**Transforming Financial Analysis in Indian and Multinational Corporations: AI Scenarios, Opportunities, Innovations, and Challenges"**

**Priti Mane\***

\*Assistant Professor, Ph. D. Research Scholar, Dr.D.Y. Patil Vidyapeeth, Pune.

Global Business School & Research Centre.

Maharashtra, INDIA. E-Mail:

priti. mane{at} dpu.edu.in

**Dr. Avinash Ghadge\*\***

\*Associate Professor, Dr.D.Y. Patil Vidyapeeth, Pune.

Global Business School & Research Centre.

Maharashtra, INDIA. E-Mail: avinash.ghadge{at} dpu.edu.in

**Introduction:**

Artificial Intelligence (AI) is developing as a revolutionary force in the quickly changing finance industry, with the potential to revolutionise tools for financial statement analysis. The use of AI in financial services is changing conventional methods, with the worldwide AI fintech market expected to reach $22.6 billion by 2025. This chapter provides a thorough examination of this dynamic field by diving into the innovations, opportunities, and difficulties brought about by AI-powered financial statement analysis tools.

**Meaning**

Examining a company's financial reports to determine its financial performance is known as financial statement analysis. Examining records such as the cash flow statement, income statement, and balance sheet is part of this. Determining the company's profitability, cash flow, timely bill payment, and prudent money management are the primary objectives. Analysts employ a variety of techniques to do this, including number comparisons, long-term trend analysis, and competitive analysis of the company. They can identify areas where the business is succeeding and those where it might need to make improvements by doing this. This aids potential lenders, investors, and others in making financial decisions.

**Definition**

**"Financial Statement Analysis" by Martin S. Fridson and Fernando Alvarez**:

The authors define financial statement analysis as "the application of analytical tools and techniques to general-purpose financial statements and related data to derive estimates and inferences useful in business analysis."

**"Financial Statement Analysis: A Practitioner's Guide" by Martin S. Fridson and Fernando Alvarez:**

In this book, the authors emphasize that financial statement analysis involves "the selection, evaluation, and interpretation of financial data, along with other pertinent information, to assist in investment and financial decision-making."

**"Financial Statement Analysis: An Integrated Approach" by Mary E. Barth, Wayne R. Landsman, and Mark H. Lang:**

According to these authors, financial statement analysis is "the process of evaluating and interpreting information from financial statements, as well as supplementary disclosures, to gain insights into a firm's operating performance and financial position."

**Comprehensive Overview of Software Tools for Financial Statement Analysis**

**1.Microsoft Excel**

Microsoft Excel is a spreadsheet programme created by the company. Formulas, functions, and visualisations enable users to produce, modify, and analyse data.

**Uses**: Because of its versatility, Excel is often used in financial analysis. In addition to performing scenario analysis, users can generate financial models, compute ratios (such as liquidity, profitability, and solvency ratios), and visualise data using graphs and charts.

**Application:**

1. Versatility: From basic computations to intricate models, Excel is capable of handling a broad range of financial analysis jobs.

2. Accessibility: Sharing and working together on financial analysis projects is made simple by its broad availability and familiarity to the majority of users.

3. Customisation: To meet their unique analytical needs, users can alter formulas, functions, and visualisations**.**

**2. QuickBooks**

**Specifications**: Intuit developed the accountancy programme QuickBooks. It is intended to help small and medium-sized enterprises handle all aspects of their financial management, including bookkeeping, financial reporting, and invoicing.

**Uses**: Cash flow, balance sheet, and income statement generation are just a few of the financial activities that QuickBooks simplifies. In addition, it facilitates bank transaction reconciliation, accounts payable and receivable management, and spending tracking.

**Application:**

1. User-friendly interface: QuickBooks has features and workflows that are easy enough for non-accountants to understand.

2. Automation that saves time: It frees up time for business owners by automating monotonous chores like expense tracking and invoicing.

3. Financial insights: By giving real-time visibility into a company's financial health, QuickBooks facilitates improved decision-making.

**3. SAP ERP**

**Specification:** SAP developed a set of integrated business programmes known as SAP ERP (Enterprise Resource Planning). It has modules for supply chain management, human resources, financial accounting, and other topics.

**Uses**: For large organisations, the financial accounting module of SAP ERP offers full financial reporting and analytical capabilities. Financial consolidation, asset accounting, accounts payable and receivable, and general ledger management are all aided by it.

**Application**:

1. Scalability: SAP ERP has the capacity to grow to accommodate the demands of big businesses with intricate financial procedures and reporting specifications.

2. Integration: It easily interfaces with other SAP modules as well as external systems, guaranteeing data uniformity inside the company.

