



Supply chains in India: A reality check

Here to where and how

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Foreword

Stakeholder expectations are dramatically changing due to advancement in technology and digitisation. Businesses need to be future-proof, more proactive and stay connected with their customers more than ever before. Innovations are challenging even the well-established players in the market, which indicates that no one is immune to disruptions.

As the environment evolves, harnessing new business models and operating models enabled with digitisation is key to increasing value and driving sustainable growth. All the functions and processes must work in a frictionless manner to realise enterprise-wide transformation.

The supply chain (Plan, Source, Make and Deliver) function is in a good position to create value and drive transformation across the extended value chain from supplier's supplier to customer's customer.

Supply chain function is at a crossroads, where it has to surpass its traditional focus of transactional processing and driving efficiency

to a leadership role that can make organisations ready for the digital world.

With this background, this survey report brings the story of supply chains in India by doing a Reality Check in terms of 'Here' to 'Where' and 'How'.

To build this report, we reached out to supply chain leaders of manufacturing sectors like automotive, auto ancillaries, consumer goods and durables, pharmaceuticals and engineering through an online survey to get their views on the current supply chain challenges, key focus areas and future aspirations. [Please refer to the 'methodology' section for further details].

At the end, we have given our perspective on how to effectively build Supply Chains for a Digital World.

We would like to thank Association of Supply Chain Professionals (ASCP), Anshuman Neil Basu, (Honorary Secretary General, ASCP) and our survey respondents for actively supporting us in this endeavour.



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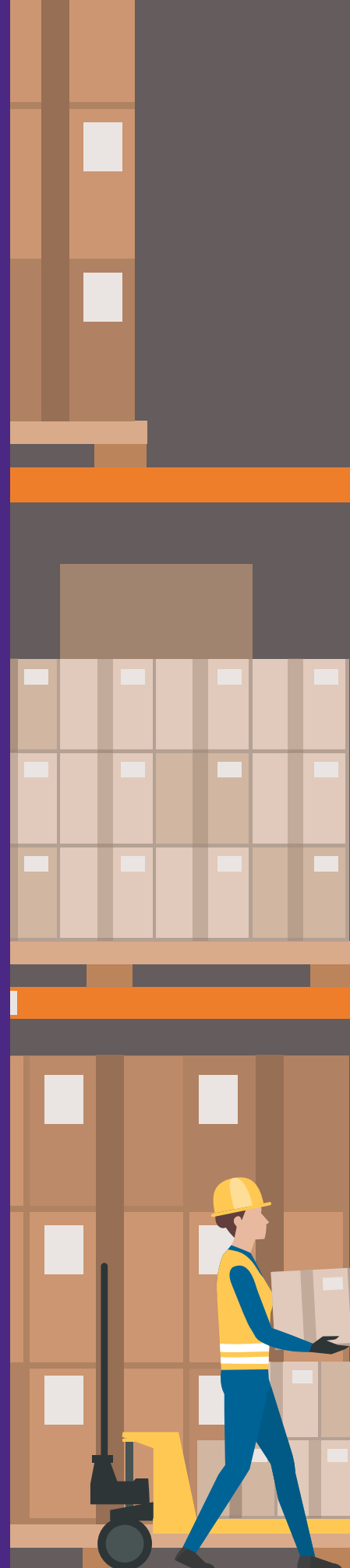


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Context



The automotive, auto ancillary, pharmaceuticals, consumer goods and durables and engineering sectors in the past 10 years have been experiencing growth in revenues. During this time, the supply chains have become more complex with an increasingly connected world leading to globally spread customers, increased segments and channels, rural penetration,

newer products and services and global supplier base. Regulatory and complex geo-political changes continue to be important factors as well. Hence, it is interesting to see how some of the supply chain financial metrics have performed during this period (FY09 to FY18), which is an indication of performance of the supply chain function.

Chart 1: Change in supply chain KPIs with respect to growth (FY09 to FY18)

Sector	Revenue CAGR %	Operating Profit as % of revenues	Direct material cost as % of revenues	Inventory turnover	Cash to cash cycle in days
Automotive	14%	12% 5% 11%	71% -3% 73%	16 11% 15	-13 -150% -5
Auto ancillary	12%	16% 24% 13%	61% -5% 64%	8 13% 7	56 86% 30
Pharmaceuticals	13%	19% -4% 20%	40% -15% 47%	3 -20% 4	147 14% 129
Consumer goods and durables	9%	24% 23% 20%	51% -8% 55%	6 2% 6	44 -10% 48
Engineering	5%	12% 3% 12%	55% 0% 55%	12 56% 8	52 9% 47

Note: All values have been rounded to the nearest integer

Legend

x → CAGR from FY09 to FY18

a → % change from base value to current value
b → Base value (Avg. of FY09 and FY10)
c → Current value (Avg. of FY17 and FY18)

■ >5% Improvement
 ■ 0% to 5% Improvement
 ■ Deterioration over base

Source: Financial reports, accessed through www.moneycontrol.com in October 2018, please refer the methodology section for more details.

Key insights:

- Even in this complex business environment, organisations have been able to show improvement in operating margins
- With direct material being the largest cost for all sectors, organisations have focused on optimising their procurement costs. Most have been successful in controlling and continually reducing their direct material cost
- Auto, auto ancillary and engineering have shown an improvement in inventory turns, but the same has not been the case in pharmaceuticals and consumer goods and durables sectors
- Cash to Cash cycle also has been a mixed bag, with auto and consumer goods and durables sectors showing improvement, while auto ancillary, pharmaceuticals and engineering have undergone a decline.

