



Impact of Supply Chain Management Strategies on Operational Efficiency at Apollo Medics Superspeciality Hospital, Lucknow

Under the guidance of Dr. J. P. Singh (Professor, IIHMR University, Jaipur)

By

Mr. Harsh Yadav

Roll No.- 1715

MBA HOM



TABLE OF CONTENTS

S. No.	TITLE	SLIDE No.
1.	ORGANIZATION PROFILE	3
2.	INTRODUCTION	4-6
3.	REVIEW OF LITERATURE	7-10
4.	RESEARCH METHODOLOGY	11-15
5.	RESULTS	16-23
6.	DISCUSSION	24-27
7.	CONCLUSION	28-29
8.	REFERENCES	30

ORGANIZATION PROFILE

Overview:

Apollo Medics Superspeciality Hospital, located in Lucknow, is a leading tertiary care facility under the Apollo Hospitals Group, renowned for its excellence in healthcare delivery. It combines Apollo's legacy of clinical excellence with advanced technology and patient-centric care. With a Vision To bring world-class healthcare within reach of every individual and a Mission To deliver patient-focused, high-quality medical services through cutting-edge technology and compassionate care.

Key Highlights:

- Founded: Operational since 2019 in partnership with Medics Superspeciality Hospital
- Network: Part of Apollo Hospitals Group (India's largest private healthcare network).
- Capacity: 330+ beds including 110 critical care beds.
- Accreditations: NABH, NABL & ISO certified.

Core Services:

Cardiology, Neurology, Oncology, Nephrology, Orthopaedics General & Laparoscopic Surgery, Emergency & Trauma Care Organ Transplants (Liver & Kidney) Diagnostics, Critical Care, Rehabilitation.

Impact:

- 1,50,000+ patients served annually
- 25,000+ surgeries conducted across departments
- 24x7 trauma & emergency services
- 15,000 free surgeries annually

Facilities:

- 10 Modular Operation Theatres
- 110 ICU Beds with advanced monitoring systems
- 24x7 Blood Bank, Radiology, and Pharmacy
- Telemedicine & Patient Navigation Services.
- Comprehensive Oncology & Dialysis Units.

Financial Model:

- Services offered through both cashless insurance tie-ups and government health schemes (e.g., CM Fund), Charitable support via Apollo Foundation
- Substantial investments in infrastructure, IT & SCM systems for efficiency and patient safety.

INTRODUCTION

Background:-

Healthcare organizations globally are increasingly challenged by the complexity of managing supply chains that involve pharmaceuticals, surgical tools, diagnostics, and specialized medical equipment. In India, these challenges are magnified by regulatory hurdles, budget limitations, and the need to deliver quality healthcare cost effectively. Supply Chain Management (SCM) in healthcare refers to the streamlined flow of goods, information, and funds — from suppliers to end users — aiming to improve clinical outcomes and optimize costs. While concepts like lean systems and integration have been successfully borrowed from manufacturing, the healthcare sector presents unique challenges requiring contextual validation. Apollo Medics Superspeciality Hospital, a tertiary care provider in Lucknow, exemplifies these challenges. Its complex inventory and diverse departmental needs demand tailored SCM solutions to maintain operational efficiency and ensure uninterrupted service delivery.

- SCM includes procurement, logistics, inventory, and supplier coordination.
- Post-COVID, the need for robust SCM frameworks has intensified.
- Indian hospitals face unorganized supply systems and weak integration.

Problem Statement & Rationale:

☐ Problem Statement:-

Apollo Medics Hospital faces recurring SCM issues such as procurement delays, manual inventory tracking, poor inter-departmental coordination, and supplier inefficiencies. These have led to rising operational costs, service disruptions, and reduced resource utilization. Preliminary assessments reveal that the hospital's SCM systems are outdated and misaligned with best practices.

