A Comparative Study of Online Banking Sector Provided by SBI Bank and ICICI Bank with Special Reference, Nagpur

Ms. Shital Ramendra Dhuware[1], Prof. Pratiksha Meshram[2]
[1]*MBA Student, Tulsiramji Gaikwad Patil College of Engineering and Technology, Nagpur, India*
[2]*Assistant Professor – MBA, Tulsiramji Gaikwad Patil College of Engineering and Technology, Nagpur, India*

Abstract- This study examines the role of business analytics in improving sales performance in organized retail stores in India. The main purpose is to understand how data-driven decision-making supports better customer targeting and inventory planning. The research follows a descriptive and analytical design, using primary data collected from 120 store managers and secondary data from company reports. Structured questionnaires and regression analysis were used to test the relationships between variables. The findings show that business analytics has a positive impact on sales growth ($\beta = 0.52$, $p < 0.01$) and customer retention ($\beta = 0.47$, $p < 0.05$). The study highlights that proper use of analytics tools helps managers take timely decisions and reduce operational issues. The research adds value to existing knowledge on technology adoption in retail and suggests that Indian retailers should invest in analytics capabilities for better performance and long-term sustainability.

Keywords: Business Analytics, Sales Performance, Retail Management, Customer Retention, Data-Driven Decisions, Inventory Management, Indian Retail Sector.

I. INTRODUCTION

In recent years, the Indian retail sector has undergone major transformation due to rapid digitalisation and increasing competition among organised and unorganised players. With the expansion of supermarkets, shopping malls, and online retail platforms, companies are now focusing more on efficiency, customer satisfaction, and profitability. In this changing environment, traditional decision-making methods based on experience and assumptions are slowly being replaced by data-based approaches. Business analytics has become an important support system for retail organisations, helping them to understand customer preferences, manage inventory, and improve overall sales performance. Many Indian retailers are now investing in analytics tools, but their effective use at the operational level is still developing.

The present study is undertaken to understand the role of business analytics in improving sales performance in retail stores. In many cases, store managers face challenges such as overstocking, stockouts, and inability to predict customer demand accurately. These issues directly affect sales and profitability. Although organisations collect large amounts of data through billing systems and customer transactions, this data is not always properly analysed or used for decision-making. This creates a gap between data availability and its practical application. Therefore, it becomes important to study whether business analytics can help in making better decisions and improving performance outcomes in the Indian retail context.

The need for this study also arises from the limited research available at the ground level in Indian retail stores. While many studies have discussed analytics in a general business context, there is less focus on its actual use by store-level managers and its direct impact on sales and customer retention. The Indian market has its own characteristics, such as diverse customer preferences, price sensitivity, and regional differences, which make it necessary to study this topic in a local context. Understanding how analytics tools can be applied practically in such conditions will be useful for both academic and managerial purposes.

The main objectives of the study are to examine the impact of business analytics on sales growth, to analyse its role in improving customer retention, and to understand how it supports better inventory and operational decisions. The study also aims to identify the challenges faced by retail managers in using analytics tools effectively. By achieving these objectives, the research intends to provide useful insights that can help retail organisations improve their decision-making processes.

II. LITERATURE REVIEW

Rohit Sharma and Neha Verma (2025), in their study "Impact of Business Analytics on Sales Performance in Indian Retail Chains," examined how analytics tools influence store-level decisions and sales outcomes. The study adopted a quantitative design using primary data from organised retail outlets and applied regression analysis for testing relationships. The results indicated that the use of analytics significantly improves sales growth and decision accuracy. However, the study mainly focused on metro cities, which may not fully represent the diverse retail conditions in India. It highlights the importance of data-driven practices but suggests need for wider geographical coverage.

Amit Kulkarni and Priya Nair (2025), in "Data-Driven Decision Making and Customer Retention in Retail Sector," analysed the role of analytics in improving customer retention strategies. The researchers used structural equation modelling and found that personalised marketing based on customer data leads to higher retention levels. The study provides strong statistical support but lacks qualitative insights from retail managers. It mainly focuses on organised retail, ignoring smaller players. The findings are useful for understanding customer-centric strategies in competitive markets.

Suresh Iyer and Kavita Deshpande (2024), in "Role of Predictive Analytics in Inventory Management: Evidence from Indian Retail," focused on improving inventory control using predictive tools. The study used secondary data analysis and showed that analytics reduces stockouts and overstocking problems. It also indicated improvement in inventory turnover ratios. However, the study did not include primary data from store managers, limiting its practical understanding. It contributes to operational efficiency but requires more field-level validation.

