

*IBM Institute for Business Value*

# Follow the leaders

*Scoring high on the supply  
chain maturity model –  
The Indian experience*

Supply Chain  
Management



## **IBM Institute for Business Value**

IBM Global Business Services, through the IBM Institute for Business Value, develops fact-based strategic insights for senior business executives around critical industry-specific and cross-industry issues. This executive brief is based on an in-depth study by the Institute's research team. It is part of an ongoing commitment by IBM Global Business Services to provide analysis and viewpoints that help companies realize business value. You may contact the authors or send an e-mail to [iibv@us.ibm.com](mailto:iibv@us.ibm.com) for more information.



# Follow the leaders

## Scoring high on the supply chain maturity model – The Indian experience

### Executive summary

In 2003, when IBM last undertook a supply chain management study of this magnitude, the top objective of leading supply chains was to increase profitability – while, at the same time, reducing costs and improving quality. Now, companies are moving away from a direct focus on cost reduction to put increasing responsiveness and customer servicing within its set of three top objectives.

Globally, the focus on supply chain quality seems to have reduced significantly since 2003, but Indian respondents still expect some delay before quality can be de-focused. Among other subtle differences in supply chain across the globe, Indian supply chains are the most focused on *responsiveness*, followed by Australia/New Zealand (ANZ) (see Figure 1). The United States and Japan, meanwhile, have maintained their focus on *profitability*.

The Indian supply chain is still being tasked with ongoing focus on profitability, hence the new supply chain challenge: how to maintain profitability and, *at the same time*, meet new demands for service and flexibility.

The answer to this challenge is being refined in board-rooms, factories and distribution centres across India. Comparing study results from India, ANZ and Europe with those from the United States and Japan shows that responsiveness is leading to an increased focus on:

- Customer-driven planning – Synchronising supply, managing demand
- Effective order fulfillment through realtime order processing and logistics excellence, as measured by the “perfect order”
- Correctly identifying customer needs during product development, as well as managing product introduction to deliver the “perfect product launch”
- Providing a single face to the customer across business units, with order configuration and dynamic pricing
- Outsourcing non-core logistical functions to third-party, leading logistics providers with back-to-back service level agreements.

**Figure 1. Top three objectives (from a choice of eight), as rated by respondents in each of the 2006 Value Chain studies conducted in the United States, Europe, Japan, ANZ and India, compared to worldwide 2003 results.**

Top three objectives	India	ANZ	U.S	Europe	Japan	2003 survey
Improved responsiveness	63%	55%	41%	49%	39%	40%
Increased profitability*	61%	47%	75%	56%	65%	75%
Quality*	41%	36%	36%	22%	36%	43%
Reduced cost*	34%	56%	52%	38%	58%	51%

Note: \* One of the top three objectives in the 2003 Value Chain Study.  
Source: IBM Institute for Business Value 2003 and 2006 Value Chain Studies.

## What are the leaders doing?

The top supply chains appear to have a common trait: the ability to respond quickly to shifts in demand with innovative products and services, enabled by responsive processes and systems. These supply chains are better able to meet cost, responsiveness and profitability objectives by developing supply chain models that are strategically driven and aligned to their business environment (including products, markets, suppliers and customers). They are also consistently measuring their supply chain performance based on key indicators, such as:

- Perfect order attainment
- Demand management accuracy
- Time-to-market
- Cash-to-cash cycle time
- Supply chain cost.

## Over to you

Delivering on cost and profitably can be hard. Adding responsiveness may be harder. The chances are that if your company is not already facing these challenges, it will soon. This report presents the supply chain management progress of Indian respondents as a whole, and of the leaders in particular.

### Introduction

IBM Global Business Services carried out the 2006 India Value Chain Study in conjunction with Economic Times Intelligence Group. The study captures current practices and their degree of use, identifies significant trends and establishes operational performance benchmarks in five key areas of supply chain management: new product development, customer order management, supply chain planning, procurement and logistics.

The study was conducted in June 2006, with survey questionnaires administered to supply chain executives throughout India. It was structured into five separate sub-surveys, one for each of the key supply chain areas. Each survey included 26 to 29 questions covering objectives and drivers, current practices, levels of adoption and enabling technologies, as well as performance data, such as service levels, cycle times and efficiency rates. There were a total of 521 study respondents across the five areas. The respondents span a wide variety of industries, such as consumer products, industrial products, pharmaceutical, chemicals and services.

This major research project was undertaken with support from the IBM Benchmarking Program, the IBM Institute for Business Value and AC Nielsen, a third-party research organisation. This study aims to provide perspective

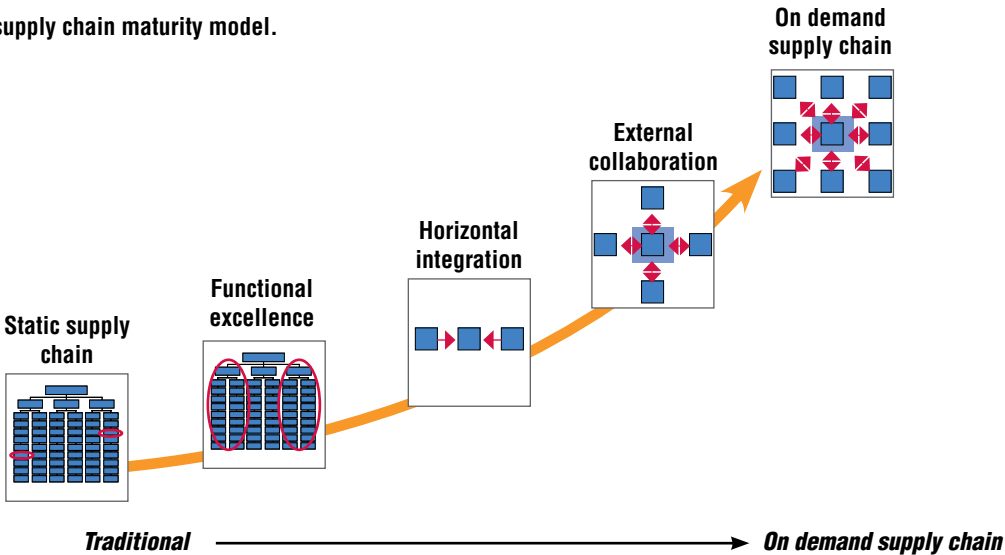
on where supply chain management is today and the direction in which it is evolving. The India Value Chain Study is part of the global IBM value chain research programme, conducted in the United States, Europe, Japan and ANZ in 2005. This report places the research findings into an overall context and provides insight into the continuing evolution of supply chain and value chain management principles.

According to the 2006 India Value Chain Study, supply chain executives' top three objectives are:

- Improved responsiveness
- Increased profitability
- Improved quality.

In the surveys of North America, EMEA, Japan and ANZ, reduction in cost replaces focus on quality in the top three objectives. To meet these multiple objectives, supply chain leaders understand that supply chain effectiveness requires more than efficiency and low cost. Supply chains are also an important driver of revenue growth and profitability, as well as the primary source of responsiveness – or a lack thereof. Many companies are evolving toward the on demand, customer-driven supply chain, as shown in Figure 2.

Figure 2. The supply chain maturity model.



Source: IBM Institute for Business Value analysis.

The vision is an integrated end-to-end, customer-driven supply chain – integrated across the business and with key customers, partners, suppliers and service providers. Top-performing supply chain executives are actively adopting leading management practices, such as:

- Synchronising supply and demand through planning and forecasting
- Coordinating business functions horizontally across the supply chain
- Developing mutually beneficial outcomes to strengthen supply chain relationships
- Managing supply chain cycles – for example, for planning or for order-to-delivery
- Developing variable cost structures as alternatives to fixed costs
- Sharing information and risks with partners to reduce overall exposure
- Using realtime information to create responsive, customer-driven processes.

In this report, we describe how companies in India are responding to the challenge of cost control and responsiveness in five key supply chain areas. These areas are:

- Synchronising supply, managing demand: Customer-driven planning
- The perfect product launch: Product introduction and lifecycle management
- Effective customer order management: Perfect order attainment through realtime order processing
- The procurement opportunity: Realising benefits through holistic sourcing
- Efficient logistics services: Driving efficiencies in logistics operations.

In the remainder of this report, we examine each of these areas to provide insight into industry developments and leading supply chain practices.

## Synchronising supply, managing demand

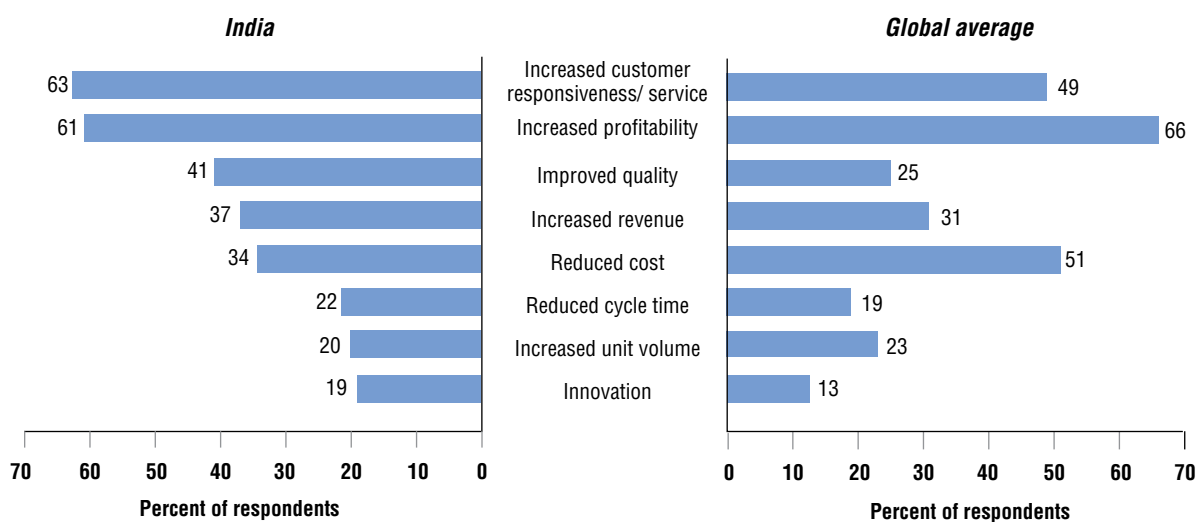
Understanding demand patterns and optimal planning of supply is the constant endeavour of supply chain planners. Responsive supply chains are characterised by an early understanding of demand signals by minimum distortion of point of sales data in near real time. Responsive supply chains have the ability and flexibility to respond optimally to those demand signals. Synchronised supply chain planning can lead to a competitive advantage by providing superior customer service and reducing waste and losses due to sub-optimal planning and inventory deployment. In a growing economy like India, fluctuations in demand and bottlenecks in infrastructure pose additional challenges to supply chain planning.

