

AHMED ABUBAKAR

2420762

Managing Business Information (LCLM5004_BIRM)

Lecturer name Dr Chinomso Nwagboso

Component 2- Individual report 2000 words

Information Systems Improvements

INTRODUCTION

Overview of the Business

Maldiva Ltd is a rapidly expanding consumer electronics retailer operating in 30 physical locations alongside a digital e-commerce platform. While the company has experienced a substantial surge in sales and is poised for further geographic expansion, its legacy technological infrastructure is buckling under the pressure of business growth.

Identification of Key Challenges Internal audits and stakeholder interviews reveal five core operational roadblocks currently hampering the organization's scalability and customer

satisfaction: Inventory Inaccuracies: Disconnected physical and digital stock pools result

in overselling, frequent customer cancellations, and delayed order fulfillment. Fragmented Customer Data: Disconnected data silos prevent the formation of a unified customer view,

crippling targeted marketing and timely customer support. Inefficient Decision-Making: Manual, spreadsheet-based reporting relies on erroneous and historical data, hindering

accurate real-time forecasting. Data Security and Compliance Vulnerabilities: Inadequate

access controls expose the company to significant cyber threats and legal non-compliance penalties under the General Data Protection Regulation (GDPR). Inter-departmental Data

Silos: Finance, Sales, and Inventory departments utilize proprietary software, requiring

costly and error-prone manual data entry between systems.

Identification of Key Challenges. The organization is currently struggling with five distinct operational bottlenecks Inventory Discrepancies, and the lack of real-time synchronization between physical stores and the e-commerce platform. This leads to online orders being placed for out-of-stock items, resulting in delayed fulfillment, complaints, and refunds. Furthermore, store managers lack visibility to identify and manage overstocked or understocked items. Fragmented CRM: Customer data is trapped in multiple disconnected systems. The marketing team cannot pull purchase history for targeted promotions, while customer support agents lack the necessary records to efficiently resolve complaints. Inefficient Decision-Making: Sales and performance reports are manually compiled using spreadsheets. This process is time-consuming, prone to human error, and prevents management from analyzing real-time sales trends for accurate forecasting. Data Security & GDPR Non-Compliance: Customer data is vulnerable due to a lack of secure access controls. Operating without secure permission heightens the risk of unauthorized data breaches and exposes the company to severe GDPR-related legal penalties and cyber threats. Departmental Silos: Sales, finance, and inventory departments use entirely separate software systems. Employees are forced to manually transfer data between these departments, wasting valuable labor hours and increasing the likelihood of data entry errors

(Graham, N. (2024) Project Management. 3rd edition)

2. Evaluation of Existing Systems

Analysis of Current Information Systems

Maldiva Ltd. currently relies on a disjointed portfolio of legacy applications and decentralized databases. Inventory management is largely manual, managed through disparate point-of-sale (POS) systems in physical stores that fail to communicate with the central e-commerce platform in real time. Customer Relationship Management (CRM) is practically non-existent, with customer records scattered across disparate, localized databases. Furthermore, financial and operational data are manually consolidated by administrative staff using spreadsheets, which introduces human error and latency. Identification of Inefficiencies and Gaps. Inventory Gaps: The lack of a centralized Enterprise Resource Planning (ERP) or unified inventory management system causes delayed stock synchronization, leading directly to the cancellation of online orders for out-of-stock items. Gaps: The inability to track cross-channel purchase history prevents the marketing department from executing targeted campaigns. Customer support agents lack omni-channel visibility, which severely degrades issue resolution times and lowers Customer Satisfaction (CSAT) scores. Reporting Lags: Manual spreadsheet consolidation creates a reporting delay of up to 14days, resulting in reactive rather than proactive

business strategies. Security & Governance Gaps: Storing Personally Identifiable Information (PII) across unsecured, siloed databases violates fundamental data minimization and security principles demanded by modern data protection laws.

Why customer service is important

At its core, customer relationship management (CRM) is all the activities, strategies and technologies that companies use to manage their interactions with their current and potential customers. A saying frequently heard and said in many businesses is "customer is king." CRM helps businesses build a relationship with their customers that, in turn, creates loyalty and customer retention. Since customer loyalty and revenue are both factors that affect a company's revenue, CRM is a management strategy that increases profits for a business. At its core, a CRM tool provides a simple user interface for data and helps businesses recognize and communicate with customers in a scalable way. Leslie Ye, editor at HubSpot's Sales Blog, describes a CRM in the following way: "Beyond contact info, CRMs log reps' touchpoints with their prospects, including emails, phone calls, voicemails, and in-person meetings. Some CRMs offer the ability to track deal stages and reasons for closed-lost and closed-won deals. "According to Gartner, CRM software totaled \$26.3 billion in 2015 and predicts that that figure will continue to rise through 2018.