With this background, we thought it pertinent to have a reality check by reaching out to supply chain practitioners to understand the current challenges ('Here') and their aspirations ('Where').

Key survey findings



Organisations are aspiring for top range of improvements in the supply chain parameters

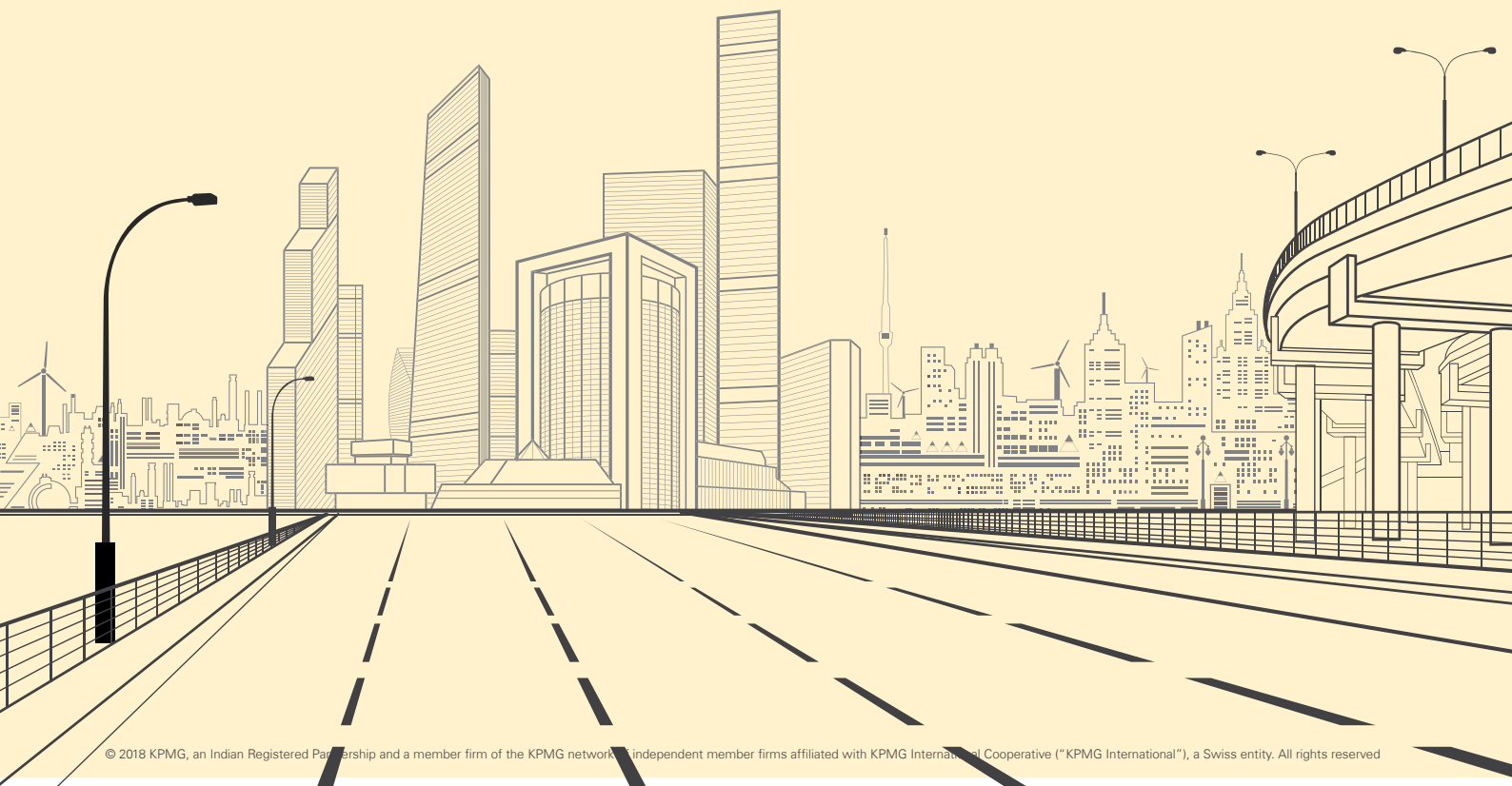
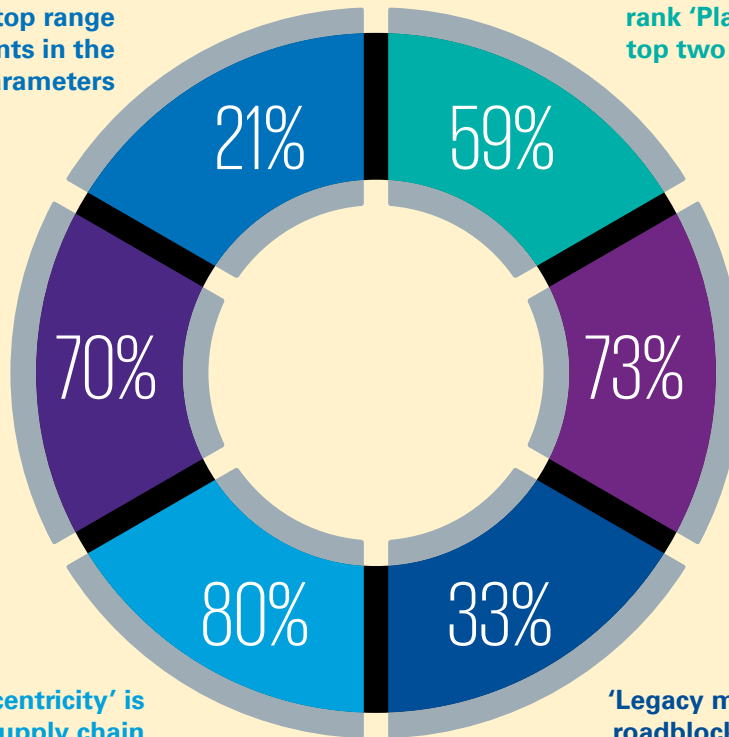
Supply chain leaders rank 'Plan' as one of their top two challenges

