



DEMAND PLANNING

IMPROVE END-TO-END SUPPLY CHAIN VISIBILITY & PERFORMANCE

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DIGITAL SUPPLY CHAIN PLANNING

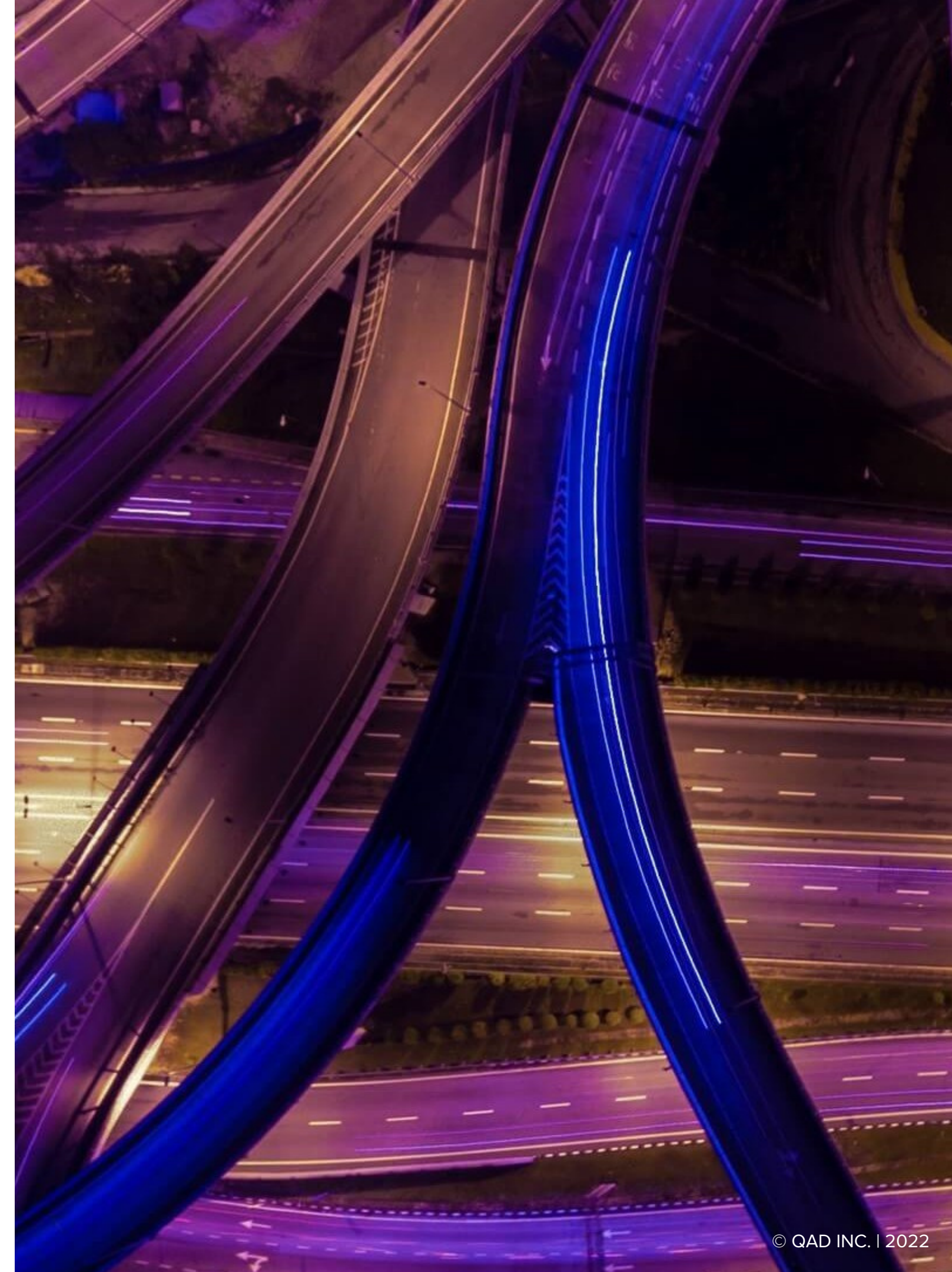
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THE ENTRY POINT OF END TO END SUPPLY CHAINS

Your business goals are defined by your strategy. This defines your markets, product or service type and the methods to supply. Not forgetting the need to turn a profit. But the shape of your business is not defined wholly by your strategy. External factors are just as important. Factors such as timing, competition, economy, disruption. These define the demand for your products and services. So the shape of your business as a whole is defined by the demand that you are willing and able to supply. Everything else in your business is a response to this demand – your production facilities, warehousing, distribution, staffing and investment levels.

