# REFLECTIONS

Issue 9 volume I Jan-June 2024



# **BHARATI VIDYAPEETH**

(Deemed to be University), Pune, India
Institute of Management &
Entrepreneurship Development, Pune



Accredited with 'A+' Grade (2017) by NAAC | Category-I University Status by UGC 'A' Grade University Status by MHRD, Govt. of India

Ranked among top 125 B-schools in India by NIRF 2023, Ministry of Human Resource Development, Government of India.

|           | RESEARCH PAPER   | RS                              |
|-----------|--|---------------------------------|
| SR.<br>NO | TITLE OF PAPERS  | AUTHORS                         |
| 1.        | Mitigating Bankruptcy Risks: The Role of Prediction Models and Determinants in Financial Decision - Making | Mr. Vikash Ranjan<br>Mr. Sparsh |
| 2         | AI driven Pollution Absorber Robot: A Breakthrough for Environmental Sustainability                        | Ms. Neeti Malu                  |
| 3         | A Case Study of Tata Group's Acquisition of Air<br>India: Strategic Triumph or Potential Pitfall           | Ms. Shrinkhla Mishra            |
| 4         | Bankruptcy predication and determinants: Basics Understanding  | Ms. Prajakta Sanket Pawar       |

# **ARTICLES**

| 1 | Blockchain: A new Era of Fintech Innovation  | Ms. Pallavi Dhar         |
|---|--|--------------------------|
| 2 | The Future of Finance: Understanding Crypto currency and Its Impact  | Mr. Suraj Mallelwar      |
| 3 | The Power of Financial Independence: Why You Should Act Immediately  | Ms. Ayushi Gupta         |
| 4 | The Silent Invasion: Microplastics in Our Daily Diet   | Mr. Abhishek Singh       |
| 5 | Mastering College Finances: Budgeting Tips for a Stress-Free Student Life                                  | Ms. Priyanshi Pranami    |
| 6 | The Ethics of Personal Branding: Are We All Just Marketing Ourselves?                                      | Ms. Pranjal Rahatgaonkar |
| 7 | The dark side of Philanthropy  | Mr. Sanskar Vishwakrma   |
| 8 | Understanding home loan policies: Key factors that can impact your loan decisions and approval through DSA | Ms. Swarali Patil        |





Hon'ble Dr. Patangrao Kadam M.A., LL.B., Ph.D.

Founder, Bharati Vidyapeeth, Pune

Founder-Chancellor, Bharati Vidyapeeth (Deemed to be University), Pune

# The constituent units of Bharati Vidyapeeth University, Pune

- BVDU Medical College, Pune.
- 2. BVDU Dental College & Hospital, Pune
- 3. BVDU College of Ayurved, Pune
- 4. BVDU Homoeopathic Medical College, Pune
- 5. BVDU College of Nursing, Pune
- 6. BVDU Yashwantrao Mohite College of Arts, Science & Commerce, Pune.
- 7. BVDU New Law College, Pune
- 8. BVDU Social Sciences Centre (M.S.W.), Pune
- 9. BVDU Yashwantrao Chavan Institute of Social Science Studies & Research, Pune.
- BVDU Centre for Research & Development in Pharmaceutical Sciences & Applied Chemistry, Pune
- 11. BVDU College of Physical Education, Pune.
- 12. BVDU Institute of Environment Education & Research, Pune
- 13. BVDU Institute of Management & Entrepreneurship Development, Pune
- 14. BVDU Poona College of Pharmacy, Pune
- 15. BVDU College of Engineering, Pune
- 16. BVDU Interactive Research School in Health Affairs (IRSHA), Pune
- 17. BVDU Rajiv Gandhi Institute of Information Technology & Biotechnology, Pune
- 18. BVDU College of Architecture, Pune
- 19. BVDU Abhijit Kadam Institute of Management & Social Sciences, Solapur
- 20. BVDU Institute of Management, Kolhapur
- 21. BVDU Institute of Management & Rural Development administration, Sangli
- 22. BVDU Institute of Management & Research, New Delhi
- 23. BVDU Institute of Hotel Management & Catering Technology, Pune
- 24. BVDU Yashwantrao Mohite Institute of Management, Malakapur-Karad
- 25. BVDU Medical College & Hospital, Sangli
- 26. BVDU Dental College & Hospital, Mumbai
- 27. BVDU Dental College & Hospital, Sangli
- 28. BVDU College of Nursing, Sangli
- 29. BVDU College of Nursing, Navi Mumbai

### **CENTRAL OFFICE**

#### **PUNE**

Bharati Vidyapeeth (Deemed to be University) Institute of Management and Entrepreneurship Development, Paud Road Erandwane, Pune 411 038 Tel.: 020 - 25431060,25425517

#### **EDUCATIONAL CENTRES**

Pune, Navi Mumbai, New Delhi, Sangli, Kolhapur, Solapur, Karad, Jawhar, Satara

### **DIVISIONAL OFFICES**

#### **NAVI MUMBAI**

Bharati Vidyapeeth (Deemed to be University) Institute of Management studies & Research Sector No. 8, CBD, Belpada, Navi Mumbai - 400 614 Tel.: 27572433.27562582

#### **SOLAPUR**

Bharati Vidyapeeth (Deemed to be University) Abhijit Kadam Institute of Management and Social Science, Bijapur Road, Solapur - 413004 Tel.: 0217 - 2302016,2341353

#### **NEW DELHI**

Bharati Vidyapeeth (Deemed to be University) Institute of Management and Research, A-4 Rohtak Road Opp. Ordanance Depot. Paschim Vihar, Extension New Delhi - 110 063 Tel.: 011- 25285808,25284396,25276446

#### **SANGLI**

Bharati Vidyapeeth (Deemed to be University) Institute of Management and Rural Development Administration, Rajwada Chowk, Sangli - 416416 Tel.: 0233 - 2325776,2377249

# IMED-REFLECTIONS JOURNAL OF BV(DU) IMED, PUNE - 38.

### **PATRON**



Hon'ble Dr. Shivajirao Kadam Chancellor, Bharati Vidyapeeth (Deemed to be University), Pune



Hon'ble Dr. Vivek Saoji Vice Chancellor, Bharati Vidyapeeth (Deemed to be University), Pune



Hon'ble Dr. Vishwajeet Kadam Secretary, Bharati Vidyapeeth, Pune Pro -Vice Chancellor, Bharati Vidyapeeth (Deemed to be University), Pune

# **ADVISORY BOARD**

Hon'ble Dr. Vivek Saoji

Vice Chancellor, Bharati Vidyapeeth (Deemed to be University), Pune

#### Hon'ble Dr. S. F. Patil

Executive Director, International Relations Bharati Vidyapeeth (Deemed to be University), Pune

# Dr. Soniya Billore

Associate Professor, Department of Marketing, School of Business and Economics, Linnauses University, Sweden

# Dr. Swapna Hegde, Ph.D

Export Controls Research Analyst, (SPARC), Rice University, Houston

### Dr. Shailesh Kasande

CEO & Group Director, Suryadutta Institute of Management and Mass Communication, Pune

### Dr. Shivaji Mundhe

Director and Professor International Institute of Management Science, Pune

#### Dr. Anil Keskar

Research Advisor Sri Balaji University, Pune

### Dr. Sharad Joshi

Former Director , Prin. N.G. Naralkar Institute, Pune

### Dr. Harisad Acharya

Former Professor, Allana Institute of Management Science, Pune.

# Issue 9 Volume I

Jan-June 2024

©Bharati Vidyapeeth (Deemed to be University), Institute of Management and Entrepreneurship Development, Pune.

# **Faculty Editor:**

Dr. Ranpreet Kaur

Dr. Deepali Pisal

Ms. Sangeeta Patil

# Published and printed by:

# Dr. Ajit More

I/C Director, Bharati Vidyapeeth (Deemed to be University), Institute of Management and Entrepreneurship Development, Pune. More Vidyalay Campus, Erandwane, Paud Road, Pune 411038. Tele No: (020) 25425517/ 25448005, Telefax: 020 – 24531060

### On behalf of:

Bharati Vidyapeeth (Deemed to be University), Institute of Management and Entrepreneurship Development, Pune. More Vidyalay Campus, Erandwane, Paud Road, Pune 411038.

# Laser Printing at,

Bharati Printing Press More Vidyalay Campus, Erandwane, Paud Road, Pune 411038.

# Printed at:

**Bharati Printing Press** 

More Vidyalay Campus, Erandwane, Paud Road, Pune 411038.



# **Director's Message**

Greetings, I hope that each one of you all are sound and safe. I wish that 2024 brings you all good health and happiness.

Despite global challenges, such as economic shifts, conflicts, and evolving globalization, the world kept moving forward. While COVID-19 pushed many nations to the brink of recession, it also unlocked new opportunities for international collaboration and networking. In this ever-changing landscape, management education must be both comprehensive and inclusive. This is why Reflections ensures equal emphasis on both technical expertise and research.

IMED's Reflections is a student journal that features both theoretical and empirical research across all areas of management. We welcome submissions on a variety of topics. This issue includes notable research papers such as Mitigating Bankruptcy Risks Prediction Models and Determinants, AI Driven Pollution Absorber Robot: A Breakthrough for Environmental Sustainability, Case Study of Tata Group's Acquisition of Air India. Article section focus on with Block chain and Fintech Innovation, crypto currency. The Power of Financial Independence, Micro plastics in Our Daily Diet, Mastering College Finances, The Ethics of Personal Branding, The Dark Side of Philanthropy and Home Loan Policies.

At IMED, we strongly support and promote research, as the ability to observe and influence individual and societal behavior is closely linked to strong research skills. For decades, IMED has been committed to educating and nurturing students, shaping them into responsible corporate leaders.

Research not only enables individuals to acquire knowledge, but also builds confidence and increases public awareness. These qualities are essential for a scholar's growth, both academically and personally. Our dedicated faculty, alongside our exceptionally talented students, have consistently worked together to achieve excellence in management, innovation, and entrepreneurship.

I would like to take this moment to congratulate all the students whose papers and articles are featured in this issue and to encourage others to engage in research, continuing to make a positive impact on society.

I hope you find this issue insightful and enriching. My warmest wishes and regards to you and your families.

# From the Editor's Desk

# Greetings everyone!

Welcome to IMED's Reflections. IMED releases two issues annually, covering various aspects of management, innovation, business and technology. In this edition of journal, we are proud to present a diverse collection of research papers and articles that highlight key trends, innovations, and challenges in both finance and sustainability. These topics are timely and crucial, not only for academic exploration but also for their real-world applications in shaping a more sustainable and financially aware future.

First research paper, Mitigating Bankruptcy Risks: The Role of Prediction Models and Determinants in Financial Decision-Making, offers valuable insights into how prediction models can avert financial crises and improve decision-making processes. This is followed by AI Driven Pollution Absorber Robot: A Breakthrough for Environmental Sustainability, which proposes a groundbreaking solution to one of the most pressing environmental challenges of our time.

One of the key highlights and in-depth analysis is presented in Case Study of Tata Group's Acquisition of Air India: Strategic Triumph or Potential Pitfall, which examines the strategic complexities behind this significant acquisition and its long-term implications. In line with the financial theme, Bankruptcy Prediction and Determinants provides a comparative perspective on financial stability and the role of economic indicators in assessing bankruptcy risk.

Article section kicks off with Blockchain: A New Era of Fintech Innovation, offering a fresh look at how blockchain technology is revolutionizing the fintech landscape. Other article explores the evolving world of digital currencies in The Future of Finance: Understanding Cryptocurrency and Its Impact, shedding light on how this dynamic field is changing global finance.

One author has emphasized the importance of self-reliance in her article, The Power of Financial Independence: Why You Should Act Immediately, while one author draws attention to an alarming environmental issue in The Silent Invasion: Microplastics in Our Daily Diet.

Student finance is tackled by author in Mastering College Finances: Budgeting Tips for a Stress-Free Student Life, offering practical tips for students managing their finances. Ethical concerns in personal branding are thoughtfully discussed in The Ethics of Personal Branding: Are We All Just Marketing Ourselves? while one article takes a critical stance on philanthropy in The Dark Side of Philanthropy.

Finally article, Understanding Home Loan Policies: Key Factors That Can Impact Your Loan Decisions and Approval Through DSA, provides an insightful guide for individuals navigating the complexities of home loans, offering expert advice on policy determinants.

We believe this edition will provide readers with diverse perspectives, practical knowledge, and thoughtful reflections on the pressing issues in today's financial and environmental arenas.

Happy reading!

Editors
Dr. Ranpreet Kaur
Dr. Deepali Pisal
Mrs. Sangeeta Patil

# Research at IMED

BVDU IMED acknowledges the increasing significance of research within the realms of Management, technology and Social Sciences. To facilitate and direct research endeavors, the institution has formulated a comprehensive research policy to inspire faculty members and students alike to embark on research projects of societal, national, and industrial relevance.

One of our primary objectives is to encourage interdisciplinary collaboration and the exchange of knowledge. By fostering an environment conducive to research, innovation, and implementation, we aim to contribute positively to societal progress.

In line with this vision, IMED actively promotes a research culture among students. We motivate them to publish their research findings in collaboration with faculty members through our journals, "Reflections and JMSR". Our institution ensures effective coordination of research activities across different departments with the aid of internal and external experts.

Furthermore, we prioritize research capacity building and adopt a systematic approach to promote research excellence. This involves organizing workshops on research methodology and grant writing, as well as seminars on research ethics and intellectual property rights.

Through research collaborations, we engage in joint research projects, facilitate faculty exchanges, and develop collaborative research protocols. These partnerships enhance our research output and contribute to the advancement of knowledge in Management and Computer Applications.

Faculty members at IMED are actively engaged in writing research papers that are published in reputable databases such as Scopus, Web of Science, and UGC CARE. Additionally, they are diligently pursuing research funding opportunities. Moreover, many of them have successfully registered and obtained patents for their innovative work.

IMED's holistic approach to research encompasses support, coordination, ethical oversight, capacity building, and collaborations. This underscores our commitment to fostering a dynamic research environment and driving innovation in the fields of Management and Computer Applications.