Believe leadership drive is key for a successful supply chain transformation

Organisations are undertaking 'operations excellence' initiatives to improve their supply chain

Believe 'customer centricity' is the key theme for supply chain of the future

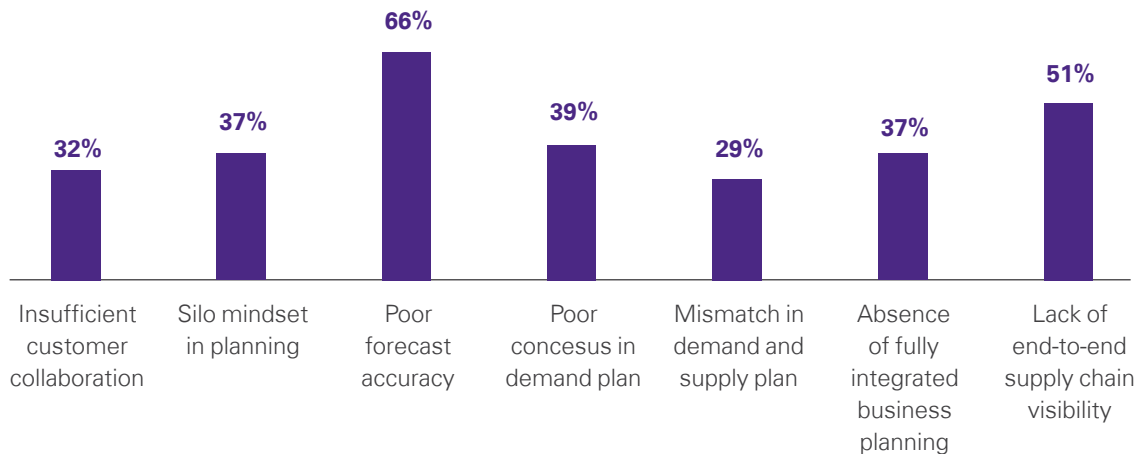
'Legacy mindset' is the biggest roadblock to supply chain transformation



A: Supply chains in India: Current challenges

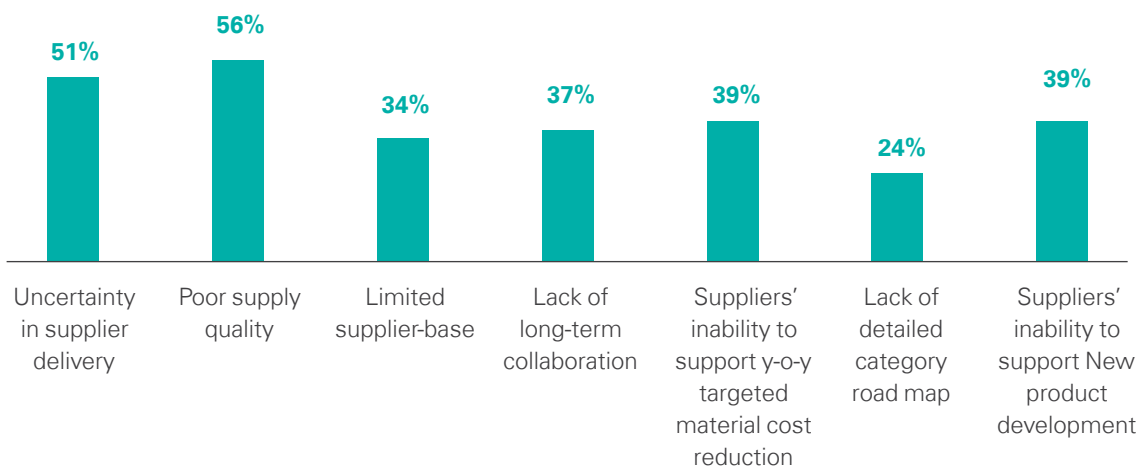
Organisations highlighted some of the major challenges being faced across the four stages of supply chain - Plan, Source, Make and Deliver

Chart 2: Top challenges in Plan



- Majority of the organisations have stated that poor forecasting accuracy is the biggest challenge
- More than half of the organisations asserted that they lack end-to-end supply chain visibility that could aid better planning.

Chart 3: Top challenges in Source



- Even after rounds of initiatives to improve supplier quality and delivery performance, they remain a top concern
- This reduces the purchaser's role to transactional activities of follower and chaser, undermining their ability to carry out more strategic activities.

