COMPETITIVE INTELLIGENCE
& STRATEGY

QKS Group

Supply Chain Management and Logistics

SPARK Matrix™ : Global Supply Chain Inventory Optimization, 2024

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Executive Overview

QKS Group' SPARK Matrix™: Global Supply Chain Inventory Optimization, 2024 research includes a detailed analysis of the global market regarding short-term and long-term growth opportunities, emerging technology trends, market trends, and future market outlook. This research provides strategic information for technology vendors to better understand the market supporting their growth strategies and for users to evaluate different vendors' capabilities, competitive differentiation, and market position. The research includes detailed competition analysis and vendor evaluation with the proprietary SPARK Matrix analysis. SPARK Matrix™ includes ranking and positioning of leading Global Supply Chain Inventory Optimization vendors with a global impact.

Market Dynamics and Overview

QKS Group defines a Global Supply Chain Inventory as “a strategic process of maintaining an ideal amount of inventory and keeping the right balance between capital investment and service-level goals, across multiple Stock Keeping Units (SKUs). The aim is to minimize the inventory holding cost while fulfilling customer demand. Inventory Optimization leverages historical data, advanced analytics, and generative AI to ensure optimum stock levels at the right time. It also takes into consideration the volatility, risks, and probable disruptions in the supply chain and reduces unnecessary costs, stockouts, and overstocking while optimizing stock levels.”

The adoption of cloud, Artificial Intelligence (AI), Machine Learning (ML), blockchain, and IoT technologies and the boom of eCommerce are emerging as trends in the field of global supply chain inventory optimization. Adoption of the cloud enables organizations to access real-time inventory data and make decisions based on demand and supply conditions. The integration of technologies, such as AI, ML, blockchain, and IoT, is enhancing the efficiency of inventory optimization solutions. It also provides real-time inventory visibility, predictive analytics, and data-driven decision support.

Fulfilling the customer’s orders without delay leads to increased customer satisfaction, which can be achieved by maintaining optimal stock levels. As the consumer base and their expectations for fast delivery in eCommerce increase, companies leverage inventory management solutions to maintain optimum service levels. However, the level of adoption of these technologies by organizations varies significantly as the integration of these technologies into existing solutions or building a solution from scratch with these technologies is cost-intensive.

Global supply chain Inventory optimization platforms also help organizations free up working capital during times of expansion, reduce expenses, and ensure liquidity during times of economic crisis. Additionally, it provides a methodical and statistical approach to efficiently managing supply chain risks. It further enables educated trade-offs between service aims and inventory levels to maximize productivity and profitability. It eventually

leads to increased inventory turns, lower inventory holding costs, and higher levels of customer satisfaction.

As globalization and supply chain complexity increase, the number of entities involved in the supply chain and the level of sophistication required for the solutions also increases. Inventory optimization enables organizations to balance stock levels across multiple locations while considering all dependent and independent factors. Additionally, it enables organizations focusing on sustainability to minimize excess inventory, enhance their sustainability efforts, and reduce their environmental footprint.

A well-managed inventory optimization process is essential for maintaining the efficiency of supply chains in markets such as transportation and logistics, where it helps reduce shipment frequency. In warehouse management systems, maintaining optimized inventory levels leads to better space utilization and real-time inventory management. Vendors offering inventory optimization services are using AI to enhance demand sensing, scenario modeling, and inventory hub management. As organizations aim to create antifragile and autonomous supply chains, inventory optimization is one of the key areas to focus on.client-specific inbound and outbound workflows to cater to customers' unique requirements.

The following is the description of the capabilities of a global supply chain inventory optimization:

- **Inventory Forecasting:** The platform uses historical data and analyzes trends in the market to provide inventory forecasting, which helps businesses anticipate demand patterns. It also enables businesses to make decisions that are suitable to fulfill the market demand and maintain optimal inventory to reduce incurring costs.
- **Unified Data Management:** The platform acknowledges personal data within systems and assists in data storage and data mapping. Furthermore, the platform collects data from various product distribution sources in order to eliminate inconsistencies and redundancy and generate accurate forecasts.

- **Scenario Modeling and Stimulation:** The platform performs scenario modeling to help businesses make decisions by analyzing different what-if scenarios. It also uses other advanced modeling techniques to enable businesses to find the impacts of different scenarios and change their business strategy accordingly.

- **Sequencing and Sorting of Promotional Orders:** To assist businesses with promotional events, the platform performs order processing, sorts orders by promotion ID, date, name, vendor, product, and location, and aligns ordering with optimal upstream and downstream product flows. The platform also provides a logical phased process for moving from the initial order through order promotion and, subsequently, order execution.

- **Effective Inventory Performance:** To help businesses measure their inventory management process's performance, the platform provides inventory turnover ratio, demand forecasting accuracy, and perfect order performance. It also provides inventory performance measures to help users compare actual on-hand capital to the predicted cost of goods sold.