☐ Challenges Identified:

- Manual processes lacking automation.
- Fragmented supplier relationships.
- Limited use of IT in SCM operations

☐ Rationale:

The research addresses both academic and practical gaps. Theoretically, very few empirical studies in India focus specifically on SCM's role in hospital operations. Most findings are drawn from manufacturing sectors or offer generalized suggestion. Practically, Apollo Medics requires data-backed strategies to realign its SCM processes with efficiency goals. By identifying which practices deliver the highest impact, this study will guide both institutional reforms and broader policy improvements for similar Indian hospitals.



❑ Research Objectives:

- Overall Aim:

To assess how supply chain management strategies influence operational efficiency at Apollo Medics Superspeciality Hospital, Lucknow.

- Specific Objectives:

1. To evaluate how current inventory management, procurement, and logistics systems support hospital operations.
2. To analyze how SCM strategies contribute to cost reduction and service delivery.
3. To identify key inefficiencies and bottlenecks in existing SCM practices.
4. To offer practical, evidence-based recommendations to enhance SCM effectiveness in a tertiary hospital context.

REVIEW OF LITERATURE

Author(s)	Year	Title	Key Contribution	Context
Christopher M	2016	Logistics & Supply Chain Management	Foundational SCM principles applied to healthcare logistics	Theoretical framework for hospital supply chains
Chopra & Meindl	2020	Supply Chain Management: Strategy, Planning, and Operation	Strategic frameworks for multi-tier SCM	Guidance for hospital procurement & inventory
WHO	2020	Health Supply Chain Management – Global Overview Report	Pandemic resilience strategies in healthcare	Best practices during crises
Sharma & Goyal	2021	Hospital supply chain challenges in India: Lessons from COVID-19	Revealed Indian SCM weaknesses post-pandemic	Apollo Medics' contextual background
Singh & Pandey	2019	Improving supply chain performance in healthcare through lean strategies	Demonstrated 20–30% waste reduction via lean SCM	Lean methodology for hospital SCM
Ugwu & Onyeizu	2019	SCM Practices and Hospital Operational Efficiency (Nigeria)	31.5% efficiency gain post SCM improvements	Empirical findings from developing nation hospitals
Tortorella et al.	2019	Lean in Healthcare SCM – A Review	Identified lean implementation barriers	Healthcare improvement frameworks
Bhatia N.K.	2025	Transforming India's Healthcare SCM: An AI-Driven Approach	Proposed 25% cost savings via AI in SCM	Indian tech-centric SCM strategy
KPMG India	2022	SCM Challenges & Opportunities in Healthcare	Cost structure insights across Indian hospitals	Benchmarking for operational cost optimization
McKinsey	2022	The Future of Healthcare Supply: Digital Transformation & AI	40% efficiency projected via digital twin systems	Strategic tech forecasting

Theoretical Foundations of Healthcare SCM:

Healthcare SCM adapts classical supply chain theory to the high-stakes, regulation-driven environment of hospitals. Christopher (2016) defines SCM as the orchestration of procurement, storage, and distribution to ensure uninterrupted service delivery — a core concern in patient-critical environments.

- Lean Management: Reduces waste, optimizes workflows (Singh & Pandey, 2019).
- Total Quality Management (TQM): Promotes standardized procurement and continuous improvement.
- Systems Theory: Views SCM as an interconnected network where changes in one area (e.g., inventory) impact others (e.g., service quality).

Contemporary Challenges in Healthcare SCM:

Modern hospital supply chains face dynamic challenges—ranging from regulatory compliance to technology adoption and pandemic-driven disruptions. AI and analytics promise improvements but demand significant change management and investment.

Key Issues Identified:

- Regulatory burdens (e.g., drug tracking, batch expiry).
- Supply chain fragility (exposed during COVID-19).
- Limited IT adoption despite proven benefits (Bhatia, 2025).

