A Major Project Report on

Analytical Research for Product Growth & Management

Submitted to Manipal University, Jaipur

Towards the partial fulfillment for the Award of the Degree of

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CERTIFICATE

This is to certify that the project titled **Analytical Research for Product Growth & Management** is a record of the Bonafide work done by **Jatin Israni (Roll No. 23FS20MCA00022)** submitted in partial fulfilment of the requirements for the award of the Degree of MASTER OF COMPUTER APPLICATIONS **of Manipal University Jaipur, during the academic year 2023-2025.**

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Internship Completion

GLOKAL
TECHNOLOGIES

Date :- 26-May-2025

CERTIFICATE

This is to certify that the project entitled **Analytical Research for Product Growth & Management** was carried out by **Jatin Israni** (23FS20MCA00081) at Glokal Technologies , Jaipur under my guidance during Starting **February 10, 2025** to Ending **June 10, 2025**.

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Abstract

This report details an in-depth exploration of data-centric strategies aimed at boosting product development and strategic oversight, undertaken during an internship at Glokal Technologies. The study underscores the significance of merging market analysis, user behavior insights, and competitive intelligence to foster ongoing product enhancement and sustainable business expansion.

The research unfolds in three primary stages: analyzing market trends and competitors, assessing product performance, and crafting strategic plans. Analytical tools such as Google Analytics, Power BI, and Excel were employed to monitor and assess key performance indicators (KPIs) like user retention, churn rates, and conversion metrics. Market insights were gleaned from both secondary sources, including industry reports, and primary data collected through surveys, providing a comprehensive view of emerging trends and user expectations.

Opportunities for product improvement were pinpointed through data-driven evaluations and user feedback, emphasizing the alignment of development initiatives with overarching business objectives. The recommendations put forth are action-oriented, offering clear pathways for enhancing product performance and enriching user experience.

The findings present a strategic blueprint for organizations aiming to fortify their market position, make informed decisions grounded in data, and synchronize product development with customer needs. This research highlights the pivotal role of analytics and competitive benchmarking in formulating user-focused, growth-driven product strategies in the contemporary digital landscape.

Keywords: product development, user behavior insights, market analysis, competitive intelligence, KPIs, strategic management, data-centric strategy

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Chapter 1: INTRODUCTION

1. Overview of Undertaken Work and Underlying Motivation

In the rapidly evolving digital landscape, businesses face the pressing challenge of sustaining product growth and relevance. With consumer preferences shifting swiftly and new competitors emerging regularly, relying on intuition or outdated methodologies is no longer viable. Continuous product enhancement, grounded in empirical data and user feedback, has become essential.

However, many organizations underutilize the wealth of information at their disposal. Critical insights into user interactions, feature preferences, and competitive dynamics often remain untapped, leading to suboptimal decisions, diminished user satisfaction, and stagnated growth.

To address this gap, data-driven product management has emerged as a strategic approach. By analyzing market trends, monitoring competitor activities, and understanding user behaviors, businesses can make informed decisions that enhance product offerings, foster user satisfaction, and drive sustainable growth in a competitive environment.

a) Primary Motivations and Anticipated Benefits

In dynamic sectors like beauty and skincare, where trends and customer expectations evolve rapidly, adaptability is crucial. This project aimed to assist Allure Cosmetics, a subsidiary of Glokal Technologies, in gaining deeper customer insights, staying ahead of competitors, and making informed, data-backed decisions to propel product growth.

Key objectives included:

- **Deciphering Customer Interactions**: To comprehend user engagement with the brand's products and identify valued features or services.
- **Monitoring Market Dynamics**: To stay abreast of emerging beauty trends and shifting customer demands in a volatile market.
- **Enhancing Product Performance**: To pinpoint areas for improvement based on user feedback and performance metrics.
- **Data-Driven Decision Support**: To transition from intuition-based decisions to those grounded in clear, analytical insights.

Anticipated benefits encompassed:

- **Focused Product Development**: Providing clear directions for product enhancements.
- **Elevated User Experience**: Leading to increased retention and customer satisfaction.
- **Competitive Edge**: Achieved through strategic feature benchmarking.
- **Strategic Growth Framework**: Offering actionable plans for long-term product scalability.

b) Project Scope and Methodological Approach

The project was meticulously structured to support Allure Cosmetics in expanding and refining its digital product portfolio. The scope encompassed a comprehensive analysis of the current market landscape, product performance evaluation, and the formulation of strategic growth recommendations.

Defined Scope:

1. **Market Analysis**: Investigating customer needs and target demographics.
2. **Competitive Assessment**: Benchmarking Allure's products against competitors concerning features, pricing, and user experience.
3. **User Behavior Analysis**: Examining user engagement patterns using tools like Google Analytics.
4. **Growth Strategy Formulation**: Identifying methods to attract new users and retain existing ones.
5. **Product Enhancement Recommendations**: Suggesting improvements to boost user satisfaction and business outcomes.

c) Methodological Phases:

- **Phase 1: Research and Benchmarking**
  - Gathered data on industry trends and competitor strategies.
  - Analyzed customer feedback and engagement metrics.
- **Phase 2: Product Performance Evaluation**
  - Monitored key metrics such as daily active users (DAU), churn rate, and retention rate.
  - Utilized tools like Power BI and Excel for in-depth analysis.
- **Phase 3: Strategic Recommendations**
  - Proposed feature modifications based on research findings.
  - Outlined practical steps for product scaling and enhancement.

1.2. Project Statement / Objectives of the Project

a) Project Statement

In the dynamic and competitive realm of beauty and skincare, maintaining market relevance necessitates more than just high-quality products; it requires continuous innovation, strategic decision-making, and a deep understanding of customer needs. The proliferation of digital platforms and the rapid evolution of consumer behaviors compel brands to stay attuned to market shifts, actively engage with their audience, and swiftly adapt to emerging trends.

This project, executed at Glokal Technologies for its brand Allure Cosmetics, is centered on conducting a comprehensive analytical study to bolster product growth and management. The primary aim is to extract actionable insights by integrating market research, performance analytics, and competitor assessments to discern the drivers of customer engagement, identify existing gaps, and formulate strategies for effective growth.