3. Compliance: By offering strong financial controls and audit trails, SAP ERP assists businesses in adhering to accounting rules and laws.

**4.Oracle Financials**

**Specification**: Oracle Corporation has developed a suite of financial management programmes known as Oracle Financials. It has modules for forecasting, analysis, budgeting, and financial reporting.

**Uses**: With Oracle Financials, businesses may increase reporting accuracy, optimise financial procedures, and obtain financial performance insights. It supports the administration of project accounting, fixed assets, receivables, and accounts payable.

**Application**:

1. Comprehensive functionality: Oracle Financials offers a wide range of features to support financial operations, from transaction processing to advanced analytics.
2. Integration: It integrates seamlessly with other Oracle applications and third-party systems, enabling end-to-end financial management.
3. Real-time insights: Oracle Financials provides real-time visibility into financial data, enabling timely decision-making and strategic planning.

**5**. **Tableau**

**Specification**: Tableau Software (now a part of Salesforce) developed the data visualisation programme. It enables users to produce intelligent and interactive data visualisations, including financial data visualisations.

**Uses**: Tableau is used in financial analysis to create dynamic dashboards, charts, and graphs that visualize key performance indicators, trends, and outliers in financial data.

**Application**:

1. 1. Interactive visualisations: Tableau gives customers the ability to interactively examine financial data, requesting ad hoc queries and delving down into specifics.
2. 2. Scalability: Tableau is appropriate for deployment across an organisation since it can manage huge datasets and intricate visualisations.
3. 3. Accessibility: Users can easily create and share visualisations without requiring advanced technical knowledge thanks to Tableau's user-friendly interface and drag-and-drop capability.

**6. SAS**

**Specification**: The SAS Institute created the SAS (Statistical Analysis System) software suite, which is used for data management, corporate intelligence, and advanced analytics.

**Uses:** SAS is utilised in risk management, forecasting, data analysis, regression analysis, and fraud detection in financial analysis. It offers strong capabilities for delving into big datasets and finding patterns.

**Application**:

1. Advanced analytics: SAS provides several statistical and analytical methods, such as machine learning and predictive modelling, for analysing and understanding financial data.

2. Scalability: SAS is appropriate for enterprise-level financial analysis since it can manage massive data volumes and intricate analytical tasks.

3. Security: To safeguard confidential financial information and guarantee adherence to legal standards, SAS offers strong data security measures.

**7**. **Bloomberg Terminal**

**Specification**: Bloomberg L.P. has developed a software platform called Bloomberg Terminal. For financial professionals, it offers real-time financial news, analytics, and statistics.

**Uses**: The financial sector makes extensive use of Bloomberg Terminal to obtain real-time market data, carry out financial analysis, and provide reporting on stocks, bonds, currencies, and other assets.

**Application**:

1. Real-time data: To help traders and analysts make wise decisions, Bloomberg Terminal offers the most recent financial data from international markets.

2. Analytics: It provides a large array of instruments for financial analysis, such as technical indicators, historical data analysis, and charting.

3. News and research: Bloomberg Terminal provides access to news articles, research reports, and analyst insights, helping users stay informed about market trends and developments.

**8.Thomson Reuters Eikon**

Details: Thomson Reuters Thomson Reuters created the financial analytical tool Eikon. For financial experts, it offers data, news, and analytics in real time.

Uses: Eikon provides resources for market analysis, trading, research, and financial modelling. It offers news stories, research studies, and access to historical and current market data.

Applications:

1. Data coverage: Foreign exchange, stocks, fixed income, commodities, and other global financial markets are all well-covered by Eikon.

2. Analytics: It offers sophisticated analytical tools for technical analysis, financial modelling, and charting that assist users in spotting market trends and openings.

3. Collaboration: Eikon facilitates decision-making by allowing users to share data, analysis, and insights with clients and colleagues.

**9. Zoho Books**

**Specifications: Zoho Books is accounting software that runs on the cloud and is tailored especially for small enterprises. It has tools for tracking spending, creating financial statements, handling funds, and analysing financial information.**

**Uses**:

**Financial Statement Generation: Users can create balance sheets, cash flow statements, and income statements using Zoho Books. These statements are crucial for reporting and decision-making since they shed light on the company's financial situation.**

**1. Expense Management: With the programme, customers may effectively track and organise their spending. In order to ensure accurate financial records and compliance with tax requirements, users can enter expenses, attach receipts, and reconcile bank transactions.**

**2. Invoicing and Billing: Zoho Books streamlines small business invoicing and billing procedures. Invoices may be easily created by users, sent to clients, and easily tracked for payments. As a result, there is an improvement in cash flow and less time spent on administrative duties.**

