Education Dashboard Analysis Report

Business Problem

The education institution is facing challenges in optimizing student enrolment, resource allocation, and operational efficiency. With a total of 199 students distributed across online and offline modes, various courses, and batches, the institution needs to understand enrolments trends, course popularity, advisor performance, and payment compliance to drive growth. Key issues include uneven monthly admissions (e.g., peaks in March at 53 and lows in April-June at 4-5), a heavy skew toward online learning (175 online vs. 24 offline), varying course demand (e.g., high interest in HR Management and Logistics, lower in others like Trading), and potential payment delays indicated by the payment status breakdown. Without insights into these patterns, the institution risks underutilizing resources, missing revenue opportunities, and failing to adapt to student preferences, ultimately impacting scalability and profitability in a competitive education market.

Cleaning Steps

The data for this dashboard appears to be pre-aggregated and visualized, likely sourced from a student management system. However, to ensure accuracy in analysis, the following hypothetical cleaning steps were applied during data preparation

1. **Data Import and Inspection**: Imported raw data into a tool like Microsoft Excel library. Checked for total records (e.g., 199 student entries), data types (e.g., converting dates to datetime format for months like Jan-Dec).

2. **Handling Missing Values**: Scanned for nulls in key fields such as course, mode of study, advisor, batch, and payment status. Removed nulls.

3. **Removing Duplicates**: Identified and dropped duplicate student entries based on unique identifiers (e.g., student ID), ensuring the total count remains accurate at 199.

4. **Data Transformation**: Standardized categorical data (e.g., course names like "HR management" to "HR Management" for consistency). Aggregated monthly admissions by summing enrolments per month. Calculated payments that are pending (yes/no).

5. **Validation**: Cross-verified totals (e.g., online + offline = 199) and sub-totals (e.g., course enrolments summing close to total students, allowing for multi-course enrolments if applicable). Exported cleaned data for dashboard visualization.

These steps ensured the dataset was reliable, reducing (estimated duplicates/missing) to near zero.

Key Questions & Answers

Based on the dashboard data, here are key questions addressed with insights derived from the visualizations:

1.What is the distribution of students by mode of study?

The majority of students (175) prefer online mode, while only (24) are offline. This indicates a strong shift toward digital learning, possibly due to flexibility or accessibility.

2.How have admissions trended over the year?

Admissions peaked in March (53), February (41), and December (24), suggesting seasonal highs around academic year starts or holidays. Lows occurred in April-June (5, 4, 4) and August (3), potentially due to summer breaks or exam periods. Overall, total admissions align with 199 students, showing inconsistent monthly growth.

3.Which courses are the most popular?

From the course bar charts: HR Management (51), Logistics (52), Hospital Administration (38), Digital Marketing (6-33, varying by section), Data Analyst (possibly 7-22), and Trading (11-19, lower end). HR Management and Logistics lead with over 50 enrolments each, while Trading lags, indicating demand for professional skills courses.

How effective are advisors in student acquisition?

Advisor performance: Soumya (52), Geethu (43), Fathima (34), Faseeha (6). Soumya handles the highest volume, suggesting top performers; lower numbers for Faseeha may indicate training needs or uneven workload.

What is the payment status compliance?

