presents, locate profitable market stories by using our App, social media, & Online Brokerage Platforms.

Experience

For 4 Years, we have been providing 100% Profitable Results, High-Quality Research, and Complete Transparency on Brokerages for beginners, The whole product comes at ZERO COST.

Products: Turboprofits**,** Smart-I

They partner: Kotak securities.

Service they provide: Economic-Stock research data**,** Training/Guidance on Stock Market**,** Basket Reports.

Accurate Information for Informed Decisions

We are providing Mobile News App and website to enable quick access to financial news, curated news: content is delivered to you by a touch of button.

Turboprofits is leveraging its success for all its subscribers by applying collective intelligence in the financial domain, we provide information and access that helps locate profitable market stories by using our app and online platforms, access is provided to market data & world-class news feed that covers the Indian financial Markets.

Vision

We aim to be the Best Financial App Service Provider in India.

Mission & Goals

To educate investors about the opportunities that India's emerging growth story presents, it is important that Indian investors get maximum benefit by investing in great ideas that the Indian equity space offers. In This, we are committed to informing our investors about emerging stories.

It's our firm belief that the overall economic growth and development of our nation will uplift all stakeholders involved.

Across the country we have taken along with us Research Professionals, Financial Analysts, Innovators, Technologists, Financial Experts, Ideates and work we are working with zeal of missionary in accomplishing the task of Informing and Educating our Subscribers.

Services

Turbo Profits Club Information Subscription Service

Turbo Profits Club App and Website offers access to accurate equity news & market data curated by experts. The platform provides Financial News and Reports, Company News, Breaking News, Results Information and brokerage reports, etc.

Smart Self-Managed Market Asset for Retail Trader- (Investment)

- Margin Investment Facilities (As Per Stock Brokers Terms and Conditions)
- Lowest interest rate On Funding
- Zero Brokerage on Intraday
- Holdings At Minimum Charges
- Brokerage Calls
- House Calls
- Access to premium content on Turbo Profits Club Website/App

Turbo Profits Financial Information Mobile App

Turboprofits helps you stay ahead of markets. The Mobile App gives you a birds-eye view of all News Story, plus the App provides you with breaking news and curated content.

Download free from Google Play Store get 10 years of Good Luck. Apple Users you can Register using your safari browser and get the same features by clicking on www.turboprofits.club (Free to Register).

4. REVIEW OF LITERATURE

1. **Isaac kof (2020)** A systematic review of fundamental and technical analysis of stock market predictions as studied that the stock market is a key pivot in every growing and thriving economy, and every investment in the market is aimed at maximizing profit and minimizing associated risk. As a result, numerous studies have been conducted on the stock-market prediction using technical or fundamental analysis through various soft-computing techniques and algorithms. This study attempted to undertake a systematic and critical review of about one hundred and twenty-two (122) pertinent research works reported in academic journals over 11 years (2007–2018) in the area of stock market prediction using machine learning. The fundamental analyst uses the openly accessible facts about the stock to perform analysis of stock price movement in three dimensions, concerning the economy, its industry, and the firm, and the fundamental analyst also considers different financial ratios of the firm.

2. **J.V.V. Meghanath (2018)** Fundamental analysis: a study on selected steel companies in India as studied that the study fundamental analysis is nothing but examining the forces that will destroy the well -being of the economy, industry groups, and companies. This system will be utilized will be used to assess the worth of a company's stock. It can additionally make utilized for estimating esteem of any sort of security, like securities or particular cash. This transform of key dissection includes looking at those economic, monetary also other qualitative and additionally quantitative variables identified with a security in this way similarly as will determine its innate worth. Key investigation may be called quantitative investigation furthermore this primarily includes those company's monetary indicators.

3. **Prof. Namrata acharya (2019)** A study on fundamental analysis of Indian telecom companies as studied that it is an industry which has a significant role for the development of the country as it contributes towards an increased GDP of India, earns profit for the Indian government and creates employment opportunities for a

great number of people. The Indian telecom industry is very huge consisting of companies that make hardware and also produce software. The Indian telecom industry has witnessed significant changes amid market liberalization and enlargement since 1990s and now has turned into the world's most competitive and one of the fastest growing telecom markets.

4. **Alumni (2014)** analyze that by Nurni arrina lestari as studied that eps and pe have a positive impact on equity share prices, but size is negatively correlated with the market price of equity shares. DPS and DP are very few decision makers. The researcher investigated this with the usage of correlation and multiple regression. The variables used for the function of the study are EPS, Book value, P/E ratio, DPS, volume (in terms of total assets) and dividend payout.

5. **Ananth (2017)** A study on fundamental analysis of selected it companies listed at NSE article as studied that analysis of capital market can be done either by fundamental analysis or by technical analysis. This paper aims to study on fundamental analysis of selected it companies listed at NSE Fundamental analysis is studied in three parts. Economic analysis deals with fundamental factors like GDP, IIP, fiscal deficit, inflation, current account deficit etc. Industry analysis Indian its sector is analyzed based on entry barriers, type of industry, government interference, porter's five force model. Finally, company analysis deals with various ratios such as dividend payout ratio, eps, p/e ratio, debt-equity ratio are used. It also focuses on the calculation of intrinsic value of shares and compared with market value.

6. **Piyush kumar (2016)** Fundamental analysis of a selected stock in capital goods industry as studied that other way if we have already stocks in our demat account and if our prediction says that it will grow in future then we generally decide to hold that stock till its bestselling price but if our prediction says it will fall in future then we generally decide to sell that stock. Before buying or selling any stock, value investor should first try to know whether the stock is overvalued undervalued3 or correctly

valued in the market. To analyze correct fair value of a particular stock, we follow fundamental analysis. Objective of the study the main objectives of the study are as following 1. To briefly understand the capital goods industry and its sub sectors. 2. To identify the most suitable stock in capital goods industry. 3. To carry out fundamental analysis of the selected stock.