The research encompasses the evaluation of key performance indicators (KPIs), analysis of customer behavior patterns, identification of new product opportunities, and the proposition of strategic enhancements. By translating data into strategic initiatives, this project aspires to empower Allure Cosmetics to make informed, evidence-based decisions that elevate customer satisfaction, enhance retention, and amplify overall product success across leading e-commerce platforms such as Myntra, Nykaa, Amazon, and Flipkart.

b) Objectives of the Project

1. **To Understand and Analyze Market Trends**
    o   Study ongoing beauty industry trends in India and globally.
    o   Identify shifting customer preferences and expectations in skincare and cosmetics.
    o   Explore seasonal trends, product categories in demand, and emerging beauty concerns.
    o   Use insights to ensure Allure's offerings align with current and future market demands.
2. **To Conduct Competitive Benchmarking**
    o   Identify major competitors in the beauty and skincare segment.
    o   Analyze our product strategies, pricing models, customer engagement.
    o   I Build comparison metrics to give idea where Allure stands and where it can improve.
    o   Highlight competitive advantages and areas for differentiation.
3. **To Analyze Product Performance Using KPIs**
    o   Track and analyze critical product performance metrics such as:
        ▪   Monthly Active Users (MAU)

- Daily Active Users (DAU)
- Retention and churn rates
- Conversion rates from visits to purchases
- Identify which product features or campaigns drive higher engagement and sales.

4. **To Examine User Behavior and Feedback**
   - Comprehend the manner in which users engage with the website and products by conducting user journey analysis.
   - Gather insights from reviews, surveys, and inquiries directed to customer support.
   - Identify common user pain points and expectations to improve the user experience.
   - Segment users based on behavior for more targeted growth strategies.

5. **To Identify Market Gaps and Growth Opportunities**
   - Pinpoint unmet needs in the market through trend analysis and competitor gaps.
   - Suggest potential new products, product improvements, or unexplored target audiences.
   - Evaluate new platforms or expansion strategies for customer acquisition.

6. **To Recommend Strategic Improvements and Roadmap**
   - Develop a set of actionable strategies focused on:
     - Feature improvement
     - User engagement and retention
     - Conversion optimization
     - Brand visibility across e-commerce platforms
   - Provide a roadmap for implementing these strategies in phases, with expected outcomes and impact metrics.

1.3 Organization of Report

This report is organized to deliver a comprehensive overview of the project, "Analytical Research for Product Growth & Management," conducted at Allure Cosmetics (a brand within Glokal Technologies). Each chapter develops sequentially, providing both strategic insights and technical depth regarding how data analytics and product intelligence can facilitate sustainable product growth in the beauty and cosmetics sector.

Chapter 2: Organizational Background & Context

This chapter provides an overview of the host organization and sets the foundation for understanding the context of the project:
- **About the Organization**: Introduction to Glokal Technologies and its beauty brand, Allure Cosmetics, including its market presence, brand identity, and product philosophy.
- **Product Landscape**: Description of the product categories, target audience, and e-commerce presence on platforms such as Nykaa, Flipkart, Amazon, and Myntra.

- **Strategic Challenges**: Discussion of existing bottlenecks in product differentiation, growth stagnation, and retention.
- **Competitive Environment**: Brief insight into industry competition and emerging beauty trends.

Chapter 3: Project Objectives and Scope

This chapter defines the boundaries and expected outcomes of the project:

- **Primary Objectives**:
  - Conduct market and competitor analysis.
  - Understand user behavior and retention patterns.
  - Identify areas for product improvement and new feature development.
- **Scope of the Project**:
  - Focused on digital channels, analytics data, and customer feedback loops.
  - Does not include deep financial forecasting or backend engineering changes.
- **Expected Deliverables**:
  - Strategic recommendations.
  - Feature prioritization framework.
  - Growth roadmap supported by data.

Chapter 4: Research Methodology

This chapter explains the systematic process followed during the research:

- **Phased Research Approach**:
  - **Phase 1**: Market and Competitor Research (feature mapping, user strategy analysis).
  - **Phase 2**: Product Performance Analysis (DAU/MAU, churn, retention, usage trends).
  - **Phase 3**: Growth Strategy Formulation and Prioritization.
- **Data Collection Techniques**:
  - Primary: Interviews, feedback forms.
  - Secondary: Analytics tools, industry reports.
- **Frameworks Used**:
  - SWOT, MoSCoW prioritization, KPI dashboards.

Chapter 5: Tools and Technology Stack

This chapter describes the platforms, tools, and technologies used to conduct the analysis and deliver insights:

- **Data Analytics**: Google Analytics, Excel, Google Sheets.
- **Visualization and BI**: Power BI for dashboarding and data storytelling.
- **Research Tools**: Industry databases, competitor product reviews.
- **Collaboration & Documentation**: Google Workspace, Microsoft PowerPoint.

- **Hardware Requirements**: 10 GB of disk space, stable internet connection.

Chapter 6: Data Analysis & Key Findings
This chapter discusses the main analytical outcomes from the study:
- **Competitor Insights**: Feature comparisons, pricing strategies, market positioning of key rivals.
- **Customer Behavior Patterns**: Identification of engagement drivers and drop-off moments.
- **Performance Metrics**: Analysis of KPIs such as retention rate, churn rate, repeat purchase trends.
- **Opportunity Mapping**: Unaddressed user needs, feature gaps, and whitespace in the market.

Chapter 7: Strategic Recommendations & Product Roadmap
This chapter transforms insights into actionable plans:
- **Feature Prioritization** using the MoSCoW model:
  - Must-Have: Core usability and performance improvements.
  - Should-Have: UX enhancements, minor feature additions.
  - Could-Have: Innovative add-ons to enhance differentiation.
- **Marketing and Growth Strategy**:
  - User acquisition suggestions (social proof, influencer marketing, loyalty campaigns).
  - Retention boosters (personalized recommendations, trial kits).
- **Product Roadmap**:
  - Short-term and long-term deliverables aligned with business and tech feasibility.