- **Inventory Monitoring, Reporting, and Analytics:** The platform provides reporting of key insights by monitoring several factors, such as stock levels and key performance indicators. It then analyzes possible improvements to reduce the costs involved by providing suggestions for the quantity of stocks to hold at different time periods.

- **Advanced Product and Location Segmentation:** The platform enables advanced segmentation through inventory apportionment, which aids in maximizing customer service and company profitability by implementing different inventory strategies for serving different customers associated with different channels and different products based on their value to the organization.

- **Multi-Echelon Optimization:** The platform identifies and maintains desired service levels with optimal inventory levels and investments based on constantly fluctuating demand. Multi-echelon Inventory Optimization (MEIO) also helps businesses solve other problems across the entire supply chain by creating a probability-based model of demand and inventory.

Competitive Landscape and Analysis

QKS Group conducted an in-depth analysis of the global supply chain inventory optimization solutions vendors by evaluating their products, market presence, and value proposition. The evaluation is based on primary research using expert interviews, analysis of use cases, and QKS Group's internal analysis of the overall global supply chain inventory optimization market. This study includes an analysis of key vendors, namely Anaplan, Blue Yonder, e2open, GAINSystems, Impact Analytics, Infor, Kinaxis, Logility, Oracle, QAD, RELEX Solutions, SAP, Slimstock, ToolsGroup and o9 Solutions.

Impact Analytics, Kinaxis, Logility, o9 Solutions, QAD, RELEX Solutions, and ToolsGroup are the top performers and 2024 technology leaders in the global supply chain inventory optimization market. These companies provide a comprehensive technology portfolio with the breadth and depth of solutions to support a variety of industry-specific and customized user-specific use cases. Many of these vendors are also frontrunners in providing modern and open architecture, comprehensive out-of-the-box capabilities such as an easy-to-use configurable user interface and dashboard, centralized repository, advanced analytics, and integration and interoperability.

Impact Analytics' InventorySmart and ForecastSmart software transform inventory management into a competitive advantage by leveraging AI-powered predictive analytics and machine learning. The solution automates inventory policies, optimizes safety stock, and utilizes strategic scenario modeling to ensure accurate demand forecasting and efficient replenishment across complex supply chains.

Kinaxis's inventory planning and optimization solution assists organizations in ensuring the right amount of inventory is available at the right time, resulting in reduced or maintained inventory levels across the supply chain. It also monitors other metrics such as revenue-at-risk and on-time delivery.

Logility's digital supply chain platform leverages advanced AI and MEIO to automate inventory policies, optimize safety stock, and use strategic scenario modeling to ensure optimal staging and service levels across complex supply chains. This comprehensive

approach balances costs and services, handles diverse demand patterns, and enhances overall supply chain efficiency.

o9 Solutions's inventory optimization platform uses AI and advanced analytics to help organizations develop, assess, and optimize inventory strategies and tactics, such as demand forecasting and reorder point calculation. By ensuring the right amount of inventory is available at the right time, o9 Solutions helps organizations reduce or maintain inventory levels across the supply chain.

QAD inventory optimization platform assists organizations in deciding the right level and combination of inventory types across multiple nodes in the supply chain network. QAD's ERP software provides capabilities, such as demand forecasting, inventory optimization, and replenishment planning, which help organizations achieve their inventory goals.

RELEX Solutions offers a robust inventory optimization platform that leverages AI-driven forecasting and replenishment to ensure high levels of stock availability and reduced waste. By integrating real-time data across the entire supply chain, RELEX provides end-to-end visibility and control, enabling organizations to respond quickly to changes in demand and supply conditions.

ToolsGroup's SO99+, an inventory optimization software, leverages self-adaptive demand and inventory models to define the optimal mix of inventory across the multi-echelon supply chains, enabling organizations to meet high service levels while minimizing inventory and reducing costs. Unlike traditional methods, ToolsGroup's solutions are designed to handle slow-moving and intermittent demand items, optimize large assortments, and balance inventories across different locations and bill-of-materials levels.

Anaplan, Blue Yonder, e2open, GAINSystems, Infor, Oracle, SAP, and Slimstock have been positioned as the strong contenders in the 2024 SPARK MatrixTM of the global supply chain inventory optimization market. These vendors provide comprehensive technology capabilities and are rapidly gaining market traction across industry and geographical regions.

Anaplan's inventory management and optimization solution ensures better service levels by enabling organizations to choose the optimal service level for each finished good within a user-defined product set at a customer-facing site.

