

Information Systems Improvements



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Introduction

1.1 Overview of the Business Case

AKPerog Ltd. is a rapidly expanding retailer of consumer electronics that runs 30 physical locations in addition to an online store. Due to rising consumer demand and a more robust web presence, sales have grown dramatically over the previous year. The company's internal information systems have not developed at the same rate, even though this growth suggests commercial success.

The company uses a variety of antiquated, mostly manual systems that worked well for smaller businesses. These systems have been a hindrance to effective operations as transaction volumes and product offerings have increased. Important commercial operations including processing consumer data, inventory management, reporting, and security are dispersed and ineffective.

Customers are immediately impacted by these flaws. Online buyers frequently place orders for items that seem to be in stock just to find out later that they are not. Order cancellations, refunds, and customer complaints result from this, harming consumer confidence and the reputation of the brand. Managers find it difficult to keep balanced stock levels in physical stores, which leads to both shortages and overstocking.

Inadequate access to timely and accurate information also affects management.

Spreadsheets are used to manually construct sales reports, which frequently include inaccurate or out-of-date information. This makes it challenging to spot patterns, predict demand, or react fast to shifts in the market. The business also must deal with growing cybersecurity and data protection threats, especially about GDPR compliance.

1.2 Key Challenges Faced by the Organisation

Ineffective inventory management is a major challenge for AKPerog Ltd. The company lacks real-time stock visibility across physical stores and its e-commerce platform, relying heavily on manual stock tracking. As a result, inventory records are often inaccurate or delayed, causing mismatches between actual stock levels and online availability. This leads to lost sales, customer dissatisfaction, and inefficient order fulfilment.

Customer relationship management is also problematic due to fragmented systems. Customer data is spread across online platforms, in-store point-of-sale systems, and customer service tools. This prevents the creation of a complete customer profile, making it difficult to track purchase history, handle returns efficiently, or resolve complaints quickly. Marketing efforts are further weakened because the business cannot run targeted promotions without integrated customer data.

Decision-making within the organisation is slow and reactive. Sales and performance reports are manually compiled using spreadsheets, a time-consuming process that increases the risk of errors. By the time reports reach management, the data is often outdated, limiting its value for forecasting and strategic planning.

There are also growing risks around data security and regulatory compliance. Inconsistent access controls and decentralised security management increase the likelihood of unauthorised access and data breaches. This exposes the company to potential GDPR violations, legal penalties, and reputational damage. Finally, poor system integration across departments creates inefficiencies, increases workloads, and raises the risk of operational errors. (Laudon and Laudon, 2024; Deloitte, 2023)

2. Evaluation of Existing Systems

2.1 Analysis of Current Information Systems

AKPerog Ltd.'s information systems are fragmented, relying on multiple disconnected technologies rather than a single integrated platform. At store level, inventory is managed through basic software and spreadsheets, with many updates entered manually. This limits real-time stock visibility, especially between physical stores and the e-commerce platform. Customer data is also dispersed, with online sales, in-store purchases, and customer service records stored in separate systems. The lack of a central CRM results in data duplication and inconsistencies.

Reporting and analytics are largely manual, requiring data exports into spreadsheets, which is time-consuming and prone to errors. From a security perspective, access controls and user management are inconsistent, with limited audit logging, making compliance and data protection difficult to enforce.

2.2 Inefficiencies and Gaps in the Current Systems

One significant inefficiency is the absence of an integrated, real-time inventory management system. The business finds it difficult to meet client demand, optimise stock levels, or successfully plan replenishment without reliable stock visibility. Revenue, customer happiness, and operating expenses are all directly impacted by this.

One major functional deficiency is the lack of a consolidated CRM system. Complete client records are difficult for staff to access, which leads to inconsistent customer experiences and delayed service. Due to a lack of understanding about consumer behaviour and preferences, marketing campaigns continue to be wide and ineffective.