# **INDEX**

|           | RESEARCH PAPER   | RS                              |    |
|-----------|--|---------------------------------|----|
| SR.<br>NO | TITLE OF PAPERS  | AUTHORS                         |    |
| 1.        | Mitigating Bankruptcy Risks: The Role of Prediction Models and Determinants in Financial Decision - Making | Mr. Vikash Ranjan<br>Mr. Sparsh | 01 |
| 2         | AI driven Pollution Absorber Robot: A Breakthrough for Environmental Sustainability                        | Ms. Neeti Malu                  | 12 |
| 3         | A Case Study of Tata Group's Acquisition of Air<br>India: Strategic Triumph or Potential Pitfall           | Ms. Shrinkhla Mishra            | 16 |
| 4         | Bankruptcy predication and determinants: Basics Understanding  | Ms. Prajakta Sanket Pawar       | 24 |
|           | ARTICLES   |                                 |    |
| 1         | Blockchain: A new Era of Fintech Innovation  | Ms. Pallavi Dhar                | 29 |
| 2         | The Future of Finance: Understanding Crypto currency and Its Impact  | Mr. Suraj Mallelwar             | 32 |
| 3         | The Power of Financial Independence: Why You<br>Should Act Immediately                                     | Ms. Ayushi Gupta                | 34 |
| 4         | The Silent Invasion: Microplastics in Our Daily Diet   | Mr. Abhishek Singh              | 36 |
| 5         | Mastering College Finances: Budgeting Tips for a<br>Stress-Free Student Life                               | Ms. Priyanshi Pranami           | 38 |
| 6         | The Ethics of Personal Branding: Are We All Just Marketing Ourselves?                                      | Ms. Pranjal Rahatgaonkar        | 41 |
| 7         | The dark side of Philanthropy  | Mr. Sanskar Vishwakrma          | 43 |
| 8         | Understanding home loan policies: Key factors that can impact your loan decisions and approval through DSA | Ms. Swarali Patil               | 46 |

# Mitigating Bankruptcy Risks: The Role of Prediction Models and Determinants in Financial Decision-Making

Mr. Vikash Ranjan and Mr. Sparsh Students, BV (DU) - IMED, Pune

#### **Abstract**

In this research paper on bankruptcy prediction and its determinants, researchers aim to delve into the effectiveness of bankruptcy prediction models and explore the various determinants that have an impact on corporate financial distress. By conducting an extensive review of existing literature, researchers plan to assess the evolution of bankruptcy prediction methods, examine the wide range of factors that influence financial distress, and delve into the regional and industry-specific determinants that play a role in predicting bankruptcy. Additionally, researchers explored the renowned models such as Altman's Z-score, providing insights into their applicability and limitations in different economic contexts. The objective of this research is to offer valuable insights to financial analysts, policymakers, and stakeholders, enabling them to better comprehend and mitigate the risks associated with corporate bankruptcy. Through our comprehensive analysis, we hope to contribute to the existing body of knowledge in this field and facilitate informed decision-making.

Keywords: Altman model; bankruptcy; Data Envelopment Analysis; risk;

#### Introduction

"In today's dynamic corporate finance landscape, the ability to predict and mitigate the risk of bankruptcy is critical for investors, creditors, and financial analysts." The complex interaction of financial, commercial, and industry-specific drivers poses a compelling challenge in effectively forecasting business hardship. This research attempts to untangle the difficulties of bankruptcy prediction by looking into the various determinants that support this critical part of financial risk assessment. This study aims to provide a comprehensive knowledge of the elements impacting corporate solvency by evaluating known models like Altman's Z- score and investigating the changing landscape of bankruptcy prediction approaches. As financial stability and risk management continue to hold fundamental significance in the field of corporate finance, an in-depth examination of bankruptcy prediction and its drivers are essential for making educated decisions and implementing proactive risk reduction methods.

### Objectives of the study

- To study and understand the concept of bankruptcy.
- To understand the Key factors and Indicators for predicting bankruptcy.
- To study the various models used for bankruptcy predictions.

#### Literature Review

A Review of the Bankruptcy Prediction Studies published in 1930 by Jodi L. Gissel, Michael D. Akers, and Don Giacomino was published in the Journal of Financial Education in winter 2007. This study collects and analyzes current research on bankruptcy prediction studies, tracing the literature from the 1930s to the present and focusing on the evolution of bankruptcy prediction methods, the number and types of components, and the pre-defined applications of models. "Prediction of the Risk of Bankruptcy of Slovak Companies" this paper was given by none other than Peter Adamko and his colleague Lucia Svabova in year 2016 at the occasion of the 8th International Scientific Conference on the topic of "Managing and Modelling Financial Risks". This article focuses into the forecast of the probability of bankruptcy for Slovak enterprises, bringing useful insights into the specific factors of bankruptcy in a Regional Context. Vineet Agarwal and Richard Taffler's article "Comparing the Performance of Market Based and Accounting-Based Bankruptcy Prediction Models" was published in the Journal of Banking & Finance in 2008. This study analyzes the adequacy of advertise based and accounting-based insolvency expectation models, offering light on the usefulness of alternative forecasting methods. Predicting Distressed Firms and Bankruptcies in an International Context: A Review and Empirical Analysis of the Altman Z Score Model "" By Edward I. Altman, Malgorzata Iwanicz-Drozdowska, Erkki K. Laitinen, and Arto Suvas. It evaluates and inspect Altman's Z-score model in an international setting, providing insight into its efficacy in predicting insolvency. 5. Jean-Pierre Huiban and Lilia Aleksanyan's article "Economic and Financial Determinants of Firm Bankruptcy: Evidence from the French Food Industry" was introduced in public domain the Review of Agricultural, Food, and Environmental Studies in 2016. This research provides insights into the economic and financial drivers of business bankruptcy, with a focus on the French food industry.

# Research Methodology

This is conceptual research work on understand bankruptcy, key factors and models study. This work is secondary in nature. For secondary data books, websites and financial articles are referred.

# **Concept of Bankruptcy**

Bankruptcy is a legal process in which an individual or organization is declared unable to repay their outstanding debts. It provides a way for the debtor to either eliminate or reorganize their debt under the protection of the court. The process aims to provide a fresh start for the debtor while ensuring fair treatment for creditors by dividing the debtor's available assets or setting up a repayment plan. Bankruptcy can impact credit ratings and access to future financing but also offers relief from overwhelming financial obligations.

# Bankruptcy Prediction -Key factors and Indicators

- 1. Financial ratio analysis: Financial ratio analysis is a key factor in forecasting bankruptcy, including liquidity, solvency, profitability, and efficiency. Significant swings in liquidity ratios or long-term decreases in profitability ratios may indicate financial crisis.
- **2. Cash Flow Analysis:** Interpretation of a company's cash flow dynamics is key to predicting insolvency. Negative cash

flows, particularly operating cash flows, may indicate possible difficulties in satisfying financial obligations, raising the risk of bankruptcy.

- 3. **Market-Based Indicators:** In addition to financial statistics, stock price volatility, bond ratings, and credit default swap spreads can provide insight into a company's financial position and risk of bankruptcy.
- 4. **Macroeconomic Factors:** External economic conditions significantly impact a company's financial stability. Interest rates, inflation, and GDP growth rates can all have an impact on the industry as a whole, as well as a company's risk of bankruptcy.
- 5. **Industry-Specific Variables:** Different industries have distinct characteristics that can influence bankruptcy risk. Rapid technical improvements in the IT sector, as well as variable commodity prices in the energy sector, might have an impact on bankruptcy probability.
- 6. Legal and Regulatory Environment:
  Understanding a company's legal and regulatory environment is crucial for predicting insolvency. Changes in rules, ongoing lawsuits, or compliance difficulties might affect a company's financial viability.

# Statistical models for bankruptcy Predictions

Statistical models are important in bankruptcy research because they help analyze and predict the possibility of financial trouble. Here are some important statistical models often employed in bankruptcy research:

#### 1. Altman's Z-Score Model

Edward Altman introduced the Z-Score model in the 1960s, and it is now a well-known instrument for predicting corporate bankruptcy. The analysis consists of financial ratios such as sales to total assets, earnings before interest and taxes (EBIT) to total assets, total market value of equity to total book value of total liabilities working capital to total assets and retained earnings to total assets.

The Z-Score categorizes firms into three zones:

"Safe" (Z > 2.99),
"Grey" (1.81 < Z < 2.99),
"Distressed" (Z < 1.81).

# 2. Hazard models (survival analysis)

Hazard models assess the time before an event occurs, making them useful for studying the length until a company declares bankruptcy. Researchers can analyze factors affecting the hazard rate (likelihood of bankruptcy at a particular period) and survival function (chance of survival without bankruptcy up to a specific point of time). These models use time-varying factors to analyze how bankruptcy risk evolves over time

# 3. Logit and Probit Models

This models are typically used for binary outcomes, such as bankruptcy (1 for bankrupt, 0 for non-bankrupt). Both models use independent variables, including financial ratios, market indicators, and macroeconomic factors, to evaluate bankruptcy probability. The

result shows the probability of bankruptcy, with coefficients indicating how each independent variable affects this probability.

# 4. Random Forest with Gradient Boosting

It ensemble learning approaches use several decision trees to construct accurate bankruptcy prediction models. It is capable of handling high-dimensional data and capturing non-linear connections between predictors, although these models have remarkable prediction accuracy, comprehending their relative. The importance of predictors may necessitate extra strategies.

#### 5. Time Series Models

Time-series models, consists of autoregressive integrated moving average (ARIMA) and variations, can assess previous financial data and predict future bankruptcy risk. These models consider temporal relationships and seasonality of financial data to predict bankruptcy risk over time. By incorporating these statistical models into bankruptcy research, scholars may quantitatively examine the causes of financial distress. predict bankruptcy outcomes, and contribute to the development of effective risk management techniques. Each model has distinct strengths and considerations, and their selection should be aligned with the specific research aims and characteristics of the dataset.

#### 6. Neural networks

Multilayer perceptrons, a type of neural network model, may accurately forecast complicated, non-linear interactions in bankruptcy. It is Capable of identifying detailed patterns in large datasets with several variables that typical statistical methods may miss. Along with these proper model tuning and validation are crucial for neural networks to operate predictably and generalize.

# Lehman Brothers Bankruptcy Case

The collapse of the Lehman Brothers in 2008 was a crucial moment in the financial crisis of world's economic history. Risky bets on subprime mortgages and complex financial instruments, combined with high leverage, left them exposed when the housing market crashed. This triggered a bankruptcy filing, the largest in US history, which sent shockwaves through global markets The fallout included financial turmoil, a credit crunch hindering lending, and government interventions to stabilize the system. Job losses and economic uncertainty rippled outwards. In the long run, the crisis spurred regulatory reforms to improve oversight and transparency. It also eroded public trust in the financial sector, leading to a focus on responsible risk management and corporate governance. Lehman Brothers' demise gives as a perfect reminder of the financial ecosystem correlation as well as the significance of well built risk management and fruitful regulation.

# LEHMAN BROTHERS HOLDINGS INC. PART I—FINANCIAL INFORMATION

ITEM 1. Financial Statements

# LEHMAN BROTHERS HOLDINGS INC.

# Consolidated Statement of Income (Unaudited)

|  | Three Months Ended May 31, |           | Six Months Ended May 31, |           |
|--|----------------------------|-----------|--------------------------|-----------|
| In millions, except per share data         | 2008                       | 2007      | 2008                     | 2007      |
| Revenues                                   | PLASE COMMO                | 227233331 | 7270200200               | 12/2/11/2 |
| Principal transactions                     | \$(3,442)                  | \$ 2,889  | \$(2,670)                | \$ 5,810  |
| Investment banking                         | 858                        | 1,150     | 1,725                    | 2,000     |
| Commissions                                | 639                        | 568       | 1,297                    | 1,108     |
| Interest and dividends                     | 7,771                      | 10,558    | 17,405                   | 19,647    |
| Asset management and other                 | 414                        | 414       | 853                      | 809       |
| Total revenues                             | 6,240                      | 15,579    | 18,610                   | 29,374    |
| Interest expense                           | 6,908                      | 10,067    | 15,771                   | 18,815    |
| Net revenues                               | (668)                      | 5,512     | 2,839                    | 10,559    |
| Non-Interest Expenses                      | 3-177.45e3                 | 3=1-30-1  |                          | P000      |
| Compensation and benefits                  | 2,325                      | 2,718     | 4,166                    | 5,206     |
| Technology and communications              | 309                        | 287       | 612                      | 553       |
| Brokerage, clearance and distribution fees | 252                        | 201       | 504                      | 395       |
| Occupancy                                  | 188                        | 152       | 373                      | 298       |
| Professional fees                          | 100                        | 120       | 198                      | 218       |
| Business development                       | 87                         | 100       | 175                      | 184       |
| Other                                      | 158                        | 55        | 235                      | 127       |
| Total non-personnel expenses               | 1,094                      | 915       | 2,097                    | 1,775     |
| Total non-interest expenses                | 3,419                      | 3,633     | 6,263                    | 6,981     |
| Income before taxes                        | (4,087)                    | 1,879     | (3,424)                  | 3,578     |
| Provision for income taxes                 | (1,313)                    | 606       | (1,139)                  | 1,159     |
| Net income                                 | \$(2,774)                  | \$ 1,273  | \$(2,285)                | \$ 2,419  |
| Net income applicable to common stock      | \$(2,873)                  | \$ 1,256  | \$(2,408)                | \$ 2,385  |
| Earnings per common share:                 |                            |           |                          |           |
| Basic                                      | \$ (5.14)                  | \$ 2.33   | \$ (4.33)                | \$ 4.42   |
| Diluted                                    | \$ (5.14)                  | \$ 2.21   | \$ (4.33)                | \$ 4.17   |
| Dividends paid per common share            | \$ 0.17                    | \$ 0.15   | \$ 0.34                  | \$ 0.30   |

# LEHMAN BROTHERS HOLDINGS INC. Consolidated Statement of Financial Condition—(Continued) (Unaudited)

|  | At           |              |
|--|--------------|--------------|
| In millions, except share data   | May 31, 2008 | Nov 30, 2007 |
| Liabilities and Stockholders' Equity   |              |              |
| Short-term borrowings and current portion of long-term borrowings              |              |              |
| (including \$9,354 in 2008 and \$9,035 in 2007 at fair value)                  | \$ 35,302    | \$ 28,066    |
| Financial instruments and other inventory positions sold but not yet purchased | 141,507      | 149,617      |
| Collateralized financings:   |              |              |
| Securities sold under agreements to repurchase                                 | 127,846      | 181,732      |
| Securities loaned  | 55,420       | 53,307       |
| Other secured borrowings   |              |              |
| (including \$13,617 in 2008 and \$9,149 in 2007 at fair value)                 | 24,656       | 22,992       |
| Payables:  |              |              |
| Brokers, dealers and clearing organizations                                    | 3,835        | 3,101        |
| Customers  | 57,251       | 61,206       |
| Accrued liabilities and other payables   | 9,802        | 16,039       |
| Deposit liabilities at banks   |              |              |
| (including \$10,252 in 2008 and \$15,986 in 2007 at fair value)                | 29,355       | 29,363       |
| Long-term borrowings   |              |              |
| (including \$27,278 in 2008 and \$27,204 in 2007 at fair value)                | 128,182      | 123,150      |
| Total liabilities  | 613,156      | 668,573      |
| Commitments and contingencies  |              |              |
| Stockholders' Equity   |              |              |
| Preferred stock  | 6,993        | 1,095        |
| Common stock, \$0.10 par value:  |              |              |
| Shares authorized: 1,200,000,000 in 2008 and 2007;                             |              |              |
| Shares issued: 612,948,910 in 2008 and 612,882,506 in 2007;                    |              |              |
| Shares outstanding: 552,704,921 in 2008 and 531,887,419 in 2007                | 61           | 61           |
| Additional paid-in capital   | 11,268       | 9,733        |
| Accumulated other comprehensive loss, net of tax                               | (359)        | (310)        |
| Retained earnings  | 16,901       | 19,698       |
| Other stockholders' equity, net  | (3,666)      | (2,263)      |
| Common stock in treasury, at cost  |              |              |
| (60,243,989 shares in 2008 and 80,995,087 shares in 2007)                      | (4,922)      | (5,524)      |
| Total common stockholders' equity  | 19,283       | 21,395       |
| Total stockholders' equity   | 26,276       | 22,490       |
| Total liabilities and stockholders' equity                                     | \$639,432    | \$691,063    |