7. **Roy Bornilla Gacus (2022)** A comprehensive project report on "a study on investor behavior on fundamental analysis as studied that analysis is the process of breaking down complex subjects and entities into smaller pieces and better understanding them. This technique was used in the study of mathematics and logic before Aristotle, but analysis as a formal concept is a relatively recent development. The definition of analysis is the process of breaking down something into its parts and learning what they do and how they relate to each other. Examining blood in the laboratory to discover all its components is an example of analysis.

8. **Manisha kaushal arora (2016)** A study of Indian banking sector using fundamental analysis as studied that the performance of Indian banks has remained robust during the past few years despite the challenges due to both domestic and international developments. The present study makes it clear that eps is the strongest indicator for an investor to look for before investing his money in a company. A company may have high OPM, NPM, ROE, PER, DPS and DPR but there is no significant relationship found between these variables and eps. In order to which company will be more profitable, an investor should compare the eps of all companies taken into consideration because a company may be having profits but it may not always give dividends and can keep the profits as retained earnings. Therefore, eps become the best indicator for investment decision.

9. **Undavia M (2018)** An analysis of financial performance of selected public and private sector banks-a special reference to profitability as studied in the financial viability of banks largely depends on the adequacy of profitability. The main aim of

the study is to identify the determinants of profitability of selected public and private sector banks in India through ratio and percentages analysis. Data collected for study purpose is purely secondary in nature and collected mainly from accounting data of selected banks, which were collected from balance sheet and profit and loss account extracted from annual reports of concerned banks, journals, thesis, published documents and relevant websites financial indicators such as net profit margin, earnings per share and return on equity are used to find out the determinants of profitability of the selected banks.

10. **R.k. sharma (2016)** fundamental analysis of selected public and private sector banks in India it has studied that fundamental analysis studies the various financial, economic and industrial parameters that influence the risk-return of securities and helps in investment decision making. Banking companies have a strong shareholding foothold in the Indian economy and the stock markets. Fundamental analysis can help the shareholders by providing relevant information in terms of profitability and growth which can, in turn, help them to take informed investment decisions. With the help of fundamental analysis, investors can track the past performance, recent changes and future prospects of the banking sector.

11. **Chairil afandy (2021)** Stock valuation through dividend discounted model (DDM) as studied this study aims to find out the intrinsic value of each share of regional development banks listed on the idx. This study also aims to find out the stock market price (closing price) is below or above the intrinsic value of its shares. Finally, this study aims to find out which bank shares are the best to choose as investment options. This research was conducted in a one-year period, 2017. This type of research is descriptive research with quantitative methods. Descriptive research is research that seeks to describe or describe data that has been collected as it is.

12. **Rahma Cynthia Dewi (2018)** Analyses of dividend discounted model (DDM) Suhadak, Rustam hidayat. This research aims to determine the dividend intrinsic price of the shares in sub-sector of cement used for base of the shares price reasonableness assessment. The share price reasonableness assessment used by investors to determine the preferred shares should be sold and purchased. The analysis used is the discounted dividend model with constant growth model. Discounted dividend model is used to determine the intrinsic value of the shares is calculated by predicting the dividend to be received in the future then compared with the market price. Research type is descriptive research on sub sector cement company as a research object in indonesia stock exchange. Sample selection use purposive sampling method. Final result by using dividend discounted model with constant growth model indicates that the sample showed a different position.

13. **Deni Sunaryo (2021)** Stock return problems in the coal sector: a case study of the use of price earnings ratio and firm size moderation has studied the analytical techniques used are descriptive statistical analysis, moderated regression analysis (mra), multiple linear regression, t test, f test, and determination coefficient test. Based on the discussion of the research results that have been described, it can be concluded that the return on assets, current ratio and average collection period simultaneously no significant effect on stock return. Price earning ratio (per) moderate return on assets to stock return. While the price earning ratio (per) does not moderate the current ratio, average collection period on stock return. Firm size does not moderate return on assets current ratio average collection period to stock return in the coal subsector listed on the southeast asian stock exchange for the 2012-2020 periods.

14. **R. Hendrawan, Rahayu (2018)** Test of FCFE model and dividend discount model in book 4 banking companies listed in Indonesia stock exchange as studied that the purpose of this research is to know the fair price of shares in banking companies in 2017 by using the method of free cash flow to equity on the growth

scenario in pessimistic, moderate and optimistic conditions and to know the fair price of shares in banking companies, in 2017 by using dividend discount model method. The sampling technique used purposive sampling and chose 4 banking com panies which entered into book 4 category as research sample. If it is known whether the stock is undervalued, fair valued, or overvalued, then the investor can be more confident to determine his investment decision. Whether the stock wants to be bought, retained or sold.

15. **Roy Bornilla Gacus and Jennifer E Hinlo (2018)** The reliability of constant growth dividend discount model (DDM) in valuation of Philippine common stocks as studied the constant growth dividend discount model (DDM) is said to be the simplest and most popular valuation method to estimate the intrinsic value of the company's stocks. This study is aimed to test the reliability of the constant growth DDM in valuation of the selected common stock listed companies in the Philippine stock exchange (PSE). The accuracy of constant growth DDM to predict the value of common stocks was compared from the actual values using the symmetric median absolute percentage error (smdape), and then tested whether the median difference between the predicted and actual values of the selected common stock listed companies were significant using the wilcoxon signed-rank test. Results of the study showed that majority of the companies had a smdape less than 30%. This means that the error to predict the common stock values among the companies was less than 30%.