You probably may have learned many times that forecasts are always wrong. Demand Planning is the effort to improve forecast accuracy and customer satisfaction. With demand planning, business leaders can be proactive around market shifts and make decisions while also being responsive to customers' needs.

Demand Planning is the entry point of your end-to-end supply chain. This paper outlines why demand planning is so important in today's disruptive world, who are the key stakeholders of the demand planning cycle and what are the key features and benefits expected in a demand planning solution.



01

**What is demand
planning?**



WHAT IS DEMAND PLANNING?

Demand planning helps ensure deliverability and satisfaction of your customers through a supply chain management process of forecasting and predicting demand. The goal is to find the balance between having sufficient inventory to meet your customer's needs without having surplus.

It is important to have an accurate prediction of demand including:

- What goods we will need
- How much of each item will be called for
- When we will need the goods
- Where the items need to be at the time we need them

Also, there are many factors that influence demand, which are known like customer's sale cycles and seasonal orders. Moreover, unknown factors like disruptions caused by severe weather, natural disasters, global crises and pandemics, labor force changes, and economic shifts.

Demand planning helps with the ebbs and flows of a changing marketplace. It enables manufacturers to be proactive rather than reactive through the process of analyzing current and upcoming demand to create reliable forecasts for your business.

It usually includes:

- Reviewing historical data
- Customer forecasts
- Statistical forecasts
- Collaborating with customers



In businesses without successful prediction of demand, each functional area of the operation is left to pursue their own objectives; which means they are out of alignment on activities and are not supporting the business's over strategic direction. In turn, they'll be reacting to changes in the business environment; which usually results in costly responses to changes in the marketplace.

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**Why is demand
planning important?**



WHY IT'S IMPORTANT?

Successful businesses are able to plan for the peaks and valleys in their sales cycles, which enables them to manage current business volumes and plan for future growth.

If your products aren't available but there is demand for them, you lose out on revenue. You could also lose the customer to a competitor. Or, you're sitting on unused inventory, which takes up space and production costs unnecessarily. With demand planning, business leaders can be proactive around market shifts and make decisions while also being responsive to customer's needs. This is where implementation of a demand planning cycle will improve your business's ability to proactively meet market changes and beat out your competitors.

The implementation of a demand planning cycle will help:

Improving product forecast accuracy with upstream supply planning

This process assists supply chain managers to accurately forecast product productions and expected revenue through the use of upstream supply planning. By upstream planning, you prevent out-of-stock, overstock, or idle stock situations, which can be detrimental to your business.

Increasing supply chain scheduling

Predicting and analyzing sales allows your business to plan production, warehousing, budgets, and shipping schedules. By doing this, you can plan shutdowns, updates, or reboots around busy periods as well as creating accurate sales targets.

Optimizing labor management

By demand planning, you're better equipped to plan for busy periods and have the staff on hand for those times. This way you avoid bottlenecks and are able to fulfill customer orders on time.

Creating efficient cash flow management with financial planning

It gives you insight into cash flow, so you don't get into situations where funds are tight, or worst of all, you can't pay your vendors and suppliers. Moreover, financial planning can help you predict any shortfalls in sales, which means you can plan for those leaner times.

The decision-making process happens before the point of sale. That is why demand planning takes the risk out of daily operating decisions. A smooth-running supply chain makes or breaks a business. That is why it's crucial for the business to invest time and energy into optimizing their supply chain and demand planning processes.



Global analysts have shown that on average a 3% increase in forecast accuracy leads to a 1% increase in customer service level as you deliver the right product, to the right place, at the right time. This 3% increase also leads to a 0.5% increase in operating margin due to the impact on inventory levels, a more balanced supply chain and more optimized cash flow.



03

The Demand Planning cycle



THE DEMAND PLANNING CYCLE

The demand planning cycle is a supply chain management process that uses forecasting to understand the demand for products. It ensures that the products can be delivered to the satisfaction of your customers. Demand planning strikes the balance between having sufficient stock levels to meet demand without having surplus.