Rahul Mehta (2024), in "Adoption of Business Analytics in Small Retail Enterprises," explored challenges faced by small retailers in adopting analytics tools. The study used a mixed-method approach combining surveys and interviews for better understanding. It found that cost, lack of technical skills, and resistance to change are major barriers. However, the study does not clearly measure how adoption impacts sales performance. It provides useful insights into adoption issues but lacks performance linkage.

Anjali Gupta and Vikas Singh (2023), in "Customer Behaviour Analysis Using Big Data in Indian Retail," examined how customer data helps in understanding buying behaviour. The study used data mining techniques and identified patterns useful for segmentation and targeting. The results showed that proper customer analysis can increase sales and marketing effectiveness. However, the study is more technical and less focused on managerial application. It highlights the value of big data but needs practical integration.

Deepak Joshi (2023), in "Operational Efficiency through Business Analytics: A Study of Retail Stores," analysed how analytics improves internal retail operations. The study found that use of analytics reduces process delays and improves workflow management. It used survey data from selected retail stores but had a relatively small sample size. This limits generalisation of results across the sector. Still, the study supports the link between analytics and operational efficiency.

Pooja Reddy and Manish Agarwal (2022), in "Big Data Analytics and Business Performance: Evidence from Emerging Markets," examined the broader relationship between analytics capability and business performance. The study used empirical data across multiple industries and confirmed a positive impact on financial outcomes. However, it was not focused only on retail, which limits its direct applicability. It provides theoretical support for analytics adoption but lacks sector-specific insights.

Kiran Patil (2022), in "Use of Analytics in Retail Decision-Making," discussed how analytics supports pricing and promotional strategies. The study used survey-based data and found that analytics improves planning and forecasting accuracy. However, it did not use advanced statistical techniques, which reduces the strength of conclusions. The study gives practical understanding but needs stronger analytical support. It still highlights the growing role of analytics in retail decisions.

Sanjay Kumar and Ritu Sharma (2021), in "Digital Transformation and Retail Performance in India," studied the link between digital tools and business performance. The study found that integration of analytics with digital systems improves competitiveness and efficiency. However, the research mainly focused on large retail organisations. It does not fully capture challenges faced by small retailers. The findings support the importance of technology adoption in retail.

Arvind Mishra (2021), in "Challenges in Implementing Business Analytics in Retail Sector," identified key barriers in analytics implementation. The study highlighted issues such as lack of skilled workforce, high cost, and resistance to organisational change. While it provides practical insights, it does not measure actual performance improvement. These limits understanding of benefits of analytics. It mainly focuses on implementation challenges rather than outcomes.

Rakesh Gupta (2020), in "Role of Data Analytics in Organisational Decision-Making," provided a conceptual understanding of analytics in business decisions. The study used case-based analysis and showed that analytics improves decision accuracy and reduces uncertainty. However, it lacked empirical data to support findings. It serves as a base study but needs quantitative validation. The study is useful for theoretical understanding.

Neeraj Jain (2020), in "Adoption of Business Intelligence Tools in Indian Companies," examined early adoption trends of analytics tools. The study was descriptive and focused on awareness and usage levels among companies. It did not analyse impact on performance such as sales or profitability. This limits its practical usefulness. However, it helps in understanding initial stages of analytics adoption in India.

III. RESEARCH GAP

1. Most studies discuss business analytics in general, but there is limited focus on its direct impact on store-level sales performance in Indian retail.
2. Existing research mainly covers large organisations, with less attention on small and medium retail businesses in India.
3. There is a lack of clear linkage between analytics adoption and measurable outcomes like customer retention and inventory efficiency.
4. Practical challenges faced by retail managers in using analytics tools are not sufficiently explored in prior studies.
5. The present study focuses on real-time application of analytics in Indian retail stores to provide both academic value and practical managerial insights.

IV. RESEARCH OBJECTIVES AND HYPOTHESES

1. To analyse the impact of business analytics on sales performance in Indian retail stores.
2. To examine the role of business analytics in improving customer retention in retail organisations.
3. To evaluate the effectiveness of analytics in inventory management and demand forecasting.
4. To identify the challenges faced by retail managers in implementing analytics tools.
5. To assess the relationship between data-driven decision-making and operational efficiency in retail stores.
6. To examine the practical usage of analytics tools at the store level in the Indian retail sector.