# LEHMAN BROTHERS HOLDINGS INC. Consolidated Statement of Financial Condition—(Continued) (Unaudited)

|  | At           |              |
|--|--------------|--------------|
| In millions, except share data   | May 31, 2008 | Nov 30, 2007 |
| Liabilities and Stockholders' Equity   |              |              |
| Short-term borrowings and current portion of long-term borrowings              |              |              |
| (including \$9,354 in 2008 and \$9,035 in 2007 at fair value)                  | \$ 35,302    | \$ 28,066    |
| Financial instruments and other inventory positions sold but not yet purchased | 141,507      | 149,617      |
| Collateralized financings:   |              |              |
| Securities sold under agreements to repurchase                                 | 127,846      | 181,732      |
| Securities loaned  | 55,420       | 53,307       |
| Other secured borrowings   |              |              |
| (including \$13,617 in 2008 and \$9,149 in 2007 at fair value)                 | 24,656       | 22,992       |
| Payables:  |              |              |
| Brokers, dealers and clearing organizations                                    | 3,835        | 3,101        |
| Customers  | 57,251       | 61,206       |
| Accrued liabilities and other payables   | 9,802        | 16,039       |
| Deposit liabilities at banks   |              |              |
| (including \$10,252 in 2008 and \$15,986 in 2007 at fair value)                | 29,355       | 29,363       |
| Long-term borrowings   |              |              |
| (including \$27,278 in 2008 and \$27,204 in 2007 at fair value)                | 128,182      | 123,150      |
| Total liabilities  | 613,156      | 668,573      |
| Commitments and contingencies  |              |              |
| Stockholders' Equity   |              |              |
| Preferred stock  | 6,993        | 1,095        |
| Common stock, \$0.10 par value:  |              |              |
| Shares authorized: 1,200,000,000 in 2008 and 2007;                             |              |              |
| Shares issued: 612,948,910 in 2008 and 612,882,506 in 2007;                    |              |              |
| Shares outstanding: 552,704,921 in 2008 and 531,887,419 in 2007                | 61           | 61           |
| Additional paid-in capital   | 11,268       | 9,733        |
| Accumulated other comprehensive loss, net of tax                               | (359)        | (310)        |
| Retained earnings  | 16,901       | 19,698       |
| Other stockholders' equity, net  | (3,666)      | (2,263       |
| Common stock in treasury, at cost  |              |              |
| (60,243,989 shares in 2008 and 80,995,087 shares in 2007)                      | (4,922)      | (5,524       |
| Total common stockholders* equity  | 19,283       | 21,395       |
| Total stockholders' equity   | 26,276       | 22,490       |
| Total liabilities and stockholders' equity                                     | \$639,432    | \$691,063    |

# LEHMAN BROTHERS HOLDINGS INC. Consolidated Statement of Cash Flows (Unaudited)

| Six Months End                          | ed May 31,   |  |
|---|--|--|
| 2008                                    | 2007   |  |
| 15 (1550000)                            | 13 15 15 15 15 15 15 15 15 15 15 15 15 15  |  |
| \$ (2,285)                              | \$ 2,419   |  |
|   |  |  |
|   |  |  |
| 325                                     | 284  |  |
| 868                                     | 631  |  |
| (59)                                    | (32  |  |
| 10000                                   | 1.34-0   |  |
|   |  |  |
| (288)                                   | (1,063   |  |
| 43,052                                  | (56,923  |  |
| (60,935)                                | (9,063   |  |
| 15,870                                  | (6,492   |  |
| 1,664                                   | 7,611  |  |
| (5,696)                                 | 84   |  |
| 8,838                                   | (8,454   |  |
| 0.187.000                               | 1100000000   |  |
| (7,743)                                 | 41,929   |  |
|   | 281  |  |
|   | 6,278  |  |
| 120020000000000000000000000000000000000 | 1,008  |  |
|   | (2,313   |  |
|   | (23,815  |  |
| 141,000                                 | 12-12-12   |  |
| (487)                                   | (447   |  |
|   | (461   |  |
| (21)                                    | 65   |  |
| (279)                                   | (843   |  |
| (3/6)                                   | (043   |  |
|   |  |  |
| 2046                                    | 2/01   |  |
| 25700.00                                | 2,684  |  |
|   | 126  |  |
| 11.4.4                                  | (598   |  |
| 37                                      | 225  |  |
| 2                                       | -  |  |
| 222-22-127-12                           | 28   |  |
| 7110000                                 | 39,824   |  |
|   | 240  |  |
| 203                                     | 240  |  |
|   |  |  |
| 722227                                  | 10.75291   |  |
|   | (16,315  |  |
|   | (2,039   |  |
|   | (211   |  |
| 17,704                                  | 23,964   |  |
| (773)                                   | (694   |  |
| 7,286                                   | 5,987  |  |
| \$ 6,513                                | \$ 5,293   |  |
|   |  |  |
|   |  |  |
|   | \$ (2,285)<br>325<br>868<br>(59)<br>(288)<br>43,052<br>(60,935)<br>15,870<br>1,664<br>(5,696)<br>8,838<br>(7,743)<br>734<br>(3,955)<br>(6,261)<br>(2,028)<br>(17,899)<br>(487)<br>(91)<br>—<br>(578)<br>3,046<br>(367)<br>(8)<br>37<br>2<br>32,798<br>5,856<br>203<br>(22,769)<br>(760)<br>(334)<br>17,704<br>(773)<br>7,286 |  |

Some of the models that were used for the analysis of the financial statement included the Lehman Brothers case of 2008.

#### 1. Altman Z Score Model

The Altman Z-Score on the other hand can be described as an empirically derived technique that has capability of estimating the probability of corporate bankruptcy. It utilizes five financial ratios where a weighted sum model is developed using the firm specific financial data. For Lehman Brothers in 2008 the Z-score would be the most appropriate because the company had been in deep problems as evident by huge losses and decrease in stock holder equity.

# Key Financial Figures (May 31, 2008)

- Total Assets: It is 639,400 million US dollars.
- > Total Liabilities: According to the global population statistics the world population amount is equal to 615,076 million.
- Stockholder's Equity: 24,324 million of dollars.
- ➤ Net Income: 2,873 million of \$

#### The Z-score calculation uses

- ➤ WC/TA
- > This may be one of the most important percentages of all: percent of retained earnings to total assets.
- There used to be the Earnings Before Interest and Taxes but this ration was fused with the Total Assets making it just the Earnings Before Interest and Taxes / Total Assets.

- Market value of equity divided by total liabilities
- In the study there is Sales / Total Assets ratio which is calculated form the Sales and Total Assets of the manufacturing companies.

Based on Lehman's negative net income and its degenerating equity, it would recommend a high Z-score risk in bankruptcy, coupled with a huge second quarter 2008 loss of \$ (2,873) million.

#### 2. Hazard Model

In this study hazard model, also known as the survival analysis technique is applied to estimate the time taken before an event takes place, in this case bankruptcy. It can determine the factors that causation Lehman Brothers to fail, especially in the times it was using certain financial ratios.

# Factors influencing the Hazard Rate

- ➤ High Leverage: Long term borrowings was also recorded high at \$27,278 million in the year 2008 in case of Lehman.
- Declining Revenues: Net sales reduced from \$ 15,579 million of 2007 to \$ 6,240 million of 2008.
- Negative Cash Flow: The firm had negative operating cash flows, meaning that operation was a source of fund drain to the firm.

The extrapolated hazard model would show an uptrend in the probability of bankruptcy with a degradation in financial conditions in the course of 2008 especially prior to the failure of the firm.

# 3. Logit and Probit Models

Both the logit and probit models are a type of binary outcome dependent variables that are used in predicting the occurrence of the event and the level of probability of occurrence, for instance 'bankrupt' or 'not bankrupt'. With the help of various financial indicators, it can be analyzed whether Lehman Brothers was likely to go bankrupt or not.

#### Variables to consider

- Financial Ratios: Its debt-to-equity ratio 4.5:1 indicates a high amount of debt on the company's balance sheet, while the current ratio of 1:1 shows that the company's liquidity is precarious.
- Market Indicators: Stock trends namely, stock prices and trading volumes.
- Economic Conditions: With reference to the prevailing rates of interest at that period as well as the fluctuating market price.

As observed, Lehman declared a staggering \$(2,873) million as its net income that alongside liabilities would possibly make both the models predict a high likelihood of bankruptcy particularly when the global financial crunch prevailed in 2008.

#### 4. Time Series Model

In a similar way, time series analysis as a method deals with statistical techniques that are used on data that has been arranged in the chronological or time sequence. For Lehman Brothers this could study fluctuations in stock prices, including revenues and other financial ratios up to its sinking.

# **Key Trends Observed**

- Declining Stock Prices: Much lower average stock price when compared to the earlier years.
- Revenue Declines: Thus, total revenues reduced from 29,374 million dollars in 2007 to 18,610 million dollars in 2008.
- Increasing Debt: There was also an indication that long-term borrowings have continued to rise and as at the end of the year the figure stood at \$27,278 million.

The line chart would depict that the actual financial situation was gradually deteriorating over the assessed period stressed by the external economic factors especially the situation of 2007-2008 financial crisis.

#### 5. Neural Networks

Neural networks can establish more complicated functional dependencies between different financial indicators and predict outcomes such as, for example, the bankruptcy of a firm. They can identify non-linear data relations between inputs, for instance financial ratios, and outputs, that is bankruptcy.

# **Application to Lehman Brothers**

- Input Features: Financial ratios, conditions of the market, previous studies of companies that went bankrupt.
- Output: Risk of being alive as against risk of having the business go bankrupt.

The application of the neural network model would possibly show that due to poor, financial performance and other factors which affected the market, Lehman Brothers had high propensity to bankruptcy.

# 6. Random Forest coupled with Gradient Boosting

Random forest and gradient boosting are two of the learning techniques that focus on decision trees in the model to enhance the prediction accuracy. These models are capable of predicting bankruptcy based on more than one financial factor at a time.

# **Key Financial Indicators**

- ➤ Total Assets: It was \$639,400 million.
- Total Liabilities: It was estimated to be at \$615,076 million.
- Net Losses: Operational costs reported on quarterly basis also showed revenues less than all expenditure leading to an issue of earning significant quarterly losses.

Such models would afford a strong prediction model to show that Lehman

Brother was heading for bankruptcy as supported by its financial statements.

#### Conclusion

The integration of these financial models supports the fact that Lehman Brothers was insolvent before it collapsed in year 2008. From each model, important information about the financial stability of the firm is obtained with factors like negative earnings, high leverage and declining revenues directing towards the failure of the firm. This extensive analysis shows how financial ratios can identify bankruptcy incidences especially during any form of economic decline.

From the above financial data, we can derive why the crisis happened and imagine how much consequences people had faced during 2008. So if the company had predicted the future by using various determinants, then the crisis would not happen.

#### Reference

- https://www.vintti.com/blog/bankruptcy-prediction-models-finance-explained/#:~:text=Developed%20by%20Edward%20Altman%20in,liquidity%2C%20solvency%2C%20and%20activity.
- https://www.investopedia.com/terms/b/bankruptcy.asp
- https://www.mdpi.com/2227-9091/7/3/77
- https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=2396807
- https://en.wikipedia.org/wiki/Bankruptcy\_of\_Lehman\_Brothers
- https://www.fdic.gov/analysis/quarterly-banking-profile/fdic-quarterly/2011-vol5-2/lehman.pdf

# AI driven Pollution Absorber Robot: A Breakthrough for Environmental Sustainability

Ms. Neeti Malu Student, BV (DU) - IMED, Pune

#### **Abstract**

The escalation of environmental pollution has become a critical global concern, demanding innovative solutions to solve its adverse effects. The emergence of the Pollution Absorber Robot, by the use of Artificial Intelligence (AI), indicates a transformative approach towards pollution reduction. This study focuses on the design, development, and evaluation of an AI-driven Pollution Absorber Robot, engineered to autonomously detect and remediate pollutants across diverse environmental settings. The Pollution Absorber Robot leverages state-of-the-art AI algorithms to analyse the environmental data, identify pollution sources, and optimize cleanup strategies in real-time. It is equipped with advanced sensors and adaptive learning capabilities, the robot demonstrates exceptional accuracy and efficiency in detecting and removing pollutants, ranging from airborne particulates to marine debris and hazardous chemicals.

Keywords: Pollution Absorber Robot, Artificial Intelligence (AI), pollution

#### Introduction

A few advancements have captured the imagination and potential for transformative change quite like Artificial Intelligence (AI). AI is powerful tool reshaping every aspect of our lives. In our modern era, the pervasive issue of pollution poses a significant threat to the health of our planet and all living beings. Therefore, innovative solutions are essential. Among these solutions, the integration of Artificial Intelligence (AI) with pollution absorber robots represents a groundbreaking advancement in environmental technology. The Pollution Absorber Robot is equipped with AI capabilities, stands at the forefront of our efforts to combat pollution effectively. By harnessing the power of AI, these robots can autonomously detect, analyze, and respond to pollution in realtime, revolutionizing the way we address environmental challenges. AI-powered robots continuously monitor air quality, water purity, and soil contamination levels, identifying pollution hotspots and providing cleanup strategies with efficiency. This adaptability ensures that these robots remain effective and resilient in the face of evolving pollution challenges.

Applications of AI in pollution absorber robots

Artificial Intelligence (AI) has revolutionized robotics, enabling robots to perform a wide range of tasks with intelligence and autonomy. Artificial Intelligence (AI) plays a crucial role in enhancing the capabilities and effectiveness of pollution absorber robots across various domains. Here are some key applications of AI in pollution absorber robots

# • Pollution Detection and Monitoring:

AI algorithms enable pollution absorber robots to detect and monitor various forms of pollution, including air pollutants, water contaminants. Machine learning techniques allow robots to analyze sensor data in real-time, identify pollutants, and map pollution hotspots with high accuracy.

# • Adaptive Cleanup Strategies:

AI-powered pollution absorber robots can dynamically adjust their cleanup strategies based on changing environmental conditions and pollutant concentrations. Reinforcement learning algorithms enable robots to learn optimal cleanup policies, optimizing resource utilization and maximizing cleanup efficiency.

#### • Predictive Maintenance:

AI-powered predictive maintenance systems enable robots to anticipate and prevent mechanical failures and downtime by analyzing sensor data and identifying potential issues before they occur. Machine learning algorithms enable robots to detect anomalies, predict equipment failures ensuring optimal performance.

# Environmental Monitoring and Surveillance:

AI-enabled robotic systems can monitor and surveil the environment for various purposes, such as pollution detection and security surveillance. Sensor fusion techniques and anomaly detection algorithms allow robots to analyze environmental data in real-time, detect anomalies or deviations from normal patterns, and alert operators to hazards.

