

# HIGH PERFORMANCE BUSINESS INTELLIGENCE CRM 31

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## Abstract:

With so much competition, companies in the travel industry rely on CRM practises to discover, build and keep important clients. CRM exists to grow profitable and long-lasting relationships with customers by focusing on acquiring, building and retaining them. Most airlines have turned to CRM mainly to match the innovative customer practises introduced by leading competitors in the industry. Many airlines have missed the real benefits these efforts bring to both their customers and to their own company. Several services now available include frequent flyer programmes, kiosk cheque-ins, alerts, e-tickets and online self-cheques, each seen as a standard practise. While CRM is meant to make each company's offerings different, in the airline sector this has led to airline services that, from the customers' perspective, are very similar.

**Keywords** — *Customer Relationship Management (CRM), customer acquisition, customer retention, airline industry, competitive strategy.*

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## 1. Introduction

### 1.1 Purpose

The goal of this research journal is to analyse the process of developing a High-Performance Business Intelligence (BI) Customer Relationship Management (CRM) system, so as to provide leading offshore and onshore services through IT infrastructure. The term CRM is often used along with customer management, customer value management or customer-centric management and all of these terms describe the main role of CRM in relationship management. The system is designed to manage customer interactions well, form lasting profitable relationships and fit with a company's main business goals.

### 1.2 Scope

The key features of a High-Performance BI CRM system are examined through this research. The main aim is to help companies build customer acquisition, advance customer development and increase customer retention, all essential to a CRM strategy. CRM is a fairly recent idea for many organisations and the top companies are putting significant money into setting up effective CRM systems. The journal describes the important features of a leading CRM system, highlighting great service delivery, affordability and short timeframes. The system's features can be expanded when required and expectations can be formed where more information is missing.

**A main feature of the system is:**

- Quality is important at every step

- Making use of the rich intellectual capital to ensure our pricing is attractive.
- Meeting quick turnarounds and maintaining smooth connexions with customers

### **1.3 Overview**

Every successful CRM effort centres around the customer, because every business decision is guided by their likes. The focus of this research is to help businesses understand customers' operations and respond with focused solutions to maintain or improve their position in a rapidly changing market. Thanks to new technologies, the CRM system proposed will deliver service that matches international quality standards, emphasising both precision and timeliness.

This work also looks at customer segmentation, focusing on how airlines, among other industries, now require new types of segmentation since the traditional mileage approach has become irrelevant. Following a segmentation based on what matters and what clients require, helps you make better investment choices and understand what high-value customers actually require.

In addition, the journal explores the launch of CRM efforts and urges firms to give priority to projects that bring high rewards and answer directly to customers' requirements and wishes. Many airlines now see that using CRM can ensure every customer gets the same great and distinctive experience, all at reasonable costs. A properly used CRM system helps keep customers loyal, brings in more revenue, lowered the expense of attracting new customers and increases organisational efficiency.

CRM is now a key part of airline strategy, letting full-service airlines stand out from others in the eyes of their customers. Even if low-cost airlines don't focus much on CRM, they must use reasonable CRM systems to manage customers from beginning to end during their travel. This study shows that firms increasingly believe CRM helps build ongoing connexions with customers, as the actual benefits are realised over time.

CRM is generally well acknowledged, but lots of organisations still neglect to use its analytics properly, sticking with easy preference groups rather than more useful ones. CRM investments are most often triggered by market rivalry, not real customer needs which results in little separation from competitors. In addition, organisations often find problems by having their different departments work on their own goals and employees not having the right services or mindset to build a great customer experience. These issues need to be handled for CRM initiatives to succeed going forward.

## **2. System Analysis**

### **2.1 Existing System**

Our current High Performance Business Intelligence CRM (Customer Relationship Management) works by relying on guidelines, systems and strategies for looking after customers. Nevertheless, it does not include one strategy for dealing with important obstacles that organisations experience now. Organisations are required to earn a profit to continue growing, but customers want quality services, great products and good value. Although the system performs well, it does not address these needs in an organised and simple way.

#### **2.1.1 Limitations in the Existing System**

Because customers now want better, faster and more accessible services, the restrictions of the present CRM system are easy to see. It does not provide customers enough control to discover key information fast and without risk at any time. Because of this, systems do not satisfy complicated expectations of today's customers which leads to fewer customers choosing to stay with the company.

### **2.2 Proposed System**

The new High Performance Business Intelligence CRM is designed to enhance the weaknesses of the traditional system and support providing greater quality and service. Some main ideas in the proposed system are:

1. **Shifted Focus from Product to Customer:** Emphasis is placed in the proposed CRM on uncovering customer wants before promoting the organisation's offerings. Because of this, companies can now provide more personalised services for their customers.
2. **Streamlined Offering Based on Customer Needs:** Unlike the way we currently work, this new CRM responds to what customers prefer, so our service delivery becomes narrower and more focused.

