

A STUDY ON IMPACT OF BUSINESS ANALYTICS IN SALES STORES UNDERTAKING AT ZUDIO

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Abstract :

In today's competitive market, understanding customer behavior, forecasting demand, and optimizing sales strategies are vital. Business analytics — through descriptive, predictive, and prescriptive techniques — allows companies to leverage large volumes of data for actionable insights. The adoption of BA in sales processes is reshaping how companies attract, convert, and retain customers.

Zudio's key advantage lies in its combination of affordability, trendiness, and accessibility, making it a popular choice for budget-conscious shoppers, especially in India. Zudio offers stylish and comfortable clothing at prices that cater to a broad audience, often ranging from ₹199 to ₹999. Its success is also attributed to its fast-fashion approach, which involves quickly responding to changing trends and refreshing its inventory.

Keywords — Affordability, Trend Responsiveness, Accessibility, Strategic Positioning, No Discounts, Efficient Operations

INTRODUCTION

India's retail sector has evolved from traditional, localized shops and street vendors to a mix of organized retail and e-commerce. The shift towards modern retail began in the mid-1990s with economic liberalization, allowing for the growth of large chains and supermarkets. E-commerce has further transformed the landscape, offering consumers new ways to shop. [1, 2, 3]

Early Forms of Retail: [1]

- **Traditional Retail:** For centuries, India's retail landscape was dominated by local shops, kirana stores, and street vendors. These were integral parts of daily life and

communities, offering goods on credit and allowing for bargaining. [1]

- **Pioneering Markets:** Markets like Chandni Chowk in Delhi and Crawford Market in Mumbai, along with others like Connaught Place in Delhi and New Market in Kolkata, were early examples of organized retail. [1, 4]

The Rise of Modern Retail: [1, 5]

- **Economic Liberalization:** The 1990s saw a shift towards more open trade and foreign investment, leading to the entry of large retail chains and department stores. [1, 5]
- **Growth of Organized Retail:** Companies like Shoppers Stop, Westside, Pantaloons, and Pyramid - Crossroad emerged, offering

standardized shopping experiences and fixed prices. [2, 5]

- **Modern Retail Formats:** Supermarkets and large department stores, often with air-conditioned environments, became more common. [1]
- **Entry of Foreign Brands:** The liberalization period also saw the entry of global retail giants like Walmart and Amazon, bringing international practices to the Indian market. [2]

The E-commerce Era: [1]

- **Digital Transformation:** The mid-2000s marked the beginning of the e-commerce revolution in India, with companies like Flipkart, Amazon, and Snapdeal entering the market.
- **Changing Consumer Habits:** E-commerce provided consumers with new options, including online shopping and delivery, further influencing the retail landscape. [1]

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Here's a more detailed look at what makes Zudio special:

- **Affordability:**

Zudio's pricing strategy is a major draw, with most products falling within the ₹199 to ₹999 range. This accessibility allows a wider range of consumers to access fashionable and trendy clothing without breaking the bank.

- **Trend Responsiveness:**

Zudio is known for its ability to quickly adapt to the latest fashion trends and consistently refresh its in-store collections. This helps it appeal to a young, trend-focused audience.

- **Accessibility:**

Zudio operates a large number of stores across India, including in tier 2 and tier 3 cities, making it easily accessible to a broad consumer base.

- **Efficient Operations:**

Zudio's robust supply chain and minimal lead times allow it to quickly bring fresh collections to stores, keeping up with fast-moving fashion trends.

- **No Discounts:**

Unlike many retailers, Zudio maintains consistent pricing throughout the year, avoiding the need for discounts or clearance sales. This approach fosters customer trust and encourages immediate purchases.

- **Strategic Positioning:**

Zudio targets a young, budget-conscious audience with a focus on everyday casual wear, basics, and seasonal fashion.

- **Tata Group's Support:**

Zudio is part of the Tata Group, which provides a strong foundation and reputation for quality.

