

INFORMATION SYSTEMS IMPROVEMENTS: A PROPOSAL FOR MALDIVA LTD.

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1. Introduction

Information systems play an important role in the management of organisations of all sizes. Information systems are systems that bring together the hardware, software, databases, networks, people and processes of an organisation to effectively manage its data and transform it into useful information for the organisation (Laudon and Laudon, 2022). For organisations that are growing in size and complexity, particularly those that perform activities like sales and inventory management, it is important for these organisations to utilise information systems that effectively manage and automate those processes.

The growing retail company known as Maldiva Ltd has established thirty physical retail stores and an e-commerce website that allows customers to order products from the company. The company has experienced rapid growth in its sales; however, its information systems have not developed at the same rate. As a result, the company has encountered challenges in areas like inventory management, sales reporting, and customer data management.

This report will evaluate the information systems that are currently in place at Maldiva Ltd and create a business case for improving the information management capabilities of the organisation. Alternatives to the current information systems will be evaluated, and a suggestion for implementing a cloud-based ERP system that includes CRM and BI software will be made. Furthermore, the benefits that the organisation will receive from implementing such software, the steps that will be required to implement the software, and the risks and countermeasures to those risks will also be discussed in this report.

1.1 Overview of the Business Case

The business case for improving the information systems of Maldiva Ltd is founded on the gap between the rapid growth of the company and the capabilities of its current information systems. The company currently relies upon manual processes and systems that are disconnected from one another, preventing the company from effectively managing its growing retail operations.

More specifically, the company's manual processes for managing inventory lead to discrepancies between the inventory that it has in its physical stores and the inventory that it makes available for purchase on its e-commerce website. Additionally, because the company does not have an effective means of managing its customers' information, it is unable to gain an understanding of those customers or to utilise the customers' purchasing information for targeted marketing efforts.

Furthermore, because the company relies upon spreadsheets to report on its sales and other management metrics, the company does not have access to the information that its managers

require in order to make effective management decisions. Finally, the lack of controls in place for accessing and securing the data that the company uses for its customers also creates a concern regarding the protection of that information and compliance with the General Data Protection Regulation (GDPR). Overall, then, the company can transition from its current manual and fragmented systems to a cloud-based information system that incorporates customer relationship management (CRM) and business intelligence (BI) systems. A centralised system would provide a shared source of organisational data, improve real-time inventory visibility, strengthen customer data management, automate management reporting and introduce stronger controls over access to business information. Cloud deployment would also provide scalability as Maldiva expands while reducing the need for significant investment in internally maintained IT infrastructure.

Overall, investment in the proposed information system should not be viewed simply as an IT upgrade. It represents a strategic business investment intended to improve operational efficiency, information quality, customer service, regulatory compliance and management decision-making while providing an information systems infrastructure capable of supporting Maldiva Ltd's future growth.

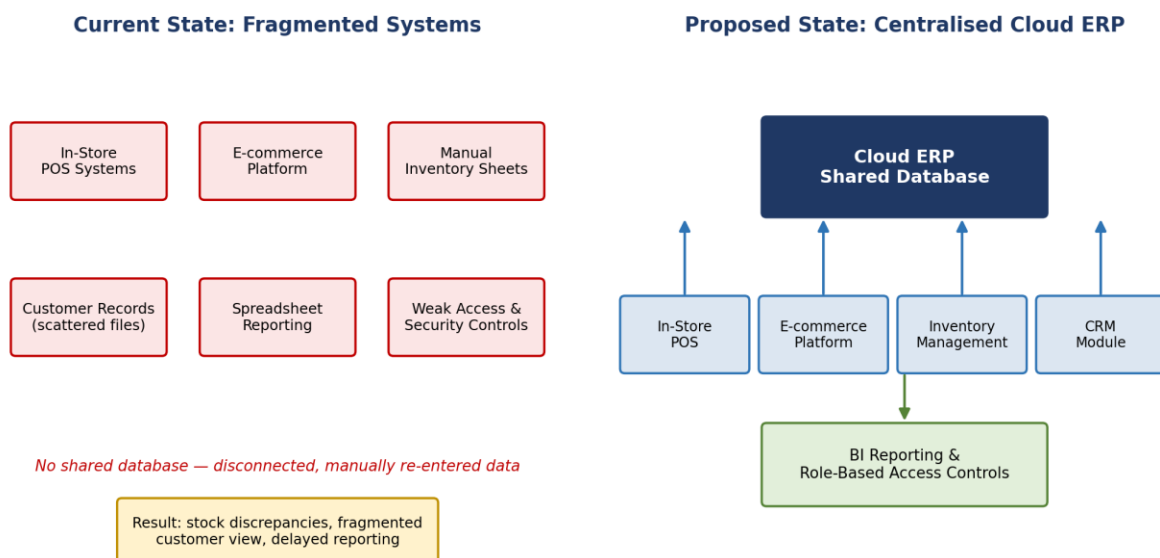


Figure 1: Current fragmented systems vs. proposed centralised cloud ERP architecture

2. Evaluation of Existing Systems

Maldiva's existing systems can be considered within the organisational information systems model of transaction processing systems (TPS), management information systems (MIS), decision support systems (DSS) and enterprise systems (Laudon and Laudon, 2022). At present,

the company mainly relies on disconnected and manual transaction-processing activities, without sufficiently integrated managerial systems above them. This is problematic for a retail business because sales, inventory, accounting, customer information and other operational data need to be coordinated to support effective management.