16. **Hendra H. Dukalang, Wiwin koni (2020)** Comparison of dividend discount model with free cash flow to firms for valuation of banking stocks listed in jakarta Islamic index by this study aims to find out and analyze the fair value of stocks and stock conditions in banking companies using dividend discount model (DDM) and free cash flow to firms (FCFF) during the 2016 – 2020 period. The population is in research in as many as 70 companies. Determination of samples with purposive sampling techniques, so that the samples obtained by 2 companies. The data used is

secondary data and calculations by using Microsoft excel 2016 application. The results showed that of the 2 banking companies listed in jii, bris and btps shares have different intrinsic values. Valuation results using DDM show that the intrinsic value of bris shares is in an overvalued condition, for btps shares are undervalued. While the valuation result using FCFF obtained intrinsic value of bris shares is undervalued, for btps shares is in an overvalued condition.

17. **Eddy sutjipto wawan setiawan, Imam Ghozal (2019**) Determination of intrinsic value: dividend discount model and discounted cash flow methods in Indonesia stock exchange as studied conducting stock valuation, especially determining the current fair value of shares, is very appropriate. Stock assessment in this study will use two discounted cash flow (DCF) models and the dividend discount model (DDM). Furthermore, the two models will analyze which model is the most accurate so that it can help investors choose the right stocks, and the future can be profitable. Based on the results of the study, we can see that by using DDM there are 40 companies (93%) in undervalued positions or only three overvalued companies (7%) while using DCF there are 25 undervalued companies (58%) or 18 overvalued companies (42 %). Henceforth, let us examine the accuracy of the model.

18. **Erren Bustami kleriawan and Ilman Mufid dwiyono (2019)** The fair price of company shares with dividend discount model method as studied this study aims to analyze the fair price of company shares in the lq45 index with the dividend discount model (DDM) method during the 2014-2018 period. The analysis methodology using is a descriptive qualitative with data obtained from the indonesia stock exchange with a case study approach, namely the 2014-2018 lq45 stock price through lq45 stock price assessment analysis with the using dividend discounted model (DDM) method. The results of this study indicate that the fundamental analysis using the dividend discount model (DDM) can be done after the intrinsic value of the stock is known then compared to its fair price so that it can be determined whether the stock is undervalued, fair valued or overvalued.

19. **Dr. B. Charumathi and Suraj. E. S. (2016)** Comparing stock valuation models for Indian bank stocks as studied the aim of investors of bank stocks is to earn reasonable returns. This paper presents the framework for valuing bank stocks using different valuation models and investigates the explanatory power of each valuation model in Indian stock market. This study is also trying to compare the performance of different valuation models in determining bank stocks price. The methodology used is based on the implications of the theory of financial markets and fundamental analysis. The results show that adjusted r-squares of Ohlson model and p/b model are higher than adjusted r-squares of other valuation models such as capm model, DDM model, p/e model and excess return model. The results of empirical analysis support that Ohlson valuation model, p/b model and p/e model are more informative with high predictive power providing better and more accurate estimations of equity market values for bank stocks

20. **Abdul Rasheed, Muhammad Khalid Sohail, Shahabuddin din and Muhammad Ijaz (2017)** How do investment banks price initial public offerings? An empirical analysis of emerging market as studied this study investigates that how investment banks select alternative valuation models to price initial public offerings (IPO) and examine the value-relevance of each valuation model using the data of 88 IPO listed on the Pakistan stock exchange (psx) during 2000–2016. This study investigates that investment banks used dividend discount model (DDM), discounted cash flow (dcf) and comparable multiples valuation models on the basis of firm-specific characteristics, aggregate stock market returns and volatility before the ipos. In this study, a binary logit regression model is used to estimate the cross-sectional determinants of the choice of valuation models by investment banks. The results reveal that underwriters are more likely to use DDM to value firms that have dividends payout trail.

21. **Xiaoquan jiang (john) (2018)** An empirical test of the accounting-based residual income model and the traditional dividend discount model dividend discount model (DDM) to explain volatile, dynamic stock price movements, test the empirical validity of an alternative model, the accounting-based residual income model (rim), and compare the two models' performance. The rim seems attractive to finance researchers in that it incorporates both the book-to-market ratio and the earing-to-price ratio, which have been shown to have predictive ability for expected stock returns, in a systematic manner by way of a present value model. In addition, it can be applied to stocks of companies that do not pay cash dividends, which has become a trend in recent years.

22. **Jawadi and Georges Prat (2017**) Equity prices and fundamentals: a DDM-apt mixed approached as studied the linkages between equity prices and fundamentals for 27 individual shares from the French stock price index. To assess fundamental value, the traditional dividend discount model (DDM) equities' valuation principle is coupled with the portfolio choice theory based on the arbitrage pricing theory (apt). This yields a general equity valuation relationship for which the apt determines the long-term risk premium included in the DDM. Interestingly, restrictions are less significant than in the usual approaches since the number of risk premium factors is not limited a priori by the theory. Accordingly, our empirical results point to two major findings. On the one hand, while results in the literature based on the DDM showed that fundamental value dynamics are very smooth with respect to stock price indices, our DDM-apt model reproduces both trends and major share price fluctuations.

23. **Dr. B. Charumathi and E. S. Suraj (2018)** The reliability of dividend discount model in valuation of bank stocks at the Bombay stock exchange as studied valuation of common stock is a very complex process. There are several factors that contribute to the variations of stock returns and it is one of the most researched areas by financial researchers. The study was conducted to establish the reliability of the dividend discount model which is based on the discounted cash flow techniques on

the valuation of bank stocks at BSE. It is also found that the dividend discount model cannot be relied on by investors in the valuation of majority of the bank stocks at the BSE due to the higher prediction errors. The results are attributed to among other factors like inappropriate discounting factors, information differentials and measurement and evaluation problems.

