ERP IMPLEMENTATION FOR PTICS- A PLASTIC MANUFACTURING SYSTEM

# Part 1: Company background and Reasons for change

## COMPANY BACKGROUND

PTICS is a Medium sized Plastic manufacturing company that deals with producing and supplying different plastic products to several retailers. They are currently operating in five states in the United States with several factories and warehouses headquartered in Texas. They are in the process of expanding their operations to five other states and are in need of an ERP system to help them streamline and consolidate their operations across all these locations. Currently they operate using an “Application Silo” system using different systems to perform different operations across the organization which has led to a few discrepancies and errors, which will also prove inefficient and cause bigger issues after the expansion. As a result, they want to use this expansion to finally combine their operations into one system. This system should help them consolidate their Product life cycle management, Inventory management, Supply chain and financial operations.

## REASONS FOR CHANGE

The Impending expansion and the need for a more efficient system to track operations across all their locations is the major reason for this change. Specific reasons include:

* **Need for Integration:**

Currently, the existing systems function independently, resulting in disconnected data and processes. This causes ineffective communication between departments causing costly errors like wrong inventory reports or customer deliveries and delays in decision making.

* **Scalability:**

The Company is currently expanding and plans to get even larger over the next 10 years. This requires them to have a system that will effectively manage operations across all their locations. The current systems are not equipped to handle the increased transaction volumes and data generated by PTICS expanding operations.

* **Addressing operational Inefficiencies:**

As mentioned earlier, the manual way of communicating has severely impacted the business. Employees spend excessive time on manual data entry which has led to slower operations and losses due to errors and customer complaints.

* **Better supply chain management:**

The current system impacts the supply chain of PTICS because customers can only receive orders from the location that they place the order. This means that if they place an order and the warehouse close to them is low on that product, they would have to wait until they stock up before they can be delivered to them. Now PTICS wants to address this issue to allow orders that are placed to be received from any close warehouse in the case of lower stock.

# Part 2: Desired Functionalities and Benefits

## DESIRED FUNCTIONALITIES

* **Product Lifecycle Management:**

The ERP system will feature a product lifecycle management (PLM) system that will be used to manage their products across different stages of their lifecycle, assuring Quality control across all factories.

* **Inventory Management:**

The ERP system must also feature an inventory management system to track and update inventory of all products including raw materials.

* **Customer Relationship Management:**

An integrated CRM system is also needed to effectively communicate with customers. Integrating customer data will enhance sales tracking and marketing efforts. Automated marketing and customer service modules will personalize interactions and improve customer loyalty. This will also be effective in gathering insights for future expansions.

* **Financial Management:**

The ERP system will offer real-time financial insights, aiding in budgeting and strategic planning. Automating accounts payable and receivable will reduce errors and improve cash flow management.

* **Supply Chain Management:**

Another Important feature is the supply chain management which will be used to track product across all staged from raw material sourcing to production and supply.

## EXPECTED BENEFITS

* **Improved quality control:** Standards for quality will be set on the system and will be used to regulate production in all locations and track product defects.
* **Streamlined procurement:** Purchase orders will be automated with supplier performance tracked to ensure timely delivery of raw materials across all branches
* **Improved collaboration:** The integrated systems will facilitate seamless communication and collaboration across departments.
* **Data driven decisions:** Real-time data will be collected to empower informed decision-making and strategic planning.
* **Improved operational efficiency**: Manual tasks, ineffective communication and errors will be greatly reduced with automation while freeing up employees for more strategic work.
* **Improved Customer satisfaction:** Faster deliveries with few errors and inconsistencies will improve customer satisfaction.
* **Improved customer Retention:** Data driven decisions will encourage better business practices that will satisfy customers and lead to higher customer retention.
* **Reduced costs in the long run:** Costs due to errors, rejected products and manual labor will be reduced in the long run.

# Part 3: Action Plan for ERP Selection and Change Management for Implementation

## ERP SELECTION PROCESS

* **Assessing Needs:** To select the best ERP system that fits their needs PTICS will engage stakeholders through workshops and interviews to identify business requirements and priorities. This will ensure the ERP system aligns with strategic goals.
* **Shortlisting Systems:** The team might assess various ERP solutions on the market, such as SAP, Oracle, and Microsoft Dynamics, as well as more niche manufacturing-focused solutions, and compare them against the established criteria like total cost of ownership, duration of implementation, disruption at Go-live, payback period, and market share.
* **Request proposals:** PTICS will then issue detailed Request for proposals (RFPs) to shortlisted vendors and assess responses based on cost, functionality, and support.
* **Demonstration and Validation:** The team may arrange interactive demos to evaluate usability and functionality. It is important to verify that the system features satisfy the necessary requirements and functionality documented at the beginning.
* **Final selection**: Based on the results gathered from all the previous processes, the final selection can be made using the **Magic Quadrant tool** to select the vendor that best fits their needs in terms of ability to execute and completeness of vision. PTICS can also decide whether to purchase the entire system from one vendor using the Best-Of-Suite method or purchase from several vendors based on the best match for their needs using the Best-Of-Breed approach.

## CHANGE MANAGEMENT

Once the ERP is selected, managing organizational change is essential. This step is crucial, as introducing a new system involves a lot of risk and can encounter resistance if not properly introduced. Change management also begins before the implementation of the system to ensure that users are familiar with the impending change and are adequately prepared.

PTICS will implement the new system using a **Phased roll-out** approach of the ERP system to reduce the risks and get users slowly acquainted with the system. The specific methods that will be used to implement the change are:

* **Employee Training:** Employees will be trained by external consultants on how to use the new system and features to carry out their tasks
* **Peer Training:** Peer training among colleagues will be encouraged so they can be more confident with using the system for
* **Stakeholder Engagement:** Before the final implementation, core stakeholders will be involved in the process to familiarize themselves with the new system and its features and also build their interest. The benefits and necessity will be clearly communicated to all employees.
* **Top management involvement and communication:** Top management will also be involved to encourage their teams and communicate the benefits and impacts of the system.
* **Setting up an internal support team:** To help employees resolve issues or concerns in the early stages of implementation

# Conclusion

Upgrading to a modern ERP system at PTICS Manufacturing is a strategic necessity. By carefully selecting the right vendor and implementing a robust change management plan, PTICS can enhance its performance, strengthen its market position, overcome current challenges and unlock new opportunities for expansion and efficiency. This transformation will enable the company to remain competitive and thrive in the market.