

INFORMATION SYSTEMS IMPROVEMENT PROPOSAL Maldiva Ltd.

Student Name: Irum Sher.

Student Number: 2422703

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Lecturer's Name: Amitave banik

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Executive Summary

Maldiva Ltd.'s growth is being hampered by the information systems that are not meeting the needs of an omnichannel retailer. Information systems can't keep up with Maldiva Ltd's growth. Manual inventory management, departmental systems that are isolated, and a weak access control and customer data system cause costly inaccuracies in stock levels, slow decision making, customer inconvenience and compliance problems. It involves a phased approach of deploying an integrated cloud information system based on Microsoft Dynamics 365 Commerce and Supply Chain Management with the assistance of Inventory Visibility, Customer Insights and Power BI. The design will guarantee that both operations and users' information will be available and controlled, and will also be subjected to specialist integrations. The process of implementation starts by inventory and data quality, then customer unification and personalisation. Process redesign and data ownership, staff training, security governance and measurable benefits are the things that will get you to success not software. Expected outcomes include more predictable fulfillment, quicker information regarding management, better customer service, greater control and an expanding platform.

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1.Introduction

Maldiva Ltd. is a rapid growing retailer of consumer electronics having 30 physical stores and eCommerce platform. It has expanded faster than the information stream that can be utilised for it. Manual inventory management, fragmented customer information, sales reporting is based on spreadsheets, lack of adequate access control, and sales, financials and inventory applications don't communicate. The fundamental issue, then, is not a misfitting application, it's misaligned people, processes, data and technology.

Based on perspectives on people, organisation, technology and information values developed in this module, this proposal assesses these weaknesses and makes suggestions for an integrated cloud ERP–CRM–business-intelligence architecture. A staged implementation is more appealing than a “big-bang” scenario where Maldiva would be left with less accurate stocks and fewer alternatives to deal with, as it will enable them to implement stock accuracy and decision quality improvements without creating significant hassle for stores or online traders.

2. Evaluation of Existing Systems

There are several “operational truths” in Maldiva because of its current context. Manual stock tracking, and multiple spreadsheets transfers create delays, create duplication and require reconciliation work, and distributed applications means that there is no uniformity through the functions. The same manual processes that are unable to deliver real time reporting, enterprise visibility and speed of action are the main weaknesses of the digital retail supply chains, according to Bourgeois *et al.*, (2019).

Stock errors have a direct impact on the omnichannel promise: false availability information leads to cancellations and refunds while stock that's not in use also reduces working capital. When the physical store and online retail channels share stock, omnichannel retail generates significant replenishment and inventory-allocation challenges, as demonstrated by He *et al.*, (2023) . The customer-data issue is the same. While personalisation can enhance the customer experience and ensure customer retention, customer records are often fragmented with consequences for both service and targeting, find Thaichon *et al.*, (2024).

The governance trade-off though arises because of centralising customer data. To conclude, Krafft et al (2021) believe that, while having a customer view can provide a competitive advantage, this should be achieved with a specific purpose, access and retention criteria - not unlimited accumulation of data. The same governance issues apply to reporting – spreadsheets to dashboards will not solve inconsistent definitions. Passlick et al call out data governance as a key

factor in self-service business intelligence and Bobosatu, Bobosatu and Visan show the impact that explicit value for money data rules and immediate error detection will have (Passlick *et al.*, 2023).

Lastly, integration improves efficiency, dependency and consequently, security can't be applied after deployment. The operational impact was seen for example in the case of Marks & Spenser, where online orders were suspended and click-and-collect was disrupted as a result of the cyber incident 2025 attack, as cited in the Cyber Security Breaches Survey 2025/2026, undertaken by the Gov.UK, (2026).

3. Recommended Solution

Malvidia should consider a cloud-based ERP, CRM and BI system that integrates all together, and Microsoft Dynamics 365 is the implementation platform that can broadly be considered for the tender as a potential and to be put to the test in a proof-of-concept trial. The recommendation comes after four case requirements which could be used to govern the data, real-time inventory from all channels, unified customer information, and timely change management insight. Digital transformation, however, has the potential to enhance performance by reducing costs, increasing revenue, efficiency and innovation but only when backed up by process redesign and data ownership (Ji and Cui, 2026) .

Salih et al conducted a systematic review of the cloud ERP research which has highlighted security and usability and vendor related factors are critical issues in ERP cloud adoption; hence, before the full ERP implementation (Salih *et al.*, 2021). Maldiva has opted to evaluate providers by taking tender and a proof of concept approach. An integrated cloud suite is more transformation-heavy and offers the highest degree of alignment with Maldiva, creating the opportunity for all through using the same master data and 'how' - inventories, orders, customers and reporting. The advice is still to keep the specialists, payment and logistics services or web services, but to control the interfaces—do not re-create them with spreadsheet exports.

Table 1. Consultant option appraisal against Maldiva's case requirements (1 = poor, 5 = strong)

Option	Integration	Omnichannel inventory	Scalability	Analytics / customer	Cost / risk	Weighted score
Patch current systems	1	2	2	2	4	2.0 / 5
Best-of-breed + middleware	3	4	4	5	3	3.7 / 5
Integrated cloud ERP–CRM–BI	5	5	5	5	3	4.7 / 5

Note: weighted score uses Integration 30%, Omnichannel inventory 25%, Scalability 15%, Analytics/customer 15%, Cost/implementation risk 15%. Scores are proposal-stage judgements and should be validated through tender and proof-of-concept.

Every sale, return, cancellation and fulfilment event should manipulate a single inventory position and make sure that the website can make more solid availability guarantee pronouncements and that store managers have the chance to work on shortage and stock scraper events.

