Embedding
Technology in Supply Chains

Technology is fast becoming the backbone of Supply Chain Management. From enhancing efficiencies to pruning waste, from improving visibility to providing real time information, technology helps real time supply chain management. For this issue of Tech Talk, we bring you an interaction with Mr. Sesh Parigi, Associate Vice President, Oracle SBU at KPIT Technologies.

Mr. Sesh Parigi
KPIT Technologies Ltd.

The third flow in a supply chain- apart from products and money – is information. What is your assessment of the state of IT in Indian Supply Chains?

Efficient supply chain is a key cornerstone for any company's success in their business. Information technology is being leveraged by a few Indian visionaries to convert supply chains into more agile and lean engines to bring competitive advantage, however the adoption rate is still abysmal. By and large, these processes are still manual and depend on a number of disconnected systems leading to the inherent silos, inefficiencies and lack of responsiveness to changes in market conditions.

What would be the technology challenges you foresee for Supply Chain services firms in India? Is it different from global challenges?
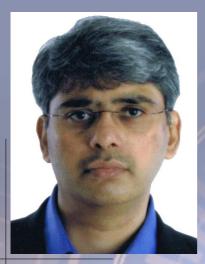
Availability and affordability are the two key challenges that these firms currently face. There are still many small organizations and regions that don't

even have access to the required connectivity to be able to hook on to the information highway. Some of the supply chain solutions, integrated systems, real time tracking solutions are still not easily available, comprehendible and come at hefty price thus leading to poor adoption.

This situation is very different from the developed countries where these technologies are extensively deployed to bring benefit to businesses.

How would you prioritize areas within a supply chain for IT enablement? Can you establish a road map?

Demand and supply management is the single area that can bring immediate benefits to the supply chain through IT enablement. With an effective management of this area, instances of stock-outs of products that are selling

or piles of inventory of goods that are moving slow, can be largely eliminated and there is likely to be faster fulfillment of customer demand though finished goods that are stocked at the right location. Due to the complex nature of the function, involving accurate demand forecasting, real time data on demand/supply situation and complex & voluminous data processing, this is an ideal candidate for adopting IT for its betterment.

What are the best practices you have observed across the globe?

- Collaboration with the extended supply chain for managing demand and supply
- Real time transactions, goods and vehicle tracking
- Data Integrations with partner systems
- Data Analytics & Decision Support systems
- Performance Management Systems
- What are the next game changers for IT in Supply Chain services?
- Disruptive technologies such as SaaS and SMAC integration
- Big data analysis and analytics
- Forecasting to endcasting (demand management)
- Vertical integration to virtual integration
- Network optimization
- Drones for last mile delivery
- Mobile and offline data availability
- GPS fitted trucks and use of RFID in warehouse
- Internet of Things

What should be the top IT priorities for a Supply Chain Service Provider?

Product diversity and different sales channel will drive demand for multi-level & differentiated supply chain. This will push service providers to invest in IT solutions in following key areas:

- Sophisticated planning & scheduling for better replenishment
- Connected supply chain with end to end tracking & availability of real time information for effective decision making.
- Integrate and track last mile delivery
- IT enabled warehouse for faster & seamless movement of goods across inbound & outbound transactions

How can we improve collaboration – both within and outside the firms – specifically in the Supply Chain services sector? What are the benefits?

Web based portals, data integration with partner systems, real time stock and order status visibility and Social Media are tools and solutions that go long way in improving collaboration within and outside organizations.

Benefits:

- Forecast accuracy improved
- Inventory turnover increased
- In-stock fill rates rise
- Lead times reduced

What are the advantages and disadvantages of SaaS in supply Chains?

Advantages

- Most cost effective solution
- Opex than Capex
- Low entry and exit barriers for the subscribing companies.
- Standardized processes based on business best practices
- Integration with common services
- Web enablement and multiple collaboration options
- Inbuilt analytics

Disadvantages

- Increased dependency on service provider of SAAS solution
- Concerns around security and access
- Little scope of 'extending' solution to meet unique business requirements
- Integration and management of exceptions
- Data duplication & synchronization
- Change management

Do you have any examples of how real time information has helped supply chain performance?

Following examples can be cited (names of customers withheld)

There are still many small organizations and regions that don't even have access to the required connectivity to be able to hook on to the information highway

What is the impact of SMAC in supply chains?

Supply chains can derive positive benefits through effective usage of SMAC.

Social media can be utilized to share unstructured data, experiences, feedback and recommendations that can help with product & partner selection apart from providing additional contextual information.

Customer	Asks	Deliverables	Benefits
Global Manufacturer of Diesel Engine Turbo Chargers	Adoption of standardized ERP platform Streamlining production planning & control	Implementation of Oracle ERP across India operations	# Production planning down from 5 hours to 1 Hour activity # Improved on-time delivery to customer by 99% # Scalable system platform with information access to other internal entities across supply chain
Manufacturer of specialty chemicals	Evaluation of information flow across SCM Correct Product costing	Product agnostic study evaluate ERP fitment while achieving consolidation on single platform for information flow across SCM Effective product costing through system while out manual intervention	# Consolidation of all the entities on Oracle ERP platform while enabling real time information sharing # Reduction in customer quote cycle by 60% # Improving product cost accuracy by 40%

Due to sheer penetration of mobile services and its extensive coverage, usage of this platform can drive the required collaboration, real time transactions and data availability on the move (or when offline) that is critical for managing supply chains efficiently.

Supply chain data can be scientifically and systematically analyzed to measure performance, making informed decisions at right time and also anticipate future outcomes for course corrections/ remedial actions. All this is enabled through usage of analytics solutions.

Cloud platform enables access to cost effective, web enabled and latest supply chain solutions clearing the way for these companies to focus only on their core function of managing the supply chains using the cloud solutions.

Gartner predicts that by 2017, SMAC (which Gartner calls the "Nexus of Forces") will drive more than 26% of the total enterprise software market revenue, an increase from 12% in 2012 – representing over $104 billion new revenue from this stack.

Social media can be utilized to share unstructured data, experiences, feedback and recommendations that can help with product & partner selection apart from providing additional contextual information

How to Measure ROI on IT Investments in Supply Chain?

The following factors need careful quantification and collection to be able to measure the ROI. Baselining of these factors before having made IT investments and comparing post implementation is required to quantify ROI. Realistic time horizon post implementation needs to be considered for these solutions to have become truly operational and having started to bring benefits:

a) Savings through process efficiency

- Improved profit margins
- Improved planning accuracy
- Reduced changeovers
- Reduction in efforts in performing manual activities
- Cost saving due to improved product and service quality
- Reduction in communication cost
- Impact of well informed and timely decisions enabled by IT

b) Avoidance and reduction of crisis costs

- Reduction in instances of Stock-outs or E&O stocks
- Cost of dissatisfied customer
- Cost of expediting