### **Key study findings**

Globally, increasing profitability (66 percent) is the top objective of supply chain planning. In India too, it is one of the top objectives (see Figure 3), along with increasing customer responsiveness (63 percent) and improving quality (41 percent). The high growth rates in the last few years and the positive future outlook have companies giving a higher emphasis to these objectives, as compared to cost reduction.

Over the last five years, 61 percent of respondents indicated greater sales facilitated by a conducive business environment in India. On the other hand, 63 percent of respondents cited an increase in cost and 41 percent cited an increase in lead time due to changes in the business environment. A third of respondents also reported that business environment has impacted sales, indicating a need for governments to further work on streamlining procedures and easing bottlenecks through establishment of special trade zones, and transparent and streamlined regulatory policies.

Most study respondents report that they are rapidly responding to changes in market conditions. Increasing consumer demands and competition require that responsiveness will remain an area of continued focus in the future.

**Figure 3. Which of the following does your site regard as its top three objectives?**

Source: 2006 India Value Chain Study.

Respondent companies of the 2006 India Value Chain Study are yet to evolve a more mature risk sharing model spanning across multiple networks of enterprises. Increased outsourcing to specialist service providers – such as contract manufacturing, contract designing, third-party logistics management, maintenance management and IT management – would see a greater thrust toward risk sharing.

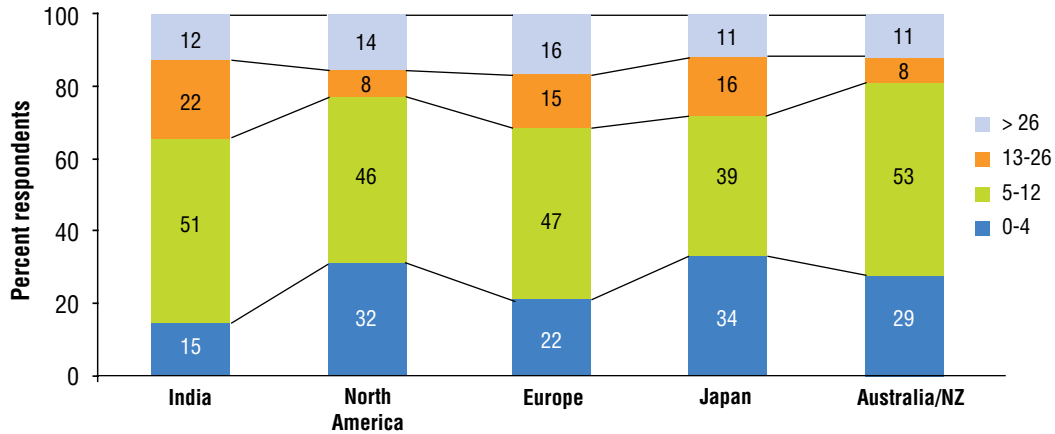
Companies are, however, sharing a lot more information across the supply chain than in the past. About 30 percent of respondents indicated that they extensively share realtime information on customer demand and inventory with their suppliers and customers. About 35 percent have adopted Web-enabled technologies to share information with their suppliers and customers.

Leading practices, such as continuous replenishment programs with customers and customer interaction with production employees, have been adopted by about half of respondents. Respondent companies that have

adopted leading practices in supply chain planning have found them effective, indicating early success. Robust and continuously improving internal processes will be needed to sustain their effectiveness. Increasing numbers of Indian companies consider inventory at customer sites to be their responsibility, pointing to closer integration among the enterprises in the network.

Inventory management is a critical part of supply chain planning. Two-thirds of respondents have a finished goods inventory turn of lower than 13 (see Figure 4). The primary reason for the higher inventory turns could be attributed to the maintenance of buffer (safety) stock to counter variations in the supply chain. This points to a need for companies to leverage their realtime information systems. Companies primarily plan and deploy inventory on the basis of customer sales and volumes. Less than 4 percent of respondents consider margin as a basis for inventory planning and deployment, although profitability is the primary objective of majority of respondents.

**Figure 4. What is your annual total finished goods inventory turn rate (turns/year)?**



Source: 2006 India Value Chain Study.

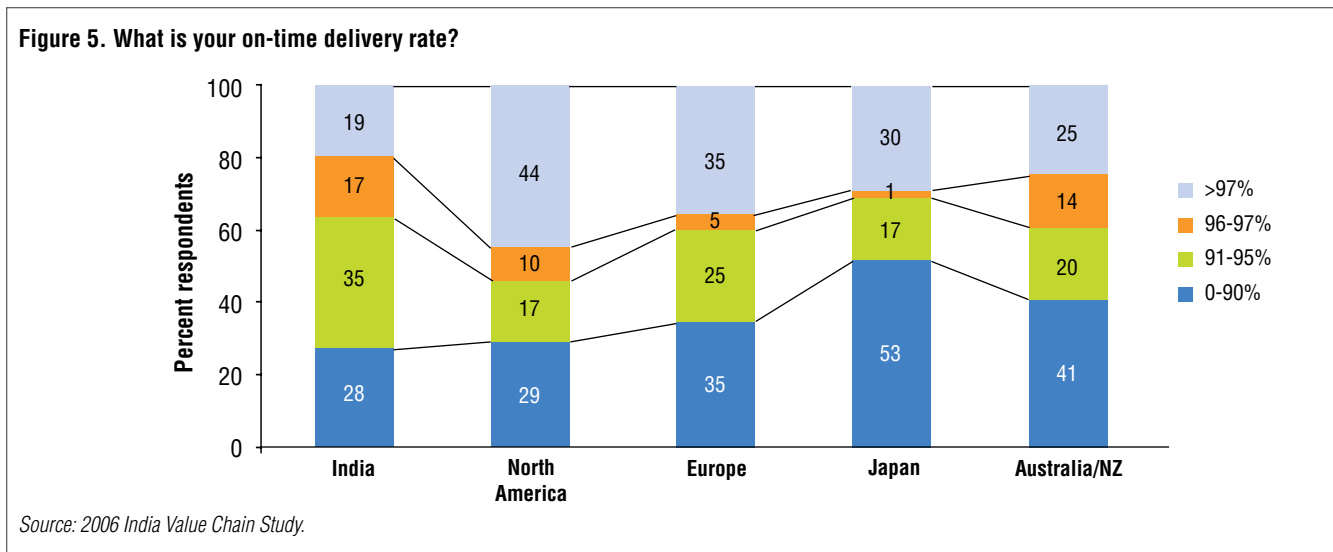
Demand planning is another critical area of supply chain planning. Most Indian respondents use vendor-packaged applications (45 percent) or internally developed software (45 percent) for demand planning. Interestingly, forecast accuracy is measured at an SKU level by about a third of respondents. This could limit the metric on forecast accuracy of the respondents as, in general, forecast accuracy reduces as the granularity of measurement increases.

Respondents to the 2006 India Value Chain Study have seen extensive adoption of vendor-packaged applications and internally developed software for managing supply chain processes. Most of the Indian companies are moving away from use of manual spreadsheets to manage processes like inventory planning, demand planning, production scheduling, and warehousing and transportation.

***How are Indian companies performing on key supply chain planning metrics?***

For about one-third of respondents, the standard lead time from order to shipment is within a week. The cash to cash cycle of about half the respondent companies in India is less than a month. However, 30 percent of respondents have a cash to cash cycle of greater than 2 months.

On-time delivery performance of Indian respondents has improved over the years and compares favorably to global counterparts (see Figure 5). However, this is primarily due Indian customers using less stringent metrics for this measurement. Leading companies are redefining key supply chain metrics and setting up programs to monitor and improve their performance.



### ***What leaders are doing to synchronise demand and supply***

As companies are moving up the maturity model toward an on demand supply chain (see Figure 6), leading companies are rapidly responding to changes in the marketplace by collaborating closely throughout the network. The leaders are implementing the following practices:

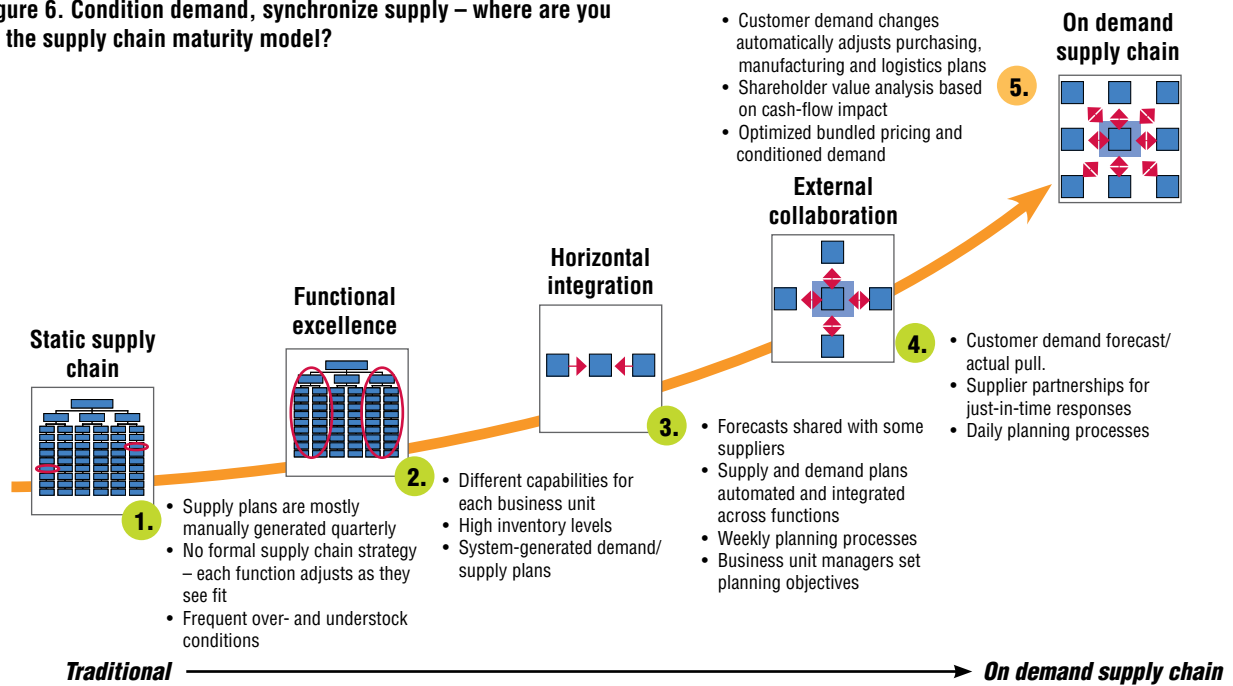
- Integrated sales and operations planning, and close monitoring of market demand
- Close monitoring of inventory throughout the chain and deployment strategies aligned to the overall supply chain strategy
- Differentiated supply chain strategies based on segmentation and aligned to the business strategy
- Leveraging technology to enable responsive supply chain processes and to provide realtime visibility of supply chain performance on well-defined key indicators
- Closer review of supply chain planning effectiveness and identification of improvement programs.