Blue Yonder's Luminate Platform integrates microservices, analytics and insights, warehouse data cubes, data management, user experience, workflow and orchestration, control tower, IoT, and cross-platform integration with AI and machine learning technologies to provide connected supply chain solutions. The advanced, seamlessly integrated TMS, labor, and warehouse management solution helps organizations streamline and optimize their end-to-end supply chain. It offers capabilities such as intelligent manufacturing, dynamic transportation, digital and automated warehousing, and smart retail.

e2open offers a demand-driven planning and optimization suite that enables easier collaboration between team members by moving data seamlessly across the tightly integrated technology suite. It also helps in automating consensus planning, thereby improving forecast accuracy and reducing inventory through communication and collaboration with a structured forecasting workflow.

GAINSystems' inventory optimization solution utilizes advanced analytical capabilities, such as machine learning and statistical modeling, to use available data for the optimization of inventory. It assists organizations in ensuring the right amount of inventory is available at the right time, resulting in balanced or maintained inventory levels across the supply chain.

Infor IBP can also leverage Infor Mingle to facilitate collaboration and communication across organizations. Additionally, Infor cloud technologies enhance the availability of the solution for end-users across various locations and devices. MEIO capability of the IBP Inventory Optimization solution, based on demand variations across all nodes, enables users to analyze the whole supply chain and find the best inventory. Furthermore, the MEIO capability enables end-users to simultaneously monitor the arriving and departing flow of material, resulting in lower inventory costs while maintaining service levels.

Oracle Inventory Optimization is a robust cloud-based inventory planning solution that enables users to choose the optimal combination of inventory by considering various

factors such as demand variability and supply lead time variability. The solution provides various key capabilities, such as SKU rationalization, greater visibility across the supply chain, and stochastic optimization.

SAP Inventory Planning and Optimization solution assists organizations to follow a set of best practices to maintain an optimal mix of inventory while minimizing carrying costs. Additionally, SAP IBP offers organizations a wide range of capabilities that help them manage the supply chain risk and reduce unessential investment in buffer stock. The key differentiators of the Inventory Optimization solution offered by SAP are multi-stage optimization and the use of embedded analytics.

Slimstock's inventory optimization platform, Slim4, utilizes AI and ML to provide operational insights, forecasts, and business strategies. The Slim4 platform assists organizations in ensuring that the right amount of inventory is available at the right time, resulting in balanced or maintained inventory levels across the supply chain.

The primary drivers for the global supply chain inventory optimization market continue to be growing business and operational complexities due to eCommerce and omnichannel fulfillment requirements. Organizations are required to handle distributed data and inventories, negotiate a complex network of locations and bills of materials (BOMs), and configure hundreds of components. If they continue to rely on obsolete systems that do not allow robust and adaptive collaboration, they may be compelled to make key decisions without knowing how they will affect corporate-wide KPIs and objectives.

Key Competitive Factors and Technology Differentiators

While Following are the key competitive factors and differentiators for the evaluation of the global supply chain inventory optimization market and its vendors. While a majority of the inventory optimization vendors may provide all the core functionalities, the breadth and depth of functionalities may differ by different vendors' offerings. Driven by increasing competition, vendors are increasingly looking to improve their technology capabilities and overall value proposition to remain competitive. Some of the key differentiators include:

- **Multi-Echelon Inventory Optimization:** Vendors are focusing on MEIO solutions to efficiently set inventory levels to accommodate forecasted demand. The use of these solutions would enable organizations to keep inventory levels low, move inventory quickly, and ensure high service levels for customers. The solutions would also enable users to identify and maintain desired service levels with optimal inventory levels and investments based on constantly fluctuating demand. Organizations should look for vendors whose MEIO solution continuously balances supply and demand across the entire supply chain network.

- **Automated Data Collection:** Real-time visibility enables organizations to gather essential information to track the path of goods and their precise location at any given time. Vendors should offer end-to-end visibility to help organizations streamline their supply chain by quickly detecting, reporting, and resolving operational anomalies. They should also enable organizations to track assets and shipment status in real-time, with maximum traceability. Leading vendors use RFIDs instead of barcodes to automate data collection and reduce human effort and error. Organizations should look for vendors who offer RFIDs to improve the

visibility of equipment, inventory, and business processes.

- **Decision Hub:** Decision hubs of inventory optimization solutions enable the creation of virtual situation rooms for all required stakeholders to collaborate and find an appropriate inventory solution through scenario creation and analysis, guided asynchronous workflows, in-app collaboration, and notifications. Organizations should look for vendors whose decision hub helps them to rapidly respond to any existing opportunities or take actions towards crises based on real-time data. This would ensure that their inventory decisions meet the required service level and business goals.

- **Scenario-based Optimization:** Scenario-based optimization capability enables simple "what-if" analyses and simulates multiple service strategies and operating levels, such as day-to-day implementation processes, decision-making, and planning that occur to keep the supply chain operational. Organizations should look for vendors that are innovating their platform to help users meet forecasted demand by maintaining low inventories at all levels, including warehouses, distributors, and retailers.