24. **Dr. M. Rajeswari (2020)** A study on construction of an investment portfolio using fundamental analysis as studied the retail investor cannot afford the ill decision made without any analysis about the company. The fundamental analysis is totally based on the financial performance of the company. The financial performance analysis could help the initial investors get impressed by the company and may influence them to make investments in the company. The researcher has taken three sectors for the study, which tops even in the recession period. The researcher has collected secondary data – balance sheet and income statement – of the companies for the period of last 3 years (2016-2017 to 2018-2019).

25. **Chittaranjan mangale, Shyam Sundar Meena and Preetesh P U (2018)** Fuzzy logic-based stock value prediction using fundamental analysis as studied stock market is very versatile and fluctuates with time. For the same way it becomes difficult to predict movement of the stock, there are various approaches and tools through which the price of the stock is determined by the past patterns. Mostly the approaches are in terms of fundamental approach and technical approach. For the long-term valuation fundamental approach is used. Every stock is having its own value that does not depend on the price of the stock that is known as intrinsic value. Fuzzy logic is used to map the quality as well as quantity valuation factors. The if then rules are applied on the linguistic variable. The fuzzy model outcomes the stock value which is used to provide stock worth. The stock value is calculated by dividend discount model. Accuracy of the system is 0.77. The results offer the backbone for the value and not the price.

4. RESERCH DESIGN

In Private Banking Sector Five companies were selected to conduct a detail study. Fundamental analysis involves finding the stock's value of the selected banking shares. It provides additional strength to the investor in choosing the option of buy / sell strategy.

4.1 Type of Research: Empirical Research.

4.2 Sample size: The variables are studied over 10 years from 2013-14 to 2022-23.

4.3 Type of Data: Secondary Data (financial report) through company website.

4.4 Source of Data: The study's information was collected from secondary sources. Data is gathered from websites(Screener website), company websites, including a 10-year financial report.

4.5 Period of study: 10 Years data collected from 2013-2022.

4.6 Analysis Tools: Ratios, DDM model approach, T-test, Mean and Standard Deviation

4.7 Hypothesis:

H0: There is no significant difference between the calculated stock value (DDM method) and market value.

H1: There is significant difference between the calculated stock value (DDM method) and market value.

4.8 Limitations of Study:

- The Study includes only those companies which distributes Dividend regularly Basis.
- The Analysis is based on secondary data obtained from website of the company and Screener website.
- The Study will be conducted to only 5 companies from private Banking sector, the Banks which are listed in stock exchange.

4.9 Companies Selected for the Analysis:

1. Axis Bank Ltd
2. HDFC Bank Ltd
3. Federal Bank Ltd
4. IndusInd Bank ltd
5. Kotak Mahindra Bank

4.10 The Process for fundamental analysis using DDM:

1. **Analysis of the financial performance of the company measured using financial ratios. The financial ratios used are as follows:**

a. **Return on Equity (ROE):** ROE measures the return on shareholder investment. ROE is formulated as follows:

ROE= Net profit / Share capital * 100%

b. **Earnings per Share (EPS):** Earning per share (EPS) denotes the profit generated by each share of common stock. EPS is formulated as follows:

EPS = Net Profit / Number of Outstanding Shares

c. **Dividend per Share (DPS):** A dividend per share is a share of the profits given to shareholders whose amount is proportional to the number of shares they own. DPS is formulated as follows:

DPS = The amount of Dividend Distributed / Number of shares outstanding

d. **Dividend Payout Ratio (DPR)**: Dividend Payout Ratio (DPR) is the ratio of the share of profits given to shareholders as dividend. DPR is formulated as follows:

DPR= DPS /EPS *100%

1. Analysis of stock prices

The following uses of DDM with a constant growth model approach can be known through the following steps:

a. **Dividend Growth Rate**: One of the important parts, when an investor does stock valuation, is determining the growth rate of dividends. This growth estimate is used to keep the received dividend growth in line with expectations. The dividend growth rate is formulated as follows:

   $g = ROE\ (1 - DPR)$

   Information:

   g: dividend growth rate

   ROE: return on equity

   DPR: dividend payout ratio

b. **Estimated Expected Dividend**: The expected dividend rate is formulated as follows:

   $DT = D0\ (1 + g)$

   Information:

   DT: estimated dividend

   D0: actual dividend

   g: dividend growth rate

c. **Required Rate of Return**: The expected rate of return is the level of return required by the investor as a consequence of investing in the company's stock. The expected rate of return is sought using the dividend yield approach plus the discounted cash flow growth rate in the context or called the discounted cash flow (DCF) method with the following formula:

$$K=\frac{D_0}{p}+g$$

Information:

K: expected rate of return

D0: actual dividend

P: stock market price

G: dividend growth rate

d. calculated value of Stocks: Thecalculated value of the stock is formulated as follows:

$$P0=\frac{D_t}{(k-g)}$$

Information:

P0: thecalculated value of shares

DT: estimated dividend

K: expected rate of return

G: dividend growth rate.

Annual dividends, dividend growth, and the required rate of return are the three main factors that are assumed to have an impact on stock prices in this strategy. The results of thecalculated value of shares can later be compared with the market value of shares so that stock valuations can be carried out and used as a basis for making investment decisions by potential investors and those who have become investors in the shares of the company under study.

5. DATA ANALYSIS

Stock valuation using the Dividend Discount Model (DDM) method requires data on the company's financial performance, namely the value of ROE, DPR, and DPS.