### ***Key recommendations***

As Indian companies strive toward improving supply chain performance, it is recommended that they should integrate within the organisation and then extend the integration with customers and suppliers. Forecasting at the right level and using realtime demand data will be critical to making sound inventory deployment decisions. Before committing to a plan, choose planning horizons carefully chosen and assess “what if” scenarios. Companies need the ability to quickly assess the impact of alternative responses in order to optimize supply chain performance as marketplace events occur.

Indian companies need to build flexibility in their supply chains and drive reliability in supply chain processes. Information technology (IT) can play a key role in improving visibility, capturing supply chain performance and running “what if” scenarios. Many respondent companies have implemented Web-based technologies for collaboration with customers and suppliers. Companies need to develop internal capabilities now to derive value from such IT investments.

**Figure 6. Condition demand, synchronize supply – where are you on the supply chain maturity model?**



Source: IBM Institute for Business Value analysis.

### The perfect product launch

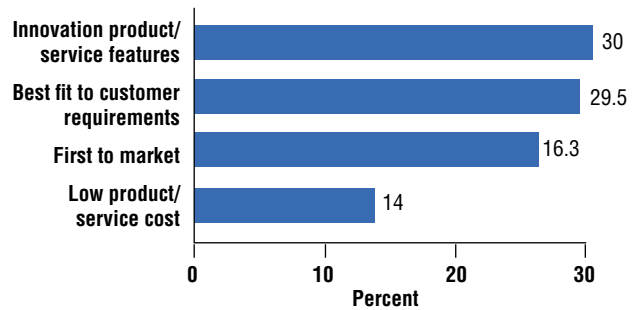
Successful innovation has become a key determinant of profitable growth for companies operating in the increasingly competitive Indian marketplace. Successful companies are often distinguished by their ability to bring innovation to the market efficiently, quickly and ahead of the competition.

Effective product launch is a key element in the innovation process, requiring process integration and alignment of objectives across the internal and external elements of the value chain. Organizations are increasingly leveraging the capabilities of value chain partners (for example, suppliers and channel members) in a collaborative approach for bringing product and services to market faster, smarter and cheaper. Consequently, integration with external partners is growing, not just for execution of customer orders, but also for bringing innovation to market.

### Key study findings

Launching innovative products and services that best fit customer requirements is the major objective for new product development (see Figure 7). Lowering product and service cost through innovation is not yet a widespread major objective.

**Figure 7. What is the primary strategy for your site's new product development efforts?**



Source: 2006 India Value Chain Study.

A significant number of products still miss their on-time and on-budget requirements (approximately 60 percent of respondents did not meet their time and budget targets by even 80 percent adherence), with on-time launch being particularly challenging. Respondent companies found the following to be most effective in improving the on-time launch performance:

- Collaboration with customers and suppliers, and
- Formal product and service development processes.

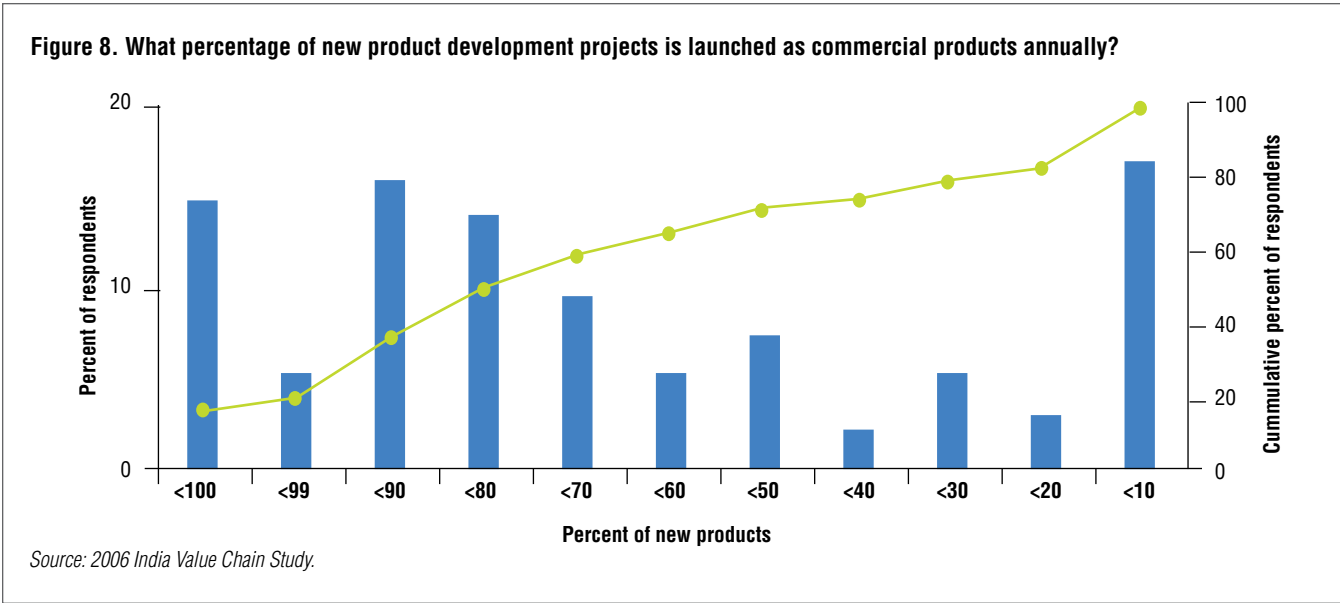
A majority of participants indicated that external participation in innovation (for example, customers and suppliers) has been highly effective. Moreover, practices enabling this external participation are starting to be deployed widely, with more than 40 percent of respondents having extensively implemented practices for customer collaboration, for example.

While most respondents have implemented practices for specification and configuration of products by customers, these practices are not yet widely seen as “extremely effective.” This suggests that while customer collaboration

for innovation is already widespread in the Indian industry, the innovation process is still internally-driven – as opposed to being customer-led – in a majority of cases.

Interestingly, collaboration with suppliers is not much behind customer collaboration in implementation, with about 37 percent of respondents having extensively implemented integrated design and sourcing practices with suppliers. This is despite the challenges in supplier collaboration posed by a fragmented supplier base and the lower process maturity of upstream suppliers in most industries.

The study shows that most companies do take a large proportion of their new product development projects to the final launch stage (see Figure 8). However, limited adoption of robust development processes and limited cross-functional participation in new product development (possibly combined with limited resources dedicated to product development) do make it difficult for these companies to verify that their projects are delivered on-time and on-budget.



Design for Manufacturing is currently the preferred approach for driving cost reduction in the new product development (NPD) process (see Figure 9). Accordingly, the involvement of manufacturing in the NPD process is now quite close to that of sales and marketing, as well as to that of R&D and engineering.

To design for customer requirements while maintaining cost control objectives, many manufacturers are incorporating product commonality and reuse techniques with standardisation of components. Reusing existing designs and other knowledge assets can help streamline the product development process and, at the same time, significantly improve product quality by standardising and reusing proven components and assemblies. A formal programme of commonality and reuse can also help reduce direct materials procurement costs, speed time-to-market and improve product quality.

**What leaders are doing to achieve the perfect product launch**

As companies evolve up the supply chain maturity model toward an on demand supply chain (see Figure 10), they realise that business performance is directly related to their ability to bring superior products and services to

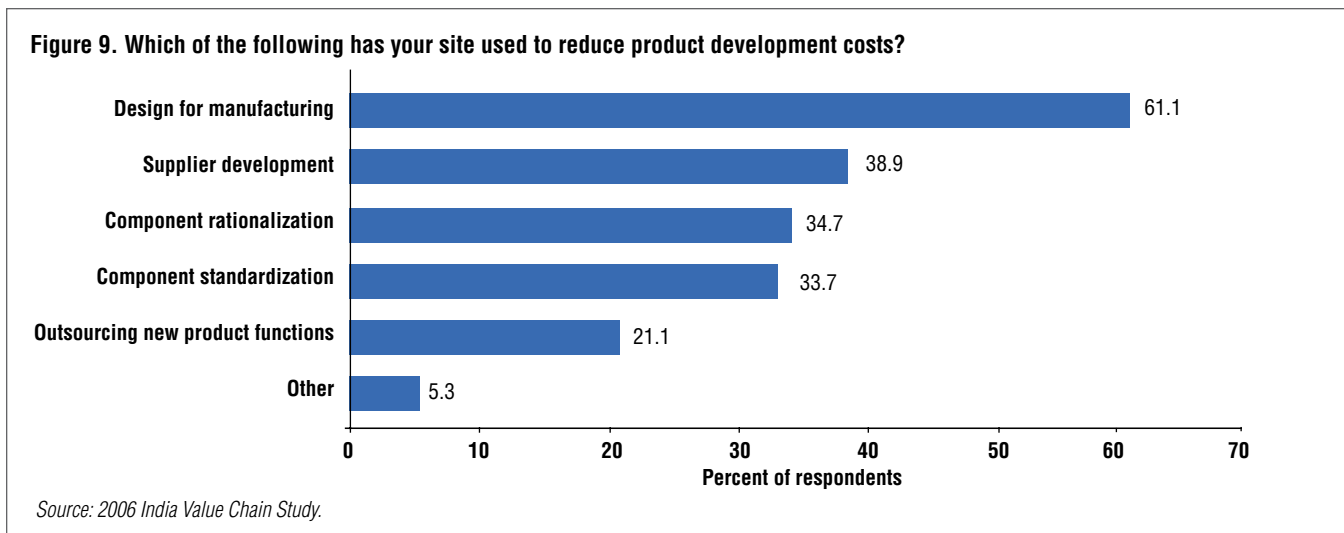
market in a cost-effective manner. Many of the leaders are implementing the following practices:

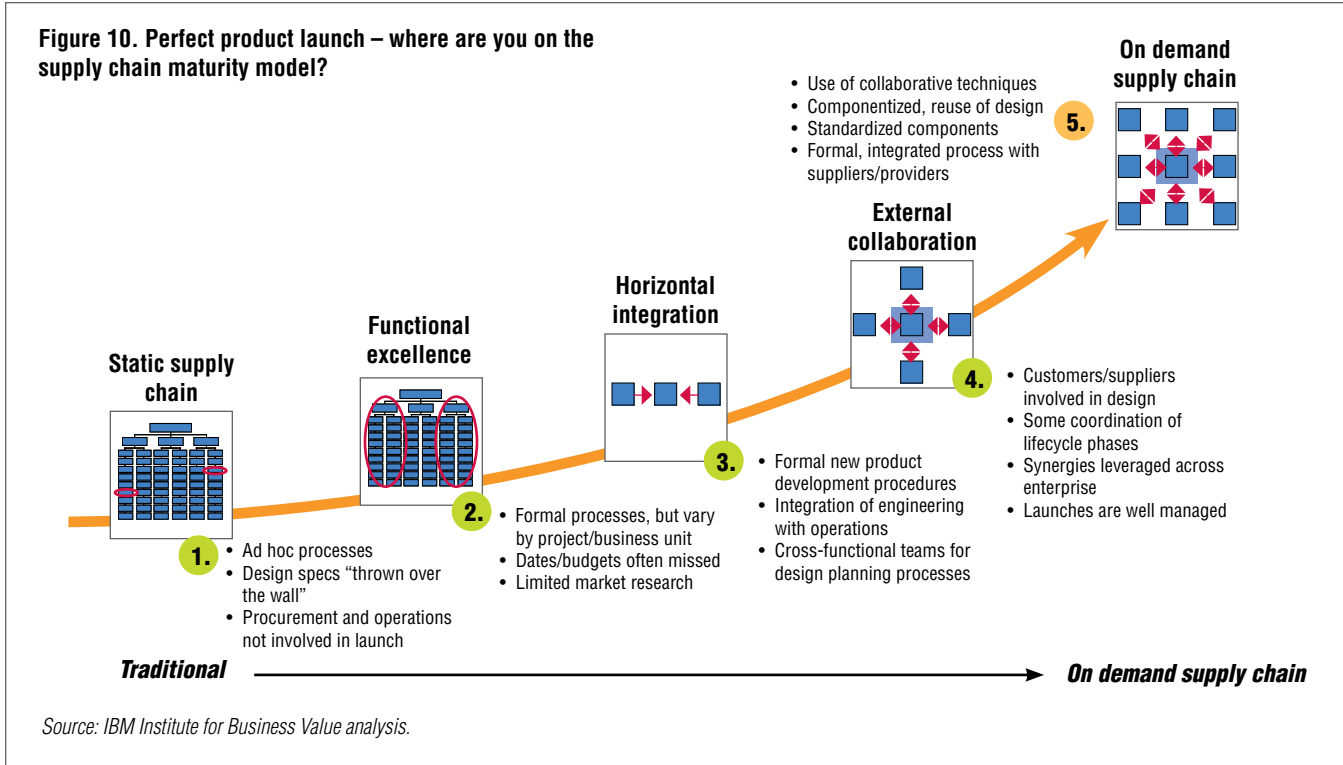
- Collaborating with customers to explicitly define requirements
- Integrating with suppliers and supply chain service providers during design, development, production and service
- Using componentisation and standards to develop variations on products at lower costs.

**Key recommendations**

For innovation to translate into profitable growth, companies first need to evaluate the strategic role that new product development plays in their business context. A realistic evaluation in this context is critical for companies to commit the right resources, time and attention to the NPD process.

Secondly, strong sponsorship of the NPD process at the board and CXO level is a pre-requisite for alignment of internal and external participants in the process. The CXO roles need to drive a very clear understanding of the imperatives and success criteria for innovation processes across the strategic and tactical, as well as operational, layers of the organization.





Next, it is important to properly identify, evaluate and nurture the critical capabilities required for meeting defined NPD success criteria. In addition to building a bedrock of internal capabilities, the organization must properly leverage complementing external capabilities of partners.

Finally, the idea-to-market process needs to be complemented by innovation in other areas of the organization, including innovation in business model, distribution channels, resource management and market approach. It is here that the board-level commitment becomes truly important, since product innovation often requires complementing innovation in these other areas, for a company to truly “change the rules of the game” in its industry.

### Effective customer order management

Customer order management starts with the order entry process and involves efficient maintenance of customer database, opportunity evaluation for cross- and up-sell, back-order processing and post order fulfillment transactions. Being an important customer touchpoint, effective customer order management has a lasting impact on customer satisfaction levels. The ability to receive customer orders through multiple channels, and understand and respond to customer requirements as per the service strategy are the key aspects of customer order management.

**Key study findings**

The study reinforces the focus of Indian companies on profitability, customer responsiveness and quality as the top drivers influencing customer order management (see Figure 11). There is an increasing reliance (about 38 percent of respondents) on other business units or shared service centres for customer order management.

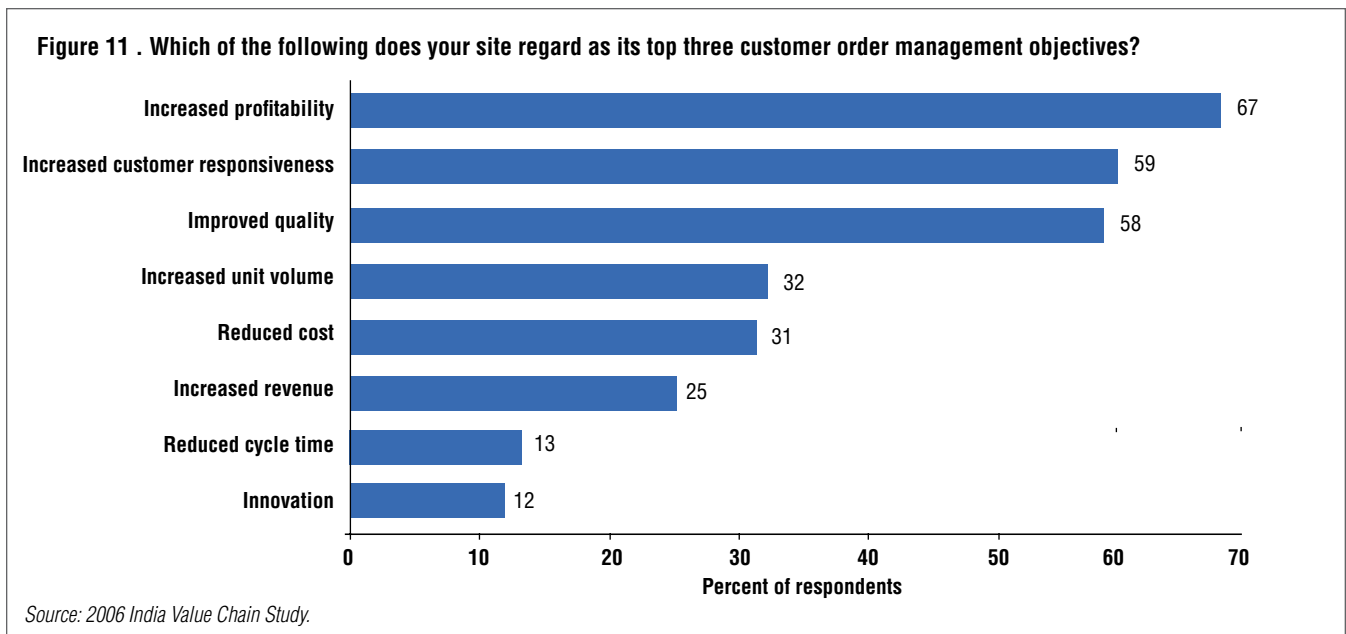
Predominantly, respondents classify customers either by sales value or by volume. Only 9 percent classify customers by profitability. There is a significant percentage (39 percent) of respondents without any formal customer classification mechanism. This is high compared to EMEA and Japan (about 27 percent). The implementation of ERP applications has enabled companies to efficiently capture and analyze sales and customer related information. Amongst the respondents, companies who have built significant data volumes are gradually adapting newer technologies to churn data and extract meaningful insights to further enhance fulfillment capabilities. Companies can now leverage these technology investments to classify customers by profitability or potential.

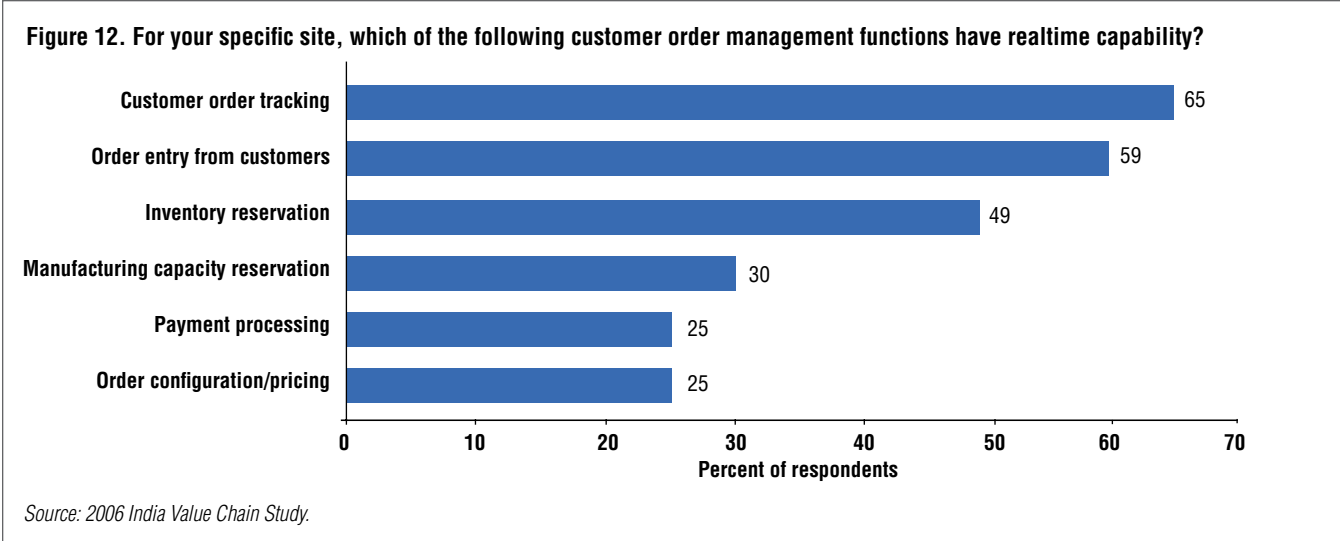
Customer relationship management (CRM) practices influence customer demand and support increased

revenue and profitability objectives. A majority of respondents have conducted customer focus group sessions to receive feedback and seek improvement areas. Companies have also adopted other CRM practices to varying degrees, like automated up-selling, differentiated service or pricing based on segmentation, and customer self-service. Early adopters are leveraging information technology to sustain and improve the adoption of the above leading practices.