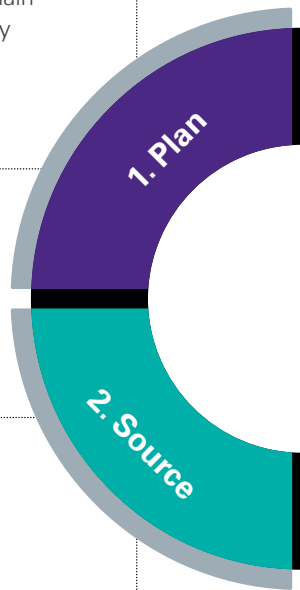
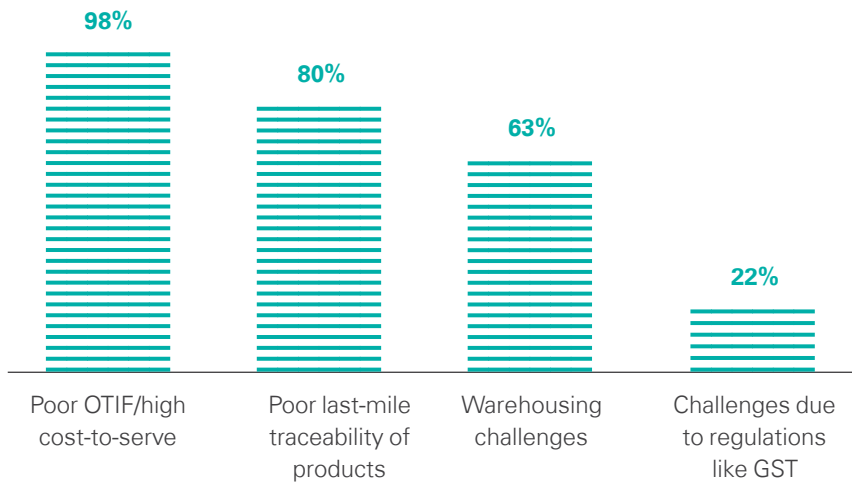
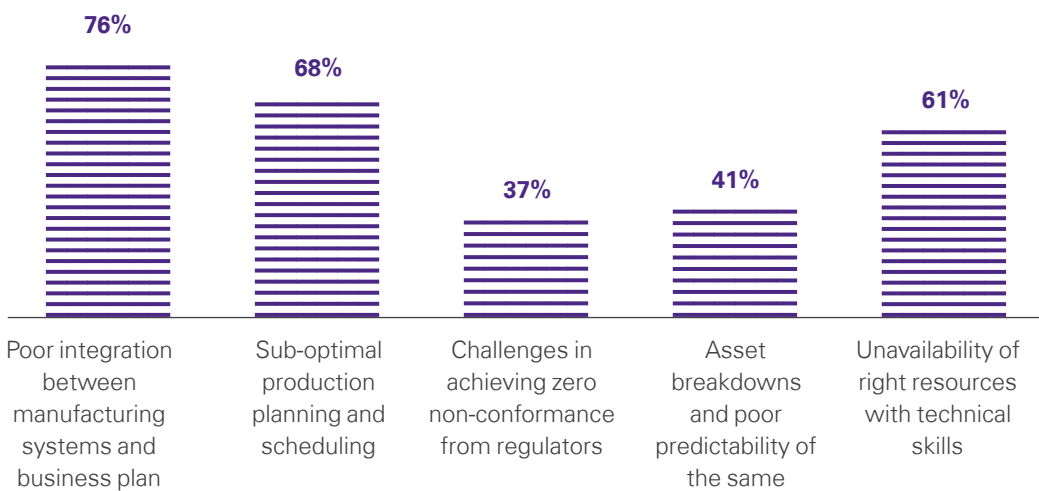


Chart 5: Top challenges in Deliver



- Inability to meet customer demand on time while incurring higher cost to serve is a double whammy
- GST related challenges are no longer the top concerns to supply chain professionals.

Chart 4: Top challenges in Make

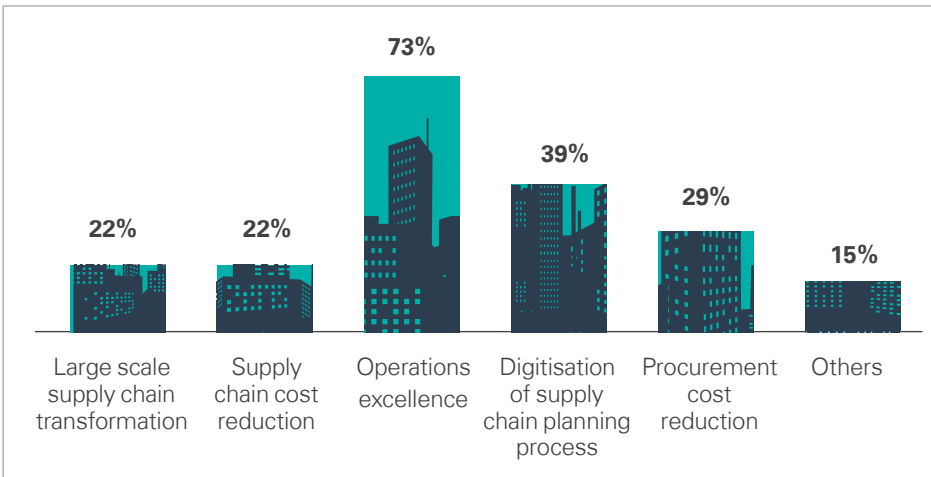


- Sustained efforts in manufacturing have led to improvement in machine efficiencies, yet integrating manufacturing systems with business plan and daily planning and scheduling have not improved significantly
- The next challenge to conquer is integrating manufacturing with other functions
- Gap in technical skills of the workforce highlights the need for greater efforts on skill building.