(Bentley, C. (2020) *Adaptable project management*)

3. Recommended Solution Proposed Solution

Unified Cloud ERP & CRM Ecosystem. To resolve these multifaceted challenges, Maldiva Ltd. requires a centralized, cloud-based Enterprise Resource Planning system integrated with a modern, omni-channel Customer Relationship Management platform. We recommend implementing Microsoft Dynamics 365, which combines powerful ERP capabilities with advanced CRM functionalities (Customer Insights and Sales). This ecosystem can be deployed via a unified Software as a Service (SaaS) model, ensuring seamless data flow across all departments. The Core Components Cloud ERP (Enterprise Resource Planning): Manages back-office, internal operations such as finance, supply chain, human resources, inventory, and manufacturing. It is hosted on remote servers and delivered as a subscription-based service (SaaS). CRM (Customer Relationship Management): Manages front-office activities, including sales pipelines, marketing automation, customer service, and lead generation. The Ecosystem: Refers to the seamless integration between the two, which is typically enhanced by built-in AI, workflow automation, and third-party API connections. Why Businesses Unify These Systems: Real-Time Data Visibility: Sales teams can instantly view real-time inventory levels or shipping delays, while finance can forecast revenue accurately using active sales data. Streamlined Automation: Orders placed in the CRM immediately trigger invoicing, fulfillment, and

inventory updates in the ERP. Elimination of Duplication: Data only needs to be entered once, eliminating double-data entry and reducing manual reconciliation errors

Justification for the Recommendation

Business Needs & Efficiency A unified database eradicates inter-departmental silos. When an item is sold in-store or online, Microsoft Dynamics 365 updates inventory levels globally in real time, eliminating the risk of overselling. **Cost:** Moving to a SaaS model shifts capital expenditure on physical servers to manageable operating expenditures. Organizations typically see a substantial reduction in IT infrastructure maintenance costs. Scalability Cloud architecture offers elastic scalability. As Maldiva Ltd. opens new physical stores or experiences traffic spikes during e-commerce sales, the cloud infrastructure automatically scales resources to maintain performance. **Cost-Benefit Analysis (CBA)** While the initial implementation requires upfront investment in licensing, data migration, and customization, the Return on Investment (ROI) is achieved rapidly. The system prevents stockout-driven revenue losses, streamlines manual data entry to save approximately 15 to 20 hours of administrative labor per week, and mitigates regulatory fines, which can reach up to 4% of global annual turnover under GDPR. **Expected Improvement Operations:** Automated, real-time supply chain tracking enables store managers to identify overstocked and understocked items, optimizing warehouse replenishment and reducing carrying costs. **Data Management:** The establishment of a "single source of truth" ensures that all departments operate from identical, synchronized data. **Decision-Making:** Built-in AI and business intelligence tools (such as Microsoft Power BI) will replace manual spreadsheets. Management can access real-time dashboards to analyze sales trends, enabling precise forecasting and proactive revenue management.

Industrial Engineer (Norcross, Ga.) (2002)

Safe customer data

Securing customer data requires a layered approach combining strict technical controls, organizational policies, and continuous employee training. It protects your business from severe penalties under regulations like UK GDPR and builds vital consumer trust

Essential, actionable steps to secure data include:

Enforce Strong Authentication: Implement Multi-Factor Authentication (MFA) and robust password policies to prevent unauthorized access to systems holding personal data.

Implement Data Minimization: Only collect and store the information necessary for business operations. Delete or archive data when it is no longer needed.

Utilize Encryption: Encrypt sensitive customer data both at rest (while stored in databases) and in transit (while moving across the internet).

Limit Access and Monitor Activity: Restrict access to customer databases only to employees who strictly need it to perform their roles. Maintain audit logs of who accesses specific data and when

<https://ico.org.uk/for-organisations/advice-for-small-organisations/information-security/data-security-advice/practical-ways-to-keep-your-it-systems-safe-and-secure/>

4. Implementation Plan Steps for Implementing the New System

A phased, agile deployment methodology will be utilized to minimize disruption to Maldiva Ltd.'s ongoing operations: Phase 1: Discovery & Planning (Months 1-2): Map exact workflows, define system requirements, and establish project governance. Phase 2: System Configuration & Integration (Months 3-5): Configure the Dynamics 365 environment, develop APIs to link with the existing e-commerce website, and set up role-based access controls. Phase 3: Data Migration (Month 6): Cleanse existing data from disparate spreadsheets and legacy systems and migrate it securely into the new centralized database. Phase 4: Training & Testing (Month 7): Conduct end-user training, run User Acceptance Testing (UAT), and execute system simulations. Phase 5: Rollout & Post-Launch Support (Month 8): Go-live, followed by an intensive 4-week hyper care period for immediate issue resolution. Training Strategies: Comprehensive, role-based training programs must be developed. Store managers and sales associates will receive interactive, gamified modules on the new POS and inventory features. Marketing and support teams will undergo specialized workshops focusing on CRM data utilization and GDPR compliance protocols. Integration with Existing Infrastructure Integrating the new solution with Maldiva Ltd.'s existing e-commerce platform will require the development of secure Representational State Transfer Application Programming Interfaces (RESTful APIs). This ensures that online shopping cart actions trigger instantaneous queries against the central ERP inventory database.