# Future challenges and approaches:

Today, AI is essential across a vast array of industries, including health care, banking, retail, and manufacturing. But its game-changing promise to do things like improve efficiency, bring down costs, and accelerate research and development has been tempered of late with worries that these complex, opaque systems may do more societal harm than economic good. Its growing appeal and utility are undeniable. Virtually every big company now has multiple AI systems and counts the deployment of AI as integral to their strategy. Earlier, it was popularly assumed that the future of AI would involve the automation of simple repetitive tasks requiring low-level decision-making. But AI has rapidly grown in sophistication, owing to more powerful computers and the compilation of huge data sets. One branch, machine learning, notable for its ability to sort and analyze massive amounts of data and to learn over time, has transformed countless fields, including education. However, there are several limitations too. Pollution absorber robots face various technological challenges, including limitations in sensor accuracy, battery life, and operational range. Ensuring the reliability and effectiveness of pollution detection and cleanup capabilities in diverse environmental conditions remains a significant challenge for developers. Pollution absorber robots must be able to adapt to emerging pollutants and changing environmental conditions. As new pollutants are introduced into the environment and existing pollutants evolve, robots need to continuously update their sensor systems and

cleanup strategies to remain effective. While they aim to mitigate environmental pollution, there may be unintended environmental consequences associated with their operation. Ensuring equitable access to pollution absorber robots and their benefits is essential for addressing environmental justice concerns. There may be challenges in ensuring that vulnerable communities, particularly those disproportionately affected by pollution, have access to pollution cleanup technologies and resources. They collect and analyze large volumes of environmental data, raising concerns about data privacy and security.

Ensuring the confidentiality and integrity of sensitive data collected by robots is essential to prevent unauthorized access, misuse, or exploitation of personal information. Integration of Artificial Intelligence (AI) adds an extra layer of sophistication and efficiency to pollution absorber robots, enabling them to tackle environmental challenges with greater precision and adaptability. By harnessing AI algorithms for data analysis, decision-making, and autonomous operation, pollution absorber robots can optimize cleanup strategies, respond dynamically to changing environmental conditions, and minimize human intervention. However, while AI offers tremendous potential to enhance the capabilities of pollution absorber robots, it also introduces additional considerations and complexities. AI-powered pollution cleanup technologies uphold ethical standards and promote equitable outcomes. Furthermore, ongoing research and innovation in AI are essential to unlock the full potential of pollution absorber robots and address emerging challenges in environmental remediation. By advancing AI algorithms, sensor technologies, and robotic systems, we can continue to improve the effectiveness, efficiency, and sustainability

of pollution cleanup efforts. AI represents a valuable tool for enhancing the capabilities of pollution absorber robots and advancing environmental sustainability. By leveraging AI-driven technologies responsibly and ethically, we can harness the transformative power of AI to address pollution challenges and protect the health of our planet for future generations.

#### **Conclusion:**

Pollution absorber robots represent a promising solution to address the pressing environmental challenges posed by pollution. These robots leverage advanced technologies, such as artificial intelligence, robotics, and sensor systems, to detect, monitor, and remediate pollutants in air, water, and soil. Despite their potential benefits, the deployment of pollution absorber robots raises various concerns, including ethical, environmental, and societal considerations. As we navigate the complexities of integrating pollution absorber robots into environmental remediation efforts, it is imperative to approach their development, deployment, and regulation with caution and foresight. By addressing concerns related to unintended consequences, equity and access, technological limitations, data privacy and security, job displacement, ethical decisionmaking, and environmental impact, stakeholders can ensure that pollution absorber robots contribute positively to environmental sustainability and human well-being. Collaboration and interdisciplinary research will be essential to address these concerns and maximize the potential of pollution absorber robots. With the use of Artificial intelligence we can develop strategies to mitigate risks, promote ethical and responsible use of pollution cleanup technologies, and safeguard the health of our

planet for future generations. By working together to address concerns and capitalize on opportunities, we can harness the transformative potential of pollution absorber robots to create a cleaner, healthier, and more sustainable world for all.

#### References:

- https://www.geeksforgeeks.org/artificial-intelligence-an-introduction/
- https://news.harvard.edu/gazette/story/2020/10/ethical-concerns-mount-as-ai-takes-bigger-decision-making-role/
- https://en.wikipedia.org/wiki/Artificial\_intelligence

# A Case Study of Tata Group's Acquisition of Air India: Strategic Triumph or Potential Pitfall

**Ms. Shrinkhla Mishra** Student, BV (DU) - IMED, Pune

#### **Abstract**

The Tata Group's acquisition of Air India in January 2022 marks a bold move in the Indian aviation sector. This research work examines the rationale behind the acquisition, exploring the financial challenges Air India faced leading up to the deal. These included mounting debt, operational inefficiencies, and inconsistent customer service. The Indian government's decision to disinvest stemmed from a desire to focus on core competencies and promote efficiency within the aviation industry. The paper then analyses the strengths that the Tata Group brings to the table. Their proven track record across diverse industries, strong management expertise, and established brand reputation position them well to revitalise Air India. Potential benefits of the acquisition for Tata Group include network expansion, brand synergy, and operational efficiencies. However, successfully integrating two large organisations with contrasting work cultures presents a significant challenge. Additionally, managing Air India's substantial debt burden and navigating labour relations require careful planning. Early signs offer a mixed picture. Reports suggest an increase in Air India's revenue and new international routes, hinting at potential progress. However, the long-term success of the acquisition hinges on Tata Group's ability to overcome integration hurdles and effectively manage Air India's workforce. Overall, this paper highlights the complexities involved in this major acquisition and its potential implications for the Indian aviation landscape.

Keywords: Merger and Acquisition (M&A), Financial Turnaround, Workforce Management, Aviation Industry Analysis, Indian Economic Reforms

#### Introduction

Established in 1868, the Tata Group is a pillar of Indian industry with a diversified portfolio encompassing steel, automobiles, information technology, and hospitality. Notably, JRD Tata, the group's founder, played a pioneering role in Indian aviation by launching Tata Airlines in 1932. This airline eventually transformed into Air India, India's national carrier after independence in 1946. Renowned for its Maharajah mascot and exceptional service, Air India became a symbol of India's burgeoning

global presence. However, in recent years, the airline faced financial

challenges, leading to the Indian government's decision to disinvest in 2022. Tata Group's reacquisition of Air India signifies a momentous development for Indian aviation, with the industry eagerly awaiting the impact on this historic airline's future trajectory. Tata Group's acquisition of Air India is a complex undertaking fraught with financial burdens and cultural integration hurdles. While strategic benefits exist, a cautious approach is necessary

to determine if this venture will be a sustainable success or a recipe for financial disaster.

# Background of the case

# Air India's pre acquisition struggles

Beyond its illustrious past, Air India grappled with significant challenges in the years leading up to the acquisition. Financially, the airline shouldered a heavy burden of debt, accumulated due in part to government ownership and a lack of stringent cost-control measures. Consistent losses further strained resources, with factors like high operating costs and an ageing fleet contributing to the financial woes. Additionally, Air India struggled with operational inefficiencies. The workforce structure was complex, and resource allocation lacked optimization. Furthermore, the airline relied on an ageing fleet, resulting in higher maintenance costs and lower fuel efficiency compared to competitors. The network itself also posed challenges, with unprofitable routes impacting overall profitability. Inconsistent customer service experiences, while a stark contrast to Air India's past reputation for exceptional hospitality, also played a role. Government interference and potential complications arising from labour union negotiations further clouded the picture. These pre-acquisition struggles paint a clear picture of the complexities Tata Group will need to navigate to successfully revive Air India.

#### Indian Government's decision to Disinvest

The Indian government's decision to divest Air India in 2022 was driven by a combination of urgent concerns, primarily of a financial nature. The government's resources were significantly burdened by years of consistent losses. By 2021,

Air India's debt had soared to over 70,000 crore (US\$9.1 billion), a substantial amount that could have been allocated to other national priorities. Additionally, the airline consistently failed to generate profits, resulting in an estimated annual loss of 20,000 crore (US\$2.6 billion). These losses diverted funds away from crucial national projects such as the construction of schools and hospitals.

Despite multiple efforts to revive the airline, those attempts proved ineffective. For instance, the merger between Air India and Indian Airlines in 2007 aimed to create a stronger entity but failed to address fundamental issues like an ageing fleet and an excessive workforce. The intricate organisational structure and labour union negotiations further hindered any significant turnaround efforts.

Through disinvestment, the government was able to redirect its focus towards core competencies such as infrastructure development and social programs. By relinquishing control of Air India, the government could allocate resources towards the construction of vital infrastructure like roads and bridges.

### Tata group's strengths

Tata Group's acquisition of Air India hinges on their established strengths, particularly their proven track record, management expertise, and strong brand reputation. For over 150 years, the Tata Group has been a dominant force in Indian industry. Their success across diverse sectors like steel (Tata Steel), automobiles (Tata Motors - Land Rover, Jaguar), and information technology (Tata Consultancy Services) demonstrates their proven track record of building and managing large, profitable businesses. They've consistently adapted to

changing market dynamics and implemented strategic initiatives that ensure long-term growth. For instance, Tata Motors' acquisition of Jaguar Land Rover in 2008 marked a bold move into the luxury car segment, showcasing their ability to identify and capitalise on new opportunities.

Furthermore, Tata Group is renowned for its management expertise. They foster a culture of innovation and strategic thinking, attracting highly qualified professionals across various fields. Their leadership team possesses a deep understanding of business operations, financial management, and risk mitigation. Tata Consultancy Services, a global leader in IT services, exemplifies this strength.

Finally, the Tata Group enjoys a strong brand reputation in India and internationally. They are known for their commitment to quality, ethical business practices, and social responsibility. This positive brand image inspires consumer trust and loyalty, which can be a significant advantage for Air India. For instance, Tata Motors' focus on safety and reliability has positioned them as a preferred brand for automobiles in India.

# Conceptual understanding of Mergers and Acquisitions

Mergers and acquisitions, often referred to as M&A, is a term used for the consolidation of companies through various financial transactions. There are two main types:

- Merger: This occurs when two separate companies join together to form a completely new, single entity. Think of it as two businesses combining their resources and operations into one.
- **Acquisition:** This happens when one

- company takes ownership and control of another company. The acquiring company absorbs the target company, which can either cease to exist entirely or become a subsidiary of the larger company.
- Overall Goal: M&A is typically done to achieve growth, expand market share, gain access to new resources or technologies, and ultimately create shareholder value.
- Technically Different: There's a slight legal difference between mergers and acquisitions. Mergers are formal agreements where both companies agree to the consolidation.

Acquisitions involve one company buying another.

 Common Usage: In everyday business news, the terms "merger" and "acquisition" are often used interchangeably.

# Proposed Merger of Air India and Vistara-Key Details

On this occasion, Mr N Chandrasekaran, Chairman, Tata Sons said: "The merger of Vistara and Air India is an important milestone in our journey to make Air India a truly world-class airline. We are transforming Air India, with the aim of providing great customer experience, every time, for every customer. As part of the transformation, Air India is focusing on growing both its network and fleet, revamping its customer proposition, enhancing safety, reliability, and on-time performance. We are excited with the opportunity of creating a strong Air India which would offer both full-service and low-cost service across domestic and international routes. We would like to thank

Singapore Airlines for their continued partnership."

One more glaring reason observed behind Air India's decline, was its difficulty or reluctance in keeping up with its competitors, who were using smaller aircrafts that were faster, more fuel-efficient and required less servicing in comparison to its ageing fleet. A CBI investigation in 2011 had revealed that the national carrier was paying for these 111 planes through various loans and its internal resources. A double whammy to the chaos were the agitating employees who were upset with the wage disparities. In 2012, a study commissioned by the Corporate Affairs Ministry recommended that Air India should be partly privatised. Tata Sons will now pay 2,700 crore in cash to the government and take over the remaining debt of 15,300 crore.

With the handover, Tata Group now has control of four airline brands, each with its own profile, culture, and cost basis. The full-service carrier Air India, its low-cost unit Air India Express, and a 50% share in the airline's ground and cargo handling business, Air India SATS Airport Services, are all managed by the Tata Group (AISATS). The new owner of Air India already owns Vistara, a full-service joint venture between the Tata Group and Singapore Airlines, and AirAsia, a joint venture between Tata Sons and Malaysia's AirAsia Investment.

Apart from this, Air India Express and AirAsia India will also be merged to create a single low-cost carrier airline. In December 2022, the Tata Group had hired London-based brand and design consultancy company Future Brands to carry out the rebranding for Air India. In April 2023, an internal communication from the Chief Executive Officer (CEO) Campbell Wilson stated that Air India will unveil a whole range of new services, such as a new colour scheme,

cabin interiors, crew uniforms, and insignia as part of a rebranding process. In June, Air India signed the purchase agreements with Airbus and Boeing for its mammoth 470-aircraft order announced in February. The purchase agreements for the two orders—worth \$70 billion by the aircraft's list price—were signed on the sidelines of the Paris Air Show.

# Research Methodology

The case study method was used wherein various news, scholarly articles, already published research papers and library resources were used to carefully analyses the statement. This method enabled to gain in-depth knowledge about the acquisition, the struggles involved and prospective future of this decision.

# **Proposed Merger Analysis**

# The strategic benefits for Tata Group

Tata Group's acquisition of Air India presents a multitude of strategic benefits, including significant network expansion, brand synergy with their existing airlines (Vistara and AirAsia India), and access to lucrative international routes.

vast domestic and international network to the table. This broadens Tata's reach, potentially making them the dominant player in the Indian aviation sector. For example, Air India has a strong presence in Southeast Asia, complementing Vistara's focus on short-haul flights within India. Additionally, Air India boasts landing rights at key international airports like London Heathrow and New York JFK. These slots, previously unavailable to Tata's existing airlines, open doors to lucrative long-haul routes with high passenger yields.

- Brand Synergy: The acquisition presents an opportunity to leverage brand reputation. Tata's established brand image, synonymous with trust and quality, can positively influence Air India's perception. Additionally, brand synergy allows for a targeted approach. Vistara can cater to premium travellers, AirAsia India to budget-conscious flyers, and the revitalised Air India can occupy the middle ground, offering a blend of value and comfort.
- Access to Lucrative International Routes:
   Air India possesses significant assets beyond its network reach. Their landing rights and established presence on profitable long-haul routes present a major benefit for Tata Group. This expands Tata's reach and attracts new customer segments seeking convenient travel options across the globe.
- Cost Optimization: By integrating operations and leveraging economies of scale, Tata Group can potentially reduce costs across the board. This could involve optimising aircraft utilisation, streamlining procurement processes, and consolidating maintenance functions for a more efficient network. For example, combining training programs for pilots and cabin crew across airlines could lead to cost savings.
- Operational Efficiency: Tata Group can leverage their existing expertise in managing airlines like Vistara and AirAsia India to improve Air India's operational efficiency. This could involve implementing best practices in areas like scheduling, route planning, and maintenance procedures. Additionally, standardising technology platforms across airlines could streamline operations and improve data management.