Successful businesses have implemented the demand planning cycle. They gather data and information, create forecasts, resolve volume relationships, apply judgment, and document as they go.

Let's go in more detail about a typical demand planning cycle.

1. Data management

Data management is the practice of gathering data and information in one place so that there is a single source of truth. By taking your data from flat file to web API, you're able to connect different apps. This allows you to interconnect apps for modern and dynamic data gathering. Data management allows you to easily pull up information and become proactive rather than reactive to changes in your business environment.

2. Data cleansing

The objective of this step is to keep only relevant data for

the future, and to reveal the usual market behavior. For example, past out-of-stocks and promotions should be corrected.

3. Portfolio management

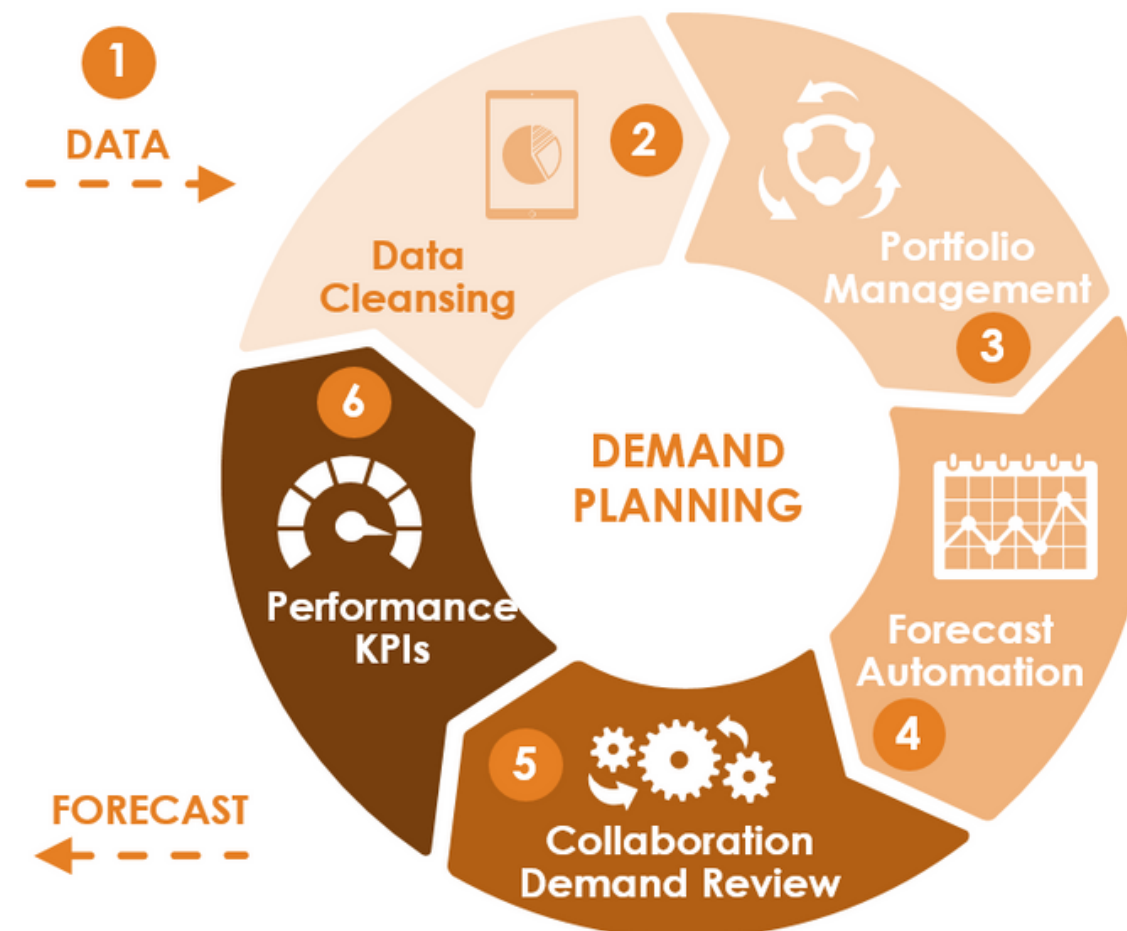
It allows you to keep teams aligned, increase visibility and make better decisions so that there is seamless communication at every stage of production. This creates the ability to oversee the overall product lifecycle, beginning with the introduction of new products through to the end-of-life planning.

