

EXECUTIVE SUMMARY

- The study has been conducted in three major pharmaceutical clusters namely Haridwar, Hyderabad, and Mumbai of India.
- The study has been carried out in two phases. In first phase, an exploratory research and a brainstorming session was carried out.
- In second phase, a conclusive study was done using a structured questionnaire, designed after taking inputs from phase one.
- The data were collected from 241 professionals working in small, medium and large Pharmaceutical enterprises.
- We have found major contribution from medium and large enterprises.
- More than half of the responses came from Mumbai and Pune region, this shows favourable sign for industrial growth in that region.
- The majority of the respondents (Approx. 80 %) are graduates and post graduates, which shows well qualified employees in the industry.
- Information collected through personal interviews with middle and high level management (CEOs, GM, Operations managers) comprises 77% of the total respondents.
- Approximate 66% of the respondents having age between were 31-35.
- The age of the industry is approx. 11-15 years, which shows promising growth of the industry with increasing numbers of MSMEs in India in last decade.
- Approximately 81% of the units were medium sized.
- The quality management practices which are more prevalent in pharma industry are; TQM, continuous improvement tools, ware house safety, benchmarking, quality purchasing, inbound inspection and quality certification.
- Following modern supply chain practices like; supply chain, benchmarking, and vertical integration, relationship with suppliers, holding safety stock and use of external consultants were found least followed.
- On the basis of factor analysis, it has been found that quality management practices are widely being used.
- Following are the barriers which affect supply chain performance most; poor priorities of top management / lack of top management, poor strategic planning, and inefficient information systems.
- Following are the barriers which affect supply chain performance least; corporate culture, and motivation for change.

- On the basis of factor analysis, it has been found that IT and communication barriers affect the performance of supply chain.
- The intervention of science and technology affect all the drivers. The most affected driver is “warehousing” and least one is “pricing”.
- As per our study supply chain gets affected by scientifically designed systems in which decision support system, and RFID are ranked higher and CRM & APS get lower ranks.
- Operating profit margin, economic value added (EVA) & revenue growth rate, and net profit are found to be the most useful financial KPIs to access the financial performance.
- Customer profitability score, customer retention rate, and customer satisfaction index are found to be the most useful customer related KPIs to access the customer related performance.
- Process waste level, order fulfilment cycle time, and inventory shrinkage rate are found to be the most useful operational performance KPIs to access the operational performance.
- The integrated supply chain affects the “perceived quality of medicines” most and “packing” the least.
- Indian pharmaceutical producers are in great need of technological upgradation in distribution, packaging, and manufacturing process as we are in generics manufacturing. And warehousing and inventory show low response but they also require up gradations.
- The structure equation model has been found reliable and industry may assess the performance of pharmaceuticals industry. The pharma supply chain performance can be accessed through operational, financial, market, and customer related measures.
- It seems that in Northern region like Haridwar, there is a lack of infrastructural facilities as compared to other clusters.