- **Franchise Model:**

Zudio's franchise model has allowed for rapid expansion, enabling the brand to establish a strong presence across India.

Objectives

The primary objective of this research is to explore the **impact of Big Data Analytics** on various factors of the Sales store, focusing specifically on **Store Zudio**. Given the immense scale of store and its adoption of advanced data analytics technologies, this study aims to assess how Big Data has transformed the bank's operations, enhanced its customer services, and supported its strategic objectives.

Below are the key research objectives that will guide the study:

- To analyze the influence of business analytics on sales performance.
- To identify key analytics tools and techniques used in sales.
- To understand challenges in implementing analytics-driven sales strategies.
- To explore future trends in sales analytics.

Scope & Limitations

Scope:

The **scope** of this study refers to the boundaries within which the research will be conducted, including the areas of focus, the population or sample, and the specific aspects of Big Data Analytics in the context of the sales in Zudio.

The study will explore the application of **Big Data Analytics** across several key areas of the retail store sales in Zudio:

- Integration of AI for hyper-personalized shopping experiences.
- Use of IoT devices for real-time inventory tracking.
- Advanced customer journey mapping to predict future buying behavior.

Limitations:

1.Inventory Management

Overstocking or stockouts reduce profitability.

2. Customer Insights and Personalization

Generic marketing yields low engagement.

3. Dynamic Pricing and Promotions

Fixed pricing fails to match fluctuating demand.

4. Store Layout Optimization

Poor product placement can hurt sales.

5. Data Collection Difficulties:

Especially in non-metro stores where customer data may be incomplete.

6. High Initial Costs:

Investing in advanced POS systems and analytics platforms.

7.Training Staff:

Retail employees may lack technical skills to use data tools effectively.

Statement of Problems/ Need of the study

Retail fashion stores like Zudio operate in a **highly dynamic** and **competitive** environment where

customer preferences shift rapidly based on trends, seasons, and promotions. Despite strong brand value and growing demand for affordable fashion, retail stores face major operational challenges:

- **Inventory Mismatches:** Overstocking some items and running out of fast-moving products, leading to revenue loss.
- **Unpredictable Customer Behavior:** Lack of deep insights into buying patterns, price sensitivity, and regional preferences.
- **Ineffective Promotions:** Broad, untargeted discounts or marketing campaigns that reduce profit margins without significantly boosting sales.
- **Manual Decision-Making:** Heavy reliance on experience or guesswork by store managers instead of data-driven strategies.
- **Lack of Real-Time Visibility:** Delayed or inaccurate sales data, making it hard to adjust strategies quickly.

Need for the Study:

There is a strong need to analyze **how business analytics can solve these operational challenges**, optimize store performance, personalize customer engagement, and drive profitable growth. The study is essential to show how data-driven decision-making can transform retail sales operations, making stores like Zudio more efficient, responsive, and competitive in the marketplace.

Sources of Data Collection:

Data collection is a crucial phase in any research study, as it provides the foundation upon which analysis and conclusions are built. For a study focusing on the application of Big Data Analytics in the banking sector—specifically at the State Bank of India (SBI)—the use of both **primary** and **secondary** data collection methods is essential to obtain a well-rounded understanding of the topic.

This mixed-method approach ensures the reliability, validity, and depth of the research findings.

1. Primary Sources of Data

Primary data refers to the information collected firsthand by the researcher specifically for the purpose of the study. It is tailored, specific, and original in nature. In this study, primary data will be collected directly from employees and professionals associated with SBI. The following tools and techniques will be used:

a. Questionnaires

Structured and semi-structured questionnaires will be designed and distributed among SBI employees working in various departments such as information technology, data analytics, operations, and customer relationship management. The questionnaire will include both close-ended and open-ended questions to assess:

- Awareness and understanding of Big Data Analytics
- Current usage of data analytics tools
- Perceived benefits and challenges
- Impact on customer service and operational efficiency
- Suggestions for improvement and future implementation