Chapter 8: Conclusion & Future Scope
This chapter summarizes the outcomes and outlines future directions:
- **Project Outcomes**: Highlights of findings, strategies validated, and business value added.
- **Impact on Allure Cosmetics**: Better-informed decision-making, improved product positioning, and increased data literacy.
- **Future Enhancements**:
  - Deep integration of AI in recommendation engines.
  - Use of machine learning for customer segmentation.
- **Final Thoughts**:
  - Emphasizes the need for continuous product intelligence and data monitoring.

Chapter 2: BACKGROUNG MATERIAL

2.1 Conceptual Overview (Concepts/Theory Used)

To develop a robust strategy for product growth and management, this project draws upon several established theories and frameworks from the fields of marketing, analytics, and product development. These concepts guide the analysis, decision-making, and strategic planning throughout the project.

1. Product Growth Frameworks

A central concept used is the **AARRR Framework (Pirate Metrics)**, introduced by Dave McClure. It divides the customer journey into five key stages:

- **Acquisition** – How users find the product (via search, ads, referrals, etc.)
- **Activation** – The user's first positive experience with the product.
- **Retention** – How many users return and use the product again.
- **Referral** – How often users refer the product to others.
- **Revenue** – How and when users generate income for the business.

This model provides a structured way to track user behavior and optimize each stage for growth.

2. Customer Retention and Engagement

Understanding what keeps users coming back is essential. Concepts such as **Customer Lifetime Value (CLTV)** and **Churn Rate** help measure long-term engagement and loyalty. Metrics like session length, repeat visits, and usage frequency are analyzed to identify what features or experiences encourage continued use.

This data-driven approach allows businesses to address pain points and enhance user satisfaction, ultimately reducing churn and increasing retention.

3. Market Segmentation and Targeting

This theory emphasizes the division of a wide target market into smaller groups of consumers who share similar needs, interests, or behaviors. The segmentation can be based on:

- Demographic factors (such as age, gender, income)
- Geographic location
- Behavioral patterns
- Psychographics (including lifestyle and values)

Market segmentation facilitates tailored product strategies and improved customer targeting, resulting in more efficient marketing campaigns and product offerings.

4. Competitive Benchmarking

Benchmarking is used to assess the strengths and weaknesses of competing products in the same domain. This includes:

- Feature-by-feature comparisons
- Analysis of pricing models and value propositions
- Customer reviews and market positioning

This comparison provides a realistic understanding of where the product stands and where improvements are needed to maintain a competitive edge.

5. SWOT Analysis (Strengths, Weaknesses, Opportunities, Threats)

As a team, we use SWOT analysis to better understand both the internal and external factors that influence our product's trajectory. This framework helps us make informed strategic choices:

- **Strengths** – These are the core capabilities and assets we possess that give our product a competitive edge in the market.
- **Weaknesses** – We also take an honest look at the areas where our product may not perform as well, identifying internal challenges or resource limitations.
- **Opportunities** – By staying alert to shifts in consumer needs and industry trends, we can uncover new avenues for growth and innovation.
- **Threats** – We continuously monitor external risks, including rising competition, regulatory shifts, and potential market saturation.

Using SWOT enables us to see the bigger picture, stay agile, and align our product development with strategic priorities.

6. Key Performance Indicators (KPIs)

We rely heavily on KPIs to measure how well our product is performing and to guide our decisions. These metrics give us a clear view of user behavior, growth, and retention:

- **MAU (Monthly Active Users)** and **DAU (Daily Active Users)** – These show us how frequently users are engaging with our product.
- **Conversion Rate** – This helps us measure how effectively we're turning visitors into active users or customers.
- **Bounce Rate** – We track this to understand how many users leave after their first interaction, which helps us improve onboarding and UX.

- **Retention Rate** – This shows how many users continue to return over time, helping us gauge satisfaction and long-term value.

Monitoring these KPIs helps us pinpoint where users are getting stuck, what's working well, and where we can improve.

2.2 Technologies We Use

To analyze growth and gain actionable insights, we use a combination of modern tools that support data collection, interpretation, and visualization. These technologies empower us to better understand user behavior and market trends.

1. **Data Analytics Platforms**
   - **Google Analytics** – We use this platform to monitor web traffic, user pathways, acquisition channels, and engagement behaviors. It's crucial for making data-informed marketing and product decisions.
   - **Microsoft Power BI** – Power BI allows us to build dynamic dashboards that consolidate data from various sources. It helps us visualize key metrics in real time and share insights across teams.
   - **Microsoft Excel** – While basic, Excel remains a powerful tool for cleaning data, performing initial analysis, and creating quick visual summaries. It complements our more advanced platforms.

2. **Market Research Sources**
   - **Industry Reports**
     Published by market research firms and consultancies, these reports provide insights into market trends, consumer behavior, and competitor landscapes. They form the basis for macro-level understanding of the industry.
   - **Competitor Websites and Tools**
     Analyzing competitor offerings, pricing, and marketing strategies via their websites and public data tools helps in benchmarking product features and positioning.
   - **Surveys and Customer Feedback**
     Direct inputs from current and potential users, collected through online surveys or feedback forms, provide qualitative data that enriches quantitative analytics. This helps in understanding user preferences and unmet needs.

3. Reporting and Visualization

- **PowerPoint and Google Slides**
  These tools are used to create clear and compelling presentations of the research findings, growth strategies, and recommendations for decision-makers.
- **Google Sheets**
  Often used for collaborative data collection, simple calculations, and sharing intermediate data summaries among team members.

4. Cloud and Storage

- **Cloud Storage (e.g., Google Drive, OneDrive)**
  For storing large datasets, reports, and collaborative documentation ensuring accessibility and version control.
- **Local Storage**
  Adequate hard disk space (minimum 10 GB) is required for handling downloaded datasets, software installations, and project files during analysis.

5. Additional Tools

- **Survey Platforms (e.g., Google Forms, SurveyMonkey)**
  Tools for designing and distributing surveys that gather customer insights directly.
- **Competitor Analysis Tools (e.g., SimilarWeb, SEMrush)**
  These help in understanding competitor traffic, marketing strategies, and keyword performance, enriching the competitive benchmarking process.