B: Existing initiatives and roadblocks

To overcome the challenges, organisations have been taking several initiatives

Chart 6: Initiatives being taken to improve supply chain performance



- Operations excellence is the most commonly pursued initiative. Some organisations have initiated the drive to digitise their supply chain
- Only 22 per cent are pursuing large transformational initiatives that impact all the aspects of the supply chain.

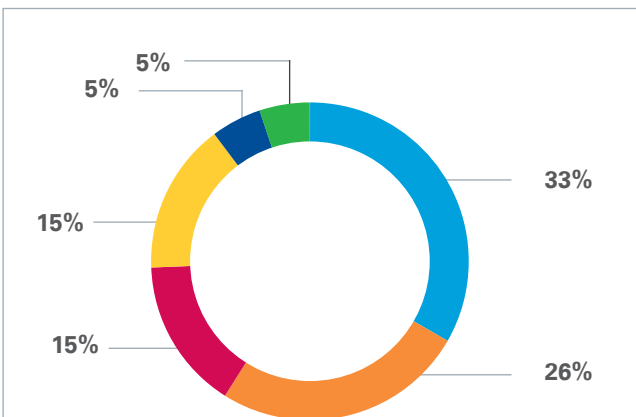
Organisations have to simultaneously focus on operations excellence and digitisation to rapidly prepare their supply chains for the digital world. It cannot be a linear journey!



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While organisations are undertaking multiple initiatives, there are pitfalls on the way which may result in delays in benefits realisation.

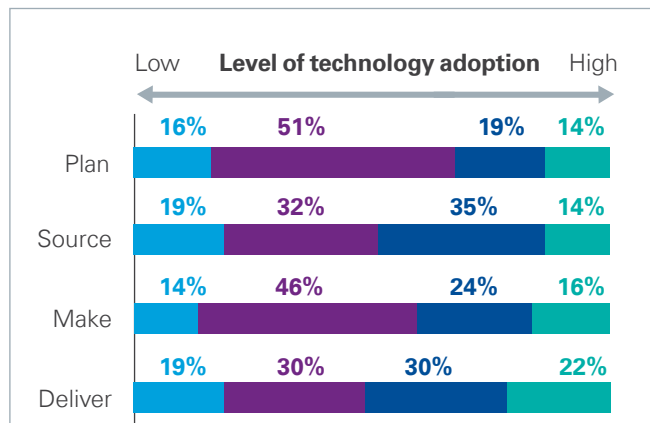
Chart 7: Mindsets creating roadblock



- Legacy mindset/Resistance to change
- Limited bandwidth of management for supply chain transformation
- Management avoiding large investments
- Organisation focus is on other priority areas
- No parallel industry case (why to do it?)
- Lag approach by the top management

- Legacy mindset/resistance to change and limited bandwidth are top hindrances for large scale supply chain transformations.

Chart 8: Technology adoption across supply chain



- Minimal/Nil usage of ERP/technology platform. Primarily excel based, zero digitisation
- 50-50% usage of standalone platforms/analysis based on excel files
- Minimal usage of excel files, majority work done through connected technology/digitisation
- 100% usage of technology platform which is connected end to end

- Majority organisations are implementing technology in silos which impedes a thorough integration.