Companies are leveraging technology to enable supply chain visibility, order acceptance and adherence to promised delivery dates. Many respondents are integrating with their customers by providing access to their websites where their customers can log-in to view order status and other account information online, facilitating internal planning & scheduling.

Technology has also played a role in integrating the company's order management process with the customer's planning and procurement processes. The practice of direct order entry by customers is not widespread, but many respondents are developing capabilities to facilitate it (see Figure 12). Going forward, more and more companies are aiming to leverage





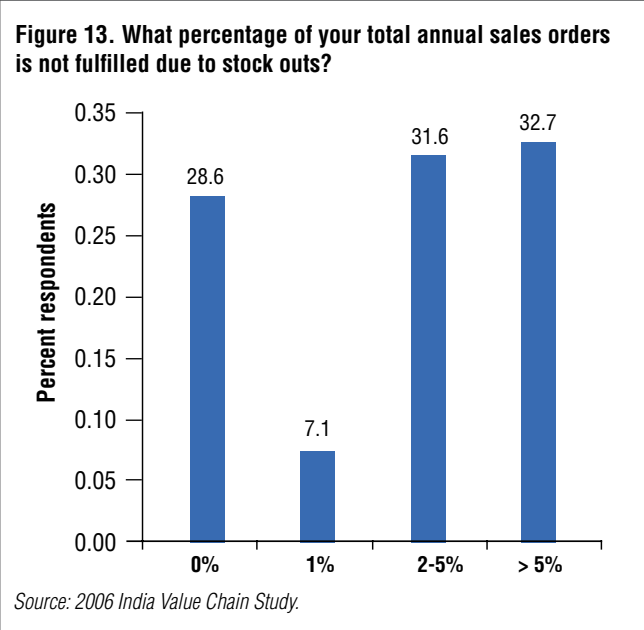
technology for order entry and tracking purposes. Service sector companies are focusing on technology enablement of payment processes to enhance customer conveniences. Realtime order configuration and pricing is in a nascent stage and will grow when companies have sufficient confidence in the flexibility of manufacturing operations.

A majority of respondents reported a reasonable degree of integration of the customer order management systems with the other management functions. On expected lines, the degree of integration is more with production, financial systems and customer credit to enable system based demand communication, allocation, customer financials and credit check activities.

Half the respondents said that there were very few changes to the orders by customers. As demand fluctuations are yet very high and predictability low, inventory buffers are used to absorb these fluctuations leading to higher inventory turns.

Companies are focusing on enhancing logistics efficiency to reduce delivery variances and costs. There is also a widespread use of customer satisfaction surveys carried

out by independent third parties to gauge customer feedback on the company's performance. A majority of respondents related a potential opportunity to gain 2 or more percent of revenue increase by focusing on better integration of the supply chain (see Figure 13).



A comparison across geographies indicates that Indian respondents do not face as much of a retention challenge today as their global counterparts (see Figure 14). This can be related to the higher focus on growth rather than cost reduction and the attempts of companies to be responsive to customer needs. All of this, however, does not undermine the efforts by leading companies to improve customer retention and reduce lost sales.

**What leaders are doing to provide leading order management service**

Recognising the impact of effective customer order management on customer satisfaction, leaders are working toward closer integration with their customers (see Figure 15). Some of the important steps leaders are taking include:

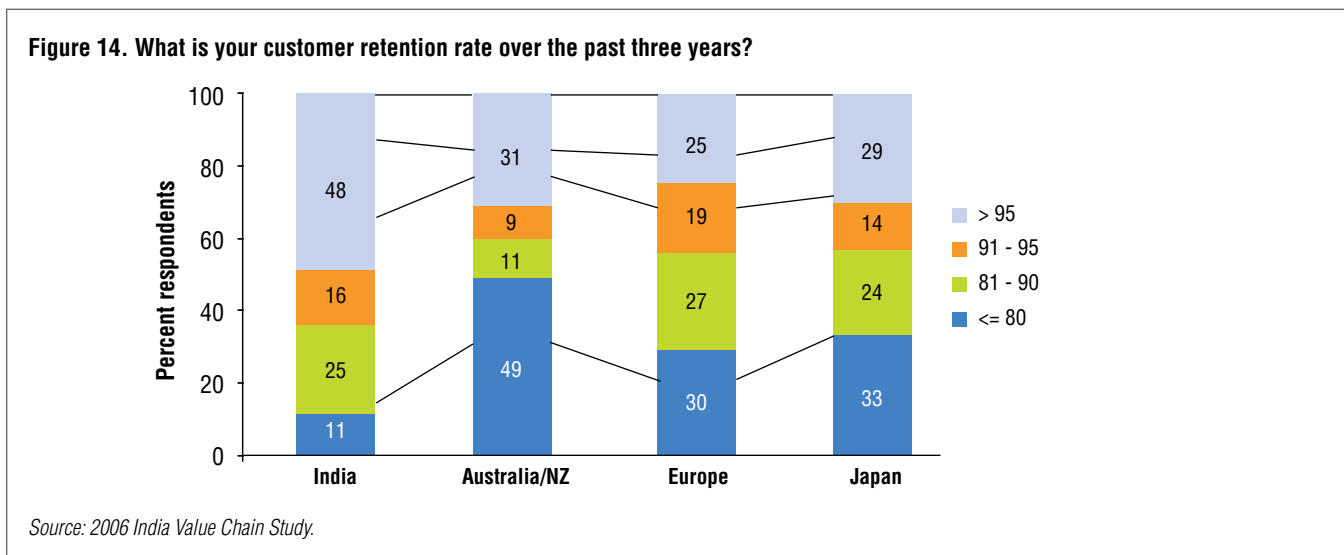
- Establishing measurements and classification aligned to defined objectives.
- Closely integrating CRM with supply chain planning and execution processes
- Integrating processes end-to-end with key service providers and other supply chain partners to provide differentiated customer segment product and service bundling, and superior customer service levels

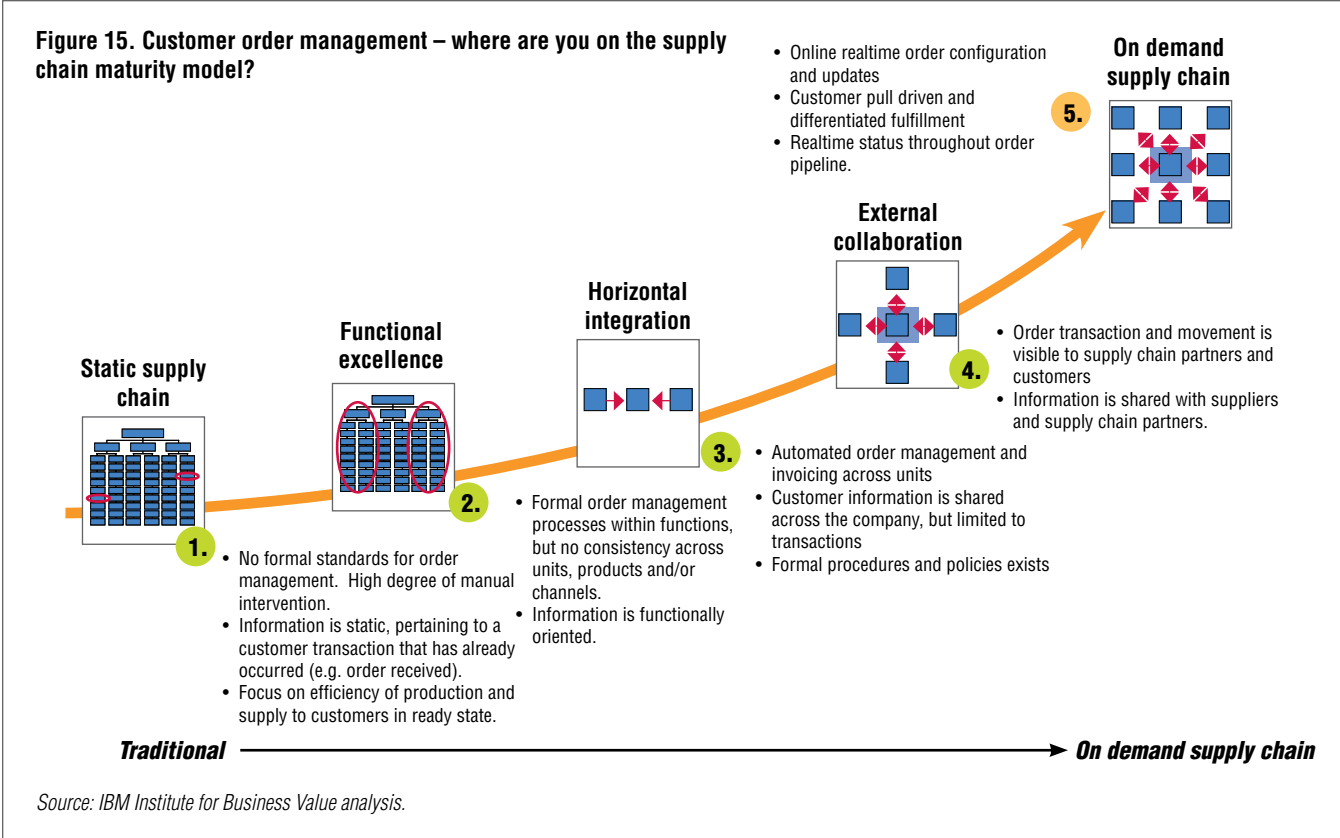
- Providing a single face to the customer across business units, with order configuration and dynamic pricing
- Optimising inventory levels, and constantly tracking and improving on stock-outs.
- Realtime visibility and event monitoring of customer, product and supply information throughout the supply chain.

**Key recommendations**

Customer order management is one of the first customer touchpoints. The needs of different customers are becoming more varied; and each customer’s importance to the company varies. Therefore, a key first step in this area is to decide how customers and channels should be segmented and managed, and how customer order management and logistics need to be structured to accomplish this service strategy and control service costs.

As in other supply chain areas, integration of internal and external functions is important to provide the requisite level of visibility (for control) and reliability. Companies need to establish realtime capabilities for the customer order management functions and provide advanced functions as part of an integrated end-to-end order process.





**The procurement opportunity**

Today, companies continuously rationalise and harmonise their global value chain resources in search of more efficient and effective means of meeting global customer demands. Fast, flexible, efficient and transparent response to changing end-customer demands and supply unreliabilities remains a strategic mission – and a competitive necessity – for supply chain management.