Chapter 3: METHODOLOGY

3.1 Detailed Methodology That Will Be Adopted

The project will be carried out using a systematic and structured approach, divided into key phases to ensure comprehensive analysis and actionable results:

Phase 1: Market and Competitor Research
- Identify major competitors and industry leaders in the beauty and skincare segment under e-commerce platforms.
- Collect and analyze market data including customer demographics, purchasing behavior, and emerging trends.
- Study competitor product features, pricing strategies, marketing campaigns, and customer reviews to benchmark Allure Cosmetics' offerings.

Phase 2: User Behavior and Product Performance Analysis
- Gather user engagement data through analytics tools (Google Analytics, Power BI) focusing on metrics such as Monthly Active Users (MAU), Daily Active Users (DAU), retention rates, and churn rates.
- Analyze user navigation patterns, conversion funnels, and drop-off points to identify friction areas in the customer journey.
- Use survey data and customer feedback to supplement quantitative insights with qualitative understanding of customer needs and pain points.

Phase 3: Opportunity Identification and Strategic Roadmapping
- Perform gap analysis to detect market opportunities and unmet user needs by synthesizing competitive and user behavior insights.
- Prioritize potential product features and enhancements using the MoSCoW framework (Must-have, Should-have, Could-have, Won't-have).
- Develop strategic recommendations for product growth, marketing focus, and user retention strategies aligned with business goals.

Phase 4: Reporting and Presentation
- Prepare detailed reports, visual dashboards, and presentations summarizing insights, analysis, and recommended actions.
- Use data visualization tools to present complex data in an understandable format for stakeholders.
- Incorporate feedback from stakeholders to refine recommendations and prepare for implementation phases.

Throughout these phases, the project will follow agile principles allowing iterative refinement based on findings and stakeholder input. Continuous validation of data and assumptions will be ensured to maintain accuracy and relevance.

3.2 Circuit Layouts / Block Diagrams

Since this project primarily focuses on data analysis and product research rather than hardware or embedded systems, the "Circuit Layouts" concept is replaced by **System Architecture Diagrams** and **Process Flowcharts** illustrating the methodology and workflow.

System Architecture Diagram:
- Illustrates the data sources (market research data, analytics platforms, competitor information) feeding into a central data processing and analytics system.
- Shows how data is ingested, processed, analyzed, and visualized using tools like Google Analytics and Power BI.
- Depicts the feedback loop where insights lead to strategic recommendations and iterative product adjustments.

Process Flow Diagram:
- Maps the step-by-step workflow from data collection, preprocessing, analysis, opportunity identification, to recommendation formulation.
- Highlights key decision points such as feature prioritization using MoSCoW and validation of strategies through stakeholder reviews.

Example Block Diagram Components:
- Data Collection Modules: Market Data, User Behavior Data, Competitor Data
- Data Processing Unit: Analytics Engines, Data Cleaning
- Analysis Module: Statistical Analysis, Benchmarking, Trend Identification
- Decision Support: Feature Prioritization, Strategy Formulation
- Reporting & Visualization: Dashboards, Reports, Presentations

These diagrams visually communicate the methodology's structure and help stakeholders understand the flow of information and the logical sequence of tasks throughout the project.

Chapter 4: IMPLEMENTATION

This chapter outlines the technical implementation of the analytics solution designed for **Allure Cosmetics**, a brand under **Glokal Technologies**, as part of the project on **Analytical Research for Product Growth & Management**. The implementation has been modularized to handle different analytical needs and includes a fully functional prototype developed using Microsoft Power BI.

4.1 Modules

To address various facets of business analysis, the solution was divided into functional modules. Each module focuses on extracting actionable insights from order, sales, and operational data.

Module 1: Sales Analysis Module

Objective:
To evaluate overall sales performance over time and across different product categories, regions, and customer segments.

Functional Highlights:

- Monthly and yearly sales trends.

- Sales comparison across categories and regions.

- Identification of peak sales seasons.

Key Visuals Used:

- Line charts for time-based sales trends.

- Bar charts for category-wise comparison.

- KPI cards to display cumulative sales.

    Business Impact:
    Supports strategic planning by identifying which periods and regions generate the most revenue.

Module 2: Profitability Analysis Module

Objective:
To understand profit margins across different product lines and geographic areas, helping in identifying the most and least profitable segments.

Functional Highlights:

- Profit distribution by product category and region.

- Monthly profitability trends.

- Comparison of revenue vs. cost-intensive segments.

Key Visuals Used:

- Treemaps and bar charts to display profit shares.

- Line charts for profit trends over time.

Business Impact:
Assists in optimizing the product mix and improving cost-efficiency in operations.

Module 3: Product Performance Module

Objective:
To evaluate the performance of individual products based on sales frequency, volume, and revenue contribution.

Functional Highlights:

- Ranking top-selling products.

- Tracking product-wise order frequency and revenue.

- Identifying underperforming products.

Key Visuals Used:

- Stacked bar charts showing product rankings.

- Tables for detailed performance metrics.

Business Impact:
Facilitates better inventory management and helps to plan promotions for slow-moving items.

Module 4: Order and Quantity Trends Module

Objective:
To monitor trends in order volumes and item quantities sold, supporting demand forecasting and supply chain planning.

Functional Highlights:

- Monthly and weekly order tracking.

- Analysis of order quantity trends.

- Average quantity sold per transaction.

Key Visuals Used:

- Area charts and line graphs for trend analysis.

- KPI cards showing total orders and average quantities.

Business Impact:
Improves resource planning and helps align production with market demand.

Module 5: Shipping Mode & Delivery Efficiency Module

Objective:
To assess the effectiveness and profitability of different shipping methods used by the company.

Functional Highlights:

- Analysis of order distribution by shipping method.

- Evaluation of shipping method impact on profit.

- Identification of the most cost-effective delivery channels.

Key Visuals Used:

- Donut charts and bar graphs comparing shipping options.

Business Impact:
Enables optimization of logistics and enhances customer satisfaction through efficient delivery.