SCM Practices in Hospitals:

SCM success in hospitals hinges on strategic supplier relations, IT integration, and joint planning. Studies show hospitals with collaborative supplier partnerships enjoy cost reductions, improved fill rates, and process innovation.

- Strategic Supplier Partnerships: Build trust, reduce cost, and improve delivery (Ugwu & Onyeizu, 2019).
- ERP & Inventory Systems: Automate reordering, prevent stockouts (McKinsey, 2022).
- Collaborative Planning: Vendor-managed inventory (VMI) and shared forecasting reduce holding costs by 20–30%.

Operational Efficiency Metrics & Empirical Evidence:

Measuring SCM success requires quantitative indicators that reflect real operational gains. Key metrics include procurement lead time, inventory turnover, emergency purchases, and clinical satisfaction.

Efficiency Metrics:

- Cost Efficiency: Carrying costs, stock write-offs, procurement overhead.
- Delivery Efficiency: Order cycle time, supplier fulfilment rates.
- Service Level Efficiency: Product availability, stockouts, department ratings.

Empirical Evidence:

Ugwu & Onyeizu (2019) showed SCM explained over 80% of efficiency variation in Nigerian hospitals. Similar results are expected at Apollo Medics.



Indian Context & Relevance:

India's hospital SCM is often decentralized and manual, leading to high costs and inefficiencies. Policy momentum is shifting toward tech-enabled, quality-assured supply systems — especially post-COVID.

Key Challenges:

- Supplier fragmentation and unreliable fulfilment.
- Weak IT infrastructure in Tier-2 hospitals.
- Regulatory gaps in quality tracking and cold chain monitoring.

Opportunities:

- AI-based demand forecasting (Bhatia, 2025).
- Digitization via ERP systems (KPMG India, 2022).
- Centralized procurement models.

RESEARCH METHODOLOGY

Research Design and Approach:

This study utilized a cross-sectional observational design, chosen to capture real-time insights into the existing SCM strategies at Apollo Medics Super Speciality Hospital, Lucknow. The design enables a comprehensive snapshot of ongoing supply chain practices and their influence on operational efficiency.

Mixed-Methods Approach:-

- Quantitative data: Structured surveys and operational data (e.g., lead times, inventory levels).
- Qualitative data: Semi-structured interviews with SCM personnel.

Timeframe:-

Study conducted between March 18 – June 7, 2025 over 11 weeks to avoid seasonal bias.

Study Setting and Population:-

The study was conducted at Apollo Medics Super Speciality Hospital, a 330-bed tertiary care facility in Lucknow. It serves diverse clinical departments such as cardiology, oncology, neurology, and critical care — making it a complex and ideal site for SCM evaluation.

Target Population:

Employees from procurement, logistics, inventory, pharmacy, and clinical departments.

Eligibility Criteria:

Minimum 6 months of experience in supply chain roles. Preference to department heads and operational decision-makers.

Exclusions:

External suppliers and staff not involved in SCM operations.

Sampling Strategy and Sample Size:-

The study adopted a purposive sampling method to ensure that only the most relevant and knowledgeable individuals were surveyed and interviewed.

Sample Design:

Total participants: 35 out of 40–50 eligible staff.

Representation: Senior Managers(8), Middle Managers(12), Operational Staff(15),

Departmental Split: Procurement(10), Inventory Management(8), Pharmacy(7), Clinical Departments(10).

Justification: This structure ensured diverse perspectives and statistical reliability within a manageable scope.

Data Collection Instruments and Procedures:-

A multi-tool approach was used to ensure comprehensive data capture from both subjective and objective sources.

Instruments Used:

- Structured Questionnaire: Based on validated scales from SCM literature (Likert-type).
- Interview Guide: Developed post-survey for deeper probing.
- Operational Records: Procurement logs, stock reports, supplier metrics from the past 12 months.

Data Analysis Plan and Statistical Methods:-

Data were analyzed using mixed analytical techniques to ensure robustness.