**3. Bank Reconciliation: By automatically matching transactions from Zoho Books, bank reconciliation is made easier.**

**Application:**

**1. User-Friendly Interface: Small business owners and non-accountants may effortlessly manage their money with Zoho Books' intuitive and user-friendly interface.**

**2. Affordability: Zoho Books is accessible to startups and business owners on a tight budget thanks to its reasonable price levels, which are designed to meet the demands of small organisations.**

**3. Integration: To streamline corporate processes and data flow, Zoho Books interfaces easily with other Zoho apps as well as third-party software, including CRM programmes and payment gateways.**

**4. Accessibility: Because Zoho Books is a cloud-based service, customers may access their financial information from any internet-connected device, anywhere, at any time. This improves team members' adaptability and cooperation.**

**Security**: Zoho Books employs advanced security measures to protect sensitive financial information, including data encryption, secure data centres, and regular backups, ensuring peace of mind for users.

**10.Minitab**

**The statistical software programme Minitab is used for statistical research, quality improvement projects, and data analysis. It offers a large selection of features and tools for performing statistical analysis and deriving conclusions from data.**

**Uses**:

**1. Data Analysis: Spreadsheets, databases, and text files are just a few of the sources of data that users of Minitab can examine. To analyse relationships between variables and spot patterns in the data, users can use correlation analysis, hypothesis testing, and descriptive statistics.**

**2. Regression Analysis: To model the relationships between dependent and independent variables, Minitab provides regression analysis tools. To generate predictions and deduce causal linkages, users can employ logistic regression, multiple regression, basic linear regression, and other regression approaches.**

**3. Forecasting: Using past data, Minitab's forecasting tools allow users to project future patterns and results. Time series forecasts can be created by users, who can also use statistical measures to evaluate forecast accuracy and spot seasonal patterns.**

**4. Quality Improvement: Numerous quality improvement programmes, including Six Sigma and Lean, employ Minitab.**

**Application**:

1. **. Ease of Use: Minitab's straightforward workflow and user-friendly interface make it suitable for users with different degrees of statistical knowledge. Usability is further improved by integrated tutorials and support materials.**
2. **. Extensive Statistical Tools: Minitab provides an extensive collection of statistical tools and methodologies that encompass a variety of analytical approaches for modelling, hypothesis testing, and data analysis.**
3. **3 Data Visualisation: To assist users in efficiently interpreting and communicating their findings, Minitab offers strong data visualisation features, such as graphs, charts, and plots. Users can make visually beautiful and educational presentations with customisation possibilities.**
4. **4 Integration: Minitab can easily import and export data, as well as collaborate with other software programmes and data sources. Additionally, it allows for integration with well-known programming languages like Python and R.**
5. **Technical Support:** Minitab offers technical support and training resources to assist users with software installation, troubleshooting, and skill development. Users can access online documentation, video tutorials, and instructor-led training programs.

**Innovations in Financial Statement Analysis Tools:**

AI-driven paradigm shift in financial analysis tools includes a range of innovations:

1. Streamlined Data Extraction and Processing: By utilising AI-driven solutions, financial statement data extraction is made more efficient and accurate when it comes to trend spotting.

2. Exposing Insights with Natural Language Processing: Artificial Intelligence's proficiency in Natural Language Processing reveals subtle insights concealed in textual financial data, improving understanding beyond quantitative analysis.

3. Using AI-Powered Machine Learning Algorithms to Empower Predictive Capabilities: These algorithms, which identify patterns and trends to predict future financial performance, are based on machine learning.

4. Dynamic Data Visualisation: Through interactive charts and graphs, AI-driven data visualisation techniques bring financial data to life and promote intuitive comprehension

**Opportunities Financial Statement Analysis Tools Offer:**

There are numerous benefits of integrating AI into financial statement analysis.

1. Efficiency Amplification: By automating tedious operations, AI-powered solutions significantly reduce processing times while accelerating efficiency improvements.

2. Precision Augmentation: By identifying complex links across large datasets, machine learning algorithms improve analysis precision and reduce human error.

1. 3. Unique Insight Generation: AI makes it easier to generate original insights that are not possible to obtain from traditional analysis, which improves stakeholder decision-making.
2. 4. Real-time Decision Support: AI-driven solutions that enable real-time data availability enable prompt decision-making and enable flexible responses to market dynamics.
3. 5. Improved Risk Assessment: AI-powered solutions strengthen risk assessment capacities by proactively spotting irregularities and warning signs to head off possible threats.
4. 6. Tailored Recommendations: Individualised insights based on parameters, risk tolerance, and preferences.