- **Adoption of Product-level Classification:** Due to the growing demand for an efficient and cost-effective supply chain, the organization has made significant efforts to improve inventory systems and the overall inventory management process. Vendors should concentrate on systematically validating and verifying inventory disruption in the future by identifying problem areas with the highest payoff and prioritizing problems. They should be capable of performing Pareto or ABC analysis to assist organizations in organizing their workloads and determining where to best utilize resources to optimize results. Organizations should look for vendors that enable them to identify the most valuable products that match their customers' demand, allocate resources efficiently, reduce obsolete inventory, and increase sales.

- **Integration and Interoperability:** Seamless integration and interoperability with the organization's existing technologies are among the most crucial factors impacting the technology deployment and ownership experience. Leading vendors follow an API-first approach (upstream and downstream connectivity) to enable customers and partners to seamlessly access the vendors' applications and communicate. WMS vendors should provide out-of-the-box integration connectors, well-documented API, and a RESTful API to help organizations achieve seamless end-user experience, quick deployment, and faster ROI. They should also support seamless integration with existing ERP solutions of organizations. Additionally, they should be capable of integrating Global Trade Management (GTM). Material Handling Equipment (MHE), OMS, TMS, 3PL, WCS, WES, financial, Point-of-Sale (POS), and proof-of-delivery systems.

- **Managing Service Inventory:** Leading organizations are focusing on enhancing inventory management, planning, controlling, and monitoring of the stock or inventory levels to ensure organizational service goals are met. By managing service inventory effectively, vendors should enable organizations to improve their performance in terms of quality, cost, and delivery. Organizations should look for vendors that enable them to provide products or services that meet customer needs and expectations.

- **SKU Rationalization:** Organizations should focus on SKU rationalization to ensure smarter business decisions and improve several aspects of their operations, such as reducing inventory carrying costs and streamlining inventory management workflows. To remain competitive, they should look for vendors that could help them increase fill rates and reduce inventory levels through cost-cutting measures.

- **Adoption of Generative AI:** In addition to the adoption of data science models, organizations are increasingly integrating generative AI into their solutions and leveraging its capabilities for a wide range of use cases.

Vendors should offer generative AI capabilities that enable organizations to analyze inventory data and uncover insights to enhance user experience and user interface. They should also offer chatbots powered with generative AI utilizing Natural Language Processing (NLP) to help users understand forecasts and receive personalized recommendations. Organizations should look for vendors employing generative AI in various ways to address both low-level and highly complex tasks.

- **Prescriptive Analysis on Inventory Replenishment:** Leading vendors enable organizations to calculate the optimal purchasing time for each inventory item and the optimal time required for inventory reallocation between various manufacturing facilities, warehouses, distribution centers, trading partner locations, and points of sale. Organizations should determine vendors that provide real-time visibility across the supply chain by analyzing historical stockout data.

SPARK Matrix™: Strategic Performance Assessment and Ranking

QKS Group' SPARK Matrix provides a snapshot of the market positioning of the key market participants. SPARK Matrix provides a visual representation of market participants and provides strategic insights on how each supplier ranks related to their competitors, concerning various performance parameters based on the category of technology excellence and customer impact. QKS Group's Competitive Landscape Analysis is a useful planning guide for strategic decision-making, such as finding M&A prospects, partnerships, geographical expansion, portfolio expansion, and similar others.

Each market participant is analyzed against several parameters of Technology Excellence and Customer Impact. In each of the parameters (see charts), an index is assigned to each supplier from 1 (lowest) to 10 (highest). These ratings are designated to each market participant based on the research findings. Based on the individual participant ratings, X and Y coordinate values are calculated. These coordinates are finally used to make the SPARK Matrix™.

Technology Excellence	Weightage
Sophistication of Inventory Management	15%
Effectiveness of Inventory Segmentation	15%
Scenario Modeling and Simulation	20%
Inventory Forecasting Accuracy	15%
Inventory Monitoring, Reporting and Analytics	10%
Scalability	5%
Integration & Interoperability	10%
Vision & Roadmap	10%

Customer Impact	Weightage
Product Strategy & Performance	20%
Market Presence	20%
Proven Record	15%
Ease of Deployment & Use	15%
Customer Service Excellence	15%
Unique Value Proposition	15%

Evaluation Criteria: Technology Excellence

- **Sophistication of Inventory Management:** Evaluation of the breadth of inventory assessment capabilities. This includes advanced techniques such as Distribution Requirements Planning (DRP), Multi-Echelon Inventory Optimization (MEIO), and other sophisticated methods. The focus is on the ability of the system to handle complex inventory management tasks across multiple levels of the supply chain.

- **Effectiveness of Inventory Segmentation:** Evaluation of the depth of inventory assessment capabilities. This criterion examines how well the system can segment inventory at various levels, including SKU level, location-based segmentation, and by different product attributes. The goal is to assess how effectively the system can categorize and manage different segments of inventory for optimized performance.