- Fleet Modernization: Air India's ageing fleet presents an opportunity for Tata Group to invest in newer, fuel-efficient aircraft. This would not only reduce operating costs but also enhance passenger experience with more comfortable cabins and in-flight entertainment options.
- Modernising the fleet can also improve Air India's environmental footprint, appealing to eco-conscious travellers.

The potential for Tata Group to unlock significant value from the Air India acquisition, not just through network expansion and brand synergy, but also by optimising operations, modernising infrastructure, and leveraging data for strategic decision-making.

# Challenges involved

Tata Group faces several challenges in its ambitious acquisition of Air India. One significant hurdle is the integration of two contrasting work cultures. Tata Group prides itself on a professional and performance-driven environment, as seen in their emphasis on employee training and development programs at Tata Consultancy Services. This culture thrives on innovation and adaptability. In contrast, Air India may have a more bureaucratic and hierarchical structure, where decisions are made from the top down. Bringing these two styles together can result in friction. Pilots at Air India, who are accustomed to a certain level of flexibility in scheduling, may resist stricter adherence to flight schedules implemented by Tata Group to optimise operations.

Another major obstacle is Air India's massive debt burden, estimated to be over 70,000 crore (US\$8.8 billion). Servicing this debt will require careful financial planning and could limit the resources available for important growth initiatives. For example, funds that could be

allocated to modernise Air India's ageing fleet, a crucial factor in attracting new customers, may instead be diverted towards debt repayment. Additionally, integrating Air India's complex financial systems with Tata Group's existing infrastructure will require careful coordination and expertise. These challenges must be carefully navigated in order for the acquisition to be successful and for Tata Group to realise its goals with Air India.

# Potential government support/restrictions associated with the acquisition

Government involvement can also come with restrictions. Stringent labour laws, for instance, might limit Tata Group's ability to optimise Air India's workforce. Restructuring measures aimed at improving efficiency, such as potential job cuts, could be challenged by regulations designed to protect employee rights. Additionally, the government might retain control over strategically important routes, restricting Tata Group's flexibility in deploying Air India's network. For example, routes to strategically significant destinations in neighbouring countries might be off-limits to Tata Group if the government deems them crucial for maintaining regional connectivity. Finally, security will remain a top priority. The government will likely maintain strict oversight of Air India's security protocols, potentially impacting operational costs due to stringent passenger and cargo screening procedures. Navigating this dynamic of government support and restrictions will be a key challenge for Tata Group as they steer Air India towards a successful future.

# Early Signs of Success or Struggle

One significant development was the announcement made in June 2023 about placing a

groundbreaking order for 470 new aircraft from Airbus and Boeing. This remarkable investment demonstrates Tata Group's dedication to modernising Air India's ageing fleet, which is a crucial step towards enhancing fuel efficiency, passenger comfort, and overall competitiveness.

Furthermore, in August 2023, they revealed a fresh brand identity for Air India with the aim of rejuvenating the airline's image and creating a more contemporary travel experience.

Discussions are also currently underway regarding a potential merger between Vistara, an airline owned by Tata Group, and AirAsia India. This consolidation has the potential to streamline operations and possibly result in a more efficient network structure. However, there are challenges to overcome. Integrating two different work cultures and addressing employee concerns about job security and potential changes are ongoing obstacles.

Despite it being a relatively short time since the Tata Group acquired Air India in January 2022, there are tentative signs of progress. Reports indicate that Air India's average daily revenue has doubled, indicating possible improvements in operational efficiency or strategic route planning. Additionally, the airline has reportedly launched new flights.

# Conclusion

The Tata Group took a bold risk when it acquired Air India in January 2022, making a significant move in the Indian aviation industry. There are early signs of progress. Reports indicate that Air India's daily revenue has doubled, suggesting potential improvements in operational efficiency or strategic route planning. Moreover, the airline has introduced new international routes, indicating an expansion of its network under Tata's leadership. However, the most notable development is the groundbreaking order for

new aircraft. This highlights Tata Group's commitment to modernising Air India's ageing fleet, which promises fuel savings, a more comfortable passenger experience (including wider seats and improved in-flight entertainment), and ultimately, enhanced competitiveness against airlines with modern fleets. At this stage, the acquisition does not guarantee success nor does it guarantee failure. It is a complex endeavour that requires careful navigation. Tata Group's initial actions, such as the order for new aircraft and network expansion, are promising. However, the longterm outcome will depend on their ability to effectively integrate Air India and overcome cultural obstacles.

The successful turnaround of Air India could have significant ripple effects. It has the potential to solidify Tata Group's position as a dominant player in the Indian aviation industry, unlocking new opportunities for growth. Envision a seamless travel experience where

passengers can easily book a flight from Delhi to New York on a state-of-the-art aircraft using a single platform that integrates Vistara's domestic network with Air India's long-haul capabilities. This transformation could bring financial stability, a modern fleet, and a revitalised brand image to Air India. Moreover, it could lead to increased competition within the Indian aviation industry, resulting in improved passenger services, potentially lower fares, and a stronger overall aviation ecosystem.

The final outcome of this ambitious acquisition will likely unfold over the course of several years. However, by carefully managing the integration process, focusing on operational efficiency through optimised flight schedules and aircraft utilisation, and prioritising customer experience with modern amenities and potentially lower fares, Tata Group has the ability to turn Air India into a soaring success story. In doing so, they would transform the landscape of the Indian aviation industry.

#### References

- https://www.tata.com/newsroom/business/air-india-vistara-consolidation%20(Tata). Accessed 10 March 2024.
- https://www.linkedin.com/pulse/what-goes-around-comes-tata-air-india-acquisition-anjal-agrawal-drvpf/. Accessed 11 March 2024.
- "Before Tatas buy Air India, a look at 5 bad decisions that led to national carrier's downfall." India Today, 22 June 2017,
- https://www.indiatoday.in/india/story/air-india-tata-group-5-bad-decisions-that-led-to-dow nfall-of-national-carrier-984173-2017-06-22. Accessed 11 March 2024.
- Das, Basudha. "Air India rebranding: Tata Group-owned airline likely to change livery colours soon." Business Today, 7 August 2023,
   https://www.businesstoday.in/latest/corporate/story/air-india-rebranding-tata-group-owne dairline-likely-to-change-livery-colours-soon-393139-2023-08-07. Accessed 11 March 2024.
- Saha, Sumit. "(PDF) AIR INDIA ACQUISITION Case Analysis (With teaching note)."
  ResearchGate, 27 January 2024,
  https://www.researchgate.net/publication/377700622\_AIR\_INDIA\_ACQUISITION\_Case\_Analysis\_With\_teaching\_note. Accessed 11 March 2024.

- Tata, Jamsetji. "Tata Group to Consolidate Air India and Vistara | Tata group." Tata Group, https://www.tata.com/newsroom/business/air-india-vistara-consolidation. Accessed 10 March 2024.
- "Tata Group's Acquisition of AirIndia." Bocconi Students Capital Markets, https://www.bscapitalmarkets.com/tata-groups-acquisition-of-airindia.html. Accessed 11 March 2024.
- ""THE ANALYSIS OF MERGER OF TATA GROUP AND AIR INDIA"." Journal of Emerging Technologies and Innovative Research, https://www.jetir.org/papers/JETIR2303151.pdf. Accessed 10 March 2024.
- "What are the challenges facing Air India after acquisition by Tatas?" Business Standard, 1 February 2022,
- https://www.business-standard.com/podcast/current-affairs/what-are-the-challenges-faci ng-air-india-after-acquisition-by-tatas-122020100090\_1.html. Accessed 11 March 2024.
- "Will Tata be successful with Air India?" PC Literacy Info, 13 March 2023, https://pclinfo.in/will-tata-be-successful-with-air-india. Accessed 11 March 2024.

# Bankruptcy predication and determinants: Basics Understanding

# Ms. Prajakta Sanket Pawar Student, BV (DU) - IMED, Pune

#### **Abstract**

This research paper explores the importance of bankruptcy prediction and its key determinants through a case study of BYJU'S, India's leading educational technology company. Founded in 2011 by Byju Raveendran, BYJU'S offers an online learning platform for students, providing educational content and solutions for competitive exams and various educational purposes. Despite its rapid growth and achieving a peak valuation of \$22 billion in 2022, BYJU'S is now facing significant financial challenges, with its valuation plummeting to \$200 million. This study highlights the critical role of early bankruptcy prediction in identifying potential financial distress and examines the primary drivers behind corporate insolvency, with a focus on BYJU'S financial trajectory. By understanding these factors, this research aims to provide insights into how businesses can better anticipate and navigate financial risks, offering valuable lessons for companies within the Edtech sector and beyond.

Keywords: bankruptcy prediction, determinants, BYJU, financial risks

#### **Introduction:**

Bankruptcy is a legal process that happens when individuals or businesses can't pay their debt. It offers a fresh start for people who no longer afford to pay their bills. The bankruptcy process kicks off when the debtor files a petition. This is usually how it goes, but sometimes creditors file one too. Once that happens, all of the debtor assets get looked at and measured. These assets might even help pay back some of the debt that's owed. All of the debtor's assets are measured and evaluated, and the assets may be used to repay a portion of the outstanding debt.

Research paper discuss about importance of predications and determinants of bankruptcy with reference to India's most popular educational technology company BYJU'S. It offers the online learning platform for students.

It was founded in 2011 by Byju Raveendran. BYJU'S provides educational content and learning solutions for competitive exams and other educational purposes. The company is having financial difficulties. We will understand the importance of bankruptcy predictions and drivers with reference to this case study. The company's valuation dropped drastically to \$200 million from its peak of \$22 billion in 2022.

### **Objectives:**

- To understand, forecast, manage financial distress within individuals and organizations.
- 2. To explore potential threat that when firm can land to bankruptcy.
- 3. To Explore how bankruptcy predictions and determinants can be utilized to effectively manage financial risk

# Research Methodology:

Research is based on secondary data. Secondary data is collected from websites, books. Journals and published reports. In order to make the research efficient and to meet the objective of research, researcher used Explanatory research design where researcher refer case study of Byju's corporate Governance Fiasco.

# **Theoretical Background:**

# **Determinants of Bankruptcy:**

- **Financial ratios-** Various financial ratios and indicators, such as liquidity ratios, solvency ratios, profitability ratios, and efficiency ratios, are used to assess the financial health and stability of individuals or organizations.
- Inadequate financial planning and management-Byju's lack of liquidity and loan defaults are indicative of inadequate financial planning and management. For Ed startups, it's really important to keep a good cash flow & manage debt wisely. Setting up plans for unexpected events or market surprises is crucial too. Otherwise, things can get tricky!
- Market conditions- Economic indicators, market trends, and industry- specific factors can influence the likelihood of bankruptcy. Factors such as economic downturns, changes in consumer preferences, technological disruptions, and competitive pressures may increase the risk of bankruptcy for certain businesses.

The company took out numerous loans from foreign businesses, but was unable to repay the interest, which resulted in enormous debt on Byjus.

• Legal and regulatory environment- The possible occurrence and outcomes of bankruptcy can be influenced by the legal and regulatory environment surrounding it, which includes creditor rights, bankruptcy rules, and insolvency procedures. Changes in bankruptcy regulations or legal previous instances may affect bankruptcy predictions. Numerous violations of the foreign exchange laws have been reported by the ED against Byjus

Fail to submit documents regarding imports

Not realizing proceeds of exports

Delayed filing documents relating to Foreign Direct Investment inflows.

- Management practices- The quality of management, corporate governance practices, and strategic decisions made by executives can influence an organization's financial performance and resilience. Ineffective management, poor decision-making, or governance failures may increase the risk of bankruptcy. Byjus Employee morale is impacted by working insecurely, which leads to bad management. Byjus employees also voiced complaints about working conditions.
- Public perception, brand reputation, and stakeholder confidence play a crucial role in determining the financial potential of individuals or organizations. Negative publicity, loss of customer trust, or investor mistrust can increase financial distress and increase the likelihood of bankruptcy. Byju's lost its reputation and trust when the parents reported the legal issues and scandals. In the US, investors

decided to file a lawsuit against them. Unfortunately, this led to even more financial troubles for the company.

External financing and capital structure-The availability of external financing, capital structure decisions, and debt management practices impact an entity's financial flexibility and ability to meet its obligations. High levels of debt, excessive leverage, or reliance on short-term financing may heighten the risk of bankruptcy during economic downturns or financial crises. Every startup chooses to use a loan as their primary means of obtaining funding for their venture. Similar thing was carried out by Byjus as well, however at some point they neglected to monitor their debt practices, which resulted in overdraft and financial hardship.

# Financials of Byju's:

- Edtech giant Byju's has emerged as the highest valued startup in India, with an estimated valuation of \$16.5 billion after raising over \$1.5 billion in the first half of 2021. This positions Byju's as the most valuable edtech startup globally, with its closest Indian competitor, Unacademy, being valued at \$3.5 billion, which is only about 21.2% of Byju's valuation.
- The company recently submitted its annual financial statements for the fiscal year ending March 2020—a pivotal period for Byju's as it set the foundation for its growth and lofty valuations seen post-Covid. In FY 2019-20, the Bengaluru-based company saw an 82.31% increase in revenue from operations, rising to Rs 2,381 crore from Rs 1,306 crore in the previous fiscal year. Of this, 75.4% of the revenue

came from India, while 24.6% was generated internationally. Domestic revenue grew by 59% to Rs 1,795 crore, while its international earnings saw a remarkable rise of 232.2%, reaching to 586 crore



In FY19, Byju's focused on expanding its presence in the global edtech market, making some of its initial strategic acquisitions to support this goal. One significant acquisition was Tangible Inc in February 2019, which contributed to the company's international revenue growth in FY20. More recently, Byju's made a notable move by acquiring the California-based reading platform Epic in a \$500 million deal.

# Byju's 70% revenue came via sales of tablets and SD cards:

A major portion of Byju's revenue, around 70%, was generated through the sale of tablets and SD cards. Analyzing the revenue streams, sales of these devices preloaded with Byju's courses were the largest contributor, amounting to Rs 1,675.7 crore, or 70.4% of the company's total revenue in FY20.



The sale of reference books contributed Rs 560.6 crore, representing 23.5% of Byju's total revenue, while Rs 144.7 crore came from tuition and service fees. It is reasonable to assume that the majority of these tablet sales occurred within India, making them responsible for over 90% of the domestic revenue. Additionally, the company's financial income grew 5.3 times, reaching Rs 322.8 crore, which helped push Byju's total earnings in FY20 beyond Rs 2,703.5. Byju's spent Rs 1,176 Cr on ad & promotion

Despite its large-scale operations, Byju's has remained cash flow positive over the past few fiscal years. As the leading edtech startup in India, it continues to maintain a strong positive net cash flow from operations, which increased by 66% to Rs 126.6 crore in FY20.

Advertising and promotional activities represent the company's largest cost center, making



up 39% of its total annual expenses. These costs surged by 157%, rising to Rs 1,175.6 crore in FY20 from Rs 457.6 crore in FY19. Byju's also became the official sponsor of the Indian Cricket team in September 2019, spending a total of Rs 162 crore on sponsorships during FY20.