Axis Bank:

Table No 5.1.1: Financial Ratio Analysis of Axis Bank Ltd From 2013-2022

Year	Return on Equity (ROE)	EPS	Dividend Payout Ratio
2013	16%	26.86	15%
2014	17%	31.42	15%
2015	16%	35.04	14%
2016	7%	16.51	30%
2017	0%	1.78	0%
2018	7%	19.59	5%
2019	4%	6.57	7%
2020	7%	23.49	4%
2021	12%	46.00	2%
2022	4%	35.16	6%

*** Source: data processing (2023)*

After knowing the financial data to calculate stock valuations using the Dividend Discount Model (DDM) method, an analysis of intrinsic stock prices is then carried out. Thecalculated value of the shares that have been obtained will be used to compare with the stock market value whose data is taken from the closing price of each company. Here are the stages of calculation:

Table No 5.1.2: Showing Results of Stock valuation calculation Using the DDM method of Axis Bank from 2013-2022.

Year	Dividend Growth Rate	Estimated Expected Dividend	Required Rate of Return	calculated value of Stocks (DDM)
2013	0.14	1071.11	3.36	332.96
2014	0.14	1244.66	2.09	639.43
2015	0.13	1350.66	2.82	503.51
2016	0.05	1256.05	2.49	514.79
2017	0.00	0.00	0.00	0.00
2018	0.07	275.29	0.40	832.06
2019	0.04	270.72	0.73	393.12
2020	0.07	322.42	0.50	743.86
2021	0.12	342.83	0.52	850.05
2022	0.00	204.29	0.24	859.72

***Data processing (2023)*

Interpretation: Axis Bank Ltd experienced an undervalued trend because the stock'scalculated value was higher than its market value. Buying shares of these companies before the market price of these stocks rises is the investment choice for potential investors. In the meantime, assuming the stock price will rise in the future, investors who already own shares in these companies ought to hold those shares and increase their ownership. Axis bank also have Distributed the fair dividend.

Table No 5.1.3: Comparing of calculated value Using DDM method with Stock market value of Axis Bank from 2013-2022.

calculated value of Stocks (DDM)	Stock Market Value	Stock Valuation
332.96	292.10	Undervalued
639.43	560.20	Undervalued
503.51	444.15	Undervalued
514.79	490.80	Undervalued
0.00	0.00	-
832.06	777.25	Undervalued
393.12	379.00	Undervalued
743.86	697.45	Undervalued
850.05	761.15	Undervalued
859.72	858.50	Fair

Interpretation: we Found that Axis Bank Ltd experienced an undervalued trend because the stock's calculated value was higher than its market value from 2013-2022. Buying shares of these companies before the market price of these stocks rises is the investment choice for potential investors.

HDFC Bank:

Table 5.1.4: Financial Ratio Analysis of HDFC Bank Ltd From 2013-2022.

Year	Return on Equity (ROE)	EPS	Dividend Payout Ratio
2013	20%	18.22	19%
2014	17%	21.32	19%
2015	17%	25.32	19%
2016	17%	29.81	18%
2017	17%	35.66	18%
2018	15%	41.00	18%
2019	15%	49.70	5%
2020	15%	57.74	11%
2021	15%	68.62	23%
2022	15%	72.89	23%

***Data Processing (2023)*

After knowing the financial data to calculate stock valuations using the Dividend Discount Model (DDM) method, an analysis of intrinsic stock prices is then carried out. Thecalculated value of the shares that have been obtained will be used to compare with the stock market value whose data is taken from the closing price of each company. Here are the stages of calculation:

Table No 5.1.5: Showing Results of Stock valuation calculation Using the DDM method of HDFC Bank from 2013-2022.

Year	Dividend Growth Rate	Estimated Expected Dividend	Required Rate of Return	Calculated value of Stocks (DDM)
2013	0.16	1907.53	4.55	434.59
2014	0.14	2280.92	4.06	581.66
2015	0.14	2737.94	4.62	610.54
2016	0.14	3201.47	4.04	819.20
2017	0.14	3839.55	3.72	1073.29
2018	0.12	4570.01	3.64	1297.13
2019	0.15	1572.01	1.74	988.40
2020	0.13	4065.80	2.53	1694.76
2021	0.12	9619.27	5.97	1645.47
2022	0.13	8517.78	4.83	1811.25

***Data Processing (2023)*

Interpretation: HDFC Bank Ltd experienced an undervalued trend because the stock'scalculated value was higher than its market value. Buying shares of these companies before the market price of these stocks rises is the investment choice for potential investors. In the meantime, assuming the stock price will rise in the future, investors who already own shares in these companies ought to hold those shares and increase their ownership. HDFC Bank Ltd Stock from 10 years it has been Undervalued.

Table No 5.1.6: Comparing of calculated value Using DDM method with Stock market value of HDFC Bank from 2013-2022.

Calculated value of Stocks (DDM)	Market Price	Stock Valuation
434.59	374.40	undervalued
581.66	511.35	undervalued
610.54	535.58	undervalued
819.20	721.28	undervalued
1073.29	943.05	undervalued
1297.13	1159.45	undervalued
988.40	861.90	undervalued
1694.76	1493.65	undervalued
1645.47	1470.35	undervalued
1811.25	1609.55	undervalued

Interpretation: HDFC Bank Ltd experienced an undervalued trend because the stock calculated value was higher than its market value**.** Buying shares of these companies before the market price of these stocks rises is the investment choice for potential investors.

Federal Bank

TABLE NO 5.1.7: Financial Ratio Analysis of Federal bank ltd from 2013-2022.

Year	Return on Equity (ROE)	EPS	Dividend Payout Ratio
2013	12%	4.97	20%
2014	14%	6.17	18%
2015	6%	2.83	19%
2016	10%	5.03	18%
2017	8%	4.74	21%
2018	10%	6.63	21%
2019	11%	7.93	0%
2020	10%	8.34	8%
2021	10%	9.37	19%
2022	5%	4.54	7%

***Data Processing (2023)*

After knowing the financial data to calculate stock valuations using the Dividend Discount Model (DDM) method, an analysis of intrinsic stock prices is then carried out. Thecalculated value of the shares that have been obtained will be used to compare with the stock market value whose data is taken from the closing price of each company. Here are the stages of calculation:

Table No 5.1.8: Showing Results of Stock valuation calculation Using the DDM method of Federal Bank Ltd from 2013-2022.