This approach will help gather quantifiable data and statistical insights related to employee perspectives and organizational practices.

b. Personal Interviews

In-depth interviews will be conducted with selected personnel, such as data scientists, workers, sales person, costumer, managers etc. These interviews will follow a semi-structured format, allowing for flexibility in responses while maintaining a consistent direction of inquiry. The aim is to gather detailed insights into:

- The strategic goals behind Big Data initiatives
- Specific tools and technologies used
- Real-life case studies
- Data governance and privacy concerns
- Challenges in implementation and integration

This qualitative method helps to explore aspects that cannot be easily captured through surveys alone.

c. Focus Group Discussions (FGDs)

If feasible, small focus group discussions will be organized with a mix of Zudio employees from different functional areas. These discussions will provide a platform for participants to share their views, experiences, and recommendations related to Big Data Analytics in an interactive setting. Group dynamics often encourage diverse opinions, uncovering practical insights and real-world implications.

d. Site Visits and Observations

Wherever possible, site visits to selected Zudio branches, data centers, or analytics units may be conducted to observe the on-ground implementation of data analytics tools and practices. This observational method supports the validation of responses received through other tools.

2. Secondary Sources of Data

Secondary data refers to information that has already been collected, published, or recorded for other purposes but is relevant to the current study. Secondary data helps to build the theoretical and contextual background and complements primary research findings. The following sources will be utilized:

a. Zudio Official Publications

Zudio annual reports, quarterly financial statements, press releases, and policy documents offer valuable insights into the bank's strategic initiatives, digital transformation, and technology adoption. These documents can provide data on investment in analytics, customer base expansion, and digital transaction growth.

b. Academic Journals and Research Papers ((e.g., from McKinsey, Deloitte, Gartner))

Peer-reviewed journals, research articles, conference proceedings, and academic case studies focusing on Big Data in Sales in retail stores will be reviewed. This literature will help understand theoretical frameworks, models, global trends, and best practices.

c. Reports by Regulatory Bodies

Data from the Reserve Bank of India (RBI), Ministry of Finance, and National Payments Corporation of India (NPCI) will be used to contextualize the regulatory and economic landscape within which SBI operates. These reports often include data on digital payments, cybersecurity, and analytics-driven initiatives in Indian banking.

D. Customer Surveys and Feedback Forms:

Satisfaction scores (e.g., post-purchase surveys at checkout or app notifications).

E. Online Reviews and Social Media:

Sentiment analysis of customer reviews related to product quality, in-store experience, etc.

F. Mobile App Data (if Zudio's app is active):

App browsing behavior, wish lists, purchase triggers.

Conclusion

By employing a combination of primary and secondary data sources, the study aims to present a comprehensive picture of the role and impact of Big Data Analytics in Zudio. While primary data captures the ground realities and internal perspectives, secondary data provides the broader context, industry benchmarks, and theoretical background. This dual approach enhances the credibility of the research and supports well-informed conclusions and recommendation

Technique of the Analysis

Analyzing data effectively is one of the most critical components of any research study, especially when the focus is on Big Data Analytics—a field inherently complex and data-intensive. The study of Big Data Analytics in the Retail sector, specifically at the Zudio, involves both qualitative and quantitative data. Therefore, a combination of analytical techniques will be used to process, interpret, and derive meaningful insights from the collected data. These techniques are selected to align with the nature of the research objectives, the types of data gathered, and the tools and technologies commonly used in Big Data environments.

The analysis will be conducted in the following structured manner:

➤ Descriptive Analysis

Descriptive statistics will be the first level of analysis. These techniques are essential for summarizing and organizing the data collected from the primary sources (e.g., questionnaires, interviews). Descriptive analysis will include:

- **Frequency distributions** to understand how often specific responses or behaviors occur.