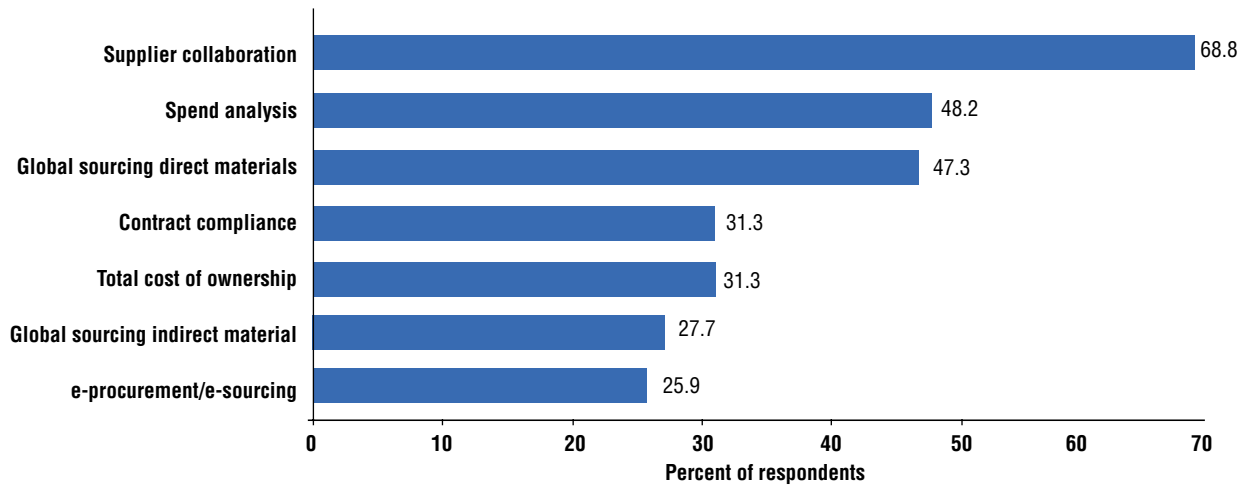
To effectively analyse and manage total procurement spend, companies need comprehensive, enterprisewide information, especially visibility into purchasing spend and behaviour patterns. Enterprises need operational and supplier performance measurements to effectively

manage supplier relationships. Shifting to customer-driven supply networks requires collaboration – across the organisation and with partners – to better manage sourcing and spending, in order to achieve enhanced profitability.

**Key study findings**

Increased profitability (62 percent), customer responsiveness (55 percent) and improved quality (54 percent) continue to be the major objectives for procurement and supplier management functions. Collaboration with suppliers and spend analysis are viewed as the key factors to achieve these objectives, followed by global sourcing and contract compliance (see Figure 16).

**Figure 16. What are the key factors (initiatives) to achieving these procurement objectives?**

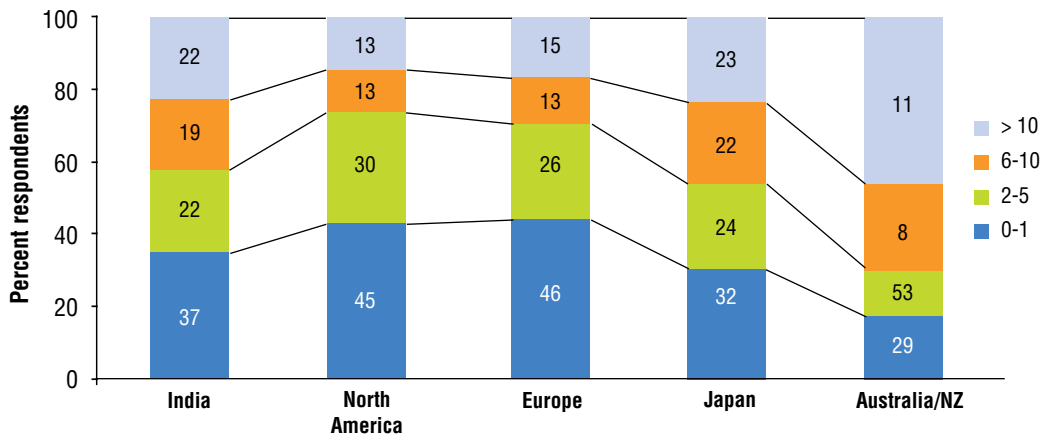


Source: 2006 India Value Chain Study.

A leading indicator of procurement performance is “maverick buying” as a percentage of annual purchases. In India, maverick purchasing is at an average level of 12 percent. More than 40 percent of respondents have indicated that average levels of maverick spending are greater than 5 percent (see Figure 17). This confirms the need for Indian companies to focus on spend analysis and contract compliance initiatives.

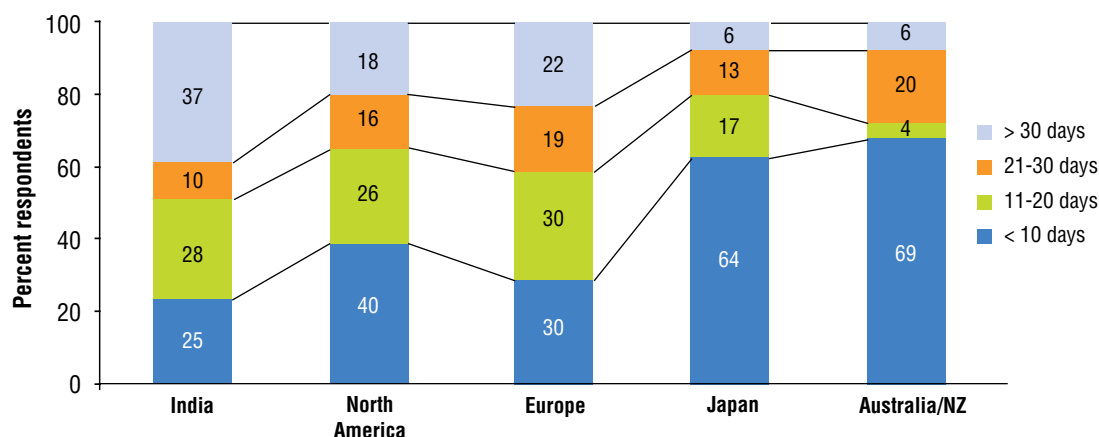
Respondent companies in India are witnessing a high supplier lead-time on purchased materials. About 37 percent of respondents indicated an average supplier lead-time of greater than 30 days (see Figure 18). This, coupled with the fact that 80 percent of respondents had 90 percent or lower of the requisitioned quantity delivered by the original request date, indicates the need to focus on closer integration and deeper relationships with suppliers.

**Figure 17. What percentage of your site’s total annual purchases is procured via maverick buying?**



Source: 2006 India Value Chain Study.

**Figure 18. What is your site's average supplier lead-time on purchased materials?**



Source: 2006 India Value Chain Study.

Transactional efficiencies in procurement have not been a focus area for Indian respondents in the past. Seventy-nine percent of respondents indicated that the average cycle time to place a purchase order is greater than four hours, far greater than their global counterparts

The supplier relationship in India is primarily centered on quality and delivery. However, given the current thrust on supplier collaboration and spend analysis, an increased emphasis on total cost of ownership (TCO) as a measure to evaluate procurement performance is expected. This, in turn, will be driven by collaborative design and development, where companies engage suppliers and exchange knowledge during the entire product lifecycle, which can help reduce costs and time-to-market, and, at the same time, maintain quality standards. Working in isolation and making assumptions about supplier capabilities may undermine sourcing strategies because of higher costs, and may fail to leverage supplier knowledge for componentisation and reuse.

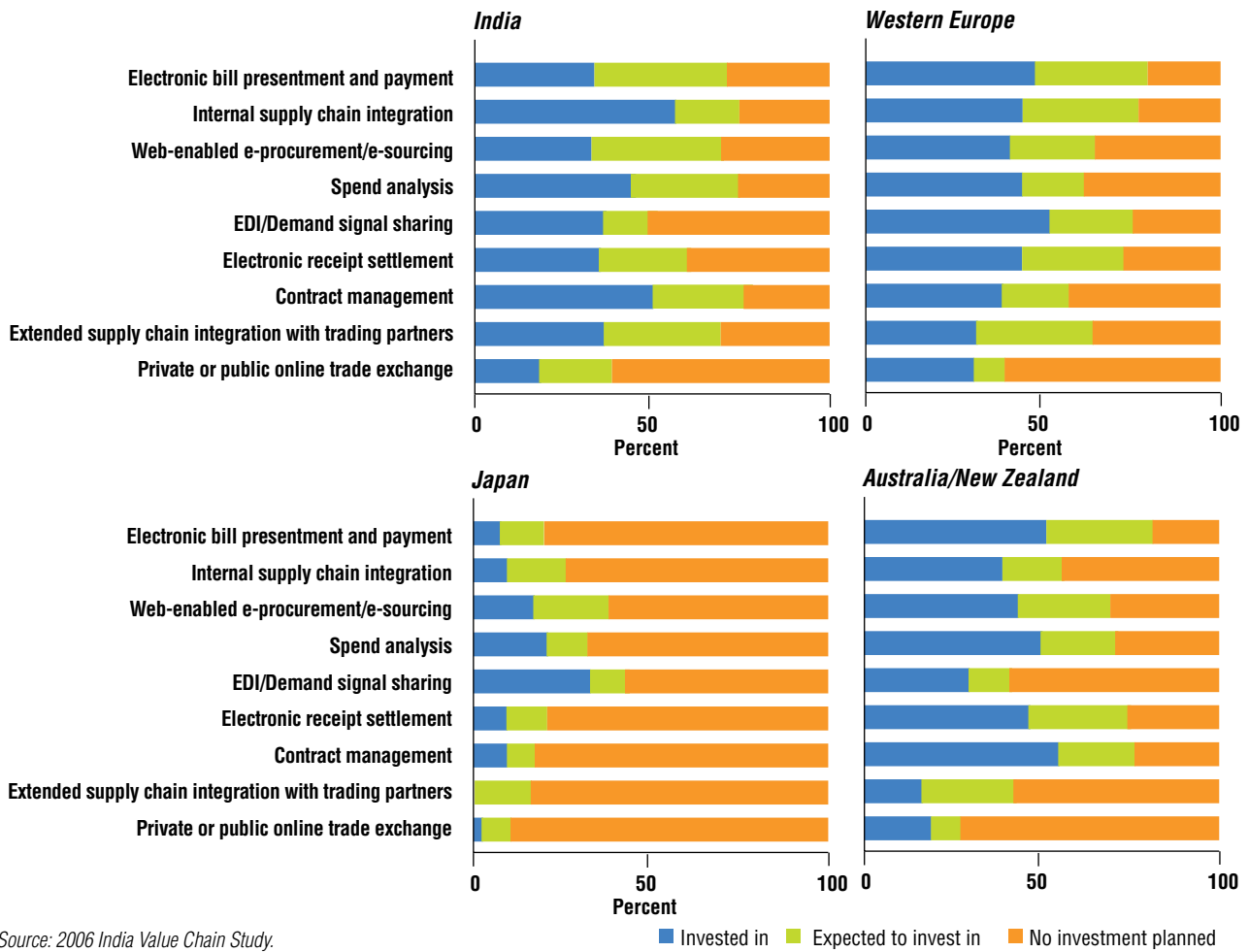
A critical element to help ensure that any initiative succeeds is the availability of accurate and timely data that could provide, for example, insight into enterprisewide spend patterns, such as maverick spend rates, contract compliance and price optimisation opportunities. More than half of respondents have already invested, or plan to invest, in procurement and internal supply chain integration applications which enable the capture of critical information apart from facilitating business processes (see Figure 19).