Year	Dividend Growth Rate	Estimated Expected Dividend	Required Rate of Return	calculated value of Stocks (DDM)
2013	0.10	187.98	3.67	52.62
2014	0.11	209.74	2.97	73.48
2015	0.05	97.29	2.05	48.72
2016	0.08	167.50	1.78	98.72
2017	0.06	209.08	2.27	94.56
2018	0.08	299.29	2.96	103.87
2019	0.11	209.74	3.01	78.58
2020	0.09	152.64	1.94	82.80
2021	0.08	409.74	3.97	105.45
2022	0.05	221.49	1.65	138.47

***Data processing (2023)*

Interpretation: Federal Bank Ltd experienced an undervalued trend because the stock'scalculated value was higher than its market value. Buying shares of these companies before the market price of these stocks rises is the investment choice for potential investors. In the meantime, assuming the stock price will rise in the future, investors who already own shares in these companies ought to hold those shares and increase their ownership. Federal Bank Ltd Stock from 10 years it has been Undervalued.

Table No 5.1.9: Comparing of calculated value Using DDM method with Stock market value of Federal Bank Ltd from 2013-2022.

calculated value of Stocks (DDM)	Price	Stock Valuation
52.62	47.88	undervalued
73.48	66.03	undervalued
48.72	46.45	undervalued
98.72	91.45	undervalued
94.56	89.20	undervalued
103.87	96.45	undervalued
78.58	67.03	undervalued
82.80	75.80	undervalued
105.45	97.40	undervalued
138.47	132.30	undervalued

Interpretation: Federal Bank Ltd experienced an undervalued trend because the stock calculated value was higher than its market value. Buying shares of these companies before the market price of these stocks rises is the investment choice for potential investors.

IndusInd Bank Ltd

Table 5.1.10: Financial Ratio Analysis of IndusInd Bank ltd from 2013-2022.

Year	Return on Equity (ROE)	EPS	Dividend Payout
2013	16%	26.80	16%
2014	17%	33.88	107%
2015	13%	38.43	99%
2016	14%	47.95	86%
2017	15%	60.08	55%
2018	12%	54.77	67%
2019	13%	63.70	98%
2020	7%	36.67	157%
2021	10%	59.52	55%
2022	12%	95.24	24%

***data Processing (2023).*

After knowing the financial data to calculate stock valuations using the Dividend Discount Model (DDM) method, an analysis of intrinsic stock prices is then carried out. Thecalculated value of the shares that have been obtained will be used to compare with the stock market value whose data is taken from the closing price of each company. Here are the stages of calculation:

Table No 5.1.11: Showing Results of Stock valuation calculation Using the DDM method of IndusInd Bank ltd from 2013-2022.

Year	Dividend Growth Rate	Estimated Expected Dividend	Required Rate of Return	calculated value of Stocks (DDM)
2013	0.13	208.12	0.50	567.74
2014	-0.01	209.45	0.23	876.24
2015	0.00	267.99	0.28	968.45
2016	0.02	365.71	0.27	1452.23
2017	0.07	481.00	0.32	1919.85
2018	0.04	470.34	0.29	1852.16
2019	0.00	486.67	1.38	352.04
2020	-0.04	372.31	0.37	918.99
2021	0.04	687.19	0.75	976.21
2022	0.09	1185.89	1.11	1165.90

***data Processing (2023).*

Interpretation: IndusInd Bank ltd stock havecalculated value being lower than the stock market value, the company experienced an overvalued trend. The decision to invest should not be made by potential investors, and investors who already hold shares of the company should immediately sell them to receive capital gains. IndusInd Bank ltd stock valuation has been overvalued from past last 10 years.

Table No 5.1.12: Comparing of calculated value Using DDM method with Stock market value of IndusInd Bank ltd from 2013-2022.

calculated value of Stocks (DDM)	Price	Stock Valuation
567.74	501.85	undervalued
876.24	886.00	Overvalued
968.45	967.60	Fair
1452.23	1425.15	undervalued
1919.85	1796.75	undervalued
1852.16	1780.00	overvalued
352.04	351.30	Fair
918.99	954.45	overvalued
976.21	985.00	overvalued
1165.90	1067.95	overvalued

Interpretation: IndusInd Bank ltd stock havecalculated value being lower than the stock market value, the company experienced an overvalued trend. The decision to invest should not be made by potential investors, and investors who already hold shares of the company should immediately sell them to receive capital gains**.**

Kotak Mahindra Bank Ltd

Table No 5.1.13: Financial Ratio Analysis of Kotak Mahindra Bank Ltd from 2013-2022.

Year	Return on Equity (ROE)	EPS	Dividend Payout Ratio
2013	13%	16.00	3%
2014	14%	19.72	2%
2015	10%	18.86	3%
2016	13%	26.84	2%
2017	12%	32.54	2%
2018	12%	37.74	2%
2019	13%	44.92	0%
2020	12%	50.41	2%
2021	13%	60.91	2%
2022	15%	75.13	2%

** *Data Processing (2023)*

After knowing the financial data to calculate stock valuations using the Dividend Discount Model (DDM) method, an analysis of intrinsic stock prices is then carried out. Thecalculated value of the shares that have been obtained will be used to compare with the stock market value whose data is taken from the closing price of each company. Here are the stages of calculation:

Table No 5.1.14: Showing Results of Stock valuation calculation Using the DDM method of Kotak Mahindra Bank 2013-2022.