The programme supports more effective CRM by helping organisations manage customer info better, communicate better and deliver personalised services.

### 2.3 Advantages Over Existing System

Several positive aspects of the new system help solve the problems identified with the older system.

- **High-Quality Output:** Because of improved data processing, organisations can timely and accurately supply their customers with information.
- **Cost Competitiveness:** The cost competitiveness of the new CRM system is made possible by using smart resources and still ensuring a high level of quality.
- **Effective Turnaround Time:** The system minimises wait times and increases how well the service is run.
- **Comprehensive Security:** The system introduces Read-Only, Write, Delete, Full Control and Owner permissions, so user data is better secured with the new features.

### 3.3 Architecture Diagram

- **Folder Hierarchy for Client Management:** The system helps organise and manage client information by enabling a folder hierarchy structure.

## 3. Modules in the Proposed System

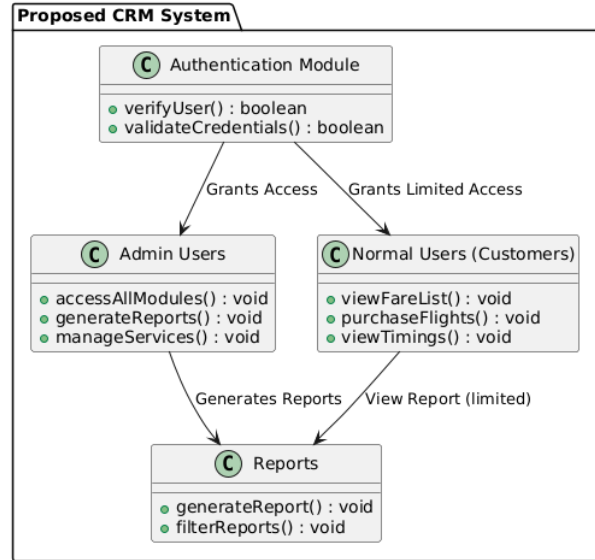


Fig1: Modules

### 3.1 Software Requirements:

Category	Specifications
Operating System	Windows XP
User Interface	HTML, CSS
Client-side Scripting	JavaScript
Programming Language	Java
Web Technologies	JDBC, Servlets, JSP
Database	Oracle
Server Deployment	Apache Tomcat

### 3.2 Hardware Requirements:

Category	Specifications
Processor	Pentium IV
Hard Disk	160 GB

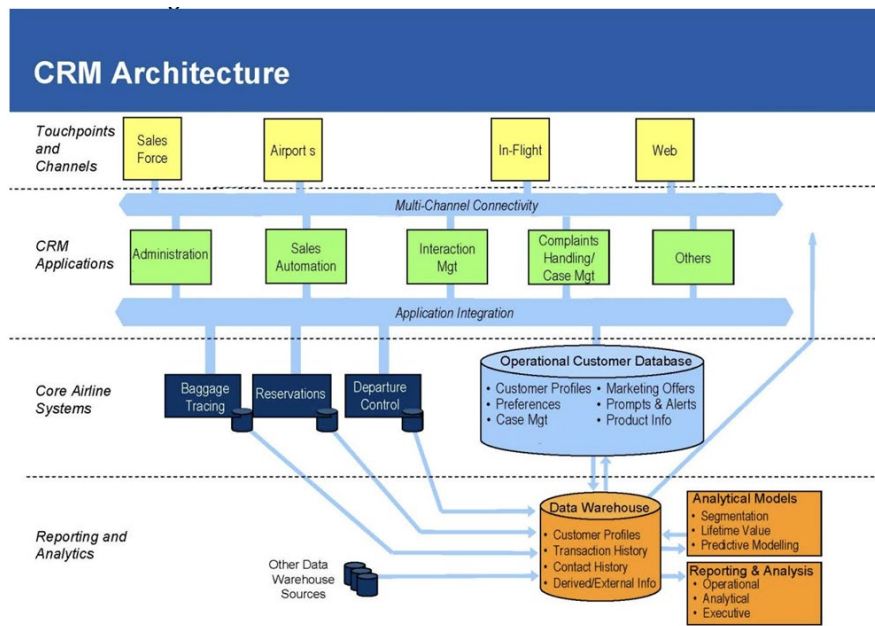


Fig2: Architecture

## 4. Software Requirement Specification

Requirement ID	Requirement Specification
CRM_01	System should provide provision to the administrator for login.
CRM_02	System should provide provision to the administrator to add the Flight details.
CRM_03	System should provide provision to the administrator to view Flight details.
CRM_04	System should provide provision to the administrator to update Flight details.
CRM_05	System should provide provision to the administrator to delete Flight details.
CRM_06	System should provide provision to the administrator to add the Baggage details.
CRM_07	System should provide provision to the administrator to view the Baggage details.
CRM_08	System should provide provision to the administrator to update the Baggage details.

