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Best Practices in Demand Planning

Demand planning is a supply chain management process to forecast and predict the demand for products from internal and external customers. Accurate demand planning is critical in ensuring supply chains are efficient managing inventory and, ultimately, revenue.

Best practice

a procedure that has been shown by research and experience to produce optimal results and that is established or proposed as a standard suitable for widespread adoption



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BEST PRACTICES IN DEMAND PLANNING

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Demand Planning

Demand planning is a supply chain management process used to forecast the demand for products and ensure that those products can be delivered to customers satisfactorily, that is, products of the right quality delivered in the right quantity, at the right time, and in the right location.

Demand planning aims to determine the right inventory levels to meet customer requirements and avoiding having excess inventory which is too expensive to maintain.

In most organizations the demand planning process is led by the supply chain function but the process itself involves several functional areas. Some of the areas involved in the demand planning process include, Sales, Marketing, Purchasing, Distribution, Warehousing and Inventory Management, General Management, and maybe other departments or functions on a sporadic basis.

Who is the customer?

The demand planning process can be applied to internal customers as well as to external customers.

An internal customer is anyone in the organization while an external customer is someone that pays for the products your company offers. An external customer is a person who is not directly connected to your organization other than by purchasing your product or service.

The principles of demand planning apply to both types of customers. The major difference is that some of the departments or functions participating in the process may change. For instance, a demand planning process for an internal customer may include the Manufacturing Department, or a specific project team.

The Sales department participation may not be relevant when it comes to determine demand and product flow for maintenance or manufacturing operations, but it is crucial when it comes to determine the demand from paying customers.

Demand Planning vs Forecast

These terms sometimes are used as equivalents, but they are not the same.

A forecast is a prediction of customers' demand based mostly on historical data and information obtained from the customers.

Demand planning, on the other hand, starts with the forecast but then takes other things into consideration like distribution time, products in transit, inventory on-hand, suppliers' lead time, product shelf life, storage capacity, purchasing capabilities, etc.

It could be said that the raw forecast is the basis of a demand planning process. This raw forecast can be modified (increased or reduced) because of the demand planning process.

Demand Planning Best Practices

Some of the most recognized best practices to guarantee successful demand planning include:

1

Examine your existing processes - As much as time and resources allow, execute an assessment of your current demand planning process.

These questions should let you determine how adequate and efficient your demand planning process is and will show the gaps to fill in your search for the right process.

1. How much time does a typical demand planning process take?
2. How frequent does the process takes place?
3. Who is involved?
4. How much time and resources does it take to agree on a demand forecast?
5. What tools are you using to forecast demand?
6. When were they implemented, and what has changed since?
7. Are these tools effective?
8. Are they holding you back? (Spreadsheets vs advanced software)
9. What are the methods used to calculate demand forecasts?
10. Is your data clean or is it incomplete, mismatched, or even erroneous?
11. Is data siloed between your teams, thereby creating misalignments in the process?
12. Are you relying on historical sales data or are you implementing data that more closely reflects the present-day consumer, such as POS data or other market signals?
13. Are you calculating forecasts at the SKU, customer, and warehouse levels?
14. How consistent are the process predictions?
15. What are your average accuracy and mean deviation?
16. Have the key drivers of demand been identified?
17. How accurate are sales and inventory predictions?
18. Have promotions had a direct increase on sales? How about competitive spend?
19. Are you measuring for error and bias?
20. How agile are your models? Are they trained to quickly recover from unprecedented spikes or dips in demand, such as the waves we experienced during March and April of 2020?
21. Are your forecasts actionable? In other words, are you able to optimize working capital and realize cost savings based on the recommendations your data or demand planning provides?
22. etc.

2

Review Historical Data - Reviewing the results from previous demand planning processes, past sales, production, investment, inventory movements (turn-over, surpluses, stock-outs, etc.), suppliers' lead time, and market trends, among others, allow planners to see how different demand planning actions performed. With this information, management can innovate or mimic past efforts to improve the planning process.

3

Collect Internal and External Data - Qualitative and quantitative information such as consumption statistics, trade investments, production value, and weather trends from internal and external sources add considerable value to planning. Access to this information ensures planners leave no stone left unturned and helps to determine risks.

4

Review All the Numbers Provided by Other Areas - Take the time to review and validate all figures against history. Do not take anything for granted. If you disagree with the numbers, talk to them about why you feel your numbers might be better. They are guessing anyway, so they will appreciate any constructive input you may provide, especially if they are being held accountable for the accuracy of their numbers. For example, the raw sales forecast is an important element in a demand planning process, if the Sales team says they are going to sell 5,000 units of product XYZ a month but inventory figures show only an average of 300 units a month have been sold in the last 6 months then it is the duty of the demand planner to request explanations before considering the Sales figure in the calculations.