Decision-making is slowed down and data reliability is diminished by manual reporting procedures. The organization's capacity to take proactive measures in a cutthroat market is hampered by management's lack of timely information regarding sales performance, product trends, and store-level outcomes. Gaps in security and compliance put the company at even greater danger. Dispersed data storage and lax access controls make incident response more challenging and raise the possibility of unauthorised access. Given the legal requirements related to managing customer data, this is very troubling.

All things considered, the current methods are no longer appropriate for a developing, multi-channel retail company. AKPerog Ltd. Will continue to have operational inefficiencies, elevated risk, and constraints on future expansion in the absence of contemporary, integrated information systems. (Stair & Reynolds, 2021; Chaffey, 2022)

3. Recommended Solution

3.1 Proposed System

A modern Customer Relationship Management (CRM) platform and an integrated cloud-based Enterprise Resource Planning (ERP) system are the suggested solutions for AKPerog Ltd. The business would switch to a single, integrated system that handles inventories, finance, sales, customer information, and reporting in real time rather of depending on several disparate technologies. Oracle NetSuite, SAP Business One, and Microsoft Dynamics 365 are appropriate choices. These systems can handle both physical stores and e-commerce activity because they are specifically made for retail operations.

By automating stock tracking across all stores and the web platform, a cloud-based ERP will minimise errors brought on by human updates. Additionally, it will centralise purchase orders, supplier data, financial data, and performance measures. Customer information, purchase histories, marketing exchanges, and support cases will all be combined into a single, easily accessible database via the CRM component. This helps the company provide individualised service and more pertinent marketing campaigns by providing employees with a complete image of each client.

Strong analytics features are also included in these systems, providing managers with forecasting capabilities, sales insights, and real-time dashboards. The technology lowers GDPR-related risks while simultaneously increasing accuracy thanks to automated reporting and integrated compliance capabilities. All things considered, a unified ERP CRM platform offers a strong basis for effectiveness, scalability, and future expansion.

3.2 Justification

Business requirements: Retailers with extensive product lines and numerous sales channels can benefit from a cloud-based ERP + CRM software. It will facilitate sales, enable AKPerog Ltd. manage inventory, and offer a consolidated database for product and customer data.

Efficiency: Automated inventory tracking increases stock accuracy and decreases human error. Smoother customer service and targeted marketing are made possible by integrated CRM.

Cost: Cloud solutions lower long-term expenses related to hardware upkeep, manual labour, and operational inefficiencies, even if the initial investment may be substantial.

Scalability: Modules can be added or modified without causing significant interruption as AKPerog Ltd. expands. Both physical stores and online expansion will be supported by the system.

3.3 How the System Improves the Business

By creating a single, reliable source of data across the company, an integrated ERP and CRM system would significantly improve AKPerog Ltd.'s operations. Real-time inventory tracking keeps online listings and in-store stock levels aligned, reducing overselling and unnecessary refunds. Automated alerts and forecasting tools help managers identify fast-moving products, avoid overstocking, and plan replenishment more accurately.

With all customer data stored in one CRM system, staff gain a complete view of each client's purchase history and interactions. This allows the marketing team to deliver more targeted promotions and enables support staff to resolve issues more quickly and effectively.

The ERP's reporting and analytics tools give management instant access to performance dashboards, financial summaries, and sales trends. This supports faster, data-driven decision making, improves long-term planning, and strengthens data protection and GDPR compliance through built-in security controls. (PwC, 2023)

Implementation Plan

To guarantee that the new ERP and CRM system is implemented successfully and provides the desired advantages, a well-organised implementation plan is necessary. Managers and important employees from every department participate in a thorough requirements analysis to start the process. This phase aids the project team in comprehending existing processes, problems, and the features that the system must have.

Selecting a vendor comes next after the requirements are apparent. Providers like Microsoft Dynamics 365, SAP Business One, and Oracle NetSuite should be compared by AKPerog Ltd. based on factors including cost, scalability, support, and how well each system meets the business's operating requirements. System configuration can begin once a vendor has been chosen. This entails creating data fields, defining user roles, customising modules, and developing workflows.