Requirement ID	Requirement Specification
CRM_09	System should provide provision to the administrator to add Food details.
CRM_10	System should provide provision to the administrator to view Food details.
CRM_11	System should provide provision to the administrator to update Food details.
CRM_12	System should provide provision to the administrator to delete Food details.
CRM_13	System should provide provision to the administrator to view user flight booking details.
CRM_14	System should provide provision to the administrator to view user personal details.
CRM_15	System should provide provision to the administrator to add services history.

### 4.1 Block Design

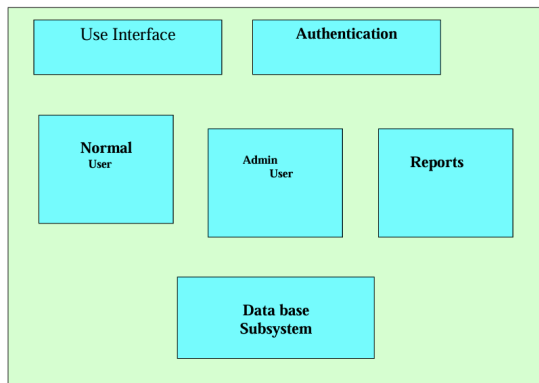


Fig3: Block-Diagram

### 4.2 Data Flow Diagrams

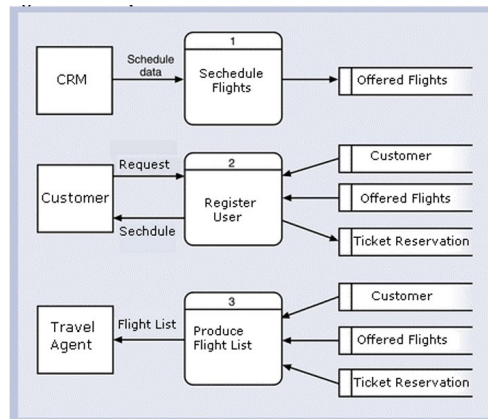


Fig4: Daat-Flow:Diagram

### 4.3 Customer Master

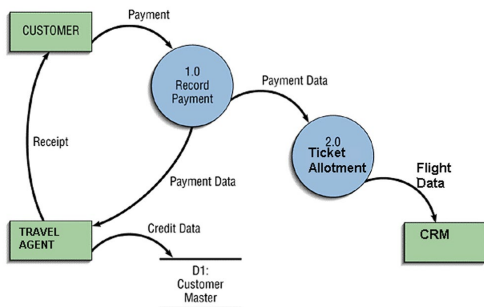


Fig5: Master

## 5. Test Cases

S.No	Input	Expected Results	Observed Results	Pass (P)/Fail (F)
1	Enter admin username, password.	Admin home page should display.	Admin home page displayed.	P
2	Click on flight details link.	AdminFlightSchedule.jsp will be displayed.	AdminFlightSchedule.jsp page displayed.	P
3	Click on all flights link.	AdminViewAllFlights.jsp page will be displayed.	AdminViewAllFlights.jsp page displayed.	P
4	Click on baggage details link.	AdminBaggage.jsp page will be displayed.	AdminBaggage.jsp page displayed.	P
5	Click on food details link.	AdminRegionFood.jsp will be displayed.	AdminRegionFood.jsp will be displayed.	P
6	Enter user username, password.	User home page should display.	User home page displayed.	P
7	Click on service history link.	CustomerAirLinesServiceHistory.jsp page will be displayed.	CustomerAirLinesServiceHistory.jsp will be displayed.	P
8	Click on comments link.	Comments.jsp page will be displayed.	Comments.jsp page displayed.	P
9	Click on membership link.	MemberShip.jsp page will be displayed.	MemberShip.jsp page displayed.	P
10	Click on logout.	Must return to the home page.	Returned to the home page.	P

## 6. Conclusion

The Airlines Industry CRM is built on the internet and helps customers handle booking, checking baggage and choosing meals without hassle. This product has been built and verified in a Windows system, with Java for the user interface and MySQL used on the backend. It achieves main objectives by allowing immediate service access, increasing productivity, making best use of resources and ensuring sound record management. Besides, it makes workflow smoother, lowers the time needed and allows for quick dissemination of details. Since the software is straightforward, small in size and adaptable, it can be

improved in the future. The tool is able to help users and administrators by making their work as smooth and easy as possible.

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