5

Utilize Planning Software - Demand forecasting software handles all of the calculations and algorithms necessary to predict sales accurately. Unlike traditional planning methods, such as spreadsheets, this advanced solution provides users with various functions and tools to handle large amounts of data. For example, advanced software integrates data from Point of Sales (POS) systems to track customer purchases and demand trends. These solutions also monitor employee schedules and weather alerts to streamline all logistical operations.

6

Implement Business Process Automation - Many organizations implement business process automation (BPA) to increase data accuracy and operational efficiency. BPA uses various software to perform standard tasks with limited or no human intervention, increasing production, and preventing human error. By utilizing BPA, demand forecasting planners can ensure their data is accurate, and processes are streamlined.

7

Think in Future Needs when Implementing Demand Planning Software - AI technologies, like machine learning and automation, are improving rapidly and this kind of technology does have the power to drastically alter how we approach supply chain management overall and will play an even bigger role in the future.

Demand planners need to be prepared and must make sure any demand planning tool selected is future-proof. Do not just think about how the software you use incorporates today's technology, also think about its capacity to accommodate new features. For example, are software updates quick in coming and easy to install? No matter what solution you have implemented, your demand planning tools should be able to evolve and support you for years to come.

8

Measure Forecast Accuracy at All Levels - We have already established that demand planning and forecasting are very imprecise and nuanced fields. That means that each forecast produced could benefit from fine-tuning. An organization should evaluate its forecasts for improvement and accountability, particularly during the S&OP review process. During this process, collecting insights from stakeholders such as customers and marketing teams will help to enrich baseline forecasts. It is also important to track the FVA (forecast value-added) metric, which evaluates each component of the forecast process, to identify what is of value and what can be eliminated.

9

Implement Data Integration - By using a system integrator, businesses do not have to collaborate data between several existing systems manually. Instead, data integration uses software to optimize information exchange between services, providing real-time figures. Access to updated information ensures that the demand forecasting software and OP process are using relevant data.

10

Analyze Your Supply Chain - The process of collecting downstream data, and applying it to supply chain decisions, can positively impact the accuracy of forecasts and consequently revenue. It is crucial to collect end-user and point of sale data to understand what is happening further down in the supply chain. Often, these are huge data sets that need to go through exponential smoothing models to effectively forecast demand. This top-down analysis is instrumental in showing in real-time the efficacy of the demand plan and the necessary improvements. Analyzing the supply chain will also inform contingency plans which go hand in hand with an organization's demand plan.

11

Remember the 80/20 Rule - The 80/20 rule refers to the proportionality that most organizations find to be true. 80% of their revenue comes from 20% of their products. This then develops into the ABC classification (Pareto analysis) which is a framework of different codes to forecast product demand based on importance.

In most cases, type A items are important, high-volume products, type B refers to the medium-volume items while the items lagging in demand are type C. This model enables you to focus forecasts on the 20-30% of products that are high-performing and fewer resources to the other groups unless exceptions are observed. A good demand planning software will assign the relevant codes and rank them according to importance. This helps to optimize the forecast process and avoid wasting resources on non-performing products.

12

Know Your Market and Understand Macroeconomic Trends - When you are in the process of evaluating demand on an item-by-item basis and have thousands of products it is easy to forget to look at the bigger picture. Internal demand markers, such as inventory levels and the number of SKUs sold, are valuable data points and should not be ignored but they do not tell the whole story either. Technological advancements have made our world much smaller, and this trend will continue. Supply chains are not national; they are global, and so are your customers. Know how the global market for your products is performing. Keep an eye on your competitors. And understand what effect macroeconomic trends may have on your home market.

13

Always Have a Plan B – Demand planning is an imperfect process, one based on educated guesses to try to understand what customers will want and in what quantities. Things do not always go according to plan. In fact, they usually don't. A forecast might turn out to be wildly off, for example, or a weather event may disrupt shipment schedules. Whatever happens, it will have a ripple effect along the supply chain and may lead to stock-outs or an excess inventory situation. While the forecast produced through demand planning will dictate Plan A, be prepared for other eventualities. Make general contingency plans that can be adjusted according to the situation but not just in case of disasters, also in case of an unexpected high demand for your products.

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Keep Updated. Prepare Yourself and Your Team - There are countless webinars, seminars, and books that can help you stay on top of any developments in Demand Planning. Be on the lookout for new ideas that can improve your process, learn what others are doing and if you see value find a way to implement in your organization. You need to use your creativity to adapt them to your organization. This requires a unique skill set that most people struggle with.

Conclusion

Demand planning and forecasting give businesses a competitive advantage by allowing them to be ready for future customer demand. Having accurate, updated information on hand is essential to calculating future sales and developing an adequate supply chain management plan. Successful forecasting can help drive sales and profits, even during slow seasons.

Always keep one thing in mind, there is no such thing as a 100% accurate forecast. The aim of demand planning is to reduce the margin of error in the estimates to optimize supply efficiency and ultimately

revenue. Though the future is uncertain, continually incorporating demand management best practices can improve accuracy and accountability.

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