#### ***What leaders are doing to deliver procurement benefits***

As companies evolve up the supply chain maturity model toward an on demand supply chain (see Figure 20), they are increasing their buying power through strategic global sourcing, while creating virtual supplier networks. Many of the leaders are implementing the following practices:

- Implementing proactive category management to drive continuous value creation

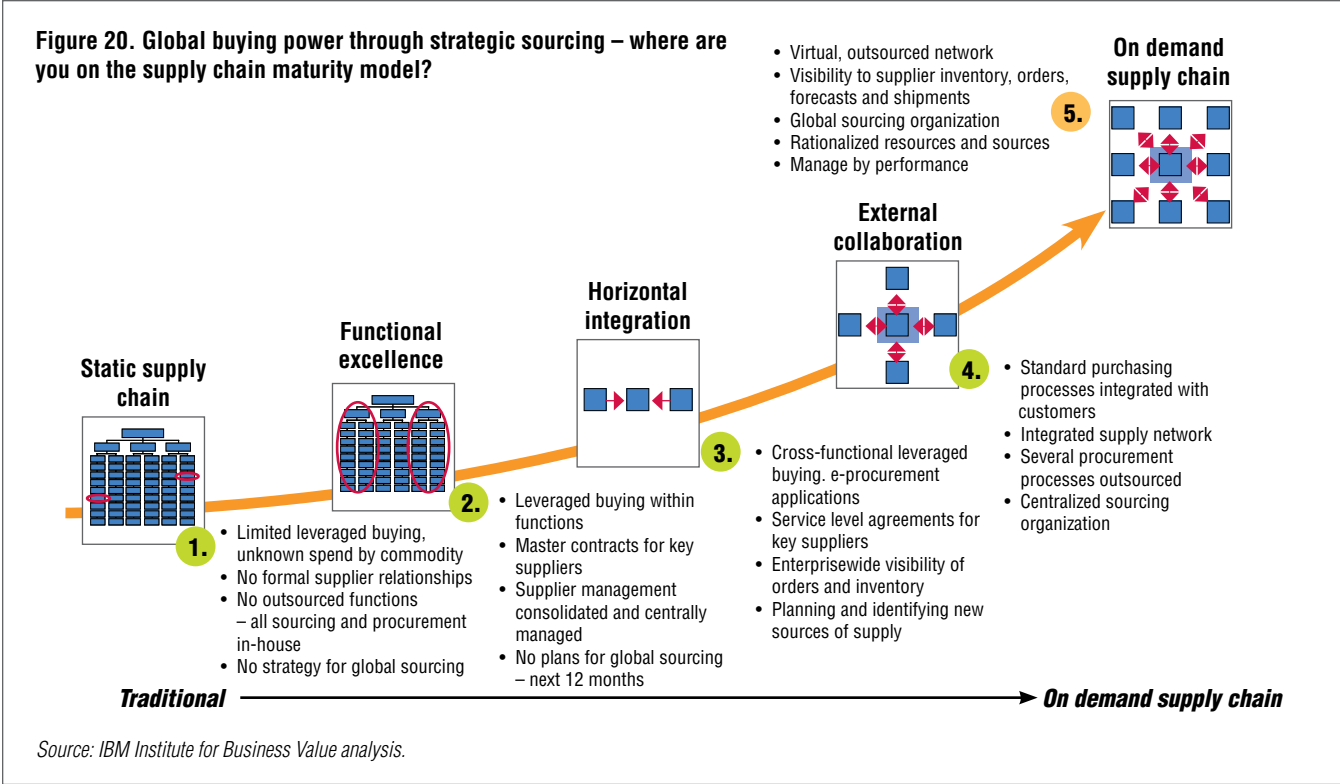
**Figure 19. Investments, or planned investments, in procurement and internal supply chain integration applications, by geography.**



- Investing in fewer, deeper supplier relationships, and developing collaborative supplier relationship management programmes with mutual objectives and performance criteria
- Outsourcing basic procurement, payment and audit functions as a way to unlock new value
- Driving adoption of TCO approaches through more strategic and complex, value-based contracting.

**Key recommendations**

Given the rapidly changing business dynamics, close collaboration with suppliers is a business necessity. Companies should sharply define their procurement strategy and identify supplier partnerships in which they need to invest. Focused efforts and collaboration will help in increasing transparency, and help reduce lead times and inventory buffers.



Contract compliance is a fundamental building block of effective procurement – if it is not in place, further work on supplier and contract development may be nullified. Executing contract compliance requires a combination of policy, sponsorship and measurement. Measurement, in turn, requires data transparency. Contract compliance is increasingly vital as companies expand from a single manufacturing location to multiple manufacturing locations.

In addition, procurement professionals must have the required category and supplier management skills; and they must clearly understand the need for procurement to engage with the business as part of a successful strategic sourcing programme. With strategic suppliers in particular, this programme should not only look at price and TCO, but also capabilities to share risk, and be flexible and responsive.

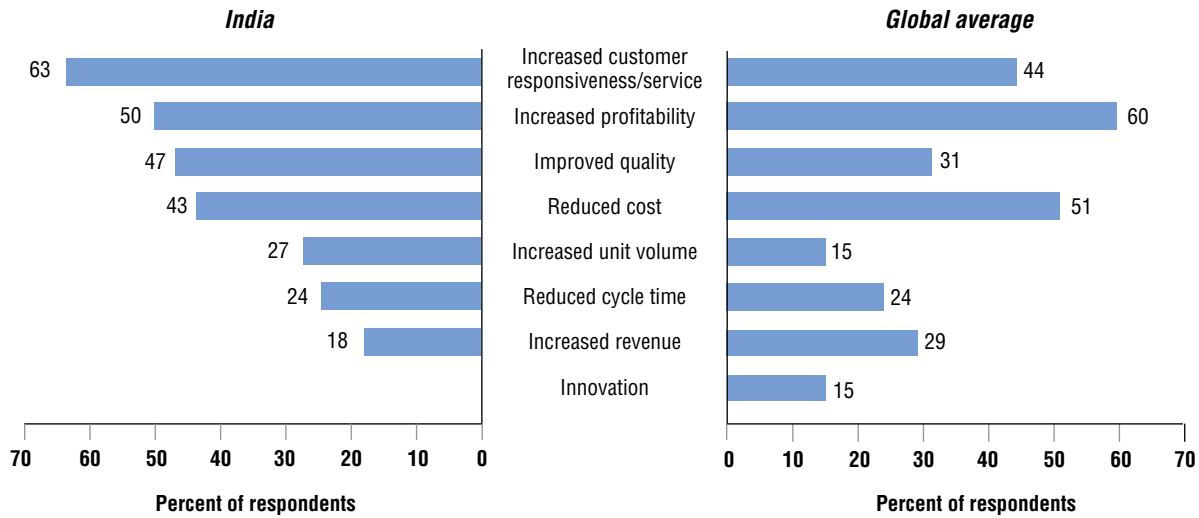
**Effective logistics services**

Customers are becoming more demanding. Their expectations are evolving toward greater levels of service demanding higher degrees of responsive and customisation. Empowered customers expect on-time delivery and self-service with realtime order status information. New customer and distribution channels are being created, enhanced by technological innovations and innovative logistics solutions. Existing channels are under pressure and require constant change to retain market position. Customer satisfaction, continued sales growth and retention depend on accurate and efficient logistics management and servicing.

**Key study findings**

Increased customer responsiveness and service is the top driver for logistics management functions, with continued emphasis on reduced cost and increasing profitability and improved quality (see Figure 21).

**Figure 21. Which of the following does your site regard as its top three logistics management objectives?**

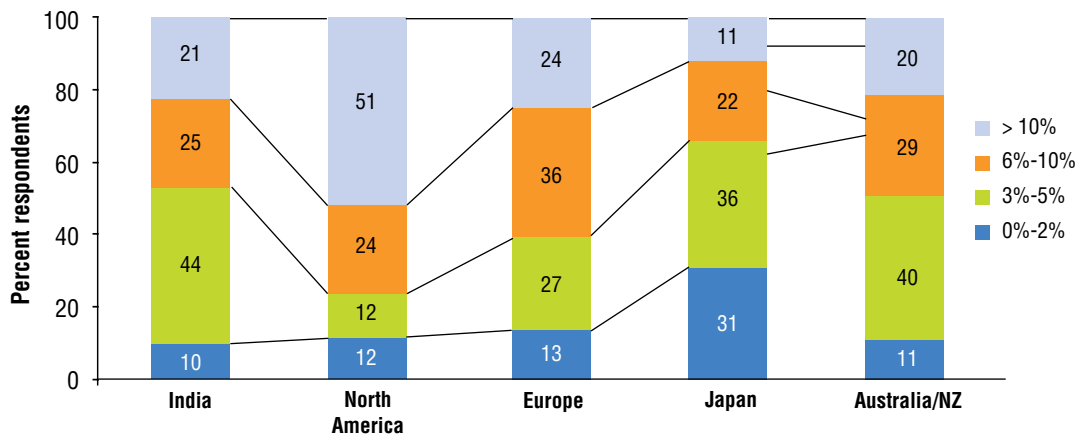


Source: 2006 India Value Chain Study.

The focus on increased customer responsiveness is reflected in 63 percent of Indian respondents, which is significantly higher than their global counterparts who are more focused on cost reduction – possibly owing to their higher cost of logistics. (see Figure 22).