Module 6: Payment Mode Analysis Module

Objective:
To evaluate customer payment preferences and analyze their relationship with purchase behavior.

Functional Highlights:

- Distribution of payment methods used (Cash, Card, UPI, etc.).

- Sales contribution by payment type.

- Customer trends in digital vs. offline payments.

Key Visuals Used:

- Pie charts and bar graphs showcasing payment method usage.

Business Impact:
Helps tailor payment gateway strategies and ensures smoother transaction experiences for customers.

4.2 Prototype

Technology Stack

- **Data Source:** Structured order and transaction data exported in CSV format.

- **Tool Used:** Microsoft Power BI Desktop.

- **Data Preparation:** Power Query Editor for cleaning, filtering, and transforming data.

- **Visualization Layer:** Power BI dashboards with interactive filters, charts, and metrics.

Prototype Overview

The developed prototype consists of multiple interactive dashboards representing different analytical modules. Each dashboard is tailored to provide specific insights and includes the following:

- **Dynamic Slicers** for filtering data by time period, category, ship mode, or region.

- **Interactive Visuals** for real-time exploration and drilling into details.

- **Linked Reports** where selecting a value in one chart updates related visuals across the dashboard.

Key Dashboards Developed

1. Executive Summary Dashboard

- Provides a top-level view of sales, profit, and order metrics.

- Displays real-time business health indicators.

2. Sales & Profit Analysis Dashboard

- Showcases sales and profitability trends over time.

- Highlights top-performing regions and product categories.

3. Product Performance Dashboard

- Ranks products based on quantity sold and revenue.

- Helps identify top-selling and underperforming products.

4. Operational Efficiency Dashboard

- Evaluates shipping methods and delivery metrics.

- Monitors order volumes and fulfillment trends.

5. Payment Trends Dashboard

- Displays customer preferences in payment modes.

- Analyzes the impact of payment type on sales volume.

User Features & Interaction

- **Cross-Filtering:** Select a data point to filter across all visuals in the report.

- **Drill-Through Pages:** Right-click and explore deeper layers of data for selected fields.

- **Responsive Layout:** Dashboards adjust based on user selections and screen size.

Benefits of the Prototype

- Enhances data-driven decision-making.

- Combines operational, financial, and marketing views in one platform.

- Scalable and ready to be extended to larger datasets or multiple brands.

Chapter 5: RESULTS AND ANALYSIS

This chapter presents the key findings and insights derived from the Power BI dashboards developed using the dataset provided by **Glokal Technologies (Allure Cosmetics)**. The purpose of this analysis is to support data-driven decisions for optimizing product performance, customer engagement, and operational efficiency.

5.1 Dashboard Overview

The Power BI dashboard titled **"Sales & Product Growth Dashboard"** provides a comprehensive visual summary of the company's sales, profit, product categories, shipping methods, payment modes, and monthly trends. Below is a snapshot of the complete dashboard:
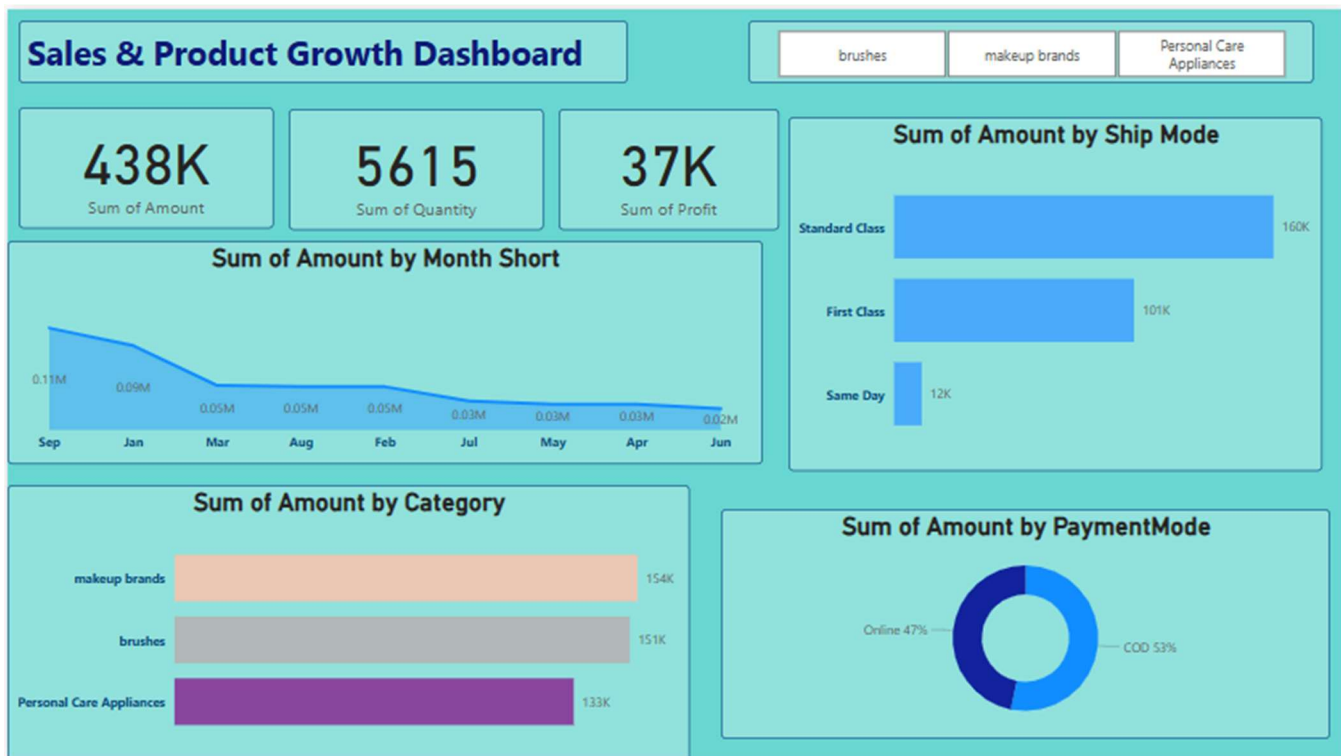

