



EVALUATION OF HOSPITAL INFORMATION SYSTEM

PRESENTED BY : NAMBIAR KRISHNAPRIYA
BATCH : PM 15
Er. No. : 0536
IIHMR UNIVERSITY, JAIPUR

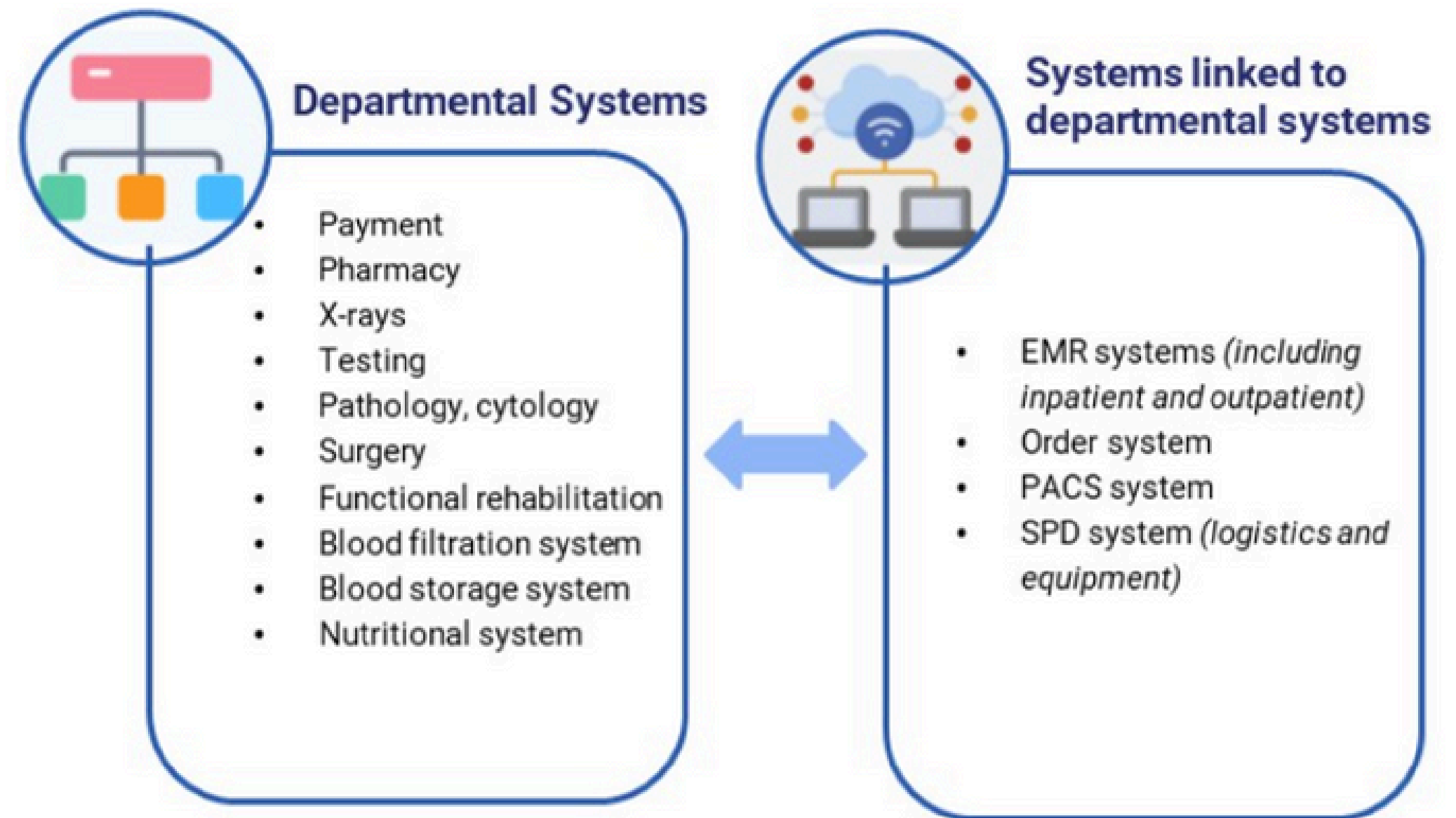
TABLE OF CONTENTS



- **INTRODUCTION**
- **OBJECTIVES OF THE STUDY**
- **RESEARCH METHODOLOGY**
- **EVALUATION FRAMEWORK**
- **PROBLEMS AND SOLUTIONS**
- **COMPARATIVE ANALYSIS**
- **STRATEGIC IMPLICATIONS (SWOT ANALYSIS)**
- **CONCLUSION**

INTRODUCTION OF HIS

- Integrated software
- Centralizes patient information
- Automates administrative tasks
- Enhances patient care
- Improves operational efficiency
- Supports compliance with healthcare regulations and data security.