For more than three-quarters of respondents, the total logistics costs represent less than 10 percent of sales and revenue. North American firms, on the other hand, experience higher relative logistics costs (mean of 11.2 percent, versus 8.5 percent in India). About a third of respondents

**Figure 22. What is your site's total logistics cost as a percentage of sales?**



Source: 2006 India Value Chain Study.

indicated that premium freight paid was in excess of 10 percent of the logistics cost, pointing to an opportunity to drive efficiencies through logistics planning and execution.

Today’s decentralised supply chain models and tighter trading partner collaborations demand expanded logistics capabilities – more stocking locations, more frequent ordering, smaller order sizes, more sophisticated modes of transportation, multichannel distribution, configure-to-order capabilities, personalisation and distributed responsibility. Added to this, transportation costs are rising, driven primarily by fuel prices in the past two years. Increased costs, combined with capacity shortfall and regulatory restrictions on road transportation, have led to a significant rise in the complexity logistics functions must address.

However, with improved visibility and management tools, the logistics function has become a key component of supply chain operations, helping to combat inefficiencies in warehouse labour, transportation and space utilisation, and inaccuracies in inventories and customer shipments. Implementing scalable, yet cost-effective, strategies for logistics has become a mission-critical objective. Leading Indian companies are pursuing practices of cross docking, carrier collaboration and differentiated service strategy.

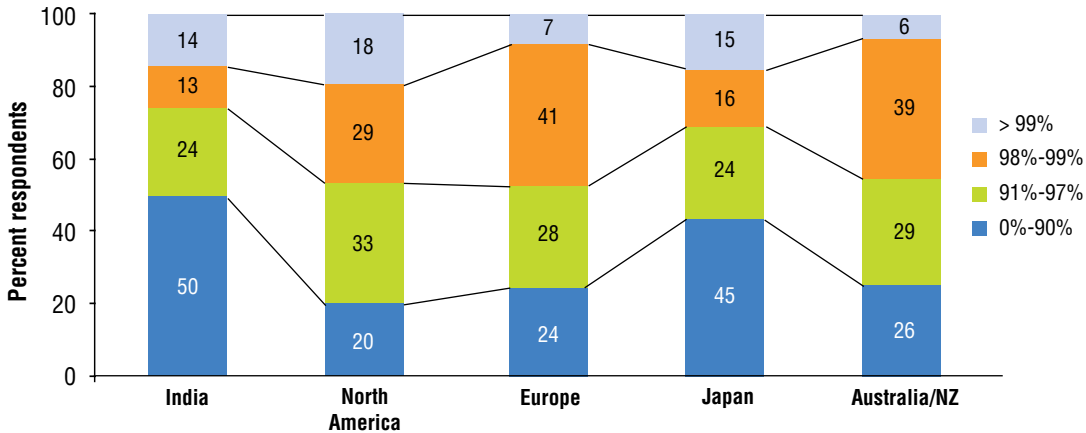
More and more companies are developing specialized variable networks of logistics service providers to manage end-to-end logistics costs better – along with greater

levels of on-time delivery, fill rate and other customer performance expectations. They are outsourcing components of their overall logistics capabilities to transportation and distribution service providers. Transportation (inbound and outbound) continues to be the most frequently outsourced function. Some Indian companies are also outsourcing customs and export, warehousing and distribution centres (DCs), and transportation management services (TMS).

Outsourcing often necessitates effective measurement and management of key logistics networks. Effective customer order fulfillment requires keeping a careful eye on logistics performance and key indicators. Customer order-cycle times of Indian respondents were found to be longer than their peers in other geographies.

On-time delivery (OTD) remains the major indicator of customer satisfaction and logistics performance excellence, along with other perfect order components (such as complete, accurate documentation and undamaged). Here again, only half the Indian respondents achieve an OTD rate of 90 percent or greater which is significantly lower than the three-quarters of respondents in North America, Europe and ANZ (see Figure 23). OTD was defined as scheduled delivery time versus the customer’s original request date.

**Figure 23. What percentage of sales orders is delivered on-time, as scheduled?**



Source: 2006 India Value Chain Study.

Technological adoptions can help improve logistics metrics for Indian companies. Most Indian companies still use manual records and spreadsheets, or internally developed applications for monitoring and managing their logistics processes. Additionally, a majority of the companies still do not have a clear strategy for adoption of newer technologies, such as radio frequency identification (RFID) (see Figure 24). This, however, is mostly in line with the global trend in RFID adoption.

**What leaders are doing to achieve effective logistics services**

Companies continue to strive to improve their logistics execution and performance in order to meet profitability and cost containment objectives, but much more importantly, to deliver the “perfect order” and meet customer requirements for the right product at the right time for the right price.

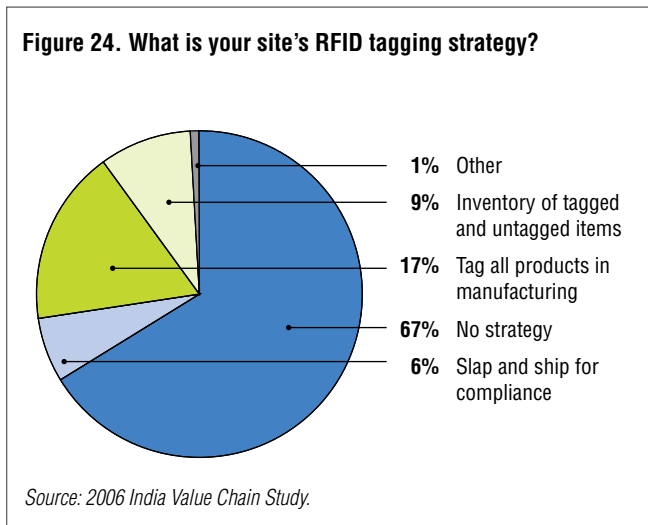
As companies evolve up the supply chain maturity model toward an on demand supply chain (see Figure 25), they develop robust, global logistics capabilities that are variable in structure and cost – logistics networks that are highly integrated and can fluctuate to accommodate varying customer demand.

Many of the leaders are implementing the following practices:

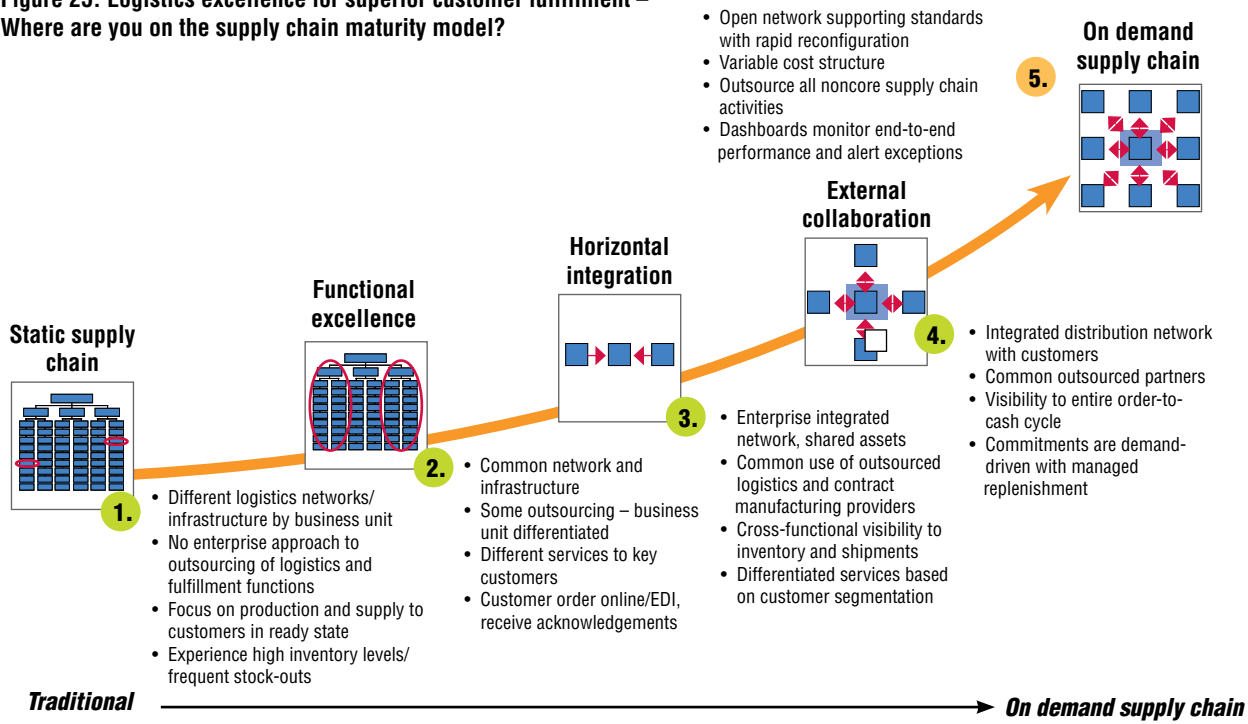
- Realtime visibility and event monitoring of customer, product and supply information throughout the supply chain
- Outsourcing of non-core logistical functions to third-party, leading logistics providers with back-to-back service level agreements
- Integrating processes end-to-end with key service providers and other supply chain partners
- Managing the logistics network by monitoring events and exceptions.

**Key recommendations**

Logistics is amongst the most visible fronts of a company to its customers. It is thus important to continually measure the performance of the logistics processes through key metrics and to verify the accuracy and currency of information. Adoption of advanced technology to achieve end-to-end supply chain integration, and synchronization with a greater degree of visibility and reliability has thus become essential for companies to increase customer responsiveness. There is also a great opportunity for logistics functions to outsource non-core activities to service providers to support supply chain flexibility and enable “plug and play” with systems of partners.



**Figure 25. Logistics excellence for superior customer fulfillment – Where are you on the supply chain maturity model?**



Source: IBM Institute for Business Value analysis.

**Conclusion**

Supply chain management has truly emerged as a competitive weapon for Indian companies in the last few years. Indian companies are focusing on improving responsiveness, and adopting leading practices and technologies. In India, companies are sharing information with suppliers and customers, and now are moving toward early partnerships with the enterprises in the value chain to develop new products and services. Collaboration with supply chain partners is becoming an important capability. Companies are moving toward a dynamic, realtime supply chain. This type of on demand supply chain is supported by applications that enable realtime information visibility, both inside and outside the

enterprise – indeed, managing the ever-growing streams of information that drives supply chains has become another critical competency. Indian companies have started measuring supply chain process performance, but now need to move to the next level of performance by creating more stringent measures.

The 2006 India Value Chain Study indicates that many Indian companies are well informed and gearing up to meet the challenges and opportunities. Others still have significant room for improvement in delivering high performance with increased responsiveness. This study presents an opportunity for them – to follow the leaders, set new benchmarks and eventually lead the way.

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