Figure:5.1 - Dashboard Overview

5.2 Key Performance Indicators (KPIs)

The top panel of the dashboard displays three primary KPIs, summarizing overall performance:
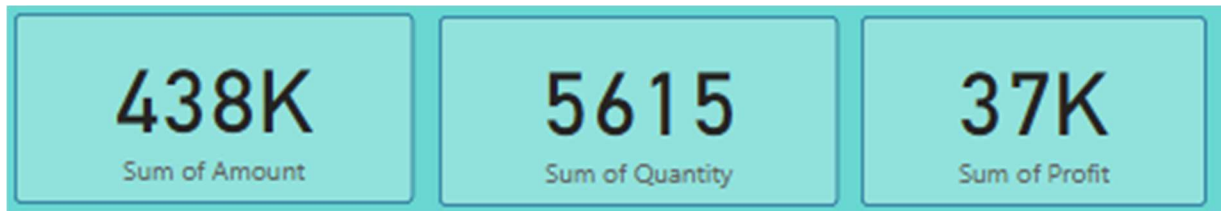

Figure 5.2 – KPIs and indicators

- **Total Sales Amount**: ₹438K

- **Total Quantity Sold**: 5615 units

- **Total Profit**: ₹37K

These values represent our organization's overall transaction activity and profitability across all product categories during the analysis period.

5.3 Sales by Product Category

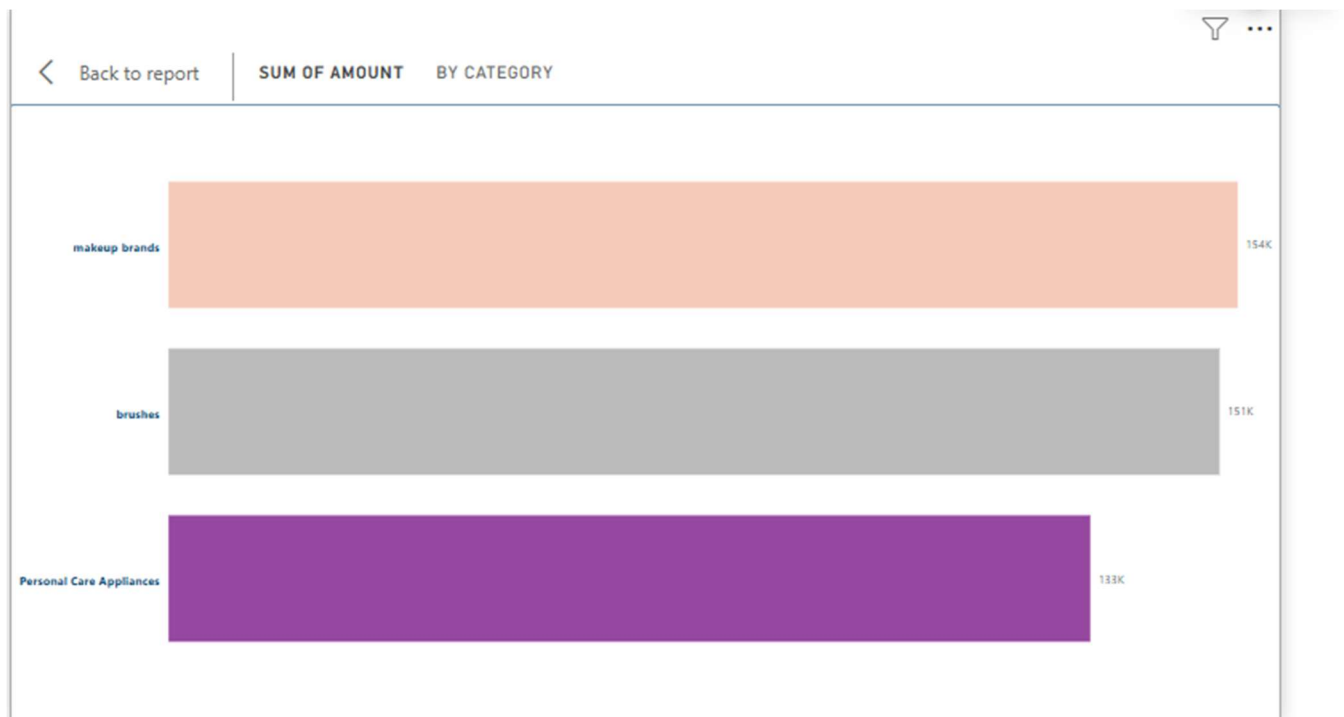This horizontal bar chart highlights sales distribution among three main product categories:

Figure 5.3 - This horizontal bar chart highlights sales distribution

- **Makeup Brands**: ₹154K
- **Brushes**: ₹151K
- **Personal Care Appliances**: ₹133K