(Written by Maria Edwards 1 Jan 14, 2025)

1. Centralized Omnichannel Inventory

Implement a unified inventory management module that syncs physical stores and the e-commerce platform in real time. The Impact: Eliminate out-of-stock online sales. Store managers will instantly view stock levels across all 30 locations, preventing overstocking and accelerating order fulfillment. Unified Customer Relationship Management (CRM) The Solution: Deploy an integrated CRM platform to consolidate customer data from all touchpoints (in-store purchases, online accounts, and support tickets). The Impact: Empower marketing to build targeted, personalized campaigns based on true purchase history, and enable support agents to swiftly resolve issues using a single, 360-degree customer profile. Automated Reporting & Analytics: The Solution. Implement cloud-based Business Intelligence (BI) dashboards to replace manual, error-prone spreadsheets. The Impact: Maldiva Ltd. can immediately analyze real-time sales trends. The leadership team will gain accurate forecasting capabilities, avoiding lost revenue caused by poor planning. Data Protection & GDPR Compliance The Solution: Enforce strict secure access controls and data-masking features through a modern ERP platform. You can find detailed regulatory requirements and self-assessment tools directly on the Information Commissioner's Office portal. The Impact: Protect against unauthorized access and avoid the risk of severe regulatory fines, which can reach up to £17.5 million or 4% of total worldwide annual turnover for severe breaches

(Melnick, S. (2011) "Project management ")

Potential Challenges

Data Quality: Legacy data often contains duplicates and errors. Mitigation: A rigorous data cleansing protocol must be executed before migration. Cultural Resistance: Employees accustomed to legacy processes may resist the new software. Mitigation: Appointing "change champions" across departments and ensuring strong executive sponsorship will drive user adoption.

5. Conclusion

Summary of Key Points and Expected Benefits

By replacing disconnected, manual systems with a centralized, cloud-based Microsoft Dynamics 365 ERP and CRM platform, Maldiva Ltd. will resolve its most pressing operational challenges. The expected benefits include the eradication of Inventory Discrepancies: Real-time, omni-channel stock visibility will eliminate overselling and

optimize order fulfillment. Enhanced Customer Experience: A unified CRM will empower targeted marketing initiatives and provide support teams with the context needed to resolve customer complaints swiftly. Data-Driven Decision Making: Automated, real-time analytics will replace manual spreadsheets, drastically improving sales forecasting and operational agility. Robust Compliance: Secure, role-based access controls and centralized data governance will ensure strict adherence to GDPR, mitigating the risk of legal penalties.

Digital Project Management - Strategic Theory and Practice (2025)

REFERENCES

- [1] Microsoft. (n.d.). *Microsoft Dynamics 365 Pricing and Licensing*. Retrieved from Microsoft Dynamics 365
- [2] Information Commissioner's Office (ICO). (n.d.). *Guide to the General Data Protection Regulation (GDPR)*. Retrieved from ICO UK:
- [3] Laudon, K. C., & Laudon, J. P. (2021). *Management Information Systems: Managing the Digital Firm* (17th ed.). Pearson.
- [4] O'Brien, J. A., & Marakas, G. M. (2011). *Management Information Systems* (10th ed.). McGraw-Hill Education.
- [5] Graham, N. (2024). *Project Management*. 3rd edition. West Sussex, United Kingdom: John Wiley & Sons.
- [6] Bentley, C. (2020). *Adaptable project management : a combination of agile and project management for all (PM4A)*. Cambridgeshire, England: IT Governance Publishing.
- [7] Industrial Engineer (Norcross, Ga.) (2002) "Project management, quality: Project Management," 1 January, p. 53.
- [8] Melnick, S. (2011) "Project management and moving firms promise stress-free business relocations," *Central Penn Business Journal*, 27(47), p. 19.
- [9] SATHI, A., FOX, M.S. and GREENBERG, M. (1985) "Representation of activity knowledge for project managment," *IEEE transactions on pattern analysis and machine intelligence*, 7(6), pp. 531–556.

[10] Hackley, C.E. (2025) *QUALITATIVE RESEARCH IN MARKETING AND MANAGEMENT : doing interpretive research projects*. Third edition. S.l: ROUTLEDGE. Available at: <https://doi.org/10.4324/9781003432203>.

[11] Heather Williams (2025) *Project Atom 2025: Escalation Management in Acute and Protracted Conflicts in the Indo-Pacific*. Center for Strategic and International Studies CSIS.