

IX[®] Case Study
Sales, Inventory & Operations Planning



IMPLEMENTATION
ENGINEERS[®]
BEYOND CONSULTING

Optimized
production &
capacity
management

Streamlined
decision making

Implementation Engineers successfully implemented Sales, Inventory, and Operations Planning for a leading manufacturer of frozen novelty ice cream products. The client engaged our expertise to establish a structured process aligning operations with business objectives. Prior to our engagement, the client faced challenges including a lack of clarity on capacity to meet forecasted demand, absence of an inventory plan to balance supply and demand, and unreliable data for executive decision-making. These deficiencies led to operational inefficiencies and uncertainties. Our case study delves into how we addressed the client's pain points, such as the absence of a decision-making framework for executives, unclear supply constraints, and supply chain challenges. By providing the client with the necessary tools and structure, we enabled them to enhance customer satisfaction, reduce costs, and achieve scalability in their operations.

Implementation

During the implementation phase, the following activities included:



Structured Meeting Cadence

Implemented structured cross-functional meetings to improve transparency and foster collaboration among teams



Data Driven Insights & Analysis

Utilized advanced analytics to identify and address discrepancies between forecasted demand and supply capabilities, enabling informed decision-making



Proactive Gap Resolutions

Implemented actionable plans and alternative scenarios to proactively address shortfalls and mitigate risks in operations



Advanced Tools

Implemented forecasting tool integration, introduced detailed production planning tool, and developed comprehensive inventory management framework



Performance Metrics

Implemented KPIs to drive continuous improvement, make informed decisions, and maintain a balanced approach to supply chain management

Implementation Approach

Initial Planning

- Strategically planned project goals, objectives, and success criteria, aligning them on a detailed timeline to ensure a structured approach to Sales, Inventory & Operations Planning (SIOP)

Data Collection & Analysis

- Conducted thorough data collection and analysis to establish baseline key performance metrics, identify data gaps, and define Key Metrics for SIOP, fostering meaningful and actionable discussions in SIOP Meeting Reviews
- Developed a RACI framework and facilitated cross-functional meetings to ensure effective collaboration and decision-making processes within the SIOP implementation

Function	Business KPI Name/Metric	Definition	Calculation	Unit
Demand Planning	Demand Plan Accuracy	Calculating demand forecast accuracy is the process of determining the accuracy of forecasts made regarding customer demand for a product.	$\frac{2 \times (\text{Actual Sales Units} - \text{Forecast Units})}{2 \times \text{Actual Sales Units}}$ Option to choose lag up to 12 months	%
Demand Review	See	When Absolute Percentage Error (APE) 1 month lag. Measure of individual accuracy of demand forecasts.	Sum of Sales forecast / Sum of Sales actuals	%
Inventory	Inventory Days of Hand (DOH) Future Demand	Inventory Days of Hand (DOH) represents the number of days company's current inventory can sustain its operations. This metric is crucial in inventory management, as it helps understand where they have enough inventory to fulfill customer demand without overstocking or risking stockouts. DOH directly impacts cash flow, quality, and operational efficiency.	Trading On Hand / 12 months future forecast 12 months forecast includes Current month + next 11 quarters' orders	Days
Customer Service & Supplier Performance	On-Time	Inventory Days on Hand (DOH) efficiency ratio that measures the average number of days the company holds stock in 12 months future demand.	Total number of orders delivered on time / Total number of orders placed over the same period of time, as a percentage (Total number of orders delivered on time) / (Total number of orders placed) x 100%	%
Customer Service & Supplier Performance	On-Time	Order Fill Rate is the rate at which the order is met in the total order quantity.	Total number of orders delivered in full ordered quantity / (Total number of orders placed) x 100%	%
Customer Service & Supplier Performance	On-Time	Order Fill Rate is the rate at which the order is met in the total order quantity.	Total number of orders delivered in full ordered quantity / (Total number of orders placed) x 100%	%
Supplier Lead Time Adherence	Lead Time Adherence	Percentage of orders delivered according to the customer ordered quantity.	Total number of orders delivered within the lead time / All Orders within the given time period x 100 Leadtime Actuals Order Delivery Date - Order Request by Date	%
Production	Production Schedule Adherence	Measures how often all the delivery meet within the agreed upon lead time.	Sum (Completed QTY) / Sum (Planned QTY) x 100	%
Production	Production Schedule Adherence	Requires work orders from previous scheduling period impact the current scheduling period. Manufacturers often prioritize work orders from the previous period, which can reduce the schedule adherence metrics of the factory, even if it's not a productive week. To measure the Schedule Adherence (SA), calculated by dividing all work orders produced in a given scheduling period whether they were planned for that period or not, by the number of planned work orders. Therefore, Schedule Adherence is often a greater value than Schedule Adherence.	Planned & Shipped Work Orders & QTY / (Planned & Shipped Work Orders & QTY + Planned & Not Shipped Work Orders & QTY) x 100	%

Tools / KPI Development & Structured Meeting Cadence

- Created and implemented Tools, KPIs, and a Meeting Cadence to support each cross-functional meeting, leveraging analytics and engaging relevant stakeholders for informed decision-making



Cross-Functional Meetings Inputs-Outputs



Implementation & Monitoring

- Monitored KPIs, identified gaps, and implemented necessary modifications, while gathering stakeholder feedback and securing sign-off to ensure the successful implementation and monitoring of SIOP

Continuous Improvement & Sustainability

- Focused on continuous improvement and sustainability by preparing for the ongoing SIOP cycle, facilitating the handover of Standard Operating Procedures (SOPs), documentation, and training to support long-term success and efficiency in operations

Creating Operational Rhythm: It is a 5 Step Process for aligning company plans every month



Sustainable Results

Implementation Engineers successfully implemented Sales, Inventory, and Operations Planning for our client, enabling them to meet customer demand while effectively supporting long-term growth strategies. The SIOP framework enhanced operational alignment and equipped executives with tools for strategic decision-making, positioning them for long-term success.

Next Steps

- Schedule a meeting with our team to discuss how Implementation Execution (IX®) can help your organization achieve its goals. Submit an IX® request on our website at www.implementation.com
- Visit www.implementation.com to read more about IX® and how we have helped our clients create sustainable results
- Follow us on LinkedIn to stay up to date with the latest industry insights and updates. Join our network to access exclusive content and stay connected with our team of experts

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