We've observed that makeup brands are leading in total sales, with brushes following closely behind. This highlights a strong consumer demand within the beauty and cosmetic tools segment.
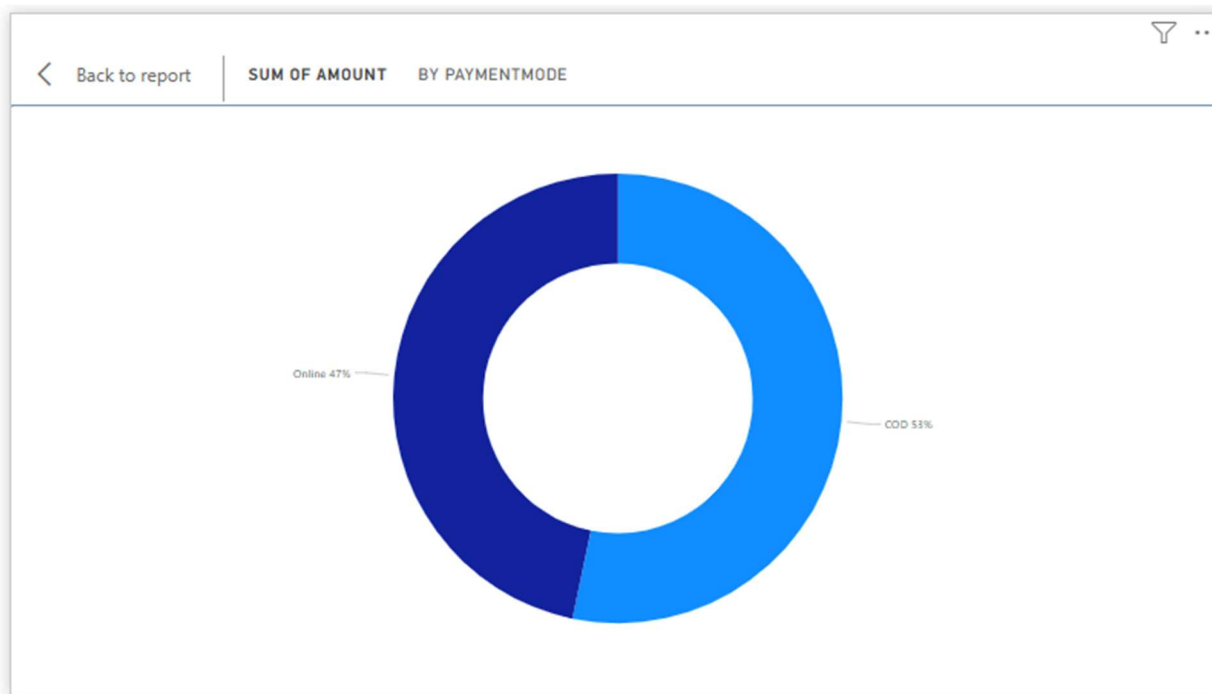
5.4 Sales by Payment Mode

Figure 5.4 – Sales By Payment Mode

- **Cash on Delivery (COD)**: 53% of transactions

- **Online Payments**: 47% of transactions

Insight: COD remains the preferred payment mode, suggesting a consumer base that still favors pay-on-delivery options.
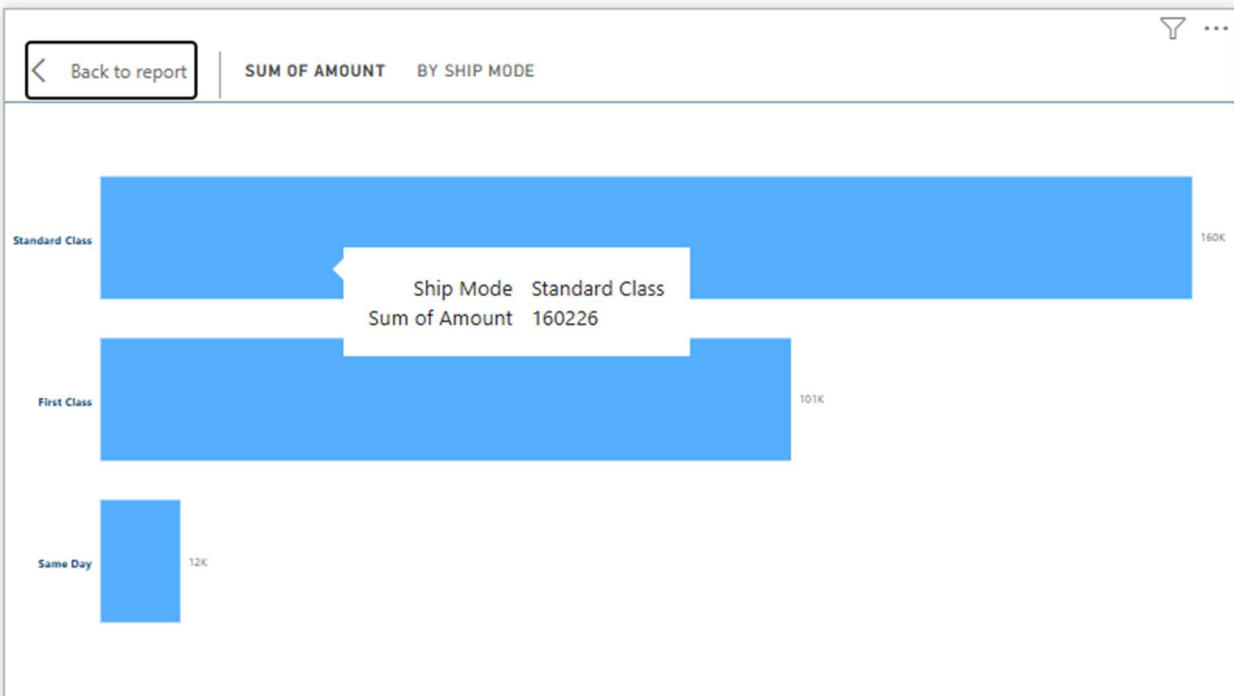
5.5 Sales by Ship Mode