4. Forecast automation

Demand planning gives your business forecast automation solutions that assist in resolving volume relationships through demand review. In turn, your business can prepare for future customer demand. What's more, forecast automation gives your business the ability to automate the process, which saves you time.

5. Collaboration/ Demand review

Collaboration tools give you the ability to apply judgment throughout the process. But also gain insights through all functions of the business. This creates real-time cohesion through your teams and provides an environment where data and team dynamics can be utilized simultaneously.



THE DEMAND PLANNING CYCLE

6. Performance metrics and KPIs

Demand planning allows you to create performance metrics and key performance indicators (KPI) to benchmark your company's success. By having performance metrics and KPIs, you'll be able to see where your weak points are in your supply chain and rectify issues before they become major impediments.

By having a demand planning cycle in place you'll be able to improve your business accuracy, save time, and ensure better revenue figures. Effective demand planning can assist supply chain managers to accurately forecast product production and save them time in crunching data. What's more, you can see issues before they impact the business negatively and can react accordingly.



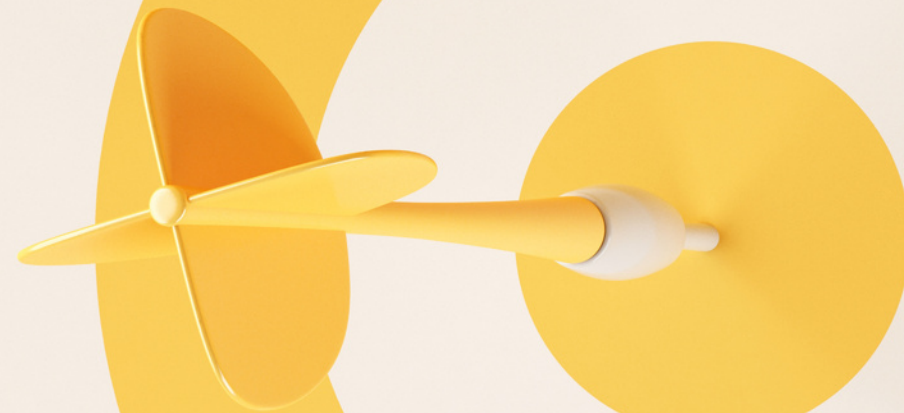
Unifying your data is only the first step in gathering your data for demand planning. The quality of your information is key. Your demand plan is only as good as the data it's using. And, if you can't trust your data, you can't rely on the demand plan. Your data should be consolidated so you can keep it up-to-date, remove duplicates, regularly audit the information, and maintain a

level of quality that you can trust. You can significantly improve data quality when you include machine learning and artificial intelligence (AI) in the solution you use. Machine learning can automate processes through simple, recurring tasks and use pure data analysis. It can also augment and suggest a course of action based on 'what-if' analysis as the data becomes available.

By including machine learning in your data quality endeavors, you create an environment where your demand plan is actionable and proactive.

04

**THE IMPORTANCE
OF FORECAST
ACCURACY**



WHY IS FORECAST ACCURACY IMPORTANT?

Demand planning strikes the balance between having sufficient stock levels to meet demand without having surplus as the end goal. But figuring out the quality of your forecast requires accurate data. In other words, the way in which you test the quality of your forecast is to calculate its forecast accuracy.

What is forecast accuracy?

The deviation, or margin of error, between the actual demand figures and the forecasted result in the demand plan. By finding out the forecast accuracy, you can factor this into your future demand plans and make the relevant adjustments.

Demand planners use the forecast accuracy stats to:

1. Mitigate future risks

The quantitative result of calculating the forecast accuracy provides a good estimation of the quality of your past forecasts.

This means you can factor in risks in your forecasts and determine how uncertain a forecast is for future business periods. It also means you can proactively adjust your inventories, labor management and increase safety stock levels to cover the uncertain periods in your demand plans.

2. Prioritize questionable forecasts

If the margin of forecast accuracy is high, you can identify this and focus particular attention to monitor future demand and stock levels to correct for smaller future deviations.