- **Scenario Modeling and Simulation:** Evaluation of the system's ability to identify and assess various events and formulate the most successful roadmap while considering multiple inventory management performance indicators. This includes the system's capability to model different scenarios, simulate outcomes, and help in strategic decision-making by predicting the impact of various factors on inventory management.

- **Inventory Forecasting Accuracy:** Evaluation of the system's ability to accurately predict inventory needs by capturing historical data, seasonality, trends, and market changes. The accuracy of these forecasts is crucial for minimizing stockouts and excess inventory, thereby optimizing inventory levels and improving overall efficiency.

- **Inventory Monitoring, Reporting, and Analytics:** Evaluation of the system's ability to provide real-time visibility into inventory levels, detect stockouts, and monitor order status. This includes the capability to send alerts and notifications to users when critical inventory events occur, ensuring that inventory managers can respond promptly to changes and maintain optimal inventory levels.

- **Scalability:** The ability to demonstrate that the solution supports enterprise-grade scalability along with customer case examples.
- **Integration & Interoperability:** The ability to offer a product and technology platform that supports integration with multiple best-of-breed technologies, provides prebuilt out-of-the-box integrations, and open API support and services.
- **Vision & Roadmap:** Evaluation of the vendor's product strategy and roadmap with the analysis of key planned enhancements to offer superior products/technology and improve the customer ownership experience

Evaluation Criteria: Customer Impact

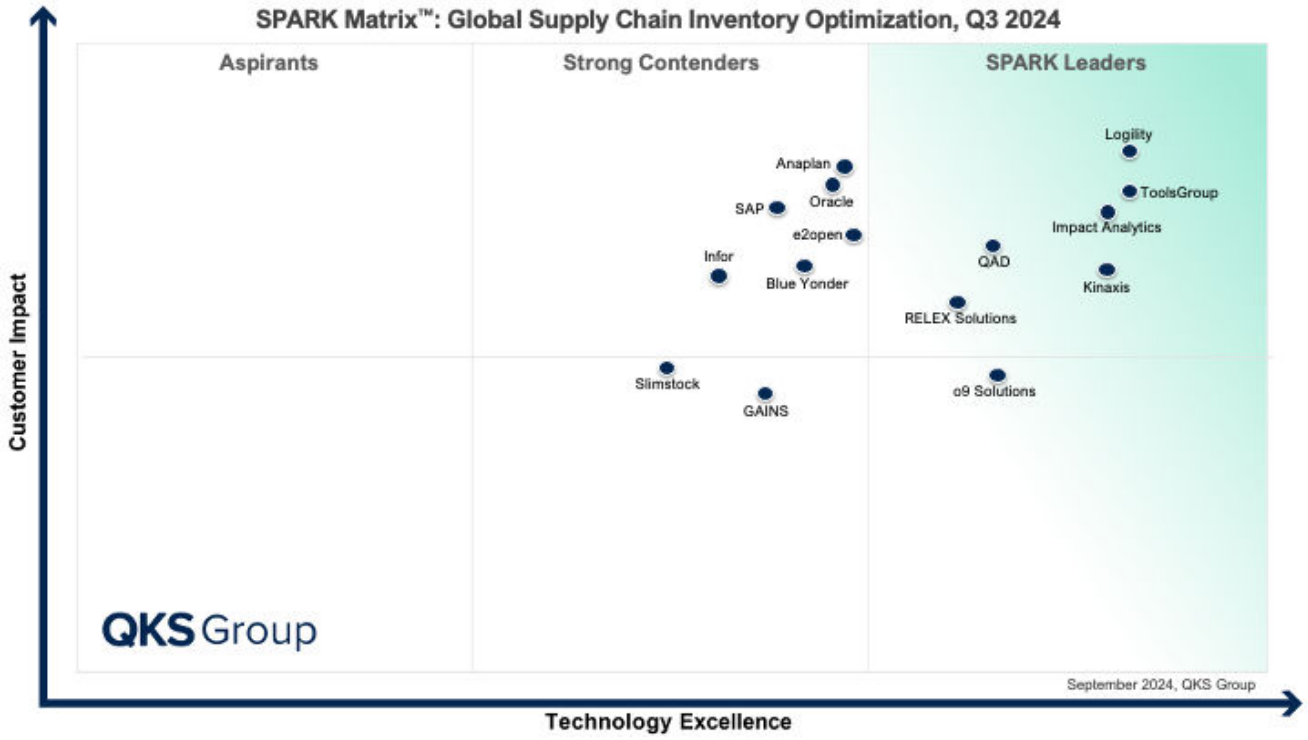
- **Product Strategy & Performance**: Evaluation of multiple aspects of product strategy and performance in terms of product availability, price-to-performance ratio, excellence in GTM strategy, and other product-specific parameters.
- **Market Presence**: The ability to demonstrate revenue, client base, and market growth along with a presence in various geographical regions and industry verticals.
- **Proven Record**: Evaluation of the existing client base from SMB, mid-market, and large enterprise segments, growth rate, and analysis of the customer case studies.
- **Ease of Deployment & Use**: The ability to provide superior deployment experience to clients supporting flexible deployment or demonstrate superior purchase, implementation, and usage experience. Additionally, vendors' products are analyzed to offer a user-friendly UI and ownership experience.
- **Customer Service Excellence**: The ability to demonstrate vendors' capability to provide a range of professional services from consulting, training, and support. Additionally, the company's service partner strategy or system integration capability across geographical regions is also considered.
- **Unique Value Proposition**: The ability to demonstrate unique differentiators driven by ongoing industry trends, industry convergence, technology innovation, and such others.