The next step is data migration, which starts with cleansing and standardising current data to guarantee correctness. To ensure smooth communication throughout the company, integration with current tools such as the e-commerce platform, POS systems, and financial software must also be finished.

Testing is an essential step that enables employees to find mistakes, test procedures, and verify that security and reporting features perform as intended. Staff training should be given in stages following testing to make sure everyone knows how to operate the system efficiently.

Additionally, go-live should be staged, starting with low-risk modules like inventories and moving on to CRM and finance. The business will be able to improve the system and deal with any lingering issues with the support of ongoing monitoring and post-implementation reviews.

Considerations

To guarantee a seamless transition, several pragmatic factors must be considered while implementing a new ERP and CRM system. Beyond basic training requirements, it's critical to find early adopters in each department who can assist coworkers and promote system confidence. For employees to comprehend the reasons for the change and how it would improve their day-to-day work, clear communication is also crucial.

Another important consideration is the quality of the data. All current data must be verified, cleansed, and standardised prior to migration. Long-term problems may arise from transferring poor-quality data into a new system. Additionally, since some processes may

slow down during the early rollout stages, the organisation should prepare for a little disruption.

To safeguard consumer data and guarantee GDPR compliance, cybersecurity and access controls must be set up correctly from the start. Lastly, to maximise the return on investment, the corporation should set aside funds for continuing support and system optimisation.

(Roztock, Strzelczyk, & Weistroffer, 2025)

Conclusion

Growth is currently being impeded by antiquated and disjointed information systems at AKPerog Ltd. Due to the company's reliance on spreadsheet-based reporting, fragmented customer information, and manual stock monitoring, practically every department faces operating difficulties. Inaccurate supply levels, sluggish customer service, poor marketing targeting, and restricted visibility for managers attempting to make wise decisions are all consequences of these problems.

An obvious way ahead is to implement an integrated cloud-based ERP and CRM system. The company will be able to reduce expensive errors, maintain online and store stock alignment, and precisely track inventory in real time using a single platform. The marketing team will be able to give more pertinent promotions and support workers will be able to respond to enquiries promptly with precise purchase histories if consumer data is centralised.

Managers will have the visibility they need to anticipate demand, recognise patterns, and address problems before they worsen thanks to real-time dashboards and automatic reporting. In addition to lowering the risk of data breaches, stronger access controls and integrated compliance tools will assist GDPR regulations.

The long-term advantages of implementing a new system greatly exceed the difficulties, even though it takes careful planning, training, and staggered deployment. The company will benefit from a stronger operating base, more effective procedures, quicker decision-making, and improved client satisfaction. AKPerog Ltd. will be well-positioned to scale sustainably, bolster its competitive advantage, and confidently continue its expansion by investing in cutting-edge information technologies. (Microsoft, 2023; SAP, 2023; Oracle,2023)

References

- Chaffey, D. (2022) *Digital Business and e-Commerce Management*. Pearson.
- Chen, B. (2025). The Comprehensive Evolution of ERP Systems: Classification, Financial Integration, and Future AI Integration.
- Deloitte (2023) *2023 Global Retail Outlook*. Deloitte Insights.
- Laudon, K. and Laudon, J. (2024) *Management Information Systems: Managing the Digital Firm*. Pearson.
- Microsoft (2023) *Dynamics 365 for Retail: Solution Overview*. Microsoft Documentation.
- Oracle (2023) *NetSuite: Cloud ERP for Retail*. Oracle NetSuite Documents. References
- PwC (2023) *Customer Experience in Retail: Data-Driven Strategies*. PwC Research.
- Roztock, N., Strzelczyk, W., & Weistroffer, H. R. (2025). Enterprise Systems in the Public Sector: Current Research Landscape. *Information Systems Management*, 42(2), 161–188.
- SAP (2023) *SAP Business One: Product Capabilities*. SAP Publications.
- Stair, R. & Reynolds, G. (2021). *Principles of Information Systems*. 14th ed. Cengage Learning.