Integrated business planning

Enabling cross-functional and data-driven decision-making







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Executive summary

Companies today operate in an uncertain and dynamic environment. Operating in this environment gives rise to one main goal: continuous improvement of supply chains, particularly their resilience and agility. IBP is often explained as an advanced stage of sales and operations planning (S&OP). Its overarching objective is to align demand and supply plans while also optimising the company's financial situation. Supported by a decisionmaking framework, scenarios and a comprehensive meeting structure, IBP is a new concept fit for a new age of planning.

As we showed in our study "Connected and autonomous supply chain ecosystems 2025", integrated planning is very important for leading manufacturers. For instance, almost half of the Digital Champions in the study (companies with the highest digital supply chain maturity level) rated planning as their top priority in their upcoming transformation journey.

Getting started with IBP and enabling continuous improvement requires the full attention of the entire organisation - which is why change management in processes, organisation and IT is one of the main drivers we've addressed below. This white paper provides an overview of the factors which will enable companies to draw up an integrated business plan, with the aim of creating a comprehensive, well-aligned decision-making process which is fully integrated with finance.

We also discuss how IBP can fully secure supply throughout networks and how shortages can be managed through initiatives such as customer or product allocation, customer segmentation, or dual sourcing strategies. The paper also considers the role of technology including artificial intelligence (AI), machine learning (ML), intelligent market insights and a single harmonised data model, highlighting the factors which enable data-driven decision-making processes.

The insights in this white paper were gained in the course of eleven interviews. The interviewees included executives working on implementing IBP in multinational companies across various industries, leading technology providers, and PwC Germany's lead operations consulting partners.



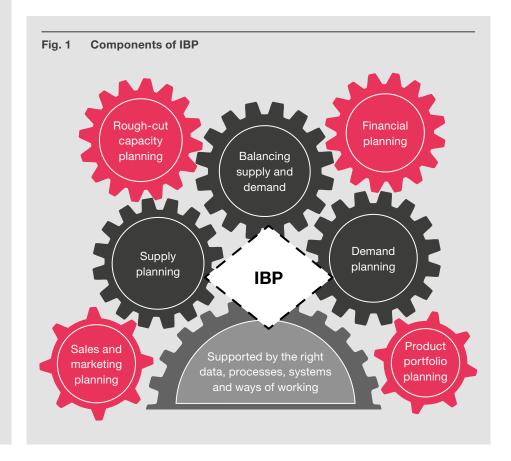
IBP at a glance

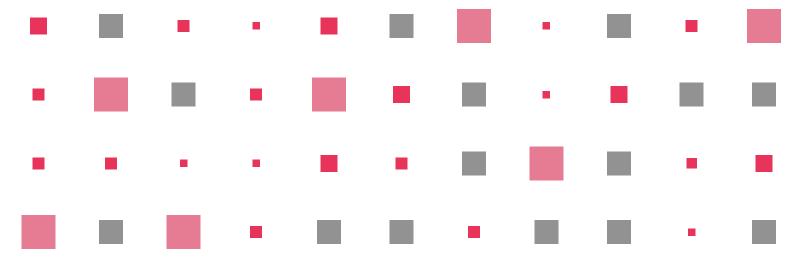
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Fact-based decisionmaking among senior leadership can be enabled through the cross-functional collaboration that integrated business planning provides. In today's dynamic environment with its complex value chains, we can help our clients achieve profitable growth and become more responsive and resilient."

Florian Sämann, Partner, PwC Germany IBP incorporates the financial, sales and operational planning processes across business units which are necessary to translate a long-term strategic plan into a short- to mediumterm executable plan. These shorter-

term plans are needed for allocating business assets and predicting future earnings more accurately. IBP links the financial planning and analysis process with S&OP, encouraging alignment with profit-focused business decisions.





To successfully design and implement new operating models for integrated planning, companies must consider the following six aspects.

Fig. 2 Key shifts towards IBP

Silo mentality separating demand, supply, sales, supply chain and finance



Integrated planning networks, synchronising quantity planning and financial planning

Clear differentiation of planning horizons



Merged planning horizons, with continuous planning and balancing

Backward-looking planning logic, poorly synchronised with the executional layer



Forward-looking demand sensing closely linked to execution activities ("low touch")

IT landscape with different data models, home-grown solutions and heterogeneous systems



E2E supply chain data network with integrated cloud-based planning platforms

High level of manual work required across the planning process



Prescriptive analytics and automated decision-making

Planners spend a lot of time firefighting



Planners are orchestrators, using a single source of truth to deal with exceptional situations



Reasons to implement integrated business planning

Disruptive market forces, such as the Covid-19 pandemic or the Amazon Effect, challenge companies to increase supply chain resilience and agility. In our interviews, software providers noted an increase in companies looking for IBP solutions after the outbreak of the Covid-19 pandemic.