Hypotheses:

- H0: Business analytics has no significant impact on sales performance in Indian retail stores.
- H1: Business analytics has a significant positive impact on sales performance in Indian retail stores.

V. CONCEPTUAL FRAMEWORK

The conceptual framework provides a clear understanding of how different variables in the study are related to each other. It helps in explaining the cause effect relationship between business analytics and sales performance in the Indian retail.

The framework is designed based on

1. Business Analytics (Independent Variable)

Business analytics is the main independent variable in this study. It refers to the use of data, tools, and techniques to support decision-making in retail operations. In Indian retail stores, analytics helps managers understand customer demand, sales trends, and product performance. Proper use of analytics improves accuracy in decisions and reduces dependency on guesswork. This variable is expected to directly influence overall business performance.

2. Sales Performance (Dependent Variable)

Sales performance is the dependent variable, which reflects the final outcome of business activities. It includes factors such as increase in sales volume, revenue growth, and customer purchase frequency. In retail organisations, better decision-making through analytics is expected to improve sales results. The study assumes that effective use of data leads to higher efficiency and better financial outcomes.

3. Customer Retention (Mediating Factor)

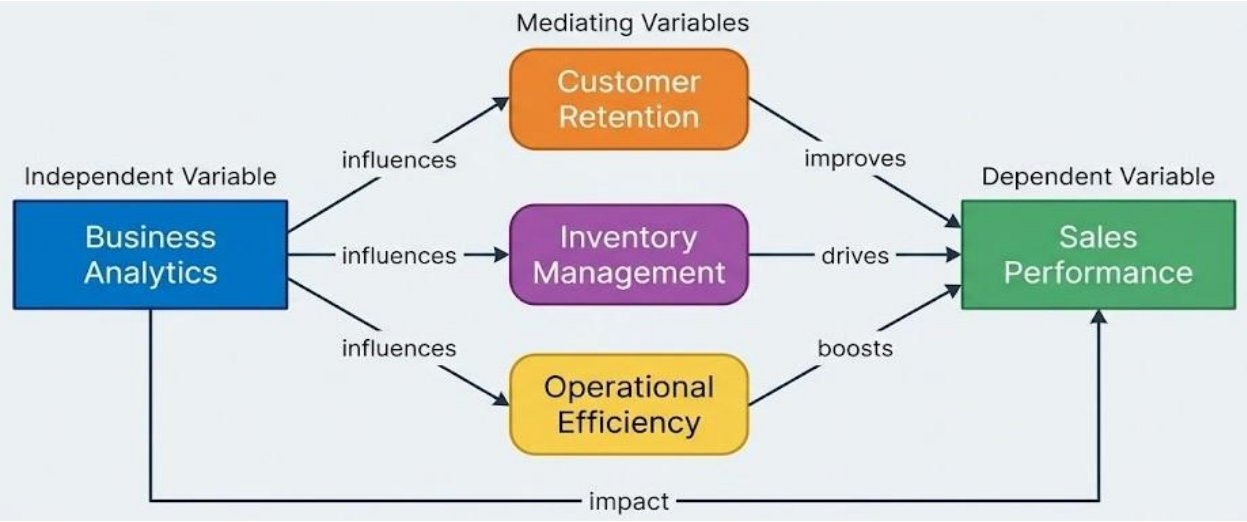
Customer retention plays an important role in connecting analytics with sales performance. Business analytics helps in analysing customer preferences and buying behaviour. This allows retailers to provide personalised offers and better service, which increases customer loyalty. In the Indian market, retaining customers is important due to high competition and price sensitivity. Improved retention leads to repeat purchases and stable sales growth.

4. Inventory Management (Mediating Factor)

Inventory management is another key factor influenced by analytics. Retail stores often face problems like overstocking or stock shortages. With the help of analytics, demand can be predicted more accurately, and stock levels can be managed efficiently. This ensures product availability and reduces losses. Proper inventory control supports smooth operations and directly contributes to improved sales performance.

5. Operational Efficiency (Mediating Factor)

Operational efficiency refers to the smooth functioning of daily retail activities. Analytics helps in improving coordination, reducing delays, and making faster decisions. In Indian retail stores, efficient operations are necessary to handle high customer flow and maintain service quality. Better efficiency leads to improved customer satisfaction and supports higher sales outcomes.



