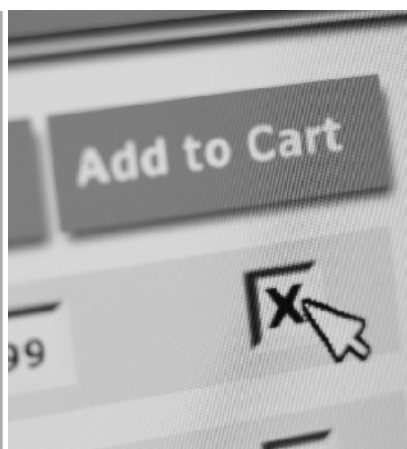


## Demand management: The next generation of forecasting



*White Paper*



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**More than software**

In virtually every industry, companies are challenged by ever-higher customer expectations, stricter regulations, changing market dynamics and the ongoing impact of the Web – all of which are compelling them to reexamine and refine how they forecast and manage demand. As many are learning, it is a process that involves far more than installing forecasting software. These tools, though increasingly sophisticated, are a small part of the overall solution, and are by no means solely responsible for steering business growth. Today, successful demand management requires a multichannel, multilevel approach that exploits every link in the supply chain, which for most enterprises represents a complex group of constituents.

Still, many organizations cling to “install now, think later” strategies that fail to take into account the various, often subtle factors that can affect the success or failure of their value chain. When one considers the increasingly virtual and volatile nature of commerce, this can have dramatic implications. Forecasting demand is no longer measured in days and months; it is gauged in hours and minutes. If an organization’s process for gathering, disseminating and utilizing data takes too long, or if the data is marked by redundancies, inaccuracies or irrelevancies, information can lose what is now a smaller window of opportunity to provide meaning and impact.

The ability to generate a nearly instant forecast that can be applied the same day is increasingly essential to strengthening the bottom line, gaining market share, keeping inventory lean, and continually meeting and exceeding customer expectations.

“Demand forecasting is essentially a linear process of translating input assumptions into a forecast of expected sales; demand management, by contrast, is a highly iterative process that involves driving to a revenue and profit target through prioritization of customers, channels, products, geographies and the demand stimulation programs available to the enterprise.”

Aberdeen Group<sup>1</sup>

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**Highlights**

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*Keeping inventory levels low, costs down and customers happy in a Web-based, now largely global marketplace requires companies to proactively forecast and manage supply and demand dynamically.*

**Blending art, science and technology**

**Many factors affect demand at various levels**

**IBM internal factors**

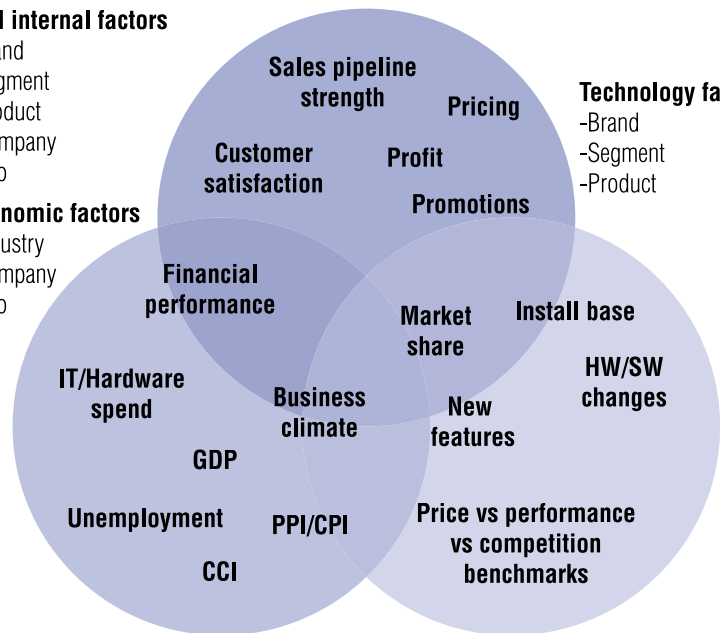
- Brand
- Segment
- Product
- Company
- Geo

**Economic factors**

- Industry
- Company
- Geo

**Technology factors**

- Brand
- Segment
- Product



Keeping inventory levels low, costs down and customers happy in a Web-based, now largely global marketplace requires companies to proactively forecast and manage supply and demand dynamically – supported by best-of-breed techniques, technologies and practices. Today, this calls for a delicate balance of art, science and technology. Numerous forces, some of which overlap, must come into play:

**Internal** – The brand; market segment; product mix; corporate culture; sales performance; geographic presence, and customer satisfaction levels

**Economic** – The industry; the business climate; market share; financial performance; unemployment rates, and IT expenditures

**Technological** – Current install base; hardware/software changes; price/performance vs. competition, and benchmarks.

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### Highlights

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***Demand planning has enabled companies to more accurately forecast what their industry, market and customers will require.***

“Beyond simply meeting influential partners’ demands, many enterprises are uncertain about quantifying total cost of ownership and identifying business objectives. Developing an effective supply-chain integration strategy for the long term requires that companies address these two areas before they can realistically justify or refute technology options.”<sup>2</sup>

#### **From planning to managing**

Demand planning has enabled companies to more accurately forecast what their industry, market and customers will require. This is not a new concept, but for first-generation Internet-dependent enterprises, demand planning has permitted them to link and integrate processes across networks; enable closer collaboration among previously isolated parties; respond dynamically to market and consumer trends, and deliver a better, more rewarding experience across the value chain.