There are many different changes and challenges that companies need to prepare for, including the following:

- Customer behaviours moving towards e-commerce
- Unpredictable and fluctuating
- · Increased customisation leading to smaller batches
- More complex portfolios
- · Increasing cost of service
- Supply chain instability
- · Non-availability of raw materials and components
- · Lack of scenario planning capabilities
- · Lack of mechanism to allow financial aspects to drive decision-making
- · Lack of statistical forecasting capabilities

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Today's growing competition is motivating companies to become more agile and operate at a lower cost while providing the same level of service."

Florian Sämann, Partner, PwC Germany

The constant search for improvement and the process of adapting to external forces are driving companies to implement IBP. Along with improved collaboration between functions and external stakeholders, the companies surveyed stated that increased forecast accuracy of, on average, around 95% was the main benefit of IBP. Interviewees also stated that implementing IBP led to higher-quality, more reliable service while also reducing stock, as the system enables the right quantities of materials to be purchased at the right time and sent to the right place to meet demand.

One of the main challenges which IBP can eliminate is translating volume into value and vice versa. IBP effectively links financial planning with S&OP, creating an interface which is otherwise lacking, and allowing yearto-date budgets to be continuously

updated according to S&OP plans. One interviewee stated that fully integrating these elements of planning enabled their company to undertake budget reporting from the IBP process, which means that their target for next year will be fully interconnected with the volume-based IBP process. Integrating finance also helps with quantifying scenarios and making data-driven decisions.

Master data and transaction data are key to the success of an IBP operating model. In particular, including information from points of sale can have a major impact on short-term adjustment of demand streams, optimising supply chain arrangements. On the demand planning side in particular, companies stated that a demand-sensing algorithm and AI/ML technology can achieve an additional short-term improvement in forecast accuracy of up to 10%.

What is hindering integration and how can companies overcome these barriers?

1. People and organisation

Silo mentality/silo thinking is a term for division and independence between functions within a company, and interviewees stated that silo mentalities were the main barrier to the success of IBP. In a company which has a silo mentality, interconnection between departments is limited, which reduces the opportunities to align plans across different functions and planning horizons. Similarly, competition between functions to outperform each other also acts as a barrier to success.

Individual behaviour can significantly influence the success of IBP. People's reluctance to change, their commitment to the process and their accountability all play a key role, and these factors pose a challenge when it comes to dealing with change. The difficulty lies in reducing cultural barriers to new processes. defining people's responsibilities and motivating employees to follow the new process.

Lack of management support and situations where an IBP project is being driven by a single department are not a recipe for success. Company leadership needs to be

involved with the project to align IBP with the company's overarching

Misunderstanding of data and the lack of a standardised, homogeneous language across all functions are major hurdles to successfully implementing IBP. Translating volume into value and vice versa is one of the key components which depend on a homogeneous language across functions.

"People are the enablers, on the one hand; but on the other hand, they are also the challenge."

Head of S&OP, multinational manufacturing company

Overall, the interviewees stated that people are one of the most important factors for the success of IBP. The governance and decision-making provided by a company's planning structure - whether centralised or decentralised - has the power to connect and align siloed functions and transform communication by using a common language. Nine out of the eleven interviewees also stated that senior management support is critical to implementing IBP throughout the company, as this drives the process from the top down. Companies need to look beyond just balancing supply and demand: functions such as

finance, customer order management, suppliers or strategic procurement need to be integrated as well. To successfully integrate external stakeholders, companies need to have structured processes and ensure that integration creates value for these stakeholders. The integration of externals needs to generate value and support the decision-making process instead of only being used to share information across businesses.

Five interviewees also stated that getting both managers and employees to see and understand the value of IBP is crucial to increasing willingness

to participate. Similarly, interviewees said that change management was a key component for successfully transforming their organisations.

Employees need to be trained and enabled when IBP is introduced; interviewees suggested using the "train-the-trainer" concept and taking a cross-functional approach to training. Finally, roles and responsibilities need to be defined, including new end-to-end (E2E) roles to facilitate the process and supervise the individual functions.