With the increasing number of students joining its e-learning platform across various courses, Byju's significantly boosted its spending on producing and acquiring educational content. The company allocated 15.2% of its annual expenditure to the production of streaming content and study materials, with these costs rising by 81.3% to Rs 458 crore in FY20.

Employee benefit expenses amounted to Rs 420.3 crore, making up around 14% of the total expenditure for FY20, marking a 53.6% increase from Rs 273.7 crore in FY19. As of March 2020, right before the COVID-19 pandemic hit India, Byju's travel and conveyance expenses surged by 202.7% to Rs 266.4 crore, while Rs 58.5 crore was spent on rent and utilities. The company's finance costs stood at Rs 162.1 crore, and depreciation expenses soared by 238.7% to Rs 232 crore during the same period.

Overall, Byju's annual expenses grew by 119.50%, reaching approximately Rs 3,022 crore for the fiscal year ending March 2020. The company spent Rs 1.27 to earn each rupee of operating revenue on a consolidated basis.

# The story of EAT vs EBITDA:

Despite showing robust revenue growth, Byju's consolidated losses surged by 29.7 times, rising from Rs 8.82 crore in FY19 to over Rs 262 crore in FY20. The company did, however, manage to generate a positive EBITDA of Rs 75.8 crore during FY20, although its EBITDA margins declined significantly, dropping to 2.8% from 12.1% in FY19.

## Major Findings and observations:

It has been observed that Companies should strive to achieve an optimal capital structure that balances the use of debt and equity to minimize the cost of capital while maximizing shareholder value. The optimal capital structure considers factors such as the company's industry, risk profile, growth prospects, cash flow generation, and tax implications. It involves determining the right mix of debt and equity financing that maximizes the company's value and minimizes its cost of capital.

High financial leverage amplifies the impact of fluctuations in earnings on shareholder returns and can lead to liquidity problems or bankruptcy if not managed effectively. Avoiding bankruptcy requires careful financial management and strategic planning.

#### Conclusion:

In conclusion, the research conducted on bankruptcy predications and determinants exposes that it's not just about financial growth of company. It's about understanding how a company's financial health flow, the market it operates in, and own actions in crucial financial position. These all plays a pivot role in whether it might face financial trouble and crunching the business. From research, it's clear that being able to see signs of trouble early and taking steps to manage risks are must central view for companies' strategy. By using smart tools and keeping an eagle eye on the financial numerical data, so they can realize clear possible bankruptcy threats.

#### **References:**

- 1. S Sehgal, RK Mishra, F Deisting, R
  Vashisht Managerial Finance, 2021 On
  the determinants and prediction of
  corporate financial distress in India
  [Google Scholar] [CrossRef]
- 2. From Zenith to Nadir- The Case of BYJU's Corporate Governance Fiasco BYJUCASESTUDYSEPT2723.pdf https://www.icsi.edu/media/webmodules/research\_corner/BYJUCASESTUDYSEPT2723.pdf
- Rupsha Kar Bankruptcy in India Feb 25, 2022
   https://medium.com/geekculture/bankruptcy-in-india-part-1-5eaf748623e7
- 4. What Determines Risk of Bankruptcy? T SIKARWAR Finance India, 2020 What Determines Risk of Bankruptcy? [Google Scholar] [CrossRef]
- 5. https://entrackr.com/2021/09/byjus-consolidated-revenue-grew-82-in-fy20-while-losses-jump-30x/

#### **Blockchain: A new Era of Fintech Innovation**

## **Ms. Pallavi Dhar** Student, BV (DU) - IMED, Pune

#### **Abstract**

With the rapid grow of new technologies, banks as well as financial industries all over the world taking an advantage to adopt it. The fast development of IT sector, connectivity of internet and smartphones has influenced in those sectors. The combination of Financial Technology (FinTech) and blockchain has deliberately transformed the banking sector into digital banking services. Blockchain is the decentralized system which has the capability to record the transactions, more accessible and publicly available computer network. This article will explore the relationship between FinTech and blockchain technology revolving the financial sector for both businesses and individuals.

#### **Introduction:**

Blockchain are built on a well-known problem in computer science called distributed consensus. Distributed Consensus which can be operate multiple as well as independently run the computers in a single set of common data with the presence of faults as there is a risk due to multiple computers are programmed altogether. This problem rises in the large networks whereas many companies use this distributed consensus algorithm to protect the critical data including Google, Facebook and Yahoo.

Blockchain is the technology that handles blocks, uniquely identification, and linked transaction records through a chain. The technology is growing continuously, shared ledger of the blocks which are connected through cryptographically with a digital fingerprint obtained by hash function. Each node is connected with previous node like a chain and referring to the hash value. The node that connects the blockchain and verifies the

transaction as per the government rules i.e. name and smart contract. This blockchain system is decentralized that do not require a centralized server.

Blockchain is handled through an open source protocols, which do not require any third party to operate the transactions. This systems are transparent due to which the parties can view all the changes are done. And it is unchangeable which cannot be reversed. It ensures that the contract parties have accurate and identical records. The system will simplify the businesses by creating safe, trust significance and transactions. Also blockchain has numerous ways as upcoming years it will be going to web3 as the currently we are in the phase of Web2.

### Benefits of the Blockchain in Fintech industry:

By 2018-2022 numerous European and North American banks were adopting the technology. The financial companies spent around \$552 million on blockchain projects all over the

world. These companies moving towards new trend because:

### 1. Reducing the costs of transaction:

A study says that many companies making \$40 billion per year. Blockchain system can reduce these losses and enable peer-to-peer transactions, which eliminate the involvement of third party and their costs. The decentralized system reduces the delay in online payments. It will run smoothly, without any error and avoid any extra costs.

### 2. Identity theft issues:

At 2017 there was news by Javelin, which shows that 6.64% people were victim of the identity theft. And it is a serious issue. So the finance companies adopting blockchain system. In this the user has to prove the identity once and have to provide the verification document which will be used during the transactions.

#### 3. Trading of Financial Instruments:

Few years back for trading it requires the approval, audit trails and many pre verified roles like brokers or agents or advisors. But through blockchain it provides accountability and transparency.

#### 4. Creation of credit reports:

To store the information of the clients the institutions use centralized systems which has high risk to get hacked. But through blockchain, systems are decentralized and stored separately to protect the data. It deploys robust algorithm of security and identify verification protocols. And the report is created at higher speed compare to traditional system.

#### Real world Case Studies:

#### 1. Ripple:

Ripple uses blockchain protocol to enable the fast and secure transactions globally. It has the digital currency called XRP, which act as a bridge to exchange the currencies. It is partnered with different financial institutions like Santander and American express. This technology reduces the time of online payment and cost all over the world transactions.

#### 2. Celcius Network:

Celcius Network is a platform that provides interest to earn on the cryptocurrency holdings. The interest rates are higher than the normal banks, ranging from 4.5% to 17.88%. It has loaned over \$10 billion in cryptocurrency. And the platform is safe and secure for the passive earning.

#### 3. Revoult:

Revoult is a US FinTech company that offers digital banking to the users. It provides the facilities such as trading of cryptocurrency, foreign exchange and budgeting tools. It offers user friendly UI with low cost to the customers. It grabs over 15 million customers and raised \$800 million.

#### 4. J.P Morgan:

By 12th April, 2021 the company started the technology of blockchain for improving money transfers. It is used to lower the verification time at the time of large payments. Future impact of Blockchain in Financial Companies:

## 1. DeFi 2.0: The Revolunization of Decentralized Finance:

As Decentralized Finance has already entered into the financial sectors. The next evolve aims to solve the problem like scalability, security and usability that are currently limited. It will bring more enhance features to enable transactions by creating top of existing blockchain networks

## 2. Automated Financial Services and Smart Contracts:

The smarts contracts are self-executing Contracts with terms directly written the code. This will automate the predefined conditions like reducing the human error and interference of third parties. For example, automatically trigger if the flight delays or any natural calamities are met.

#### 3. Tokenization of assets:

Blockchain enables the tokenization of physical and digital assets such as stocks, bonds, real estates. It involves converting the rights of ownership in assets to digital token on a blockchain which can be traded in near future.

#### **Conclusion:**

FinTech and blockchain correlated and transforming the finance industry, opening new opportunities for both businesses and individuals. The above cases of the study describes the application how the institutions are transforming to digital banking and enjoying the decentralized finance. And new future DeFi 2.0 comes up with more advancement to finish the current challenges like scalability, integrity and usability. As the industry is evolving, expectation is high to see more innovations.

- https://www.linkedin.com/pulse/howfintech-blockchain-revolutionizingworld-finance-real-faith-mauta/
- 2. https://www.sciencedirect.com/science/article/abs/pii/S0268401219310928
- 3. https://appinventiv.com/blog/blockcha in-in fintech/#:~:text=The%20fintech%20block chain%20market%20is,on%20financial%2 0services%20and%20money.
- 4. https://www.techmagic.co/blog/how-blockchain-evolutionise-fintech-market/
- 5. https://www.researchgate.net/publicati on/367700049\_The\_Impact\_of\_FinTech\_a nd\_Blockchain\_Technologies\_on\_Bankin g\_and\_Financial\_Services

## The Future of Finance: Understanding Crypto currency and Its Impact

**Mr. Suraj Mallelwar** Student, BV (DU) - IMED, Pune

Imagine a world where you can send money across the globe in seconds, without hefty bank fees or government oversight. A world where your digital assets are truly yours, secured by unbreakable cryptographic codes. This isn't science fiction—it's the reality of cryptocurrency, and it's reshaping our financial landscape as we speak.

#### **Decoding the Crypto Revolution**

Cryptocurrency is more than just digital money; it's a technological marvel that's challenging our very concept of value. At its core, cryptocurrency is a decentralized digital currency that uses cryptography for security. Unlike the dollar in your wallet, no government prints it, and no bank controls it. Instead, it exists on a revolutionary technology called blockchain. "Blockchain is to Bitcoin, what the internet is to email. A big electronic system, on top of which you can build applications. Currency is just one." - Sally Davies, FT Technology Reporter Think of blockchain as a digital ledger, but instead of being stored in a single place, it's distributed across thousands of computers worldwide. This decentralization makes it incredibly secure and transparent. Every transaction is recorded in a "block" and linked to previous transactions, forming a "chain" that's virtually impossible to alter or hack.

The Cryptocurrency Ecosystem: More Than Just Bitcoin

While Bitcoin might be the poster child of cryptocurrency, it's just one player in a diverse ecosystem. Ethereum, for instance, introduced the concept of " smart contract " self-executing agreement that automatically enforce the terms of a contract. This innovation has opened up a world of possibilities, from decentralized finance (DeFi) to non-fungible tokens (NFTs).

#### Investing in the Future: Potential and Pitfalls

For many, cryptocurrency represents an exciting investment opportunity. The stories of early Bitcoin adopters becoming millionaires overnight have captured the public imagination. However, with great potential comes great risk.

Cryptocurrency markets are notoriously volatile. Prices can skyrocket or plummet based on a single tweet from a tech mogul or a regulatory announcement. This volatility can be a double-edged sword—offering the potential for significant gains but also substantial losses.

#### **Risk Management Tips:**

- Diversify your portfolio
- Never invest more than you can afford to lose
- Stay informed about market trends and regulatory changes
- Use secure storage methods like hardware wallets

#### Bitcoin: The Pioneer That Started It All

No discussion of cryptocurrency would be complete without delving into Bitcoin's fascinating journey. Created in 2009 by the mysterious Satoshi Nakamoto, Bitcoin was born in

the aftermath of the 2008 financial crisis—a time when trust in traditional financial institutions was at an all-time low.

From its humble beginnings, where 10,000 Bitcoins could buy you two pizzas (true story!), to its meteoric rise to tens of thousands of dollars per coin, Bitcoin's journey has been nothing short of extraordinary. Its success has paved the way for thousands of other cryptocurrencies and sparked a global conversation about the future of money.

## Beyond Investment: Cryptocurrency as a Global Payment Method

While much attention focuses on cryptocurrency as an investment, its potential as a global payment method is equally revolutionary. Imagine sending money to family overseas without exorbitant fees, or making purchases in countries where you don't have a local bank account. Cryptocurrency transactions are typically faster and cheaper than traditional international transfers. They're also accessible to anyone with an internet connection, potentially bringing financial services to the world's 1.7 billion unbanked adults. Companies like PayPal and Visa are already integrating cryptocurrency into it.

## Volume and Liquidity in the Cryptocurrency Market

Trading volume refers to the amount of a cryptocurrency that is traded over a specific period, while liquidity describes how easily an asset can be bought or sold without affecting its price. High trading volume and liquidity are generally positive indicators, as they suggest a more stable and efficient market. Cryptocurrencies with higher

volume and liquidity tend to have more stable prices and can be traded more easily, making them attractive to investors and traders.

#### Conclusion

Cryptocurrency represents a significant shift in the financial landscape, driven by advancements in technology and changing market dynamics. As blockchain technology continues to evolve and more individuals and institutions adopt digital currencies, the impact on global finance will likely grow. Understanding how cryptocurrencies work, their potential risks and benefits, and their role in the future of financial transactions will be crucial for anyone looking to engage with this emerging field.

- Antonopoulos, A. M. (2014). Mastering Bitcoin: Unlocking Digital Cryptocurrencies. O'Reilly Media.
  - Catalini, C., & Gans, J. S. (2016). Some Simple Economics of the Blockchain. NBER Working Paper.
- Drescher, D. (2017). Blockchain Basics: A Non-Technical Introduction in 25 Steps. Apress. Investopedia. (2024). Cryptocurrency Overview. Investopedia.
- Nakamoto, S. (2008). Bitcoin: A Peer-to-Peer Electronic Cash System. Bitcoin.org.
- Financial Times. (2024). How Blockchain Technology is Transforming the Financial Industry. Wall Street Journal. (2024). Bitcoin's 13-Year Journey: From Pizza to Institutional Investment. MarketsandMarkets. (2024). Global Cryptocurrency Market Report.

## The Power of Financial Independence: Why You Should Act Immediately

**Ms. Ayushi Gupta** Student, BV (DU) - IMED, Pune

Imagine waking up one day and realizing you're in full control of your financial destiny. Relying on loans, allowances, or the occasional gift from relatives is no longer an option. You are free to pursue your dreams, whether it's traveling the world, starting a business, or simply enjoying the peace of mind that comes with financial security. This is the power to be financially independent, and what's even better? You can start working towards it right now.

When a person or family is financially independent, it means they have enough money to get by without needing to work for basic needs. This doesn't always imply giving up on work; rather, it just means that working less is required and more of a choice. Although early retirement is frequently linked to financial independence.

It's common for students to believe that careful money management is something for the future. After all, managing your social life, classes, and assignments is already challenging enough. But here's the thing: the sooner you start managing your money wisely, the sooner you can unlock the door to financial freedom. Little actions today can pay off big later on. Every little bit matter, whether it's budgeting, grasping the fundamentals of investing, or just being aware of what you're spending.

One of the most powerful tools at your disposal is compound interest—a concept that Albert

Einstein reportedly called the "eighth wonder of the world." By saving and investing even modest amounts early on, you can watch your money grow exponentially over time. It's not about becoming a millionaire overnight; it's about making smart decisions that will pay off in the long run.