Armed with advanced tools, technologies and forecasting methodologies, businesses have honed their ability to view numbers and predict information within various contexts, model independent and dependent demand among products and channels, and generate statistically based forecasts based on the most recent data, causal factors and events. This has helped fulfill the demands of a more challenging customer base; better leverage past product performance; more effectively predict and manage replenishment; align price and profit margins; and maintain a leaner, more profitable supply chain overall.

More recently, enterprises are focusing on managing demand, rather than simply reacting to it.

Demand management takes supply chain management to the next level by enabling an automated “ecosystem” that simultaneously maps demand forecasting against factors like supply restrictions, customer commitments, inventory counts, financial predictions, as well as patterns of behavior that can affect demand at any given time.

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**Highlights**

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***Demand management is a more proactive approach than its predecessors.***

Demand management is a more proactive approach than its predecessors – relying on highly sophisticated quantitative analytics and advanced modeling techniques to preset tolerance levels, predict and pinpoint problem areas, monitor and adjust strategies dynamically, and achieve realtime visibility and synergy across all channels.

IBM Corporation called on IBM Global Business Services to help IBM business units transform from demand planning to demand management. The IBM demand manager blue project brought together four existing demand planning applications for IBM hardware divisions onto a single platform. The implementation creates an enterprisewide demand management solution supporting a common process. The project incorporated three phases:

- Migration of IBM Server Group, IBM Storage Systems Group, IBM Retail Storage Solutions and IBM Printer Systems Division from i2 Demand Planner to the new i2 Demand Manager application from IBM Business Partner i2 Technologies, Inc.
- Migration of the IBM Personal Computer Division (Europe).
- Migration of the IBM Personal Computer Division (Americas and Asia Pacific).

The solution is supporting several other IBM supply chain transformation initiatives that will enable the company to utilize advanced forecasting and modeling techniques, and afford better synergy across its business divisions.

IBM Global Business Services helped a global provider of solutions for mobile computing, wireless networking and barcode scanning enhance its processes for forecasting and managing demand. The solution, supported by i2 software, enables the company to automate, adjust and readjust statistical forecasts at deeper levels, using a realtime “dashboard.”. This capability will help eliminate excess inventory, better accommodate customer needs, and shrink forecasting cycles from weeks to days.

A large, internationally known home entertainment company turned to IBM Global Business Services to help it refine replenishment planning and dynamically forecast demand for DVD movies based on daily point-of-sale data. The solution will permit the client to pinpoint manufacturing requirements, avoid overstocks and under-stocks, and better predict customer requests.

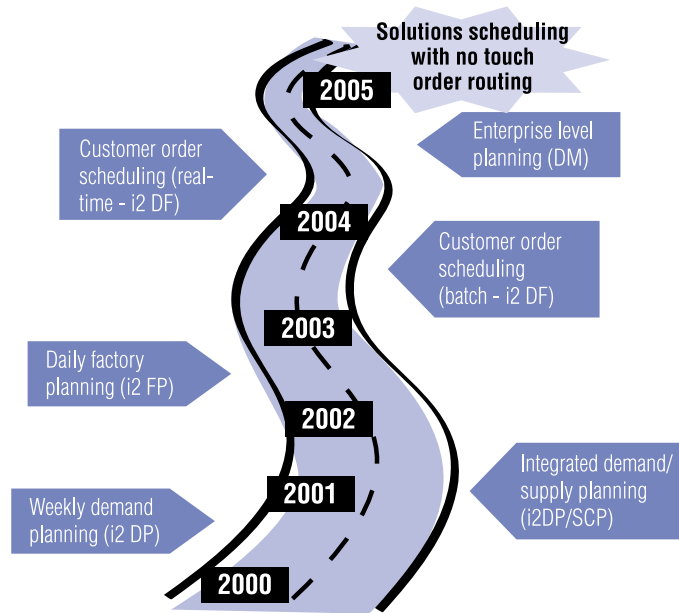
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**Highlights**

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*Organizations looking to migrate to a demand management model should seek a Web-based solution that provides high levels of scalability, economy, usability, availability, synergy and functionality.*

**Supply chain transformation journey**



**Forecasting and responding in realtime**

Organizations looking to migrate to a demand management model should seek a Web-based solution that provides high levels of scalability, economy, usability, availability, synergy and functionality. Such a platform should support a realtime “feedback loop” that is designed to enable an enterprise to dynamically forecast against a number of variables, such as supply, customer orders, inventory, and financial objectives.