Inventory is currently tracked manually, which increases the likelihood of inaccurate stock records across physical stores and the online channel. Research on real-time inventory management indicates that manual inventory processes in omnichannel retail can contribute to stock discrepancies, stockouts and overstocking (Immadisetty, 2025). For Maldiva, these problems can result in cancelled orders and refunds while also tying up working capital in surplus stock.

Customer data is similarly fragmented because information is stored in several locations. This prevents Maldiva from creating a reliable single view of each customer and limits the company's ability to use purchase history to improve customer experience. CRM research indicates that such systems can improve organisational performance, but the quality of customer data and employees' willingness to adopt the system remain important conditions for success (Nethanani et al., 2024).

Management reporting is another significant weakness. Decisions are currently supported by spreadsheets that can be error-prone and largely describe historical performance rather than providing timely insight. Business analytics research highlights the limitations of spreadsheet-based reporting in competitive environments where organisations need faster responses to changing sales trends (Hoque et al., 2025). These reporting weaknesses are compounded by poor integration between systems, requiring data to be manually re-entered across departments.

Finally, Maldiva has weaknesses in data access and security controls. These issues create both operational risk and concerns about GDPR compliance. E-commerce research emphasises that appropriate technical security measures are important not only for protecting personal information but also for maintaining customer trust (Morić et al., 2024). Because the inventory, customer, reporting, integration and security problems are interconnected, isolated improvements are unlikely to provide a complete long-term solution.

3. Recommended Solution and Evaluation of Alternatives

Three broad alternatives can be considered. The first is a best-of-breed approach in which separate inventory, CRM and analytics applications are retained or introduced and connected through integration software. This could allow strong specialist functionality in each area, but it

would preserve a relatively fragmented technology environment and could continue the data and process integration difficulties already affecting Maldiva (Siddiqui et al., 2023).

A second alternative is an on-premise integrated system. This option could give Maldiva greater direct control over its infrastructure, data and system customisation. However, it would require substantial initial capital expenditure and continuing costs for servers, maintenance, upgrades and specialist IT support. Given the company's current circumstances and the absence of a significant in-house IT function described in the case, this option is less suitable.

The recommended alternative is a cloud-based ERP platform with integrated CRM and BI modules. The central advantage is the creation of a shared database that can connect Maldiva's stores, e-commerce operations and managerial reporting. Integrating inventory and order processing would improve real-time stock visibility and could reduce stockouts and delays in order processing (Menon, 2024). The CRM module would consolidate customer information into more complete profiles, supporting segmentation and personalised marketing. CRM research suggests that effective use of such tools can contribute to sales growth and customer loyalty (Ijomah et al., 2024).

Criteria	Best-of-Breed	On-Premise Integrated System	Cloud ERP + CRM + BI (Recommended)
Data integration	Fragmented; relies on separate integration software	Fully integrated, but self-managed	Fully integrated via shared cloud database
Upfront cost	Moderate (multiple licences)	High capital expenditure	Lower upfront, subscription-based
IT infrastructure burden	Moderate	High – servers, maintenance, upgrades	Low – managed by vendor
Scalability	Limited by weakest linked system	Constrained by owned hardware capacity	High – scales with business growth

Criteria	Best-of-Breed	On-Premise Integrated System	Cloud ERP + CRM + BI (Recommended)
Suitability for Maldiva	Preserves fragmentation problems	Unsuitable – no significant in-house IT function	Best fit given company profile and growth needs

Table 1: Comparison of alternative information system solutions

The BI component would replace much of the existing manual spreadsheet reporting with automated, more timely reports and analysis, allowing managers to monitor performance and respond more effectively to emerging trends (Hoque et al., 2025). Cloud deployment is also appropriate because it can reduce the need for Maldiva to purchase and maintain its own server infrastructure and can provide greater scalability as the organisation expands.

The proposed ERP system also offers benefits in relation to governance and control. The use of a centralised database with role-based access permissions will allow the business to improve the integrity of its data and to protect the personal information of its customers. The improved security of the system and the increased controls over operations will assist the organisation in complying with GDPR and in building trust with its customers (Morić et al., 2024). Additionally, the ability of the system to provide better forecasting of products will also lead to a reduction in surplus stock of products, indicating a more efficient use of resources of the organisation.

Nevertheless, the implementation of the ERP system is not automatically successful. The realisation of the benefits of an ERP system relies upon the selection of an appropriate ERP system, the data of the organisation, and the employees successfully implementing the system. Research into the implementation of ERP systems indicates that some of the factors that affect the successful implementation of such systems relate to the integration of ERP systems with existing systems of the organisation (Siddiqui et al., 2023). Therefore, the recommendation of implementing the ERP system should be accompanied by the development of an implementation programme for the system.