C: Key emerging themes for supply chains of the future

Supply chains of the future are expected to be more customer-centric

Chart 9: Supply chain focus area

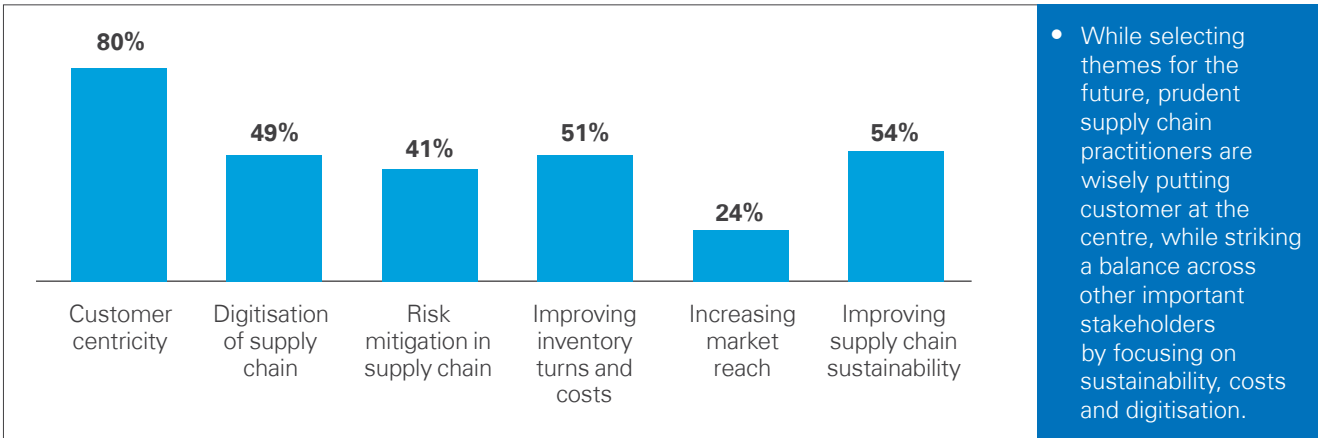


Chart 10: Success factors that are likely to enable supply chain transformation

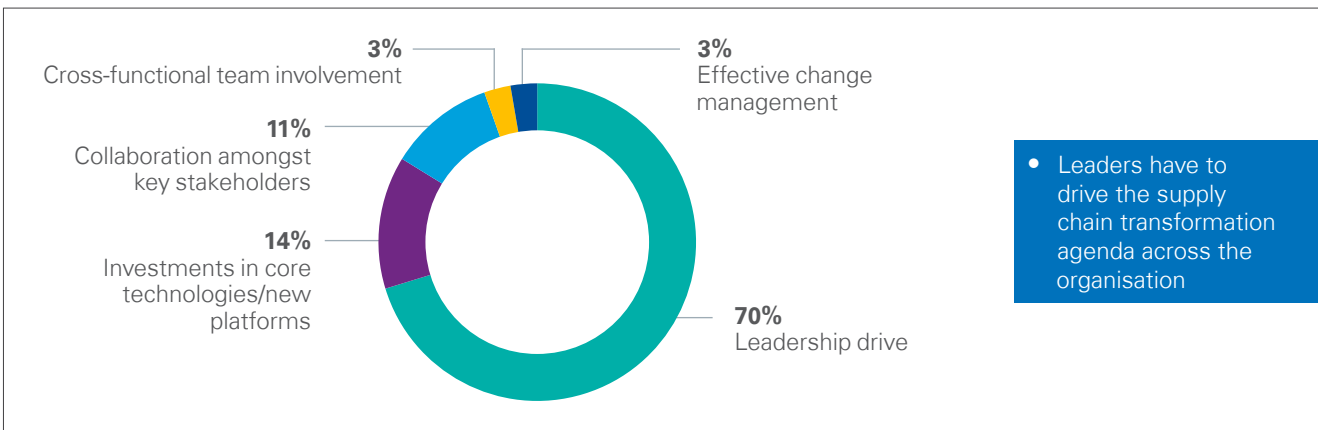


Chart 11: Technology options being explored for supply chain transformation

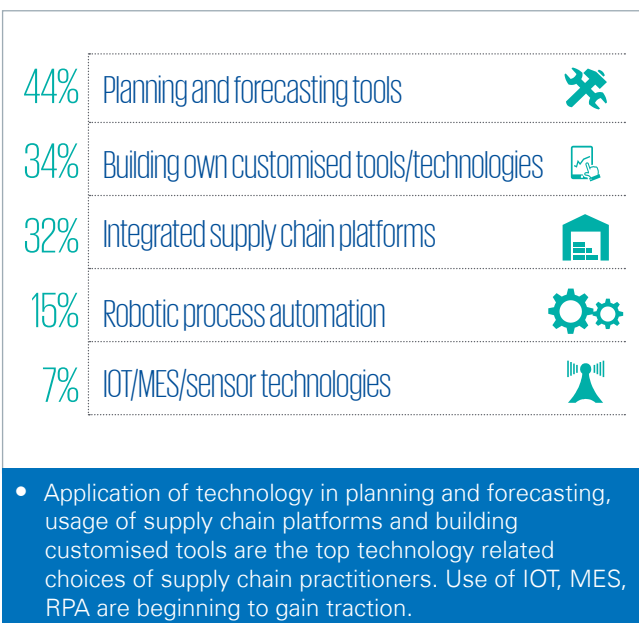
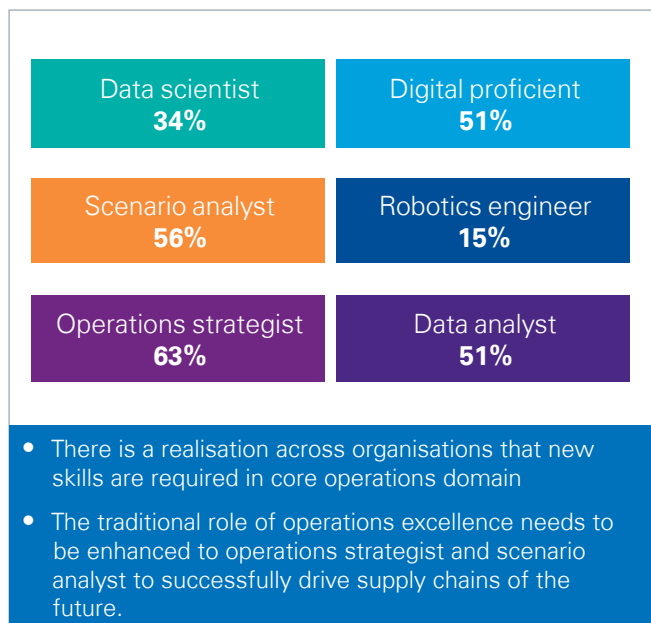


Chart 12: Skills required for supply chains of the future



D: Where are organisations aspiring to be

Organisations are conservative in terms of benefits expected in medium term

Supply chain practitioners want to see improvement in Key Performance Indicators (KPIs) across Plan, Source, Make and Deliver. The survey highlights that a majority of the respondents are quite conservative in their aspirations of benefits which can be achieved over the next three years. Limited number of organisations have aspired for the top range of improvements in

KPIs (greater than 30 per cent improvement). Majority of the organisations are targeting only 10-20 per cent improvement in KPIs in the backdrop of various initiatives being planned. This indicates that the actions that are being planned by organisations are probably point solutions and not transformational in nature.

