

# **SYNOPSIS**

Submitted to



**The IIHMR University, Jaipur**

for the partial fulfillment for the award of the degree of

Master of Business Administration (MBA)

in

**Healthcare Analytics**

by

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Under the Supervision and Guidance of

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# Synopsis for Dissertation

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1. **TITLE:** *Development of a Business Intelligence Dashboard for Business Performance Evaluation and Revenue Optimization in Diagnostic Services: A Case Study of Medanta Labs*
2. **INTRODUCTION:** Diagnostic service organizations generate large volumes of operational and financial data across multiple laboratories, business units, and geographical locations. However, the availability of data alone does not ensure effective decision-making unless it is transformed into meaningful business insights. Business Intelligence (BI) tools such as Power BI enable healthcare organizations to monitor key performance indicators, identify revenue trends, evaluate operational efficiency, and support strategic decision-making.

Medanta Labs is one of India's leading diagnostic service providers, operating through multiple business channels and laboratory networks. The organization requires a centralized analytical framework to monitor business performance, target achievement, client contribution, laboratory productivity, and revenue indicators. This study aims to develop an interactive healthcare analytics dashboard using Power BI to evaluate business performance and identify opportunities for revenue optimization. The findings of this study are expected to support data-driven decision-making and improve managerial visibility across the organization.

3. **RESEARCH QUESTION:** How can a Business Intelligence (BI)-based healthcare analytics dashboard be developed and utilized to evaluate business performance and identify revenue optimization opportunities in diagnostic services at Medanta Labs?
4. **OBJECTIVES:**  
**Primary Objective:**  
To develop a healthcare analytics dashboard for business performance evaluation and revenue optimization in Medanta Labs.

**Secondary Objectives:**

- To assess key business performance indicators such as revenue achievement, target attainment, client mix, business contribution, and average revenue per visit.
- To analyse month-on-month performance trends across different business units and laboratories.
- To identify high-performing and low-performing laboratories based on achievement against targets.
- To provide actionable insights for improving operational efficiency and revenue generation through data-driven decision-making.

## 5. HYPOTHESIS:

### *Null Hypothesis ( $H_0$ )*

There is no significant improvement in business performance monitoring and revenue analysis through the implementation of a healthcare analytics dashboard at Medanta Labs.

### *Alternative Hypothesis ( $H_1$ )*

The implementation of a healthcare analytics dashboard improves business performance monitoring and supports revenue analysis and decision-making at Medanta Labs.

## 6. MATERIAL AND METHODS:

**STUDY DESIGN:** A descriptive analytical study involving the development of a Business Intelligence (BI) dashboard for business performance evaluation and revenue analysis in diagnostic services.

**SETTING:** The study was conducted at **Medanta Labs**, Gurugram, Haryana, India.

### STUDY POPULATION

#### **Inclusion criteria:**

- Records pertaining to diagnostic business performance during the study period.
- Data related to revenue, visits, targets, laboratories, business types, clients, and test categories.
- Complete and valid records available in organizational databases.

#### **Exclusion Criteria**

- Duplicate records.
- Incomplete or erroneous entries identified during data cleaning.
- Records not relevant to business performance evaluation.

#### **Study Variables**

- The following key variables were included in the analysis:
- Total Revenue/Achievement
- Target Achievement
- Average Revenue per Visit (ASP)
- Daily Revenue Run Rate (DRR)
- Client Run Rate (CRR)

- Client Status (New, Existing, Churn)
- Business Type
- Test Category
- Tagged Laboratory
- State
- Visits
- Target Amount

#### **Tools and Software Used**

- Microsoft Power BI
- Microsoft Excel

#### **Dashboard Components**

- The dashboard was designed to monitor:
- Achievement vs Target Performance
- Business Contribution Analysis
- Client Mix Analysis
- Test Mix Analysis
- ASP Trend Analysis
- DRR and CRR Monitoring
- Top Performing Laboratories

**DURATION OF STUDY:** 15 March 2026 to 15 June 2026.

7. **DATA ANALYSIS PLAN:** Data will be analyzed using Microsoft Excel and Microsoft Power BI. Descriptive analytical techniques will be used to evaluate key performance indicators including revenue achievement, target attainment, visits, ASP, DRR, CRR, client mix, business contribution, test mix, and laboratory performance. Interactive visualizations and trend analyses will be used to identify performance patterns and revenue optimization opportunities.

- 8. DATA ANALYSIS PLAN:** Relevant details about software including name and version of software should be stated. Descriptive statistics and which test of significance if and when required, specifying variables where it will be applied. Relevant details including the name of software, tests (univariate, bivariate and multivariate whichever applicable) and level of significance to be provided.
- 9. ETHICAL CONSIDERATIONS:** The study will use secondary organizational data obtained from Medanta Labs. No patient-identifiable information will be collected or disclosed. Data confidentiality, privacy, and security will be maintained throughout the study. Findings will be reported only in aggregate form.
- 10. IMPLICATIONS OF RESEARCH:** The study will provide a structured framework for monitoring business performance in diagnostic services. The dashboard will support data-driven decision-making, improve visibility of key performance indicators, identify revenue optimization opportunities, and assist management in improving operational efficiency and business growth.

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