SPARK Matrix™: Global Supply Chain Inventory Optimization, Q3 2024.

Strategic Performance Assessment and Ranking

Figure: 2024 SPARK Matrix™

(Strategic Performance Assessment and Ranking)
Global Supply Chain Inventory Optimization Market



Vendors Profile

The following vendor profile has been written based on the information provided by the vendor's executives as part of the research process. The QKS Group research team has also referred to the respective company's website, whitepapers, blogs, and other sources for writing the profile. A detailed vendor profile and analysis of all the vendors, along with various competitive scenarios, are available as a custom research deliverable to our clients. Users are advised to directly speak to respective vendors for a more comprehensive understanding of their technology capabilities. Users are advised to consult QKS Group before making any purchase decisions regarding Global Supply Chain Inventory Optimization and vendor selection based on research findings included in this research service.

ToolsGroup

URL: https://www.toolsgroup.com/

Founded in 1993 and headquartered in Boston, Massachusetts, USA, ToolsGroup is a provider of supply chain planning and demand analytics software. The inventory planning and optimization tool from ToolsGroup, Service Optimizer 99+ (SO99+), provides end-to-end modeling at SKU-location combinations to cut expenses while preserving desired service. It integrates demand planning, sensing, sales and operations planning (S&OP), allocation and replenishment, promotions planning, and production planning on one platform. The platform's integrations with third-party CRM, ERP, and BI programs enhance cross-functional cooperation and organizational visibility. Additionally, ToolsGroup provides retail-specific solutions, including assortment planning, price and promotions management, and merchandise finance planning to help retailers establish resilient supply chains and support them during the sourcing, production, and fulfillment processes. ToolsGroup's inventory optimization platform, SO99+, offers capabilities such as inventory modeling, service-driven optimization, multi-echelon inventory optimization, probabilistic forecasting, dashboarding, and visual analytics.

Analyst Perspective

Following is the analysis of ToolsGroup capabilities in the global Global Supply Chain Inventory Optimization market:

- SO99+ utilizes advanced algorithms and machine learning to analyze historical data, demand patterns, and lead time. The data gathered by the company through the analysis enables organizations to make data-driven decisions, enhance supply chain efficiency, and drive overall operational performance.

- ToolsGroup offers inventory modeling solutions that enable organizations to gain insights for inventory management. The solutions utilize advanced mathematical models to simulate and optimize inventory strategies by considering various factors such as demand variability, lead times, and service level targets. The solutions also perform scenario analysis to help organizations evaluate the

impact of different inventory policies and identify opportunities to reduce stockouts, excess inventory, and holding costs.

- ToolsGroup's Decision Hub assists organizations with scenario creation and analysis, guided asynchronous workflow creation, in-app collaborations, and notifications, which help them make efficient supply chain-related decisions. The company also enables supply chain executives to leverage Decision Hub for rapidly responding to crises and take advantage of emerging opportunities.

- SO99+'s service-driven optimization capability enables organizations to align inventory strategies with service-level targets. The platform also enhances every Stock Keeping Units (SKUs) location by performing service-driven optimization with regard to a target service level for the specified service classes. Furthermore, the company performs multi-echelon inventory optimization to optimize inventory levels and replenishment strategies across multiple echelons, such as distribution centers and retail stores. By considering interdependencies and constraints, ToolsGroup enables organizations to achieve optimal inventory deployment and reduction of stockouts and excess inventory while improving service levels and overall supply chain performance.

- SO99+ platform's probabilistic forecasting capability enables organizations to generate probabilistic demand forecasts that account for uncertainty and variability by leveraging historical data and statistical techniques. It also enables organizations to reduce the complexity of demand variability and helps them achieve effective inventory management. Also, ToolsGroup introduced In-Season Inventory Optimization within JustEnough, using EvoAI's quantum analytics and Inventory HUB for real-time replenishment and reduced waste, enhancing market responsiveness.