Year	Dividend Growth Rate	Estimated Expected Dividend	Required Rate of Return	calculated value of Stocks (DDM)
2013	0.13	69.39	0.28	439.71
2014	0.13	78.85	0.24	744.83
2015	0.10	100.98	0.24	749.34
2016	0.13	124.31	0.25	981.64
2017	0.12	149.42	0.25	1173.72
2018	0.12	171.33	0.24	1497.36
2019	0.13	0.00	0.13	0.00
2020	0.12	199.12	0.22	1956.94
2021	0.12	245.12	0.25	1969.23
2022	0.15	341.78	0.32	1987.59

***data Processing (2023).*

Interpretation: Kotak Mahindra Bank Ltd experienced an undervalued trend because the stock'scalculated value was higher than its market value. Buying shares of these companies before the market price of these stocks rises is the investment choice for potential investors. In the meantime, assuming the stock price will rise in the future, investors who already own shares in these companies ought to hold those shares and increase their ownership. Kotak Mahindra Bank Ltd Stock from 10 years it has been Undervalued.

Table No 5.1.15: Comparing of calculated value Using DDM method with Stock market value of Kotak Mahindra Bank from 2013-2022.

calculated value of Stocks (DDM)	Stock Market Value	Stock Valuation
439.71	390.53	Undervalued
744.83	656.63	Undervalued
749.34	680.65	Undervalued
981.64	872.20	Undervalued
1173.72	1047.80	Undervalued
1497.36	1334.50	Undervalued
0.00	-	-
1956.94	1753.00	Undervalued
1969.23	1753.85	Undervalued
1987.59	1732.85	Undervalued

Interpretation: Kotak Mahindra Bank Ltd experienced an undervalued trend because the stock calculated value was higher than its market value. Buying shares of these companies before the market price of these stocks rises is the investment choice for potential investors.

5.2. DESCRIPTIVE STATISTICS:

Table No 5.2.1: Descriptive statistics of Axis Bank ltd for the period between from 2013-2022.

Parameters	Values	
	calculated value of Stocks (DDM)	Stock Market Value
Mean	618	577
Median	577	195
Standard deviation (S.D)	195	188
P. value (t-test)	0.002	

***level of Significance = 0.05*

Interpretation: P. value (t-test) is less than 0.05 which means null hypothesis is not rejected thus Axis Bank Ltdcalculated value and Stock market value are considered statistically significant.

Table No 5.2.2: Descriptive statistics of HDFC Bank ltd for the period between from 2013-2022.

Parameters	Values	
	calculated value of Stocks (DDM)	Stock Market Value
Mean	1096	1031
Median	968	902
Standard deviation (S.D)	499	447
p. value (t-test)	0.001	

***level of Significance = 0.05*

Interpretation: P. value (t-test) is less than 0.05 which means null hypothesis is not rejected thus HDFC Bank Ltdcalculated value and Stock market value are considered statistically significant.

Table No 5.2.3: Descriptive statistics of Federal Bank ltd for the period between from 2013-2022.

Parameters	Values	
	calculated value of Stocks (DDM)	**Stock Market Value**
Mean	88.7	82.6
Median	94.6	89.2
Standard deviation (S.D)	28.0	27.0
p. value (t-test)	0.001	

***level of Significance = 0.05*

Interpretation: P. value (t-test) is less than 0.05 which means null hypothesis is not rejected thus Federal Bank Ltdcalculated value and Stock market value are considered statistically significant.

Table No 5.2.4: Descriptive statistics of IndusInd Bank ltd for the period between from 2013-2022.

Parameters	Values	
	calculated value of Stocks (DDM)	Stock Market Value
Mean	1105	1067
Median	972	961
Standard deviation (S.D)	508	480
p. value (t-test)	0.041	

***level of Significance = 0.05*

Interpretation: P. value (t-test) is less than 0.05 which means null hypothesis is not rejected thus IndusInd Bank Ltdcalculated value and Stock market value are considered statistically significant.

Table No 5.2.5: Descriptive statistics of Kotak Mahindra Bank Ltd for the period between from 2013-2022.

Parameters	Values	
	Calculated value of Stocks (DDM)	Stock Market Value
Mean	1278	1136
Median	1174	1048
Standard deviation (S.D)	597	528
p. value (t-test)	0.001	

**level of Significance = 0.05

Interpretation: P. value (t-test) is less than 0.05 which means null hypothesis is not rejected thus Kotak Mahindra Bank Ltd calculated value and stock market value are considered statistically significant.

FINDINGS

- The Dividend Discounted Model (DDM) approach is a beneficial tool for calculating a stock's calculated value based on projected future payments. We discovered the intrinsic worth of five private banks and calculated stock valuations for the 5 private banks. In the selected private sector bank in 2013-2022, the 4 banks all have undervalued shares.

- In the selected private sector bank in 2013-2022., the value of undervalued shares occurred in Axis Bank Ltd, HDFC Bank Ltd, Federal Bank Ltd and Kotak Mahindra Bank.

- we Found that Axis Bank Ltd experienced an undervalued trend because the stock's calculated value was higher than its market value from 2013-2022.

- HDFC Bank Ltd experienced an undervalued trend because the stock calculated value was higher than its market value**.**

- Federal Bank Ltd experienced an undervalued trend because the stock calculated value was higher than its market value. Buying shares of these companies before the market price of these stocks rises is the investment choice for potential investors.

- IndusInd Bank ltd stock havecalculated value being lower than the stock market value, the company experienced an overvalued trend. The decision to invest should not be made by potential investors, and investors who already hold shares of the company should immediately sell them to receive capital gains**.**

- Kotak Mahindra Bank Ltd experienced an undervalued trend because the stock calculated value was higher than its market value. Buying shares of these companies before the market price of these stocks rises is the investment choice for potential investors.