Chart 13: Spread of benefit aspirations by organisations in supply chain KPIs

Supply chain stage	Key Performance Indicators (KPIs)	Benefit aspiration ranges			
		Range 1	Range 2	Range 3	Range 4
Plan	Forecast accuracy improvement	●	●●●	●	●●●
	Inventory turnover improvement	●	●●●	●	●●●
	Stock-outs/sales loss reduction	●●	●●●	●	●
Source	Supplier On Time in Full (OTIF) improvement	●	●●●	●●	●●
	% RM/PM cost over net sales reduction	●●	●●●	●	●
Make	PPM reduction	●●	●●	●	●
	Manpower productivity improvement	●●	●	●●●	●
	Overall Equipment Effectiveness (OEE) improvement	●●	●●●	●●	●
Deliver	On Time Delivery in Full (OTDIF) improvement	●●	●●●	●	●●
	Average distribution cost/unit reduction	●●●	●●●	●	●

Notes on reading the chart:

- Bubble size is proportional to percentage of respondents selecting that range of improvement aspiration for a particular KPI, sum of each row will add up to 100 per cent
- For example, in Forecasting accuracy improvement, 11 per cent have chosen range 3 which is represented by the smallest bubble in the row, while 38 per cent have selected range 2, which is represented by the largest bubble in that row
- Benefit aspirations ranges:
 - Benefit ranges for all KPIs (except RM/PM cost reduction) – **R1** <10%, **R2**: 10%-20%, **R3**: 20%-30%, **R4**: >30%
 - For percentage RM/PM cost reduction over net sales – **R1**: <2%, **R2**: 2%-5%, **R3**: 5%-10%, **R4**: >10%

Supply chain results are hard to achieve and sustain. It is like walking a tight rope. Supply chain leaders need to orchestrate across various internal and external stakeholders to ensure benefits get realised and sustained.



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Our Perspective



This survey provides us with insightful learnings on the status of Supply chains in India – from 'here' to 'where'.

It is apparent that supply chains in India have helped the businesses in managing growth and delivering improvements as seen from the financial performance review given in the beginning of the report.

However, the current supply chains are sub-optimally designed, lack end-to-end visibility and suffer from a silo mindset across Plan, Source, Make and Deliver. Plan, which is the backbone of supply chain, emerges as the key gap area. Supply chains have been slow in adopting digital technologies to improve their performance in terms of visibility, predictability, agility and informed decision-making.

It is interesting to note that organisations are keen to make supply chain more customer centric, sustainable and digitally enabled. At the same time, supply chain practitioners are cautious in promising large benefits in the medium-term. While it is obvious that leadership commitment and drive are essential to propel large supply chain transformations, there is a need to build newer skills and manage the change effectively.

KPMG in India has a holistic point of view on 'how' organisations can build their Supply Chains for a Digital World.

In this new world, the customer is connected, informed, empowered and therefore is continuously demanding more customised products and services, greater flexibility in delivery options and faster service.

This makes a strong case for organisations to:

- Connect to their customers with compelling value propositions, opportunities and interactions
- Stay connected to market dynamics and digital signals
- Connect the channel and business partners to jointly deliver on commitments to customers
- Connect the front, middle and back offices to execute the customer growth agenda
- Connect and empower their employees to deliver on the customer promise

The aim is to achieve a modular, flexible supply chain that responds to rapidly changing customer needs, driven by real-time data insights on forecasting, cost, market penetration, efficiency gains, and customer experience.

To achieve these outcomes, KPMG offers its Supply Chains for a digital world framework.



KPMG Supply Chains for a Digital World Framework



Technology is changing rapidly so planning now for the short, medium and long-term is critical



Operations and Information Technology security platform need to be integrated for the future digital age



Supply Chains will need to become agile and flexible as Operations will become decentralised and closer to the Customer

Data management

Source

- Category management
- Digital source to contract and procure to pay
- Data driven supplier risk management
- Real-time collaboration with suppliers and order visibility
- Analytics driven procurement cost reduction

Make

- Smart factory (Industry 4.0)
- Optimise production scheduling
- Predictive maintenance
- Six sigma process capability
- Data driven shop floor improvement
- Strong continuous improvement base

Deliver

- Digital order-to-cash
- Distribution network design
- Dynamic scheduling
- Smart distribution centre/warehouse management system
- In-transit visibility to customer

People and leadership

Plan

- AI and ML driven integrated business planning and scenario analysis
- Customer collaboration
- Demand sensing
- End-to-end demand to fulfilment
- Supply chain segmentation
- Predictive supply chain risk management

Innovate

- Centre of digital innovation
- Concurrent development
- 3D printing
- Augmented Reality for value engineering
- Crowd sourcing.

Risk management



Sustainability has a social and cost impact which must be considered when developing the new supply value networks



Customers expectations will continue to grow and evolve, requiring a predictive supply chain



Roles and skill-sets in Operations must evolve to stay ahead of the rapidly changing technological environment

Data and analytics

The supply chains for a digital world need to be designed taking into consideration the environment which consists of

- ever-evolving customer expectations
- decentralised operations which is likely to get more closer to the customer
- sustainability is expected to have a higher social and cost impact
- rapidly changing technology landscape
- cybersecurity to protect increasing data and information flow
- evolving human roles across the value chain due to digital technologies

Organisations need to assess current gaps across Innovate, Plan, Source, Make and Deliver and build initiatives based on digital and Industry 4.0 technologies on one hand, and simultaneously bridge gaps with reference to basic capabilities on the other. This can lead to large scale transformational benefits and create value for stakeholders.