4. Implementation Plan

Implementation should be phased to reduce disruption and control the risk of failure. The first phase should be a detailed requirements analysis involving relevant department heads and users. This should establish the functional, reporting, security and integration requirements that the new

system must meet. Once requirements are agreed, Maldiva can evaluate suitable cloud ERP vendors and select a platform offering appropriate retail, CRM and BI capabilities.

The second phase should focus on system design and data migration. Existing inventory, customer and other organisational data should be reviewed, cleaned and standardised before migration so that inaccurate, duplicated or incomplete records are not transferred into the new environment. Clear data ownership and governance responsibilities should also be established.

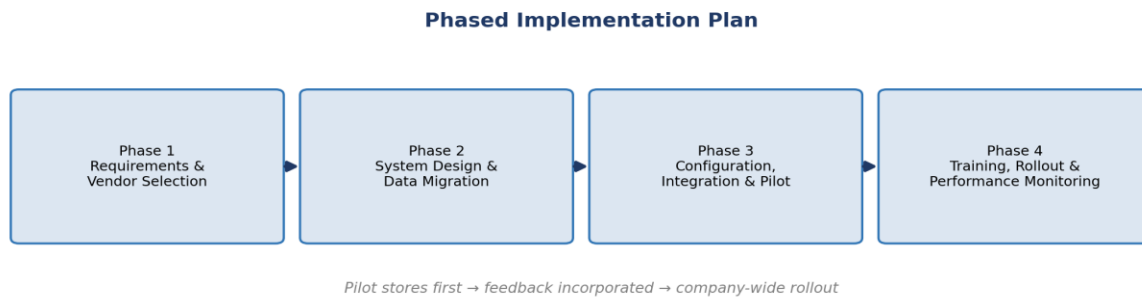


Figure 2: Phased implementation timeline

The third phase should involve configuration and integration. The ERP should be connected to Maldiva's e-commerce platform and in-store sales terminals so that transactions automatically update inventory across channels. Rather than immediately deploying the system across all thirty stores, Maldiva should pilot it in a small number of locations. This would allow integration problems and user issues to be identified before wider rollout. Testing should specifically confirm accurate inventory tracking across all relevant channels (Mattegunta, 2025).

Employee training should be based on the roles of the employees. Employees in sales, management, the finance department, and others will require different forms of training relative to their responsibilities within the company. The support of the management is essential in ensuring that the training is adequately delivered, as their lack of support could lead to the failure of the ERP system (Siddiqui et al., 2023). Feedback from the employees who trial the system will help to inform the training that will be provided to all other employees in the organisation before the implementation of the system company-wide.

Some of the challenges that may threaten the implementation of the system may include costs associated with data migration, temporary decreases in productivity, reliance on the vendor, integration difficulties, and GDPR regulations regarding data. These challenges can be addressed

by gradually implementing the system, choosing the right vendor, budgeting for these expenses, and appointing individuals to take charge of information security and data issues in the company.

Finally, indicators of the success of the new information system can be established. Examples of these indicators include sales and revenue, inventory accuracy, order cancellations and returns, reporting time, information system adoption, data completeness from customers, and information system security. These indicators will enable the management of the company to determine whether the new information system is bringing the expected benefits to the organisation. Performance Indicator: What It Measures

Performance Indicator	What It Measures
Inventory accuracy	Match between recorded and actual stock across channels
Stockout levels	Frequency of unavailable items despite listed availability
Order cancellations and refunds	Impact of inventory/data errors on customer orders
Reporting time	Speed of producing management reports post-implementation
System adoption	Extent of active use across departments
Customer-data completeness	Proportion of unified, accurate customer profiles
Security/compliance incidents	Number and severity of data protection issues

Table 2: Post-implementation performance indicators

5. Conclusion

Maldiva Ltd's rapid growth has exposed significant weaknesses in its fragmented, manual and insufficiently secure information systems. Manual inventory processes contribute to stock discrepancies, fragmented customer records limit effective relationship management, spreadsheet-based reporting restricts timely decision-making, and weaknesses in integration and access control increase operational and regulatory risk.

Following evaluation of the available alternatives, a cloud-based ERP system incorporating integrated CRM and BI capabilities is the most appropriate solution presented in this proposal. It

would provide a central source of information across Maldiva's physical stores and e-commerce operations, improve inventory visibility, strengthen customer-data management, automate reporting and support stronger data controls. The cloud model also offers scalability that is consistent with the company's continued growth.

The proposed transformation nevertheless carries implementation risks. Its success will depend on careful requirements analysis, appropriate vendor selection, high-quality data migration, system integration, testing, employee training, leadership support and continuing data governance. A phased implementation beginning with a pilot would help Maldiva manage these risks and evaluate performance before full rollout.

Overall, the proposed ERP investment offers Maldiva an opportunity to move from disconnected operational systems towards an integrated information environment that better supports efficiency, customer service and management decision-making. However, the recommendations in this report are based on general evidence and the case information available. A focused discovery exercise examining Maldiva's actual processes, systems and requirements should therefore be completed before major implementation commitments are made.

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