- SO99+ includes a dashboard with robust visual analytics capabilities. The dashboard presents real-time inventory performance metrics, such as stock levels, fill rates, and order variability, in a user-friendly manner. In the last year,ToolsGroup launched SO99+ versions 8.61 and 8.62 with enhancements in visibility, usability, and a modern UI. The upgraded versions include

Improvements like better seasonality clustering, aggregate forecasting, and features to boost service levels and profits. It enables organizations to monitor inventory performance, identify trends, and obtain detailed insights. Additionally, the visual analytics offered by SO99+ enables interactive data exploration, helping users visualize inventory patterns, identify optimization opportunities, and make data-driven decisions to improve overall supply chain efficiency and customer service.

- The company's key differentiators include the use of Machine Learning (ML)-driven automation and AI for decision-making regarding inventory optimization. SO99+ also offers a built-in Generative AI chatbot, which enables users to leverage Natural Language Processing (NLP) to solve their queries and determine the best way to complete tasks. Furthermore, it leverages dynamic inventory optimization to adapt inventory based on changing market conditions, such as demand trends, seasonality, promotions, and competitor actions. It leverages probabilistic forecasting methods to model variability, and its optimization models utilize demand probability curves to optimize stock and service levels. Additionally, to prevent delays due to the implementation of massive systems and to achieve quick results, ToolsGroup provides its offerings through six solutions that target strategic pain points within inventory optimization.

- Some of the top use cases of SO99+ consist of reducing inventory levels without impacting service performance, improving forecasting accuracy for both fast and slow-moving SKUs, quickly adapting to changing economic conditions, creating right-size inventory, increasing forecast accuracy, collaborating with suppliers to improve delivery performance, digitalizing the planning process, streamlining day-to-day operations, and improving decision making.

- From a geographical perspective, ToolsGroup has a strong presence in North America and Europe. The company also has a fair presence in the Middle East and APAC regions. From an industry perspective, the company has a presence across industries, such as retail and eCommerce, distribution logistics,

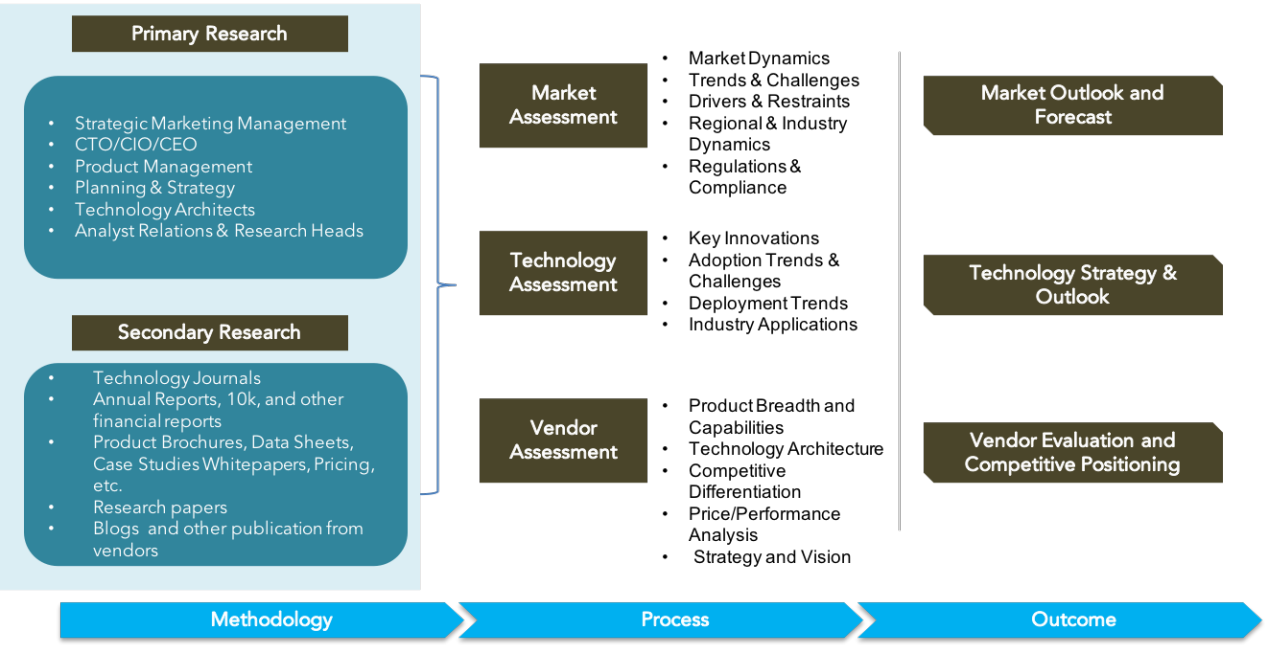
transportation, third-party logistics, manufacturing, food and beverage, household and Consumer packed goods, electric and electronics, automotive, life sciences, and aftermarket parts.