With customers becoming digitally savvy, their expectations from service providers are changing more rapidly than ability of organisations to provide expected digital experience. This leaves no choice for the organisations except to master digital technologies in supply chain to improve overall customer experience.



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How KPMG in India's Operations Consulting can help you



Chart a path

KPMG's specialists know where to start the journey. We prioritise initiatives to help you build customer-centric supply chains for a digital world that can adapt swiftly to changing customer needs. With a strong focus on efficiency and cost, we seek to integrate customer-facing and operations functions, so that every part of the organisation is dedicated to improving the overall customer experience.



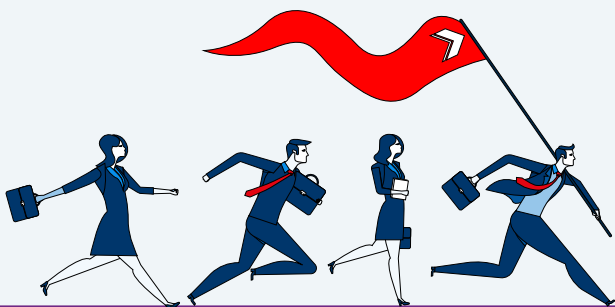
Sort through the noise

With a wide range of methodologies, we help you find effective choices to match your specific needs and accelerate the returns on investment. We tailor supply chains to the requirements of different customer segments, and enhance the integration of new product launches, planning, procurement, fulfillment and customer service processes.



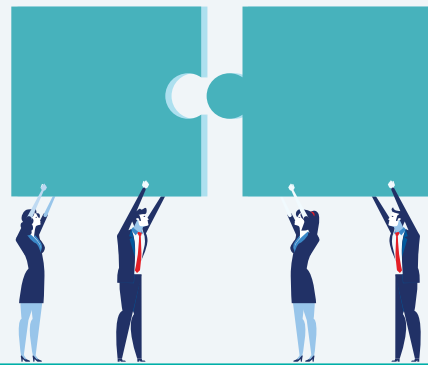
Get it done

We do not just draft a plan; when working with your team, we innovate and implement throughout the transformation phase.



Make it stick

Our tested and well-established methods provide sustainable benefits, allowing your supply chain to continually evolve to meet your business needs.



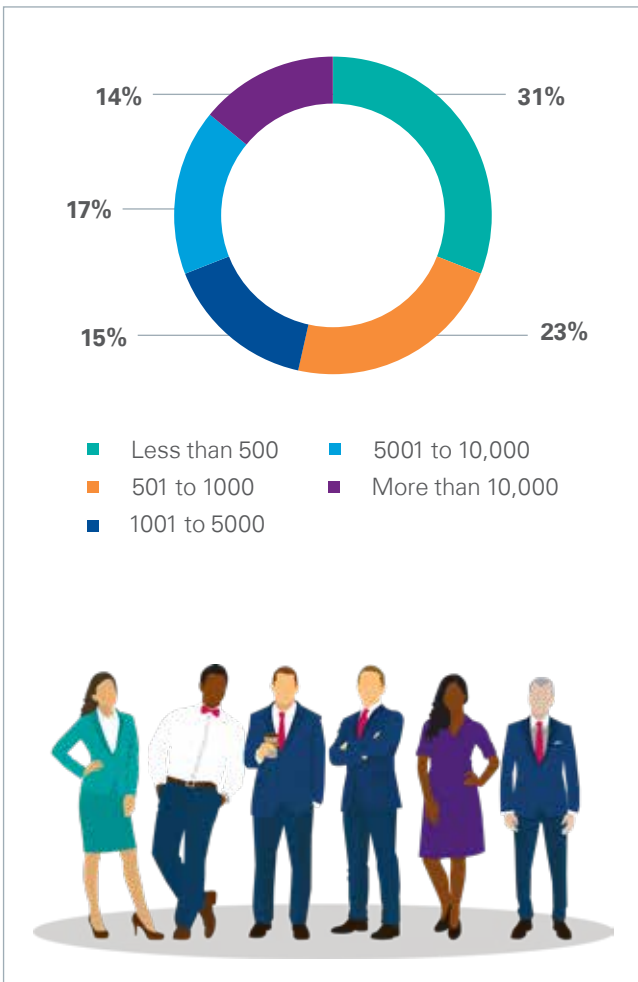
Methodology



The data published in this report is based on responses to a survey carried out by KPMG in India titled 'Supply Chain – Current challenges ('Here') and future prospects ('Where')' by 76 leaders across key sectors such as automotive, auto ancillary, pharmaceuticals, consumer goods and durables,

engineering. The profile of respondents covered Managing Directors, Chief Executive Officers, Chief Operating Officers, Supply Chain Heads, Procurement Heads, Manufacturing Heads amongst others. The survey was conducted in the months of October and November 2018.

Respondent profile by annual revenue (INR cr)



Respondent profile by sector



The 10 year historical financial performance trend has been analysed based on publically available company information. A single source (Financial reports, accessed through www.moneycontrol.com in October 2018) has been used to maintain uniformity. To remove bias of any particular annual event, the base value has been calculated as the average of FY09 and FY10. Similarly, the current value has been calculated as the average for FY17 and FY18.

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