But having money isn't the only aspect of financial independence. It has to do with empowerment. It's about being financially free and confident enough to make choices that will impact your future. It's about taking charge of your own destiny and being ready for whatever challenges life presents.so why not get going right now? Gradually take charge of your financial future. Every step you take toward living the life you want to lead, whether it's creating a savings account, reducing wasteful spending, or looking into passive income opportunities, gets you closer to your goals. You can achieve financial independence; don't put off starting to do so until tomorrow.

- The Urgency of Acting Now is,
- The power of compound interest.
- Mitigating the risk of Uncertainty.
- Reducing the pressure of time.

## How to Reach towards your Financial Independence

• **Start with a Plan:** Financial independence does not develop overnight. It requires a

well-thought-out strategy that includes establishing clear financial goals, budgeting, saving, and investing. The first step is to calculate your Financial Independence Number, which is the amount of money you'll need to have saved or invested to live comfortably without relying on active income.

- Make Wise Saving and Investment Decisions: Saving is the foundation of financial independence, but investing accelerates the process. You can build wealth faster by investing in long-term growth assets such as stocks, bonds, or real estate. Understanding the power of compound interest is critical because it allows your money to grow exponentially with time. Diversifying your investments is also important for mitigating risk and increasing potential returns.
- Avoid Debt: Debt can be a significant barrier
  to financial independence. High-interest debt,
  such as credit card debt, can deplete your
  resources and limit your ability to save and
  invest. Concentrate on paying off debt as soon
  as possible and avoid new debt that does not
  contribute to your long-term financial goals.
- Increase your income streams: Depending on single source of income can be risky. Consider diversifying your income streams to accelerate your financial independence. This could include side business, investing in

shares or mutual funds, freelancing, rental income, or dividend-paying investments. The more income streams you have, the more stable and resilient your financial situation becomes.

Financial independence is more than just a pipe dream; it is a reality for anyone willing to make the necessary sacrifices and take the right steps. The advantages of achieving financial independence are numerous, affecting all aspects of your life, from security and peace of mind to personal fulfilment and freedom. The sooner you begin, the sooner you can reap the benefits of a life without financial constraints.

So Why Wait? Begin Your Journey To become Financial Independence Today And Take The Control Of Your Future In Your Hand.

"Risk comes from not knowing what you're doing."

~By Warren Buffett

Financial independence is the ability to live from the income of your own personal resources.

— Jim Rohn —

- https://www.investopedia.com/articles/personal-finance/112015/these-10-habits-will-help-you-reach-financial-freedom.asp
- https://www.hdfcbank.com/personal/resources/learning-centre/invest/quick-guide-to-financial-independence

## The Silent Invasion: Microplastics in Our Daily Diet

Mr. Abhishek Singh Student, BV (DU) - IMED, Pune

Did you know that you have been taking a slow poison for a very long time?

The food you eat is no longer healthy - Whether it is fruits or fast food. You ask why? Because they contain an incognito killer substance which you are probably unaware of. Now, you might be wondering if it is some new chemical which has been discovered in foods, but no. It is not something new but something which has been in our food for decades now, discovered through multiple research studies. That slow poison is Micro Particles of Plastic.

What are microplastics (MPs), you may ask? Let me expound. Microplastics are tiny plastics less than 5mm long. These little devils cause much mayhem and have far-reaching impacts. We can say they are cosmopolitan in nature because they are present everywhere! - air, water, plants, food items, meat, seafood, even human blood! MPs are environmental and systemic pollutants. Exposure to them not only poses major threats to the ecosystem but also to the human body.

The author reviewed some studies and have tried to cope with the synopsis of the current understanding of sources, compositions and adverse effects of MPs.

Plastics are inevitably pervasive in nature and on top of that, imagine particles of plastic we are barely able to see. How can we stop it, if we cannot see it? It is only possible with cognizance. Let me elaborate on the impacts MPs have on our health. Firstly, a piece of plastic is indigestible, due to which it gets lodged in the cell tracts. Being a foreign substance, naturally it induces an inflammatory response from the body, but we are exposed to MPs so profusely that we do not realize the signals our body sends us due to which it tolerates it to an extent. Overtime, the excessive inflammation leads to a number of health problems, the major ones being heart diseases which is explicable since MP particles get implanted in our blood vessels causing blockages and thus hindering blood flow to the heart. Also, it being a carcinogen (cancer inducing substance) it causes mutations in the DNA of our cells leading to their cancerous transformation. I don't think I need to elaborate on the dangers of cancer or heart failures. Thirdly, it may cause Auto-immune disorders in which the body is unable to recognize self-cells and attacks itself.

Micro plastics are unavoidable as of now. How can one stop eating food which is primal for survival but has also become a cause for our bodily destruction? MPs are literally present in every single food you eat. In a recent study "Microplastics in Salt and Sugar" by Toxics Link revealed that MPs are present in all salts and sugar brands in India in variable amounts. Do you reckon that eating food delivered or served in plastic containers is safe for consumption? No! It is

absolutely not because each food entity absorbs microparticles of these plastic containers in minute amounts constituting bulk presence of microplastic in your diet.

I hope we do a favor on our bodies and thus ourselves by at least minimizing, if not terminating the utilization of plastic containers which will compel companies producing them to use better quality and safer materials for the purpose and not

just cost-effective and durable plastic which has adverse effects on our health. Though we are getting commercially stronger, I don't think it makes up for our deteriorating health. I sincerely hope that the brilliant minds of young India, come up with a solution so incredible that it may save us from digging our own graves.

This was my part in making people around me aware about this silent invader in our daily lives.

- https://www.sciencedirect.com/science/article/abs/pii/S0269749124010194
- https://www.linkedin.com/pulse/microplastics-silent-invaders-our-diet-water-ryan-roddy-f9ggc/

## Mastering College Finances: Budgeting Tips for a Stress-Free Student Life

**Ms. Priyanshi Pranami** Student, BV (DU) - IMED, Pune

Managing finances can be difficult in college, particularly when you have to balance your social life, your classes, and maybe a part-time job. It's simple to feel overburdened when you consider how much money you have to spend on books, housing, food, social activities, and tuition. But learning how to budget for college is not only necessary to get by during your time in school; it's also a useful life skill that will pay off in the long run. This article provides helpful advice and techniques to help you successfully manage your finances as a student, so you can enjoy college without having to worry about money all the time.

#### **Understanding the Basics of Budgeting**

Prior to delving into certain tactics, it's critical to comprehend the true meaning of budgeting. In essence, a budget is a plan that assists you in allocating your income to pay for savings, other financial commitments, and spending. Making prudent financial decisions and ensuring that your spending don't outpace your income are the main objectives.

You must first have a comprehensive understanding of your financial status. Listing all sources of income, including parent allowances, earnings from a part-time work, scholarships, and student loans, is required for this. Next, make a list of every expense you have, such as books, entertainment, utilities, groceries, rent, tuition, and transportation.

#### **Creating a Realistic Budget**

Making a reasonable budget is the first step towards a stable financial future while attending college. This is how you do it:

- 1. Track Your Spending: Make a note of every dollar you spend for a period of one or two months. To keep track of your spending, use a spreadsheet, a notebook, or an app for budgeting. This can help you find places where you may make savings and provide you with a clear picture of where your money is going.
- 2. Sort Your Expenses: Make a list of all the things you're paying for, including lodging, meals, entertainment, travel, and miscellaneous. This will make it easier for you to modify your budget by enabling to see how much you're spending in each category.
- 3. Making a reasonable budget is the first step towards a stable financial future while attending college. This is how you do it: Make an Irregular Expense Plan: Even while they don't happen every month, certain costs—like textbooks or vacation travel home—can nevertheless have a big effect on your spending plan. Put some money aside in a savings account each month to help cover these sporadic costs.
- **4. Review and Adjust Often:** Since your financial circumstances can vary over time, it's critical to periodically review your budget

and make any necessary adjustments. For example, you may choose to put more money into savings or debt repayment if you receive a rise at your part-time employment.

#### Tips for Managing Finances in College

With your budget in place, here are some practical tips to help you stick to it and make the most of your money:

- 1. Utilize Student Discounts: Numerous businesses offer special discounts for college students, ranging from software and transportation to food and entertainment. These savings can accumulate over time, helping to stretch your budget. Make it a habit to carry your student ID with you and inquire about available discounts whenever you make a purchase
- 2. Prepare Meals at Home: Regularly dining out can rapidly deplete your budget, while cooking at home offers a more economical option that also promotes healthier eating. To save money and time, plan your meals for the week, create a shopping list, and purchase groceries in bulk when feasible. By preparing meals ahead of time, you can resist the urge to order takeout and stick to your budget.
- 3. Opt for Public Transportation or Walking: If your college is located in a city with dependable public transportation, consider using it instead of owning a car. Public transit is typically far less expensive than maintaining a car, which includes costs like fuel, insurance, and maintenance. If your campus is close enough, walking or biking can help you save even more money.
- 4. Purchase Second hand Textbooks:
  Textbooks are often a major expense for college students, but there are ways to cut costs. Consider buying second hand textbooks from online platforms, bookstores, or fellow students. Renting textbooks or opting for digital versions can also be more

- affordable than buying new, printed copies.
- 5. Curb Impulse Buying: With the ease of online shopping, it's tempting to make impulse purchases. Before you buy something, take a moment to decide if it's a necessity or just a desire. If it's the latter, try waiting 24 hours before purchasing to see if you still want it as much
- 6. Find Affordable Housing: Housing is often the largest expense for college students. If possible, live at home or with family to save money on rent. If that's not an option, look for affordable housing options, such as sharing an apartment with roommates or living in a less expensive area slightly farther from campus.
- 7. **Get a Part-Time Job:** If your schedule allows, consider getting a part-time job to supplement your income. On-campus jobs are often convenient because they understand the demands of student life and may offer flexible hours. The extra income can help cover expenses and reduce the need for student loans.
- 8. Use Financial Aid Wisely: If you receive financial aid, be mindful of how you use it. Use the funds for educational expenses like tuition, books, and housing. Avoid using financial aid for non-essential purchases, as this money will eventually need to be repaid with interest.
- 9. Start an Emergency Fund: Life is unpredictable, and having an emergency fund can provide a financial safety net. Aim to save a small amount each month, even if it's just Rs5000

### **Long-Term Financial Planning**

In addition to managing day-to-day expenses, it's important to think about your long-term financial goals. College is the perfect time to start building good financial habits that will benefit you in the future.

- 1. Avoid Debt: Try to avoid taking on needless debt, even though student loans might be required to pay for tuition and other necessary expenses. Because credit card interest rates can quickly result in unmanageable balances, credit card debt can be especially dangerous. To prevent interest fees, use credit cards sensibly and pay off the entire amount each month.
- 2. Build Your Credit: Establishing good credit is crucial for your financial future. Consider getting a credit card in your name, use it sparingly, and always pay off the full balance each month. This practice will help you create a strong credit history, which is essential for securing loans, renting an apartment, and even finding a job in the future.
- 3. Seek Financial Guidance: If you're having trouble managing your finances, don't be afraid to ask for help. Many colleges provide

financial counselling services, and there are plenty of online resources and books available to assist you in improving your money management skills.

#### Conclusion

College is a time of growth, literacy, and new gests, but it's also a time when numerous scholars face fiscal challenges, By learning the art of budgeting and espousing practical strategies for managing your finances, you can enjoy your council times without the burden of fiscal stress. Flash back the habits you develop now will lay the foundation for your fiscal future. With careful planning, discipline, and a visionary approach, you can navigate the fiscal challenges of council and set yourself up for success both during and after your academic trip.

- https://studyco.com/money-management-tips-for-students/
- https://mystudylife.com/college-budget-tips/
- https://moulshree.medium.com/7-budgeting-tips-to-manage-your-finances-like-a-pro-c5925c59029c

## The Ethics of Personal Branding: Are We All Just Marketing Ourselves?

## **Pranjal Rahatgaonkar** Student, BV (DU) - IMED, Pune

#### Introduction

In today's digital age, personal branding has become essential for career development, self-promotion, and social engagement. From influencers to executives, people are curating online personas that reflect their ambitions, values, and status. However, personal branding raises ethical questions: Are we marketing ourselves to fit societal expectations, or is it a legitimate form of self-expression? This article explores the ethics of personal branding, examining its implications, benefits, and potential pitfalls to determine whether it is an authentic representation or merely a strategic facade.

#### The Evolution of Personal Branding

Personal branding has roots in early selfpromotion practices, but the rise of the internet and social media platforms like LinkedIn, Twitter, Instagram, and Facebook has amplified its significance. Today, anyone with internet access can create and manage their personal brand. While celebrities and entrepreneurs initially drove personal branding, the democratization of digital platforms now allows everyone to build and project their identity to a global audience.

Personal branding involves curating a public image that aligns with one's goals, highlighting specific aspects of one's personality, achievements, and values, while downplaying traits that may not align with the desired image. The goal is to establish a unique and compelling identity that resonates with a target audience, whether potential employers, clients, or followers.

The Ethical Dilemmas of Personal Branding While personal branding can be a powerful tool for career and personal growth, it also raises ethical concerns, particularly regarding authenticity, transparency, and manipulation.

#### 1. Authenticity vs. Fabrication

A significant ethical challenge in personal branding is the tension between authenticity and fabrication. In the pursuit of a compelling brand, individuals might exaggerate accomplishments or present a version of themselves that isn't entirely accurate. This disconnection between one's true self and public persona raises questions about the integrity of personal branding practices. Additionally, societal pressures may lead individuals to suppress aspects of their identity that don't fit a socially acceptable narrative, challenging the authenticity of their brand.

#### 2. Transparency and Manipulation

Another ethical issue is the potential for manipulation. In building a strong personal brand, some may engage in deceptive practices, like altering appearances with filters, buying fake followers, or omitting information that could harm their image. These practices undermine authenticity and raise questions about honesty and transparency. Moreover, the emphasis on self-promotion can create a culture of competition, where appearances are prioritized over substance, leading to a

superficial understanding of character and abilities.

#### 3. Impact on Mental Health

The pressure to maintain a consistent and appealing personal brand can significantly impact mental health. Constantly curating and managing one's online persona can lead to anxiety, stress, and a sense of inadequacy, especially when comparing oneself to others. The pursuit of an idealized self can also result in imposter syndrome, where individuals feel they aren't living up to the image they've created. Additionally, the blurring of personal and professional boundaries can lead to burnout, raising ethical concerns about the cost of personal branding on well-being.

#### The Benefits of Personal Branding

Despite ethical dilemmas, personal branding offers several benefits for individuals and society when done ethically and authentically.

### 1. Self-Empowerment and Confidence

Personal branding allows individuals to control their narrative and present themselves in alignment with their values and goals. This empowerment enables individuals to define their identity on their terms, building confidence and self-esteem, leading to greater personal and professional success. Personal branding can also serve as a form of self-expression, fostering a sense of purpose and fulfillment as individuals pursue opportunities that resonate with their true selves.

#### 2. Professional Growth and Opportunities

In the professional realm, a strong personal brand can open doors to new opportunities.