- The primary challenge faced by ToolsGroup is increasing competition from emerging and well-established players. Additionally, the ToolsGroup platform's performance depends on data availability and quality to maximize the result of optimization. Furthermore, the implementation of inventory optimization software often requires changes to the existing workflow, which is one of the challenges that ToolsGroup aims to help its customers overcome by offering training and support.

- In its future roadmap, ToolsGroup focuses on redesigning its platform to support a service-oriented, modular, and composable architecture. Furthermore, the company aims to expand its global footprint by strengthening its operations in North America, Europe, and Latin America. Additionally, Toolsgroup's recent acquisition of Evo enabled it to integrate AI-driven real-time supply chain and price optimization with SO99+ and JustEnough, enhancing dynamic planning capabilities. This acquisition helped the company to enter into fashion apparel, accessories, footwear, and home goods verticals. It also plans to gain a foothold in other verticals where pricing is a critical inventory challenge. Also, ToolsGroup launched PromoAI in the JustEnough retail planning suite to optimize promotions, increasing sales while protecting margins strengthening its capabilities in the retail space.

Research Methodologies

QKS Group uses a comprehensive approach to conduct global market outlook research for various technologies. QKS Group's research approach provides our analysts with the most effective framework to identify market and technology trends and helps in formulating meaningful growth strategies for our clients. All the sections of our research report are prepared with a considerable amount of time and thought process before moving on to the next step. Following is a brief description of the major sections of our research methodologies.



Secondary Research

Following are the major sources of information for conducting secondary research:

QKS Group's Internal Database

QKS Group maintains a proprietary database in several technology marketplaces. This database provides our analysts with an adequate foundation to kick-start the research project. This database includes information from the following sources:

- Annual reports and other financial reports
- Industry participant lists
- Published secondary data on companies and their products

- Database of market sizes and forecast data for different market segments
- Major market and technology trends

Literature Research

QKS Group leverages several magazine subscriptions and other publications that cover a wide range of subjects related to technology research. We also use the extensive library of directories and Journals on various technology domains. Our analysts use blog posts, whitepapers, case studies, and other literature published by major technology vendors, online experts, and industry news publications.

Inputs from Industry Participants

QKS Group analysts collect relevant documents such as whitepapers, brochures, case studies, price lists, datasheets, and other reports from all major industry participants.

Primary Research

QKS Group analysts use a two-step process for conducting primary research that helps us in capturing meaningful and accurate market information. Below is the two-step process of our primary research:

Market Estimation: Based on the top-down and bottom-up approach, our analyst analyses all industry participants to estimate their business in the technology market for various market segments. We also seek information and verification of client business performance as part of our primary research interviews or through a detailed market questionnaire. The QKS Group research team conducts a detailed analysis of the comments and inputs provided by the industry participants.

Client Interview: The QKS Group analyst team conducts a detailed telephonic interview of all major industry participants to get their perspectives on the current and future market dynamics. Our analyst also gets their first-hand experience with the vendor's product demo to understand their technology capabilities, user experience, product features, and other aspects. Based on the requirements, QKS Group analysts interview more than one person from each of the market participants to verify the accuracy of the information provided. We typically engage with client personnel in one of the following functions:

- Strategic Marketing Management
- Product Management
- Product Planning
- Planning & Strategy

Feedback from Channel Partners and End Users

QKS Group research team research with various sales channel partners, including distributors, system integrators, and consultants, to understand the detailed perspective of the market. Our analysts also get feedback from end-users from multiple industries and geographical regions to understand key issues, technology trends, and supplier capabilities in the technology market.

Data Analysis: Market Forecast & Competition Analysis

QKS Group's analysts' team gathers all the necessary information from secondary research and primary research into a computer database. These databases are then analyzed, verified, and cross-tabulated in numerous ways to get the right picture of the overall market and its segments. After analyzing all the market data, industry trends, market trends, technology trends, and key issues, we prepare preliminary market forecasts. This preliminary market forecast is tested against several market scenarios and the economically most accurate forecast scenario for the overall market and its segments.

In addition to market forecasts, our team conducts a detailed review of industry participants to prepare a competitive landscape and market positioning analysis for the overall market as well as for various market segments.

SPARK Matrix:
Strategic Performance Assessment and Ranking

QKS Group' SPARK Matrix provides a snapshot of the market positioning of the key market participants. SPARK Matrix representation provides a visual representation of market participants and provides strategic insights on how each supplier ranks in comparison to their competitors, concerning various performance parameters based on the category of technology excellence and customer impact.

Final Report Preparation

After the finalization of market analysis and forecasts, our analyst prepares the necessary graphs, charts, and tables to get further insights and preparation of the final research report. Our final research report includes information including market forecast, competitive analysis, major market & technology trends, market drivers, vendor profiles, and others.