CONCLUSION

The approach can be useful for evaluating thecalculated value of private banks. However, remember the DDM has limitations and should be used with other analytical techniques. Due to regulatory obligations and the consistency of their revenues, private banks maintain a constant dividend distribution strategy. As a result, the DDM strategy is more appropriate because it implies a consistent dividend growth rate.

The DDM expects that dividends will continue to rise at the same pace in the future. When applying the concept to private banks, it is critical to evaluate the bank's capacity to maintain and raise dividends over time. Profitability, capital adequacy, and economic conditions should all be evaluated.

Private banks work in a highly regulated industry with well-established business structures. While economic cycles can influence their profitability, private banks tend to be more stable than other industries. This consistency can improve the dependability of dividend predictions utilized in the DDM.

Interest rate variations affect private banks. Interest rate movements might have an influence on their profitability and dividend growth prospects. Interest rate projections and their implications on DDM inputs.

Axis Bank, HDFC bank experienced an undervalued trend because the stock'scalculated value was higher than its market value. Buying shares of these companies before the market price of these stocks rises is the investment choice for potential investors. In the meantime, assuming the stock price will rise in the future, investors who already own shares in these companies ought to hold those shares and increase their ownership.

IndusInd Bank IndusInd Bank ltd stock havecalculated value being lower than the stock market value, the company experienced an overvalued trend. The decision to invest should not be made by potential investors, and investors who already hold shares of the company should immediately sell them to receive capital gains. IndusInd Bank ltd stock valuation has been overvalued from past last 10 years.

REFERENCES

(john), x. J. (2019). An empirical test of the accounting-based residual income model and the traditional dividend discount model. *Umi microform, 1*(1),1- 24.

Afandy, c. (2019). Stock valuation menggunakan dividend discounted model (DDM) on banks in indonesia. *The manager review, 4*(2), 57-73.

Amanjot kaur sodhi, s. W. (2016). Fundamental analysis of selected public and private sector banks in india. *Nmims management review, 20*(8), 32-48.

Ananth ananth, p. A. (2022). Fundamental analysis of selected rivate and public bank sectors in india. *International journal of management (ijm), 11*(12), 1939-1949.

Baresa, s., bogdan, s., & ivanovic, z. (2018). Strategy of stock valuation by fundamental analysis. *Utms journal of economics, 4*(1), 45-51.

Baresa, s., bogdan, s., & ivanovic, z. (2018). Strategy of stock valuation by fundamental analysis. *Utms journal of economics, 4*(1), 45-51.

Bothra, p. (2018). An analysis of financial performance of selected public and private sector banks-a special reference to profitability. *Gari publisher | banking & finance., 45-49*, 45-49.

Chittaranjan mangale, s. M. (2017). Fuzzy logic based stock value prediction using fundamental analysis. *Oriental journal of computer science & technology, 10*(1), 120-126.

Dr. B. Charumathi, e. S. (2014). The reliability of dividend discount model in valuation of bank stocks at the bombay stock exchange. *International journal of research in commerce & management, 5*(03), 39-43.

Dr. B. Charumathi, s. .. (2016). Comparing stock valuation models for Indian bank stocks. *International journal of accounting and taxation, 2*(2), 111-127.

Eddy sutjipto, w. S. (2020). Determination ofcalculated value : dividend discount model and discounted cash flow methods in indonesia stock exchange. *International journal of management (ijm), 11*(11), 1842-1852.

Fredj jawadi, g. P. (2015). Equity prices and fundamentals. *Université de paris ouest nanterre la défense, 2*(1),1- 33.

Isaac kof nti, a. F. (2019). A systematic review of fundamental and technical analysis of stock market predictions. *Artifcial intelligence review, 1*(1),1- 52.

Ivanovski, z. N. (2015). Application of dividend discount model valuation at macedonian stock exchange. *Utms journal of economics., 6*(1), 147-154.

J.v.v. meghanath, k. S. (2020). Fundamental analysis: a study on selected steel companies in india. *International journal of pure and applied mathematics, 119*(12), 14809-14823.

Manisha kaushal arora, j. D. (2019). Fundamentalanalysis of banking sector. *Indiajournals, 8*(2), 1-12.

Nurni arrina lestari, a. A. (2022). Evaluation of stock through fundamental analysis with the dividend discount model (DDM) approach. *International journal of indonesian business review, 2*(1), 77-87.

Piyush kumar, n. R. (2018). Fundamental analysis of a selected stock in capital goods industry. *Ijsr, 5*(2), 121-135.

Prof. Namrata acharya, m. S. (2020). A study on fundamental analysis of Indian telecom companies. *International journal of technology and management., 5*(1 & 2), 28-34.

R.k. sharma, a. C. (2016). A study of Indian banking sector using fundamental analysis. *Indianjournals, 7*(2), 13-23.

Rajeswari, d. M. (2020). A study on construction of an investment portfolio using fundamental analysis. *International journal of management (ijm), 11*(12), 415-429.

Roy bornilla gacus, j. E. (2018). The reliability of constant growth dividend discount model (DDM) in valuation of philippine common stocks. *International journal of economics & management sciences., 7*(1), 1-10.

Silpa k s, a. M. (2017). A study on fundamental analysis of selected it companies listed at nse. *Jour of adv. Research in dynamical and control systems, 9*(5), 1-11.

Stock return problems in the coal sector: a case study of the use of price earning ratio and firm size moderation. (2022). *Asean international journal of business , 2*(1), 20.

T. Maharaja, m. (2015). Fundamental analysis for investment decisions on five major banks. *Sms, 7*(2), 78-88.

Undavia, m. B. (2016). Fundamental analysis of selected public and private sector banks in india. *Indian journal of research, 5*(11), 162-165.