➤ Quantitative Analysis:

- Descriptive Statistics: Mean, standard deviation, frequency.
- Correlation Analysis: Pearson/Spearman methods for bivariate relationships.
- Multiple Regression: Examined combined effect of SCM practices on operational outcomes.

➤ Qualitative Analysis:

- Thematic coding using open, axial, and selective coding strategies.
- Integration of themes with quantitative trends for enhanced interpretation.
- Tools Used: Excel for statistical analysis.

Ethical Considerations and Approvals:-

All research activities were carried out under ethical oversight, ensuring participant rights, confidentiality, and data protection.

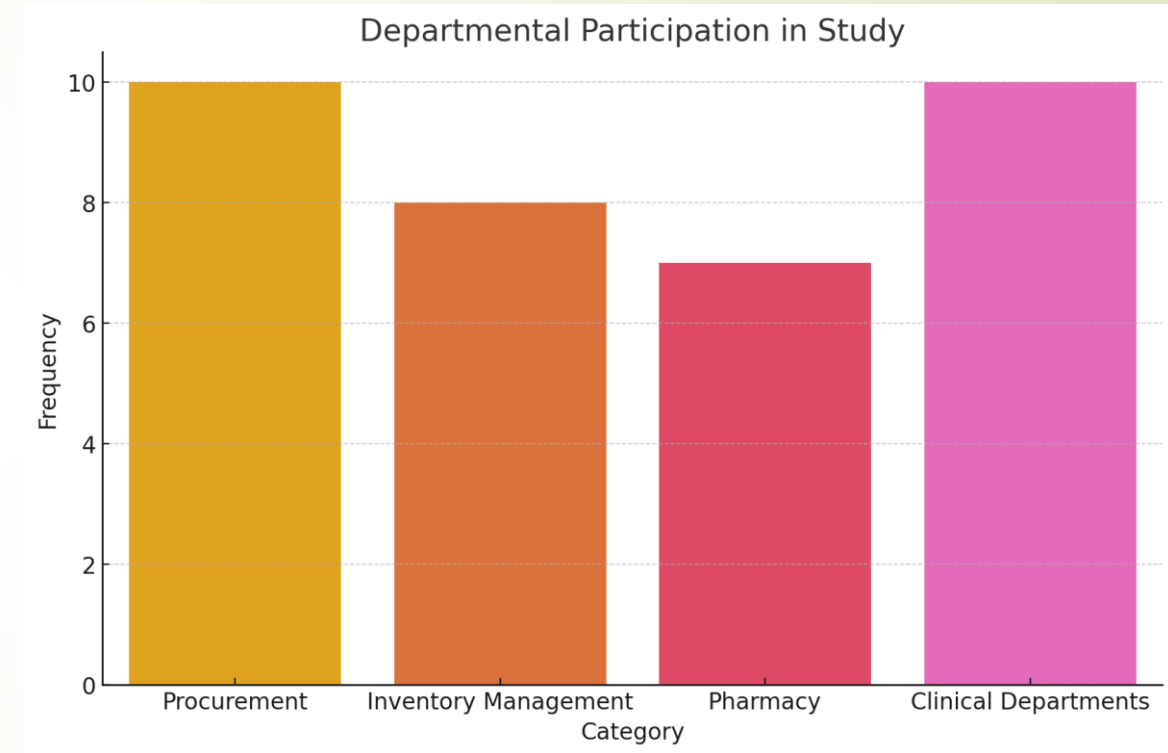
Ethical Safeguards:

- Approval from Apollo Medics Hospital.
- Written Informed Consent obtained from all 35 participants.
- Voluntary participation, with no incentives offered.
- Data anonymized using numeric codes and stored on password-protected systems.
- Paper documents kept in locked storage, electronic files encrypted.
- Compliance : Adhered to institutional, academic, and legal norms for human subject research.