OBJECTIVES OF THE STUDY



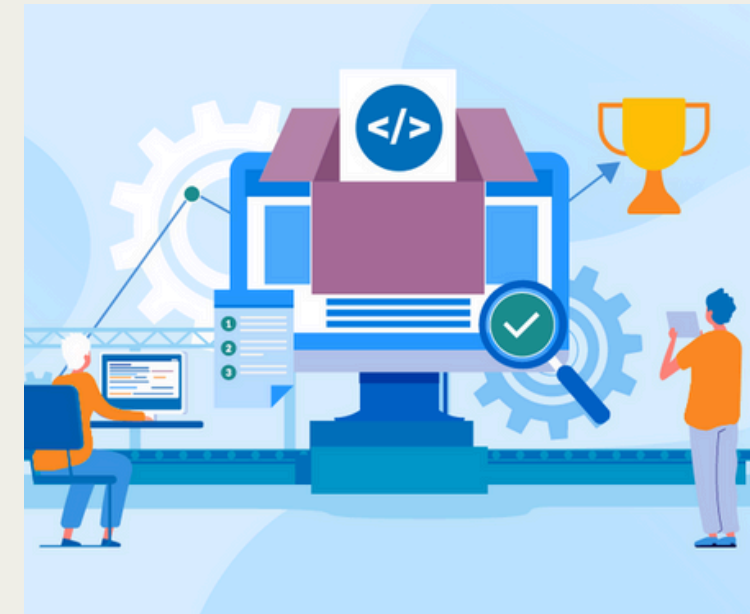
To identify critical limitations

Through departmental observations and user feedback, major gaps were identified in areas like user interface, EMR integration, customization, and cloud access.



Suggests improvement strategies

The study provides clear direction and recommendations that will help decision-makers at Zydus Hospital move forward with an informed, evidence-based approach.



To build a structured evaluation framework

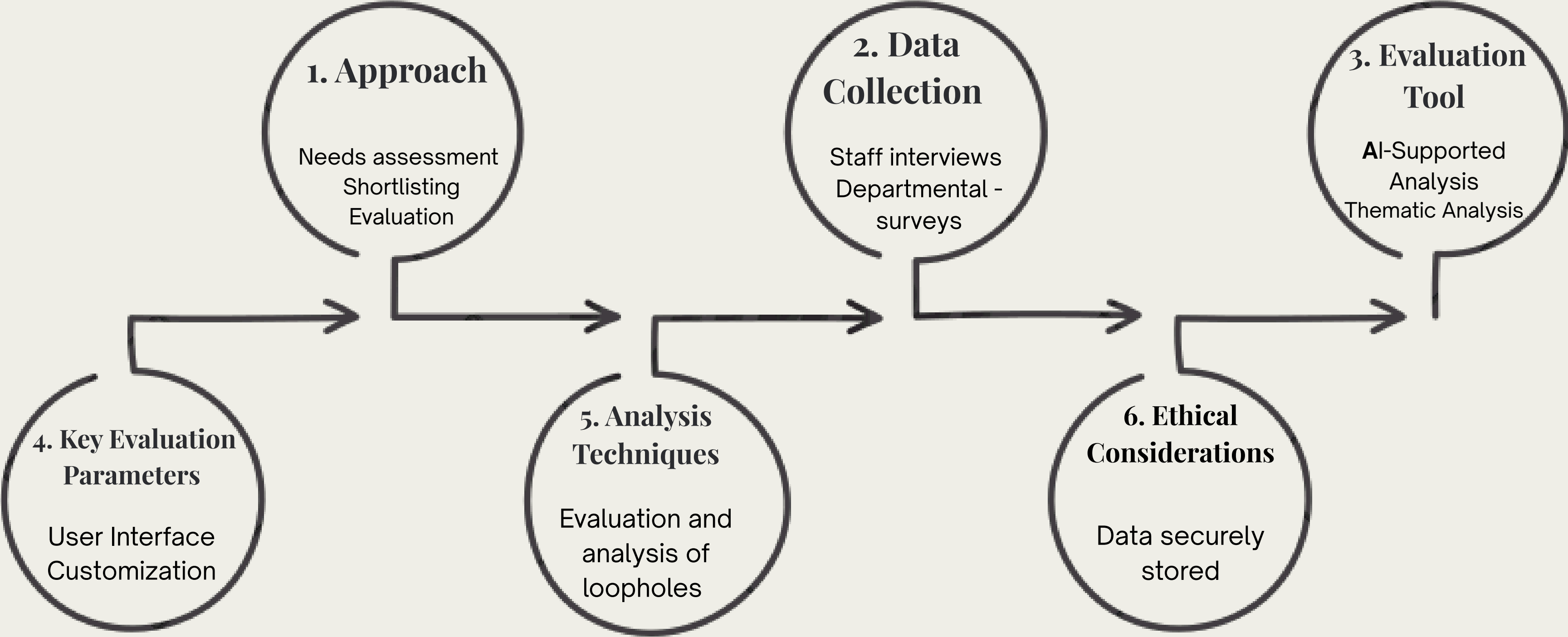
To ensure objectivity in comparison, included key evaluation parameters such as interoperability, usability, technical support, and scalability—each assigned weightage based on hospital priorities.