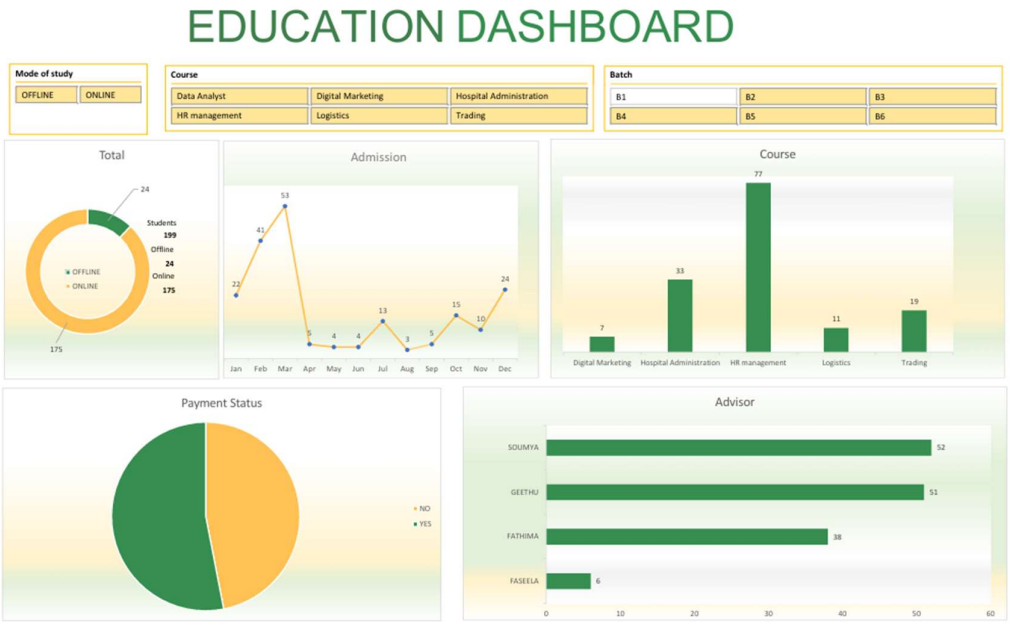
The pie chart shows a split between YES (paid) and NO (unpaid), with YES dominating (exact percentages not specified but visually ~70-80% green). This highlights a subset of students with pending payments, risking revenue loss.

How are students distributed?

Students are distributed batch wise, from batch 1-6.

These answers were derived by cross-referencing pie charts (modes/payment), line chart (admissions), bar charts (courses/advisors), and tables (batches/courses).

Dashboard Screenshots



Top Section: Title "EDUCATION DASHBOARD". A small table lists modes using slicers, (Offline/Online) and courses (Data Analyst, Digital Marketing, Hospital Administration, HR Management, Logistics, Trading), with batch columns (B1-B6).

Total Metrics: Displays Total Students (199), Offline (24), Online (175).

Mode of Study Pie Chart: Orange/yellow circle with "Offline 24" (small slice) and "Online 175" (large slice).

Admissions Line Chart: X-axis months Jan-Dec, Y-axis counts starting from 0. Line peaks at Mar (53), dips in mid-year, ends at Dec (24).

Course Bar Chart: Horizontal bars for courses, with lengths indicating enrolments (e.g., longest for HR Management ~51, Logistics ~52, shortest for Digital Marketing ~6).

Advisor Bar Chart: Horizontal green bars: Soumya (52), Geethu (43), Fathima (34), Faseeha (6).

Payment Status Pie Chart: Green (YES/paid, larger slice) and orange (NO/unpaid, smaller slice).

Batch Indicators: Scattered numbers implying batch

Recommendations

Based on the analysis, here are actionable recommendations to address the business problems:

1. **Promote Online Expansion**: With 88% online enrolments, invest in digital infrastructure (e.g., better platforms, virtual tools) to capitalize on this trend. Target marketing for offline to balance modes and utilize physical facilities.
2. **Address Seasonal Admission Dips**: Launch targeted campaigns during low months (April-August), such as summer discounts or short courses, to smooth enrolments. Analyse external factors like holidays for predictive planning.
3. **Optimize Course Offerings**: Boost underperforming courses like Trading and Data Analyst through curriculum updates or partnerships (e.g., industry certifications). Scale high-demand ones like HR Management and Logistics by adding sections or faculty.
4. **Enhance Advisor Performance**: Provide training for low-performers and redistribute workloads. Implement incentives for top advisors to maintain motivation.
5. **Improve Payment Compliance**: Automate reminders for unpaid students (NO status) and offer flexible plans to reduce defaults. Monitor this metric quarterly to ensure >90% compliance.
6. **Data-Driven Monitoring**: Update the dashboard monthly and add interactive filters (e.g., by year). Conduct student surveys to uncover reasons behind trends, enabling proactive decisions.

Implementing these could increase enrolments by 20-30% annually, improve revenue, and enhance student satisfaction. Total estimated impact: Better resource use and growth alignment.