3. Refine and improve forecast accuracy

If you continue to have high rates of deviation, it's likely that you need to correct the demand plan techniques, look at new technologies, or assess the quality of the data you're using as a foundation of your demand plan.



When you create a demand plan, there's usually a margin of error, which is what you use to figure out forecast accuracy. It's the deviation of actual demand from the forecasted one. By finding out the forecast accuracy, you can factor this into your future demand plans and make the relevant adjustments. One of the best ways to ensure forecast accuracy is leveraging automation technology. The functionality will automatically calculate the forecast errors. But in order to implement an automated approach you'll need to ensure your data and cross functional collaboration is in order in the system.



05

ROLES & RESPONSABILITIES



ROLES AND RESPONSIBILITIES IN DEMAND PLANNING

When deciding to strengthen your supply chain infrastructure, the question of roles and responsibilities of demand planning arises. Should demand planning be placed under supply chain management, sales, or finance?

Demand planning is a bridging function between commerce and supply chain. Thus the question of roles and responsibilities of demand planning isn't a surprising one.

In order to ensure success, there should be a clear distinction between the demand plan ; the projected future volumes and revenue; and the demand planning cycle - the steps that will get you to the demand plan.

Sales / commercial managers

They should validate the demand plan during a demand review meeting within the sales operations/ integrated business planning (IBP) cycle. They're responsible for the final number that will serve as a base point for relevant supply response.

Demand planners

They facilitate the process of getting to the demand plan by generating insights from different sources of data and input from different stakeholders (sales, marketing, finance, sourcing and manufacturing teams). They can keep a critical mindset and challenge assumptions. They should own the process but not the actual numbers. By having a demand planner reviewing your upstream and downstream data and forecasting, you take the risk out of daily operating decisions. It also keeps your supply chain working to the demand planning model, which keeps your business running smoothly and gives you the opportunity to achieve more.

Finance

They should have an understanding of the demand plan. So the labor costs and cash flow management can be kept under control. They need insight into cash flow so that the business doesn't get into situations where funds are tight. Or worst of all, when vendors and suppliers can't be paid.



ROLES AND RESPONSIBILITIES IN DEMAND PLANNING

Supply planners

They are responsible for monitoring and managing the inventories and should work with the demand planner for forecasting sales and production level plans for materials needed. They track the delivery performance and response time, handle capacity planning and various logistics so they need to have a hand in the demand plan.

By having these different roles keeping an eye on the demand plan, you take the risk out of daily operating decisions. You also have the different divisions working together with a common goal. Demand planning keeps your supply chain running smoothly and gives your business the opportunity to achieve more.

Organizations that are successful at demand planning have collaborating functions working together to achieve the corporate strategic objectives. This cohesion is advanced by a better-connected supply chain and demand planning strategy.



Generating one number forecast. What makes a one number forecast possible is pulling in global account forecasts, retailer data, formal gap closer, monthly consensus meetings and months S&OP meetings to review operations. The demand planner can then take these different points of data and create the one number forecast.

By having a demand planner reviewing your upstream and downstream data and forecasting, you take the risk out of daily operating decisions. It also keeps your supply chain working to the demand planning model, which keeps your business running smoothly and gives you the opportunity to achieve more.



006

KEY FEATURES



KEY FEATURES OF A DEMAND PLANNING SOLUTION

When formulating a Demand plan, you need to strike the balance between having sufficient stock levels to meet customer demands without having surplus. This means leveraging the right tools and data to build your demand plan from the outset.

Striking that balance means finding the right features for the job. What should you look for in a platform to help you build your demand plan? What are the key features of Demand planning?

A demand planning solution you should include:

Scenario planning

It is the strategic method businesses use to make flexible long-term plans. It makes the assumption on how the future will unfold and how your business environment will change over time based on that future. By using future scenario planning, you can identify a specific set of uncertainties/different realities and how they may affect the future of your business. Scenario planning provides resilience. By running these scenario plans across your end-to-end supply chain, from demand to supply, you can see where the potential impacts are and how you can react to them.



KEY FEATURES OF A DEMAND PLANNING SOLUTION

Analytics

It requires a strong dedication to gathering data as well as data management. Leveraging a strong analytic model allows you to understand your buying cycles, create predictions and easily pull up information.

What's more, you become proactive rather than reactive to changes in your business environment and are better able to pivot with disruptions.