A comprehensive demand management solution should enable a business to:

- Synchronize global planning
- Forecast only the products and components that make sense from a profit and/or strategic perspective
- Utilize best-of-breed statistical forecasting techniques
- Employ a forecasting tool that balances performance and scalability
- Apply event-based planning
- Perform realtime data synchronization.

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**Highlights**

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***When undergoing a supply chain transformation, companies should keep three points in mind.***

- Employ rules-based modeling
- Simplify multidimensional analysis with easy-to-use tools
- Afford a seamless workflow
- Benefit from an open, services-based, 64-bit architecture and a common Web interface
- Utilize industry-standard databases
- Employ automated, closed-loop, industry-specific workflows based on best practices
- Gather predictive intelligence with “proactive” demand indicators
- Enable more efficient collaboration with all internal stakeholders and external partners.

When undergoing a supply chain transformation, companies should keep in mind three key points:

1. Supply chain optimization is very hard to achieve if users cannot understand the output.
2. Learn to uncover and utilize data in a way that helps eliminate redundancies, inaccuracies and irrelevancies.
3. Synchronize execution with planning and scheduling.



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**Highlights**

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***The transition from demand planning to demand management involves much more than a technical migration.***

**Demand management services – from IBM**

The transition from demand planning to demand management involves much more than a technical migration; even the most advanced software does not guarantee that a business will achieve higher levels of efficiency, profitability or customer satisfaction. Transforming to a demand management model can be a complex project involving various levels of change in peoples' jobs, the organizational structure, and communications within and outside the enterprise. Managing this type of undertaking requires a team of resources – forecasting consultants, software professionals, systems integration specialists, statistical analysts and industry experts, for example – to help reduce risk, keep costs down and get it right the first time.

In order to fully leverage today's forecasting tools, enterprises should look for assistance from professionals who can help anticipate and navigate all of the potential roadblocks – business and technology challenges alike – that can compromise a successful demand management migration.

With thousands of successful engagements to their credit, IBM Global Business Services supply chain experts are prepared to help companies make the transformation to next-generation forecasting.

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### Highlights

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*With thousands of successful engagements to their credit, IBM supply chain experts are prepared to help companies make the transformation to next-generation forecasting.*

Our capabilities include:

#### **“Best practice” process analysis & optimization**

- Process audit
- Process engineering
- Process optimization
- Performance management

#### **Quantitative modeling services**

- Model assessment
- Data analysis
- Model implementation, basic
- Model implementation, advanced
  - Rules-based forecasting
- Ongoing model maintenance

#### **Training**

- Forecasting 101
- Modeling language (advanced LUA)

#### **Database optimization**

- Database design to support best practice process and modeling
- Database design to support environmental performance
- Evaluation, optimization and implementation of database

#### **Demand planning to demand management migration**

Mandatory

- Process audit (including recommendations for improvement)
- Model assessment
- Database optimization
- Gap analysis
- Scoping
- Implementation

Recommended

- Model implementation (basic/advanced) or model optimization
- Process engineering and/or process optimization
- Performance management.

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**Highlights**

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***IBM consultants are helping companies throughout industries plan, develop, organize, and implement every aspect of their supply chain transformation.***

IBM consultants are today helping companies throughout industries plan, develop, organize and implement every aspect of their supply chain transformation. Many of these practitioners are published in leading supply chain journals, and several hold patents in the SCM arena.

**IBM Global Financing**

IBM Global Financing provides attractive financing options that enable companies to bundle and finance their entire demand management migration. Our broad portfolio of financing options has made us one of the world's largest single-source provider of IT financing solutions. With operations in more than 40 countries and a client list encompassing 90 percent of Fortune 100 companies, we are well equipped to offer a number of flexible financing plans that make it easier to acquire and pay for IT solutions and services.

**Find out more**

Strengthened by more than 5,500 consultants – including a dedicated i2 practice – located across the globe, IBM Global Business Services offers a full set of services incorporating well-proven process models, methodologies and management tools. This level of experience and expertise is today helping enterprises across the world – including IBM – move to the next generation of forecasting.

To learn more about IBM Global Business Services and we can help your enterprise gain the benefits of demand management services, contact your IBM sales representative, or visit:

**[ibm.com/bcs](http://ibm.com/bcs)**



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## Endnotes

- 1 "Demand Management: Driving Business Value Beyond Forecasting: A Demand Management Benchmark Study."  
© 2004 AberdeenGroup, Inc.
- 2 Applications that Resolve Edge Business Problems Will Drive Enterprise Software Market for Next 5 Years, Says Yankee Group."  
Yankee Group news release, 8/30/04.

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