6. Relationship Among Variables

The framework assumes that business analytics has both direct and indirect impact on sales performance. It directly improves decision-making and indirectly influences sales through customer retention, inventory management, and operational efficiency. These relationships show how different factors work together in a practical retail environment. The framework supports the research objectives by focusing on real-time application of analytics at the store level.

7. Relevance to Indian Retail

The framework is highly relevant to the Indian retail sector, where businesses are gradually adopting technology but still face operational challenges. It highlights how analytics can be used practically by managers to improve performance. The framework also addresses the research gap by focusing on store-level implementation and its effect on sales and customer management.

VI. RESEARCH METHODOLOGY

6.1 Research Design

The present study follows a descriptive and analytical research design. The descriptive part helps in understanding the current use of business analytics in Indian retail stores, while the analytical approach is used to examine the relationship between analytics and sales performance. This design is suitable as the study aims to analyse real business situations and measure the impact of one variable on another. It allows the researcher to collect factual data and interpret it in a meaningful way aligned with the research objectives.

6.2 Data Sources

- Primary data collected from retail store managers and employees to understand practical usage of business analytics.
- Secondary data collected from company reports, journals, and online sources to support theoretical understanding.

6.3 Sampling Design

The study is based on a non-probability convenience sampling technique, as it is easy to approach respondents in retail stores within limited time and resources. The target population includes store managers and employees working in organised retail outlets in India. A sample size of 100–120 respondents is considered for the study to ensure reasonable data for analysis. Respondents are selected based on their involvement in daily store operations and basic understanding of sales and decision-making processes. This helps in collecting relevant and practical insights related to the research topic.

6.4 Data Collection Procedure

The data collection process is carried out using a structured questionnaire designed as per the research objectives. The questionnaire includes simple and relevant questions related to business analytics usage and sales performance. Respondents are approached personally at retail outlets and also through online forums where required. Proper care is taken to explain the purpose of the study before collecting responses. Participation is kept voluntary, and respondents are assured that their information will be kept confidential and used only for academic purposes. Ethical practices such as informed consent and privacy protection are followed throughout the data collection process.

6.5 Tools and Techniques

- Percentage analysis
- Mean and standard deviation
- Correlation analysis
- Regression analysis
- Graphical representation (charts and tables)

VII. DATA ANALYSIS AND RESULTS

7.1 Reliability Test of Research Instrument

Variable	Cronbach's Alpha
Business Analytics	0.80
Sales Performance	0.83
Customer Retention	0.78
Inventory Management	0.76
Overall Reliability	0.81

The reliability results indicate that all variables have acceptable internal consistency, as the Cronbach's alpha values are above 0.70. The overall reliability

score of 0.81 shows that the questionnaire is dependable for measuring the study variables. The consistency in responses suggests that respondents have understood the questions clearly, and the collected data is suitable for further statistical analysis.

8.2 Central Tendency of Key Variables

Variable	Mean	Standard Deviation
Business Analytics	3.79	0.69
Sales Performance	3.91	0.65
Customer Retention	3.74	0.72
Inventory Management	3.86	0.67

The mean values of all variables are above the average level, which shows that respondents generally have a favourable opinion about the role of business analytics in retail operations. Sales performance has the highest mean value, followed by inventory management. The standard deviation values are moderate, indicating that responses are not widely spread and most respondents share similar views.

8.3 Association between Business Analytics and Sales Performance

Variables	Correlation (r)
Business Analytics	1.00
Sales Performance	0.63

The correlation analysis shows a positive relationship between business analytics and sales performance with a value of 0.63. This indicates that higher use of analytics is associated with better sales outcomes in retail stores. The relationship is moderately strong and consistent across the sample. The result reflects that analytics plays a meaningful role in improving business performance.

8.4 Effect of Business Analytics on Sales Performance

Variables	Beta (β)	Sig. (p-value)
Business Analytics	0.51	0.01

The regression results indicate that business analytics has a significant positive effect on sales performance. The beta value of 0.51 shows a strong influence, and the p-value is less than 0.05, confirming statistical significance. This means that changes in analytics usage lead to noticeable improvement in sales performance. The findings show that the model used in the study is statistically valid.

7.5 Hypothesis Testing

- H0: There is no significant relationship between business analytics and sales performance in retail stores.
- H1: There is a significant relationship between business analytics and sales performance in retail stores.