Algorithms and autonomous planning

Algorithms, including machine learning intelligence, are a clearly defined set of instructions. In demand planning, it's crucial that you're all working with the same data sets and metrics when making your plans. If your sales team is working off a different metric, you'll run into issues in production when your demand plan doesn't register these potential sales. Autonomous planning requires timely data input (ie. ongoing data input) so that flexibility is worked into the schematic's algorithms. It cashes in on windfalls while helping you navigate leaner periods.

Event management

Understanding how events will affect your supply chain is fundamental in demand planning. Manage new product development, promotions, price fluctuations and demand simply with intelligent event planning tools.

Real-time planning

Real-time planning is the process of gathering your data without time delays. This makes analyzing and planning a real-time decision process so activities can be communicated without delay. A demand planning platform should always run with real-time planning so you can pivot with unexpected disruptions easily.

By considering demand planning features when selecting a platform, you'll be able to improve your business accuracy, save time, and ensure better revenue figures. Effective demand planning platforms should assist supply chain managers with their role and also unify your business from the get go.



The financial impact of any scenario should also be considered because ultimately decisions taken in supply chain planning will impact on key financial measures such as revenue, profit, inventory investment, production costs and potential capital expenditure. By assessing the financial impacts in parallel to the traditional supply chain measures of service, inventory & capacity, you are ensuring that everybody understands the overall impact of the scenario on the business.

07

BENEFITS



BENEFITS OF DEMAND PLANNING

We have seen the importance of forecast accuracy previously. Demand Planning improves control and visibility throughout the end-to-end global supply chain. Specific benefits include:

Increased sales revenue

Demand planning provides certainty in having the right product at the right place at the right time ensuring all potential revenue is realized.

Minimize expedite costs

Demand planning reduces the surprise orders and therefore the associated costs in expedited freight and additional handling.

Improve customer service

Improve sales revenue and reduce penalties by having the best possible picture of your customer's future requirements. Satisfying your customer in-full and on-time generates goodwill, trading partner loyalty, and business differentiation over your competition.

Reduce inventory costs

Demand planning reduces working capital by ensuring optimal forecast accuracy is the forecast error and degree of variance that the system calculates.

Reduced obsolescence

Demand planning improves product portfolio management. Demand Planning provides visibility and accurately determines the impact of new product introduction and product decommissioning. This improves the success of product launches while minimizing obsolescence.

Effective promotions

Promotion planning ensures the most accurate picture of a planned promotion or event. Promotion planning manages promotional uplift, cannibalization and halo effects; this delivers true net impact visibility. Intelligent baseline planning ensures promotional demand is segmented from organic demand which is crucial for the integrity of forecasting.

Hands-off planning

Demand planning minimizes planner effort by automating much of the planning process using management by exception techniques to focus the planner to those areas that provide the most added value. This accelerates the effort and time to plan reducing plan-decay and improving enterprise agility.

S&OP synchronization

Demand planning resolves disconnect between operations and strategy by closing the loop between demand planning and S&OP. S&OP demand is aggregated from demand planning and subsequently S&OP decisions are published to the demand planning process. This ensures synchronization between sales planning and tactical & strategic decision making. Make S&OP decisions count.

IMPROVE FORECAST ACCURACY BY AS MUCH AS **90%**

REDUCE WORKING CAPITALS BY AS MUCH AS **25%**

REDUCE WASTAGE COST BY UP TO **40%**

IMPROVE SERVICE LEVEL BY AS MUCH AS **40 POINTS**



Demand planning provides us with reliable, common data to share. We have achieved great results in terms of sales forecasts accuracy. In turn, this has led to an improvement in our customer service levels and inventory reduction"

Pierre Monchal
Corporate Supply Chain Director ADM (Néovia)



Demand planning may seem like a big challenge to implement but it improves your business accuracy, saves time, improves visibility throughout your global end-to-end supply chain and ensures greater revenue. Effective demand planning will assist your business to foresee challenges and react accordingly.

Improved forecasting provides enterprise agility ensuring you meet and exceed customer expectations and service level goals.




RESOURCES



Advanced Analytics
in supply chain

White Paper



Demand Planning
solution

Data Sheet



Promotion
Planning

White Paper



Cémoi improves
end-to-end visibility

Customer Success



Machine Learning
in SCP

White Paper



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