Customer Insights should be added post cleansing and identity-matching rules agreement. That would provide data to the service team for purchasing context and the marketing team would have more control over segmentation (Thaichon *et al.*, 2024). The data sources to be made available in certified ERP/CRM sources in Power BI should then be across revenue, margin, inventory turnover, stocks out, cancellations, fulfilment time, accuracy of forecasts, match rate of customer records and first contact resolution. Self-service drill down should be allowed but shouldn't lead to different definitions of KPIs.

Security and privacy need to be built-in the platform. To ensure privacy is accounted for from design through the lifecycle of any system, and to achieve minimum necessary processing for each purpose, UK GDPR dictates a requirement for least-privilege roles, multi-factor authentication, encryption, audit logging, data retention policies, segregated administration, tested backups and incident response. Even if you encrypt the data, there is still some residual risk, the ICO states, and

ongoing governance is necessary to enable third party access and recovery if it is necessary (Information Commissioner's Office, 2026). Continuous and regular management of security, rather than it being a one-off implementation activity is essential, as NIST Cybersecurity Framework 2.0 helps organisations understand, evaluate, prioritise and communicate issues with cybersecurity (Pascoe, Quinn and Scarfone, 2024).

You shouldn't consider cost based on the price of the licence, it should be based on a three-year total cost of ownership instead. Total cost of ownership should consider costs across the lifecycle of the IT investment rather than licence expenditure alone (Gadatsch, 2023) . These are indicative, not a project budget: Maldiva must also price migration, integration, partner support, testing, training and downtime. Slowly licensing, and the benefits gate, minimises risk from paying for unused ability. Closed-loop systems can also help to prevent dead stock due to improved inventory visibility, as there is a correlation with the early detection of dead-stock and the sustainability of resources that should be conserved in the field of Cleaner and Responsible Consumption (Li, Chiu and Seva, 2023).

4. Implementation Plan

A pilot–learn–scale strategy is better than going live all at once in all 30 stores. The programme should be supported by a cross-functional steering group, process owners, data owner and named benefits owner with the CEO sponsorship (Huang *et al.*, 2021). Butarbutar *et al.* highlighted good top-management support and user training as critical success factors (CSFs) for ERP implementation which supports the steering structure, executive sponsorship and staff training programme that Maldiva has put in place (Butarbutar *et al.*, 2023).

At weeks 15–20 a handful of stores plus e-commerce should be tested, using two or three actual stores/migrating to them for sales, returns, click and collect, replenishment, refunds, permissions, reporting and recovery etc all while there was a genuine push to recover. Practices and local super users for staff. Implementation should be staggered, no sooner than once inventory accuracy and transaction completeness levels are met and the system is ready for users, at least.

Figure 1. Proposed Gantt Chart for Maldiva Ltd. Information Systems Implementation

Implementation activity	Weeks 1–6	Weeks 7–14	Weeks 15–20	Weeks 21–30	Weeks 31–36	Week 37+
1. Mobilise and design Scope, process maps, owners, data/security baseline						
2. Build and cleanse Configured core modules, APIs, cleansed master data, dashboards						
3. Pilot 2–3 stores + e-commerce; UAT, migration rehearsal, training						
4. Wave rollout Controlled store waves with rollback and readiness gates						
5. Customer optimisation Unified profiles, service use cases, limited personalisation						
6. Benefits / BAU Operational ownership; 30/60/90-day benefits reviews						

Once operational, the performance of Customer Insights should be stable. Before personalised campaigns are scaled personalised campaigns should be matched, consent state, retention/ service use cases should be checked. The following benefits should be checked at 30, 60 and 90 days: Stock discrepancy, Cancelled unavailable stock, Fulfillments time, Inventory turnover, Obsolete-stock value, Report preparation hours, Forecast error, Customer-match rate, First contact resolution and Security incidents. Care should be used when planning ERP–CRM–BI integration because integration depends on infrastructure readiness, data quality and security, which means explicit ownership, monitoring and rollbacking procedures must be put in place (Jaradat, AL-Hawamleh and Hamdan, 2025) .

Table 2. Priority implementation risks and controls

Risk	Rating	Control / response
Poor master data	High	Named data owners; cleansing; reconciliation thresholds; migration rehearsal
User resistance	High	Role-based training; super-user network; feedback and adoption metrics
Cutover disruption	High	Pilot first; store waves; backups; rollback criteria; support coverage
Privacy / cyber failure	High	DPIA; least privilege; MFA; encryption; logs; supplier assurance; incident plan
Scope / cost creep	Medium–High	Change control; three-year TCO; steering-group stage gates; benefits tracking

5. Conclusion

For Maldiva Ltd., it would be foolish to respond to quickest growth by implementing some extra spreadsheets or individual applications. The main challenge of its current growing practice is fragmentation: inventory, customer, reporting and control processes don't have access to timely, governed information. The best fit to this structural issue is a phased integrated cloud ERP–CRM–BI architecture as it not only solves the structural problem, but it also provides an extensible platform that expands with the company. Microsoft Dynamics 365 is a good contender, but final choice will be determined after the evaluation of the tender, the performance of the proof-of-concept projects, integration needs, and the 3-year total cost.

The order in which the institutions should be discussed is custom-made to give inventory accuracy, master-data quality, security and staff adoption the priority that it deserves, before advanced personalisation. This decreases the likelihood of automating processes that are not reliable or collecting of poorly managed data. Knowing who takes ownership, introducing it in phases, testing well, setting up clear benefit gates, Maldiva can relieve the need to replace management with technology, all while delivering better fulfilment, faster decisions, better customer service, information governance, and operational sustainability.

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