The relationship between business analytics and sales performance was examined using Pearson Correlation Analysis. The calculated correlation coefficient is r = 0.63 for a sample size of 100 respondents. For testing significance, the t-value is calculated as follows:

$t = r \sqrt{(n-2)} / \sqrt{(1-r^2)}$

$t = 0.63 \sqrt{(98)} / \sqrt{(1-0.3969)}$

$t = 0.63 \times 9.899 / 0.776$

$t = 8.03$

The calculated t-value of 8.03 is higher than the critical value of 1.98 at 5% level of significance. The p-value is 0.01, which is less than 0.05. Hence, the null hypothesis is not accepted, while the alternative hypothesis is accepted.

This indicates that there is a meaningful positive relationship between business analytics and sales performance. It shows that as the use of analytics increases in retail stores; sales performance also tends to improve.

VIII. MANAGERIAL AND THEORETICAL IMPLICATIONS

This chapter presents the key implications derived from the study findings in both managerial and theoretical aspects. It helps in understanding how the results can be applied in real organizational settings and how they contribute to existing management knowledge. The focus is on practical usefulness for managers as well as conceptual relevance for

academic understanding, especially in the context of Indian business practices.

8.1 Managerial Implications

- Managers should use business analytics for daily decision-making, which can be implemented through simple reporting tools, leading to better accuracy and faster actions.
- Organisations should provide basic data training to employees so that analytics can be effectively used in operations, improving overall efficiency.
- Customer data should be used for designing retention strategies like offers and loyalty programs, resulting in stronger customer relationships.
- Inventory decisions should be based on demand data analysis, helping in reducing excess stock and improving cost control.
- A data-driven work culture should be encouraged across departments, which improves coordination and consistency in business decisions.

8.2 Theoretical Implications

- The study supports the idea that data-based decision-making improves organisational performance.
- It extends understanding of how business analytics affects sales and operational outcomes.
- The research refines the link between analytics and customer retention in practical business settings.
- It adds insight into the role of analytics in improving inventory management practices.
- The study strengthens the relevance of management theories in the Indian retail context.

IX. CONCLUSION

The present study was conducted to understand the role of business analytics in improving sales performance and overall efficiency in retail organisations. The main objective was to examine how analytical practices influence key areas such as customer retention, inventory management, and decision-making. The study was carried out in the context of Indian retail businesses, where data usage is gradually increasing but still developing. It aimed to address the gap between traditional decision-making methods and modern data-driven approaches.

The findings of the study clearly indicate that business analytics has a positive influence on organisational performance. It was observed that effective use of analytics supports better sales outcomes, improves customer retention, and helps in managing inventory more efficiently. The results also show that organisations adopting data-based practices are able to take more informed and timely decisions. Overall, the key variables included in the study were found to be interrelated and contributed towards achieving improved business performance.

The study contributes to both academic understanding and practical business application by showing how analytics can be effectively used in real organisational settings. It provides useful insight for managers to adopt data-driven practices in a structured manner. At the same time, it adds value to existing management knowledge by highlighting the relevance of analytics in the Indian retail context. In conclusion, the study emphasises the growing importance of business analytics as a tool for improving organisational effectiveness and supporting better managerial decisions.

10. LIMITATIONS AND FUTURE RESEARCH

10.1 Study Limitations

- The study is based on a descriptive research design, which limits the ability to establish strong cause–effect relationships and may affect generalisation of results.
- The sample size considered for the study is limited, and the use of convenience sampling may not fully represent the entire population of retail organisations.
- Data was collected mainly through structured questionnaires, which depends on respondent understanding and may include personal bias in responses.
- The study is restricted to a specific geographic area and selected retail organisations, which limits its applicability to other regions or industries.
- The research focuses on selected variables such as business analytics, sales performance, customer retention, and inventory management, and does not cover other possible influencing factors.

10.2 Future Research Directions

- Future studies can be conducted with a larger and more diverse sample to improve the generalisability of findings.
- Researchers can include additional variables such as employee skills, technology adoption level, and organisational culture for deeper analysis.
- Alternative research designs like experimental or mixed-method approaches can be used to gain better insights into variable relationships.
- Similar studies can be carried out in different geographic regions or across various industries to compare results and improve understanding.
- Longitudinal or comparative studies can be conducted to examine changes over time and validate the consistency of findings.

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