Figure 5.5 – Sales By ship mode

- **Same Day**: ₹12K

Insight: Standard shipping is most utilized, indicating customer preference for affordable delivery over speed.
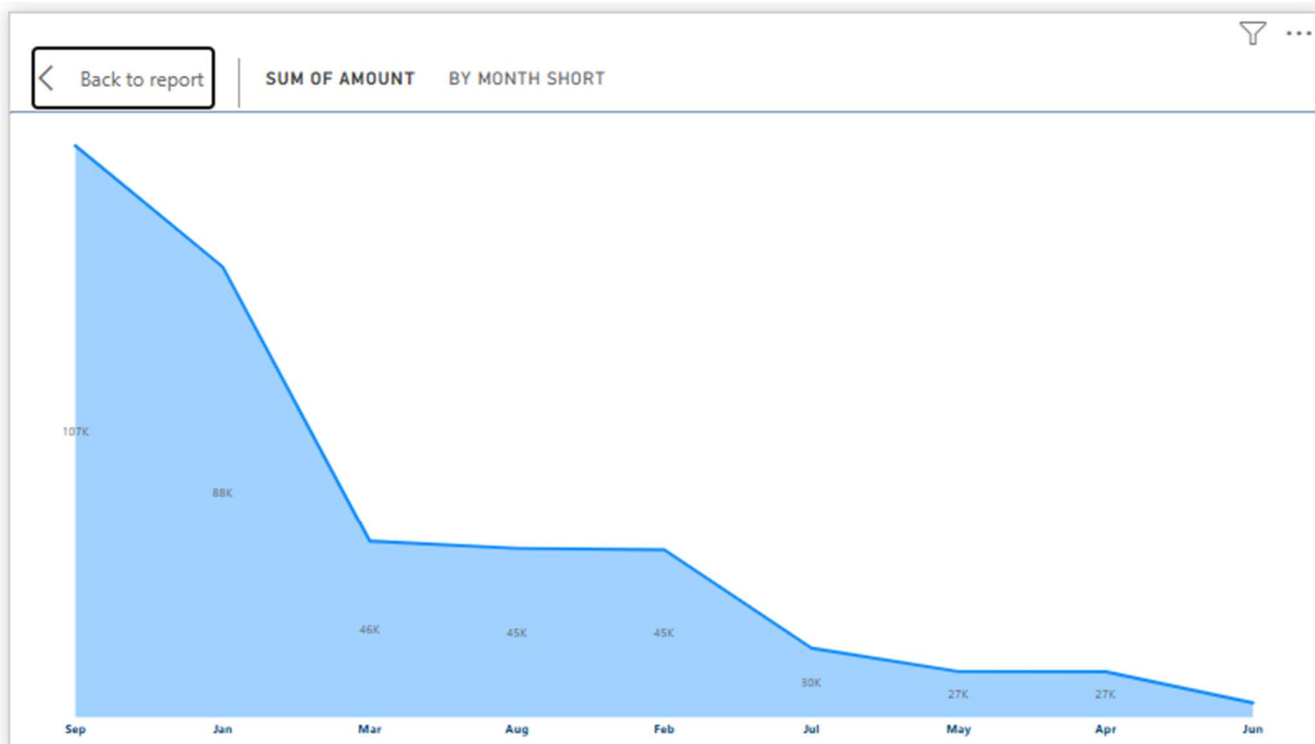
5.6 Monthly Sales Trends

Figure 5.6 – Monthly sales trends

- **Peak Month**: September (₹107K)

- **Decline**: A consistent drop from January to June

We've identified a significant sales increase during Q3 and Q4, likely driven by seasonal events such as festivals or promotional campaigns. The noticeable dip in the first half of the year presents an opportunity for us to strengthen our marketing efforts or introduce new product launches during these slower periods.
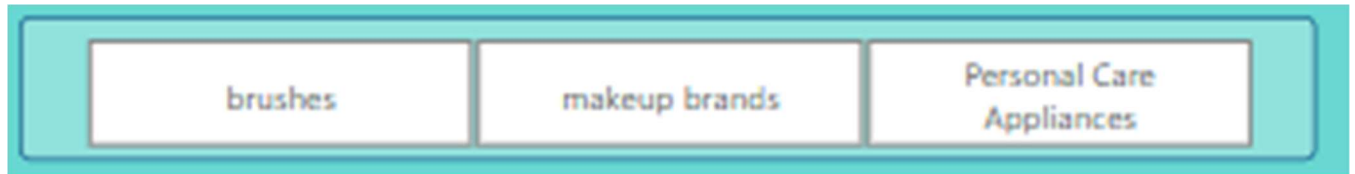
5.7 Category Filter Buttons and Navigation

Figure 5.7 – Category Filter

We've incorporated category filters that allow users to interactively explore specific product segments in detail. Additionally, features like the "Back to Report" button help maintain a seamless and intuitive navigation experience throughout the report.

5.8   Summary of Analysis

- **Sales and Profitability**: While total revenue appears healthy, the profit margin indicates scope for pricing or cost control optimization.

- **Customer Behavior**: Preference for COD and Standard shipping provides cues for logistic and payment innovation.

- **Product Insights**: Makeup and brushes dominate sales, while personal care appliances may need targeted campaigns.

- **Time-Based Trends**: Sales fluctuate heavily by month, suggesting the need for balanced strategies across the year.

Chapter 6 : CONCLUSIONS & FUTURE SCOPE

6.1 Conclusions

In this project I aimed to analyze and visualize sales and operational data of Glokal Technologies' brand Allure Cosmetics using Power BI. The following conclusions were drawn:

- **Sales and Profitability**
Although our overall revenue figures look strong, our current profit margins suggest there's room to optimize pricing strategies or better control costs.

- **Customer Behavior**
We've noticed a strong preference for Cash on Delivery and standard shipping options. This insight opens up opportunities for us to rethink and innovate our logistics and payment systems.

- **Product Performance**
Makeup products and brushes are leading our sales, whereas personal care appliances are underperforming. We may need to run more targeted marketing efforts to boost visibility and interest in those categories.

- **Seasonal and Time-Based Patterns**
Our monthly sales show significant variation, which highlights the importance of developing a more consistent and well-distributed strategy throughout the year.

6.2 Future Scope of Work

To build on the insights we've gained from this project, our team has identified several key areas we'd like to explore further:

1. **Customer Segmentation and Personalization**
   We plan to use advanced analytics to categorize our customers based on their purchasing habits, location, and frequency of engagement. This will allow us to tailor our marketing strategies more effectively and offer personalized product recommendations.

2. **Predictive Sales Analytics**
   By implementing machine learning models, we aim to forecast future sales and demand trends. This will help us manage inventory more efficiently, reduce stock shortages, and strengthen our overall supply chain operations.

3. **Real-Time Dashboard Integration**
   We're looking to integrate live data dashboards using tools like Power BI so we can monitor key metrics—such as order volumes, revenue, and customer concerns—in real time. This will enhance our responsiveness and support better decision-making.

4. **Expanding Data Sources Across Channels**
   In the future, we want to incorporate data from social media platforms, customer reviews, and online marketplaces like Amazon and Flipkart. This will give us a more complete picture of how our products are performing and how customers feel about them.

5. **Cost Optimization Strategies**
   We also plan to analyze areas like logistics, return handling, and discount strategies to identify where we can cut costs without compromising the customer experience. Improving profit margins while keeping customers happy is a top priority for us.

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