By establishing a clear and compelling brand, individuals can differentiate themselves in a competitive job market, attract potential employers or clients, and build a network that supports career growth. It also allows individuals to showcase their expertise and thought leadership, leading to speaking engagements, media appearances, and other opportunities.

#### 3. Social Impact and Influence

Personal branding can also be a tool for social impact and influence. A strong personal brand enables individuals to raise awareness about important issues, advocate for causes, and inspire others to take action. Social media influencers and activists have used their brands to bring attention to social justice issues, promote sustainability, and support charitable organizations, demonstrating how personal branding can be a force for good.

#### Navigating the Ethics of Personal Branding

To navigate the ethical complexities of personal branding, individuals should prioritize authenticity, practice transparency, maintain boundaries, focus on substance, and consider the impact of their brand on society.

#### Conclusion

The ethics of personal branding is a multifaceted issue that requires careful consideration. While it can be a powerful tool for empowerment, growth, and social impact, it also presents ethical challenges related to authenticity, transparency, and mental health. By adhering to ethical principles, individuals can build a personal brand that is not only effective but also responsible and meaningful, representing their true selves rather than a curated facade to fit societal expectations.

- https://www.linkedin.com/pulse/ethical-personal-branding-aligning-your-brand-elaine-trevino/
- https://hbr.org/2022/02/whats-the-point-of-a-personal-brand
- https://www.thebrandingjournal.com/2022/08/personal-branding/

## The dark side of Philanthropy

Mr. Sanskar Vishwakrma Student, BV (DU) - IMED, Pune

Philanthropy is frequently celebrated as a noble undertaking, wherein wealthy individuals and groups generously donate their resources to enhance the lives of others. From funding academic establishments to helping healthcare projects and environmental conservation, philanthropy is visible as a force for correct in society. but, beneath its benevolent surface, philanthropy has a darker side that increases questions about electricity, accountability, and the authentic motivations at the back of these charitable acts. this text delves into the complexities and ability pitfalls of philanthropy, revealing how it could occasionally perpetuate inequality, undermine democratic approaches, and serve the interests of the rich more than the ones of the public.

#### • The concentration of electricity

one of the maximum significant criticisms of philanthropy is the concentration of power it offers to a small, rich elite. In a democratic society, strength is meant to relaxation with the people, who collectively make decisions via their elected representatives. but, in the realm of philanthropy, a handful of individuals or households can wield sizeable influence over public coverage, social priorities, or even government moves. This attention of electricity is intricate because it permits a select few to form the path of

society based totally on their private values and hobbies, rather than the collective will of the humans.

for example, large philanthropic foundations, which includes the invoice and Melinda Gates foundation, have the monetary clout to persuade worldwide fitness regulations, education reforms, and agricultural practices. while those projects can be properly-intentioned, they often reflect the priorities and alternatives of the donors as opposed to the ones of thegroups they purport to assist. this could cause a shape of "philanthrocapitalism," in which the wealthy use their economic sources to impose their vision of the world on others, every now and then with unintended negative consequences.

#### Perpetuating Inequality

another troubling element of philanthropy is its potential to perpetuate inequality. Many philanthropists accumulate their wealth thru monetary structures that inherently produce inequality, including capitalism. by donating a element of their wealth to charitable reasons, those people can present themselves as benevolent benefactors even as doing little to address the foundation reasons of the inequality that allowed them to amass their fortunes inside the first place.

furthermore, philanthropy can serve as a way of wealth upkeep and enhancement. wealthy individuals and agencies can use charitable donations to benefit tax advantages, reduce their tax liabilities, and growth their social capital. In a few cases, donations are funneled into private foundations, which allow donors to maintain manipulate over the budget at the same time as receiving big tax advantages. This exercise now not handiest reduces the quantity of revenue available for public goods and offerings however additionally lets in the rich to hold or even grow their wealth beneath the guise of philanthropy.

#### • Undermining Democratic procedures

Philanthropy can also undermine democratic processes by circumventing public responsibility. in contrast to authorities packages, which can be situation to oversight, law, and public debate, philanthropic initiatives are regularly guided by the whims of man or woman donors or foundation boards. This loss of responsibility approach that philanthropic endeavors can operate with little transparency and with out the enter or consent of the communities they're supposed to serve.

In some instances, philanthropy has been used to exert undue have an impact on on political strategies and institutions. for example, wealthy donors may fund think tanks, advocacy agencies, or political campaigns that align with their hobbies, efficaciously shopping for political influence. this may result in regulations that choose the pastimes of the rich over the ones of the majority, similarly entrenching inequality and eroding accept as true with in democratic institutions.

#### The hassle of "White Saviorism"

every other complaint of philanthropy is its capacity to perpetuate a "white savior" mentality, in which wealthy donors, often from Western countries, impose their answers on marginalized groups inside the international South. This method can be paternalistic and disempowering, because it assumes that the donors know what's nice for those communities with out accurately consulting or related to them in choice-making techniques.

This dynamic can cause faulty interventions that fail to deal with the underlying reasons of poverty, inequality, and social injustice. for example, well-which means but poorly knowledgeable philanthropic efforts in schooling or healthcare may overlook the cultural, social, and monetary contexts of the communities they goal to help, resulting in programs which can be ineffective or even harmful.

#### • Ethical worries and the want for Reform

Given these troubles, it's miles vital to significantly look at the role of philanthropy in society and recollect ways to mitigate its poor impacts. One capability solution is to boom transparency and responsibility within the philanthropic region. this will contain stricter guidelines on personal foundations, extra public oversight of charitable projects, and extra strong mechanisms for network involvement in decision-making tactics.

moreover, there may be a need to address the structural inequalities that philanthropy regularly perpetuates. this can involve advocating for innovative tax rules that ensure the rich pay their truthful share, reducing the reliance on non-public donations to fund public goods and offerings, and promoting more equitable monetary systems that distribute wealth extra fairly.

#### Conclusion

Philanthropy, at the same time as often nicelyintentioned, isn't always without its flaws. The attention of power, perpetuation of inequality, undermining of democratic tactics, and potential for paternalism are sizable issues that warrant severe consideration. As society keeps to grapple with those troubles, it is essential to strike a balance between encouraging charitable giving and ensuring that philanthropy serves the general public top in place of the interests of the wealthy few. best by means of addressing these demanding situations can we hope to create a extra just and equitable society where all and sundry has the opportunity to thrive.

- https://www.linkedin.com/pulse/dark-side-philanthropy-why-good-intentions-arent-enough-amr-elharony-n3a7f/
- https://www.fastcompany.com/90908616/the-dark-side-of-liberal-philanthropy

## Understanding home loan policies: Key factors that can impact your loan decisions and approval through DSA

### **Ms. Swarali Patil** Student, BV (DU) - IMED, Pune

#### Abstract

This article explores the key factors that influence home loan decisions and approvals, providing a detailed understanding of how home loan policies vary among financial institutions. In today's dynamic financial landscape, the housing sector stands as a cornerstone of economic development, enabling individuals and families to realize their dream of home ownership. A significant contributor to this sector's growth is the role played by Direct Selling Agents (DSAs), who act as intermediaries between prospective home buyers and lending institutions.

Keywords: Home loan policies, direct selling agent, Interest rates, CIBIL scores, financial stability, Loan tenure, financial institutions.

#### Conceptual Understanding of Home Loan

A home loan is a significant long-term commitment, and its demand has surged several times over in the past decade. The reasons for this rise are clear: evolving mindsets due to globalization and greater integration with developed economies, where mortgages dominate, along with income tax incentives in Union Budgets, and a notable increase in the earning potential of India's youth. As a result, the current landscape of home loans is experiencing strong growth and is poised for a promising future. Numerous banks and housing finance companies are now offering affordable home loans with low-interest rates.

By understanding these factors, potential borrowers can better navigate the home loan landscape and increase their chances of securing a loan that meets their needs. The insights provided are particularly relevant for first-time homebuyers and those looking to refinance their existing loans. There are different types of loans present in the market, and a home loan is one of them. In layman's language, a home loan a home loan is

market, and a home loan is one of them. In layman's language, a home loan a home loan is simply borrowing money from a bank or a financial institution to buy a new house at a fixed interest rate and for a specific period of time. A home loan is a financial product designed to assist individuals in purchasing or renovating a residential property. Lenders, such as banks or financial institutions, provide funds to borrowers, which are repaid over a specified period with interest. The loan amount, interest rates, and tenure vary based on the borrower's eligibility, financial stability, and the property's value. Home loans typically offer flexibility in repayment and may include additional features like fixed or floating interest rates and he option for balance transfers. Home loan eligibility is determined by factors such as income, age, and creditworthiness. Lenders assess an individual's financial capacity to repay, with specific criteria for salaried, selfemployed non-professionals,

and self-employed professionals. A Direct Selling Agent (DSAs) plays a crucial role in the financial Services sectors, one of them is Home loan. DSA's

acting as an intermediary between borrowers and financial institutions, like banks and non-banking financial companies (NBFCs), to facilitate home loan. Using a DSA for home loan approval can significantly streamline the process from initial consultation to final disbursement. DSA provide valuable guidance, simplify paperwork and enhance communication between the borrower and lender.

#### How to Apply for Home Loan through a DSA

- Initial consultation and Requirement gathering
- 2) Documentation collection
- Selection of lender and Submission of Application
- 4) Processing and follow up
- 5) Credit appraisal and property evaluation
- 6) Sanctioning the loan
- 7) Acceptance of offer and signing of agreement
- 8) Disbursement of loan

India's banking system is regulated by the Reserve Bank of India (RBI) and the Banking Regulation Act of 1949. Bank lending is capped at 15% for individual borrowers and 30% for group borrowers, with certain exceptions. Priority lending sectors include micro and small enterprises, agriculture, education, housing, and support for low-income and underprivileged groups. Wilful loan defaulters may face criminal prosecution. These regulations reflect India's emphasis on maintaining financial stability and promoting economic inclusiveness.

People used to take home loan due to various key factors like, to owning a dream home with Tax benefits, for taking advantage of low interest rate, long term investment in real state, Due to retirement planning peoples used to take home loan consideration of stability and permeance. Acquiring more space according to the needs of individuals, Home loan can serve as a form of

economical backup and investment, as it allows to own a tangible assets while building equity over time, providing a potential long term source of financial security and wealth growth. Likewise, there are so many other factors for why people take home loan.

There are many banks provide home loans with different terms and conditions. Like HDFC bank, Axis Bank, ICICI Bank, State Bank of India, PNB etc. Here's a general overview of the loan approval criteria for HDFC Bank and Axis Bank. Both the Banks were tie up with various builders and developers for easy loan processing. Both banks offer competitive interest rates and tenure options. Axis Bank has a slightly longer maximum tenure (30 years). HDFC provides the advantage of a combination rate and specific benefits for female borrowers. HDFC has a diverse range of specialized home loan products catering to different needs. While Axis Bank offers a balance transfer facility, HDFC emphasizes joint loans and personalized repayment options. Ultimately, the choice between HDFC and Axis Bank would depend on individual preferences, specific needs, and the features that align better with the borrower's requirements. In summary, HDFC Home Loans stand out with a diverse product range, a unique combination rate, and benefits for female borrowers. Additionally, the emphasis on joint loans and personalized repayment options makes HDFC a preferred choice. Ultimately, individual preferences and specific needs may lead to a preference for HDFC over Axis Bank.

Some general suggestions before going to take home loan, Research and compare interest rates from various banks and financial institutions to find best deal. Maintain CIBIL score for better interest rates and terms. Opt for floating interest rate to benefit from lower interest rates. Make a larger down payment to reduce loan amount and interest burden.

#### Conclusion

Research indicates that the overwhelming majority of respondents, constituting 90%, fall into the category of "New Customer." This suggests that a significant portion of the respondents are exploring the possibility of obtaining a home loan for the first time. The survey on home loans involved a higher participation of male respondents. This study suggests that a significant number of individuals consider parental property for home loans, possibly indicating a cultural or familial preference. The distribution suggests a predominant interest in residential real estate, possibly reflecting a focus on housing as a primary investment or living arrangement among the surveyed population. The majority of respondents, constituting 60%, have expressed a preference for HDFC Bank for their home loans. This indicates a strong trust and affinity towards HDFC Bank's home loan products and services. HDFC is often considered a top choice for home loans due to its competitive interest rates, transparent policies, and a reputation for efficient processing and customer service, making it a

reliable and attractive option for borrowers. HDFC Home Loans stands out with a diverse product range, a unique combination rate, and benefits for female borrowers. Additionally, the emphasis on joint loans and personalized repayment options makes HDFC a preferred choice. Ultimately, individual preferences and specific needs may lead to a preference for HDFC over Axis Bank.

As loan borrower one can compare the elements across different lenders(HDFC/Axis/Or anyone else) like interest rates, loan terms, and additional fees consider his/her long-term financial goals, can make a choice that aligns with both your immediate needs and future aspirations. Eventually, careful research and understanding of ones options will help him/her secure a loan that best supports their homeownership intents.

- https://www.bajajfinserv.in/what-is-homeloan
- https://www.bankbazaar.com/home-loanprocedure.html



## Bharati Vidyapeeth (Deemed to be University), Pune, India

# Institute of Management and Entrepreneurship Development, Pune



Erandawane, Pune- 38. Maharashtra, India

Accredited with 'A+' Grade (2017) by NAAC | Category-I University Status by UGC 'A' Grade University Status by MHRD, Govt. of India

IMED is Ranked 55th among Top 75 B-schools in India by NIRF 2019, Ministry of Human Resource Development, Government of India.

Bharati Vidyapeeth (Deemed to be University) is one of the top-ranking universities in India committed to providing the best academic experience. It was established by Dr. Patangrao Kadam in 1964 in Pune with the aim to provide enhanced learning opportunities and bring about intellectual awakening of people through the spread of education that would have a positive impact on the world. Today it has 8 campuses spread over different locations in India. Vision of the university is "To be a world class University for Social Transformation through Dynamic Education"

#### About MED

Institute of Management and Entrepreneurship Development (IMED), Pune established by Bharati Vidyapeeth in 1978, is a well-known Business School in India. It is continuously contributing in the field of Management, Computer Science and Research since inception. The Government of India under section 3 of UGC Act brought this Institute under the ambit of Bharati Vidyapeeth (Deemed to be University), Pune (India) w.e.f. 20th July 2000. IMED has been consistently ranked among top Indian Business Schools in India. IMED is laid out on sprawling four acres of land with 'state-of-the-art' infrastructural & instructional facilities. As a constituent of Bharati Vidyapeeth (Deemed to be University), Pune, IMED contributes in its own ways to the philosophy, vision and mission of Bharati Vidyapeeth i.e. "Be a World-Class University and a Global Resource in Innovative University Education for Ever-better World" and "Social Transformation Through Dynamic Education" respectively.

At IMED, the students, faculty and management, share team oriented common goals that are intellectually stimulating. Besides training young professionals to meet the challenges of globalization, we at IMED develop entrepreneurial skills in our students. Value addition lies at the core of our teaching curriculum and the syllabus is updated with the feedback from industry and is comparable with curriculum of leading national and international level institutes to retain edge in academics. The programmes are approved by AICTE.