To explore potential HIS alternatives

Rather than selecting a single system, the focus was on exploring several modern HIS platforms available in the market. These alternatives were examined based on their features, relevance to Indian hospital settings, and ability to address current system deficiencies.

RESEARCH METHODOLOGY



EVALUATION FRAME WORK

Evaluation Objectives

- Identify gaps in the current HIS
- Assess usability, integration, and efficiency
- Recommend improvements or suitable upgrades

Evaluation Domains

- Functionality of key modules
- Ease of use for staff and doctors
- Integration with lab, billing, pharmacy
- Data security and user access control
- Quality of reports and dashboards
- Vendor support and staff training

Key Parameters

- Department-wise module coverage
- User satisfaction levels
- Frequency of system errors
- Speed and process efficiency
- Feasibility of technical upgrades



PROBLEMS



- Manual entry of personal details during registration.
- Billing errors from login overlaps.
- No integration between TAT (Turnaround Time) software and HIS.
- Manual data extraction for reporting and analysis.
- Barcode scanning is slow or delayed.
- Difficulty identifying source of barcode issues (hardware vs software).
- Doctor/medical notes are handwritten.
- Frequent system hang-ups.
- Diagnosis data not easily accessible for reporting.
- No built-in APACHE scoring system.
- Medicines not visible or updated in the software.

SOLUTIONS

- Online Patient Pre-registration Links (via SMS/WhatsApp).
- TAT Integration with HIS for lab tracking and auto-reporting.
- OCR for ID/Document Scanning to reduce manual entry.
- AI-based Appointment Slot Suggestions to reduce wait time.
- Built-in Analytics Module with Excel/API export options.
- Direct Integration with Inventory System and Real-Time Update.
- Fast & Responsive Barcode Scanning System with upgraded hardware/software.
- Scheduled Email Automation for regular reports.
- Power BI/ODBC Integration for real-time dashboards.
- Electronic Documentation Templates to eliminate handwritten notes.
- Stable, Lag-Free HIS Interface for better performance.
- Diagnosis Linking Feature to streamline reporting and monthly summaries.
- Built-in APACHE Scoring System to calculate mortality rates.

RECOMMENDATIONS & PRIORITIZATION

- **Integrate TAT Software with HIS:** To reduce registration and billing errors in OPD.
- **Implement Robust User Session Management:** Prevents billing overlap and login errors.
- **Upgrade Barcode Scanning System in Pharmacy:** Reduces dispensing delays and improves patient wait times.
- **Introduce Electronic Documentation in IPD:** Minimizes manual errors and improves data accessibility.
- **Embed Analytics Dashboard:** Enables real-time monitoring and data-driven decision-making.



STRATEGIC IMPLICATIONS

1. Enhanced Decision-Making

- Provides real-time, accurate data for better clinical and administrative decisions.

2. Operational Efficiency

- Automates workflows, reduces errors, and optimizes resource allocation.

3. Improved Patient Care

- Enables coordinated care and reduces medical errors through centralized records.

4. Regulatory Compliance

- Simplifies reporting and ensures adherence to healthcare standards.

5. Competitive Advantage

- Boosts hospital reputation and patient satisfaction, attracting more patients.

6. Foundation for Innovation

- Supports integration of AI, analytics, and telemedicine for advanced healthcare delivery.

7. Change Management

- Requires ongoing staff training and adaptation to ensure successful adoption.

SWOT ANALYSIS

Strengths

- Covers all key evaluation domains
- Based on staff and departmental inputs

Weaknesses

- Lacks seamless process automation
- Workflow delays due to manual tasks
- Insufficient real-time data access
- Gaps in overall system integration

Threats

- Staff resistance to new systems
- High upgrade and training costs
- Risk during system migration
- Dependency on external vendors

Opportunities

- Integration with telemedicine and remote care
- Adoption of electronic medical records (EMR)
- Improved interoperability with other health systems
- Online scheduling and digital patient services
- Expansion to multi-hospital networks
- Support for value-based and personalized care

CONCLUSION

- HIS centralizes hospital data, streamlining workflows and automating tasks.
- This boosts efficiency, reduces errors, and enhances patient care.
- Improved communication and analytics enable better decisions and regulatory compliance.
- Ultimately, HIS drives innovation and prepares the hospital for future healthcare needs.



Thank you!