- **Measures of central tendency** (mean, median, mode) to identify the average trends in employee perceptions and Big Data usage.
- **Measures of dispersion** (standard deviation, range) to assess variability in responses across departments or job roles.
- **Cross-tabulations** to examine relationships between categorical variables such as department type and awareness of Big Data tools.

This basic analysis helps provide an overview of the data and establishes a foundation for more advanced methods.

➤ Predictive Analysis

Uses historical data to predict future outcomes (like sales forecasts). Tools like Machine Learning models, Excel Forecasting, SAP Predictive Analytics are used

➤ Prescriptive Analysis

Recommends actions based on predictions to achieve desired results. Tools like Optimization software (like IBM CPLEX), price simulation tools are used

➤ Diagnostic Analysis

Explains why something happened by finding patterns or anomalies. Tools like Data mining software, SQL queries are used.

➤ Qualitative Data Analysis

Qualitative responses obtained from interviews, open-ended survey questions, and focus group discussions will be analyzed using the following methods:

a. Thematic Analysis

This involves identifying and analyzing recurring themes, patterns, and narratives in qualitative data. Common themes may include challenges in implementation, benefits observed, user experience, and future expectations.

b. Content Analysis

Content analysis will help quantify the presence of certain words, phrases, or concepts in interview transcripts and open-ended responses. This technique is helpful in comparing qualitative data with quantitative findings.

c. Narrative Analysis

Used for in-depth interpretation of detailed responses or stories shared by participants regarding specific Big Data use cases, project experiences, or strategic outcomes.

➤ Data Visualization

To present complex data in an accessible and insightful manner, data visualization tools will be employed. These will include:

- **Bar charts and pie charts** for frequency and distribution representation
- **Histograms and box plots** for understanding data spread and outliers
- **Heat maps** for identifying intensity of tool usage across departments or regions
- **Dashboards** (if applicable) created using tools like Tableau or Power BI for real-time representation of analyzed data

Visualization enhances the interpretability of data, especially when presenting results to non-technical stakeholders

➤ Use of Analytical Tools and Software

Area	Tool	Purpose / How It Helps
Sales Reporting & Dashboarding	Microsoft Power BI	Real-time sales tracking, visual dashboards for store performance, regional sales comparison, seasonal sales analysis.
Retail Management Systems	SAP Retail (SAP S/4HANA Retail for Merchandise Management)	End-to-end management of inventory, purchasing, sales operations. Helps with inventory forecasting and replenishment analytics.
Customer Relationship Management (CRM)	Salesforce CRM	Customer data management, personalized marketing campaigns, loyalty program tracking, customer journey analytics.
Footfall Analytics	RetailNext / Dor	Analyzes in-store foot traffic, dwell time, conversion rates (walk-ins vs buyers).

		Helps optimize store layouts and staffing.
Price Optimization & Promotions	Revionics (an Aptos company)	Dynamic pricing solutions based on demand analytics, competitive pricing, and stock levels.
Inventory Analytics	Zebra Technologies (with RFID)	Real-time inventory visibility, faster stock counts, minimizes out-of-stock issues.
Consumer Behavior Analytics	Google Analytics (for e-commerce / online data)	For stores that have an app or online extension (like Zudio’s growing online presence) — tracking click behavior, abandoned carts, demographics.
POS Data Integration and Analytics	Oracle Retail Xstore POS	Collects detailed point-of-sale transaction data; integrates with loyalty programs, inventory, and customer insights.

AI and Personalization Engines	Adobe Experience Cloud	Personalized offers, AI-driven product recommendations, customer segmentation.
Supply Chain Analytics	JDA Software (now Blue Yonder)	Demand forecasting, supply planning, distribution optimization — key for brands expanding rapidly like Zudio.

1) Conclusion

Business analytics significantly boosts sales effectiveness by enabling smarter decision-making, customer targeting, and resource allocation. However, to fully realize its benefits, companies must invest in data infrastructure, training, and change management initiatives.

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