**commonly used software by MNC’s for financial statement analysis**:

**Software that MNCs frequently employ to analyse financial statements is:**

1. SAP ERP: Major international firms frequently utilise SAP ERP (Enterprise Resource Planning) for financial management, which includes financial reporting, analysis, and consolidation across several business divisions and nations.
2. Oracle E-Business Suite: This well-known ERP system, which includes modules for financial reporting, planning, and analysis, is also utilised by international corporations for financial administration.
3. IBM Cognos Analytics: This business intelligence and performance management application offers planning, analysis, and reporting capabilities for financial data.
4. Microsoft Dynamics 365 Finance: Previously known as Dynamics AXE, Microsoft Dynamics 365 Finance is an ERP solution that provides budgeting, financial reporting, and analysis tools.
5. **Workday Financial Management**: Workday Financial Management is a cloud-based ERP system used by multinational companies for financial planning, analysis, and reporting.
6. **Anaplan:** Anaplan is a cloud-based business planning and performance management platform that provides capabilities for financial modeling, forecasting, and analysis.
7. **Hyperion Financial Management** (HFM): Hyperion Financial Management, part of Oracle's Enterprise Performance Management (EPM) suite, is used for financial consolidation, reporting, and analysis in multinational companies.
8. **SAS Financial Management**: SAS Financial Management is an enterprise financial planning and analysis software that provides tools for financial reporting, budgeting, and analytics
9. **CCH Tagetik**: CCH Tagetik is a unified performance management software that offers financial consolidation, reporting, budgeting, and forecasting capabilities for multinational companies.
10. **MicroStrategy:** MicroStrategy is a business intelligence platform that provides tools for financial reporting, analysis, and dashboarding, commonly used by multinational corporations for decision-making.

**Differences between Indian companies and multinational corporations (MNCs) in various aspects relevant to financial statement analysis:**

1. **Accounting Standards:**

Indian Companies: Indian companies typically follow Indian Accounting Standards (Ind AS) or Indian Generally Accepted Accounting Principles (GAAP).

MNCs: Multinational corporations may follow International Financial Reporting Standards (IFRS) or GAAP from their home country.

1. **Regulatory Environment:**

Indian Companies: Indian companies are subject to regulations imposed by bodies such as the Securities and Exchange Board of India (SEBI) and the Ministry of Corporate Affairs (MCA).

MNCs: Foreign-based companies adhere to regulations set forth by their respective regulatory authorities, which may differ from Indian regulations.

1. **Currency and Exchange Rate Considerations:**

Indian Companies: Indian companies primarily report financial results in Indian Rupees (INR), with potentially less exposure to currency-related risks.

MNCs: Multinational corporations often operate in multiple currencies, which can introduce complexities related to currency translation and exchange rate fluctuations.

1. **Business and Industry Practices:**

Indian Companies: Cultural, economic, and industry-specific factors influence business practices and financial performance metrics for Indian companies.

MNCs: Multinational corporations face unique challenges and market dynamics in different countries, which may impact their financial performance and reporting practices.

1. **Taxation and Legal Considerations:**

Indian Companies: Indian companies must comply with tax laws, corporate governance requirements, and legal frameworks specific to India.

MNCs: Multinational corporations operating in various jurisdictions must navigate different tax laws, corporate governance standards, and legal constraints, requiring a comprehensive understanding of each country's regulations.

**Artificial intelligence (AI)-powered financial analysis tools face a number of obstacles despite their revolutionary potential:**

1. Data Quality and Accessibility: It might be difficult to guarantee the availability of objective, high-quality data, particularly when working with a variety of unstructured data sources.

2. Contextual Interpretation: It's still difficult to integrate qualitative elements and larger economic settings into AI-driven analysis, which could mask important conclusions and implications.

3. Regulatory and Ethical Compliance: Complying with strict ethical guidelines and legal requirements presents difficult issues with data protection, bias reduction, and compliance.

4. Model Robustness and Validation: Careful examination and adjustment are required to guarantee relevance and accuracy in the face of changing market dynamics by continuously verifying and improving AI models.

5. Harmonising Human-AI Dynamics: To fully take advantage of the synergies, it is crucial to strike a careful balance between human expertise and AI-driven insights.

**Conclusion:**

A new era of efficiency, accuracy, and insight in financial analysis is being ushered in by AI-powered financial statement analysis tools. These tools provide stakeholders a plethora of opportunities, but they also bring with them complex difficulties that need for alertness and flexibility. Organisations can use AI's disruptive potential to improve their financial analysis skills and promote sustainable growth in the ever-changing finance industry by skillfully navigating these hurdles.

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