2. Process and methodology

Lack of understanding and visibility of current processes was a factor which the interviewees stated was a key hurdle to the successful implementation of IBP. Transparency across operational processes is essential: without it, designing a functioning IBP process is simply impossible.

E2E processes not being in place, streamlined or efficiently set up was another major challenge listed by the interviewees. Misalignment between strategic planning, budget planning and S&OP hampers decision-making. For one multinational company, forecasting integration was one of the main challenges, due to processes being poorly connected between functions. "Defining the process as such is the most important factor."

Supply Chain Planning Transformation Director of a multinational health technology company

"The 'Golden Rules' are the most important factors when setting up IBP processes. These include crossfunctional buy-in from senior leadership, clear roles and responsibilities in the planning organisation, E2E process awareness in the entire team, and a meeting structure driven by data and finance."

Florian Sämann, Partner, PwC Germany

A major topic discussed in the interviews was the need for accurate budget integration: a high level of accuracy is needed because this information has to be provided to shareholders. The overall design of the IBP process needs to be flexible,

as the process will evolve over time, and a high level of flexibility within the process and the meeting cadence is necessary to meet changing demands. Synchronisation of workflows to create synergies between functions is also an important factor: suitable

processes, meeting cadences and planning horizons need to be in place, and the decision-making process needs to be set up. Breaking down the corporate strategy into its individual components and implementing them in the IBP process can help make the transformation a long-term success.

Performance measurement

The lack of standardised performance metrics when KPIs are not aligned between functions can result in conflicting targets. However, the interviewees generally considered this to be a minor issue compared to aligning the different plans.

"Once IBP is in place, measuring performance is critical for improvement. One barrier to this is that the measures are neither standardised nor aligned with each other."

Head of S&OP, multinational manufacturing company

In practice, measuring performance was not seen as a critical factor for enabling IBP. However, some interviewees said that KPIs and

incentives need to be matched and aligned with each other to avoid conflicting targets from different functions.

4. IT

Heterogeneous IT systems can pose a challenge for integration. Use of different systems in different functions creates a disconnect between these functions. On the other hand, implementing new systems is usually seen as disruptive, reducing people's willingness to participate in the change.

The lack of a harmonised E2E data model and poor-quality data can significantly hinder integration and will prevent successful scenario

planning. All interviewees said that collecting high-quality data - both internally and externally - was a key challenge.

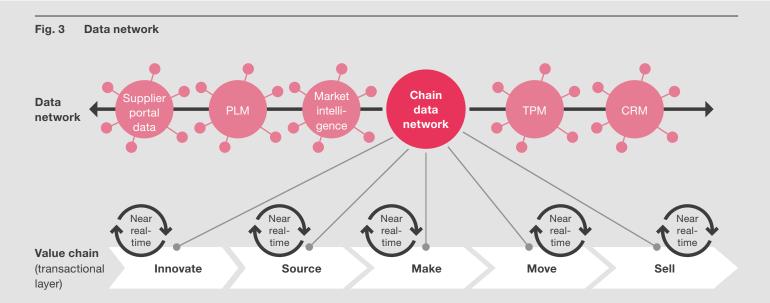
"For company-wide collaboration, companies need flexible systems and IT infrastructure which can be fully integrated with and accessed by every function. The goal is that decisions made on a strategic level will directly impact execution, and vice versa. To effectively connect execution with strategic decision-making, it is important to work with a single set of data."

Stefan Schrauf, Partner, PwC Germany

Interviewees listed IT as a key factor to be considered once the process and personnel structure have been defined. Data is the main enabler of IBP, whereas the technological platform employed to handle this data is a secondary consideration: it simply acts as a means of managing information. For successful data management,

a single, harmonised E2E data model is essential, with the data coming from a single source of truth (e.g. SAP, Oracle, Microsoft). This enables integration of the various different planning functions. Accessibility, availability and accuracy of data and information are key issues, and data visualisation is needed for everyone to understand the data.

In terms of technological features, both ML and AI are needed to gain insights from data. ML is a key innovation for predicting future scenarios to help companies become more proactive, and it also supports applications such as segmentation, demand planning and parameter tuning. Al, meanwhile, has been found to be an essential tool for demand sensing and advanced analytics to allow data exploration.



How to make it happen

Moving your company towards the next level of planning and implementing a holistic IBP process is a significant change: it requires both implementation of a new IT system and a broader transformation of your supply chain business model. Our expertise at PwC covers all relevant areas and allows true end-to-end transformation - from developing your new strategy, operating model and process, right up to implementing new ways of working and the supporting IT systems.

The overarching goal of IBP is improving your decision-making process across functions and

integrating operational, tactical and strategic planning horizons. As the new technology associated with IBP allows you to better predict future scenarios and integrate your data into a single E2E data model, the way decisionmaking works across your organisation and planning horizons will change. Traditionally, supply chain, finance and sales make their own decisions on a daily, weekly, monthly and yearly basis. IBP, on the other hand, allows you to fully automate daily and weekly decisions. These are pre aligned with each function, and connected to the monthly and yearly planning carried out by supply chain, finance and sales at a cross-functional level.

Fig. 4 Changes in decision making

Traditional balancing and decision making Yearly Strategic planning, mainly sales and revenue · Business unit level • 1–5 year focus Annual buckets \$ Monthly Product family or product level • 2-18 month focus Supply chain planning -inancial planning and analysis Monthly/quarterly buckets Weekly Order level • 0-3-month focus Daily/weekly buckets Performed daily **Daily** Execution level • 0-4 week focus Daily buckets • Performed daily or hourly

Next-level balancing and decision making

Yearly Cross-functional strategic

synchronisation, including sales, demand, supply, finance, product development

Monthly

Cross-functional proactive and forward-looking synchronisation, including sales, demand, supply, finance, product development

Event-/exception-based decisions, driven by predefined workflows, business rules, decision hierarchies

Daily

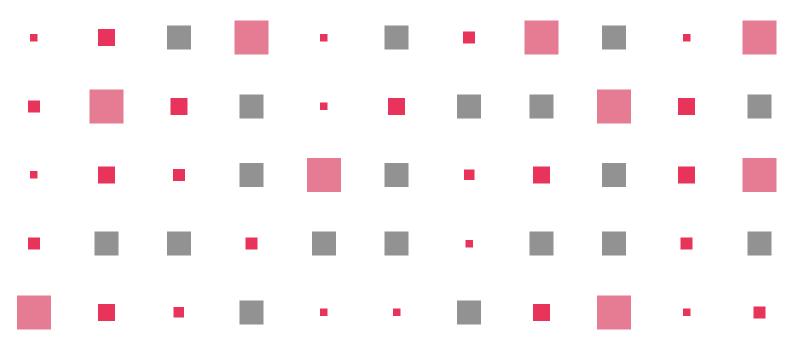
Automated ("no-touch") decisionmaking, powered by AI/ML and process automation (e.g. P2P, O2C)

Strategic meetings

Preparation and recording of decisions are fully automated to enable continuous learning in the organisation



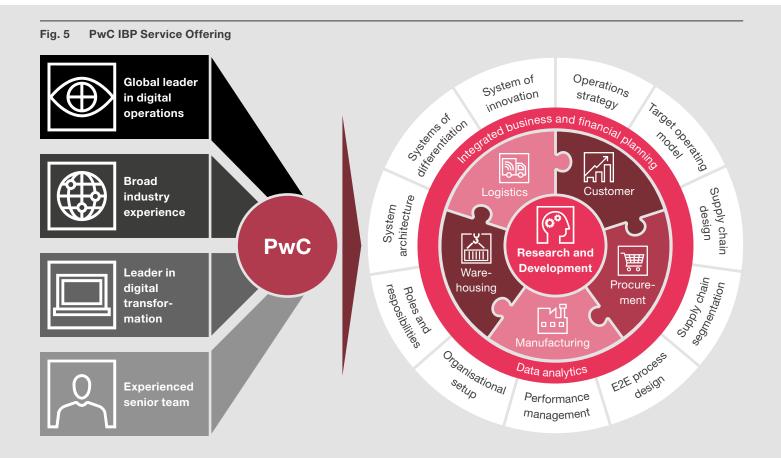
Fully automated, system-based decision-making and support



What can PwC add to your IBP journey?

Our expertise in a wide variety of industries and processes makes us your ideal partner for a successful transformation. Our experts are always on hand to support your IBP journey, driving your business towards a

cross-functional, data-driven decisionmaking process which integrates the financial perspective - just what you need to translate volume into value elevate your planning process to the next level.



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