RESULTS

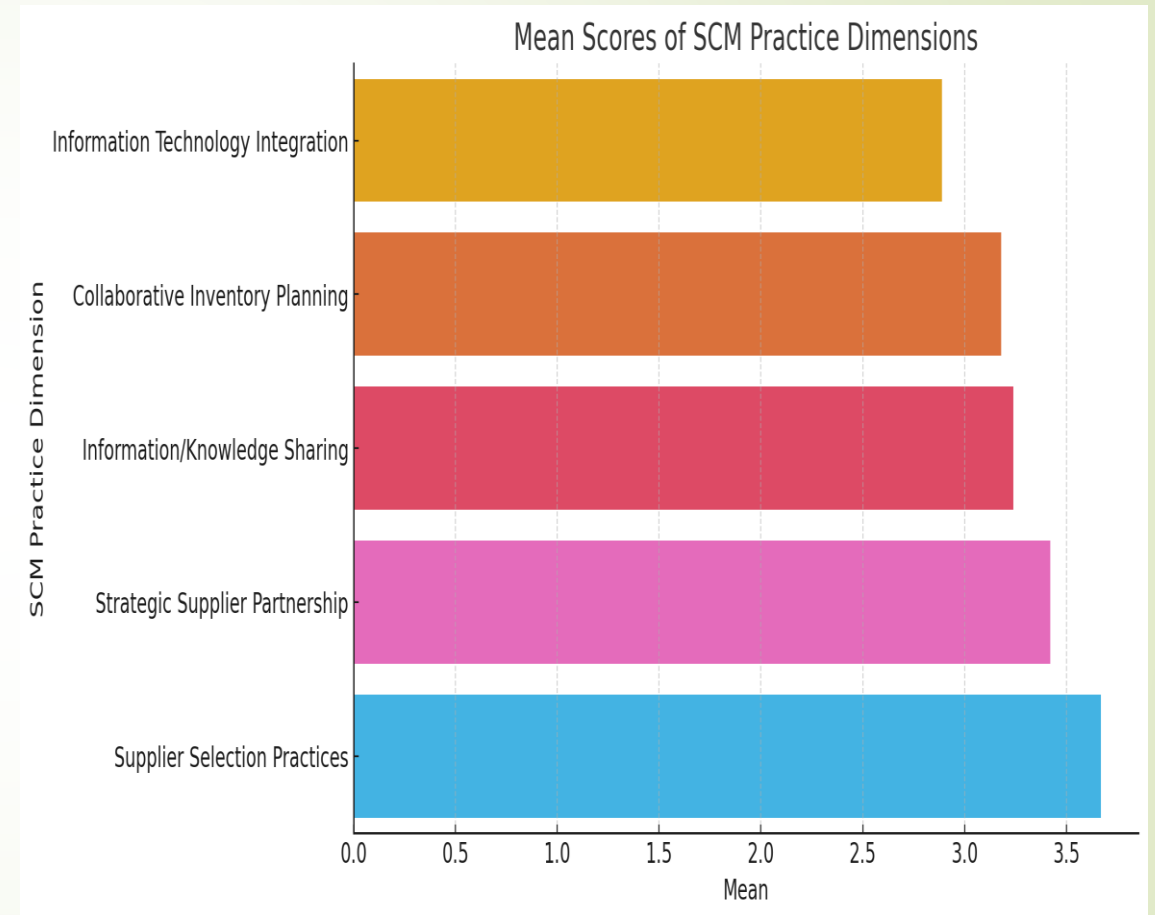
❑ Departmental Participation in Study (Chart 1):-

- The study included 35 participants from all major SCM-related departments at Apollo Medics.
- Procurement and Clinical Departments were the most represented (10 each), ensuring input from both supply and end-user sides.
- Inventory Management (8) and Pharmacy (7) teams also participated, reflecting internal logistical and medical supply coordination perspectives.
- This balanced departmental participation strengthens the credibility and cross-functionality of the insights captured.



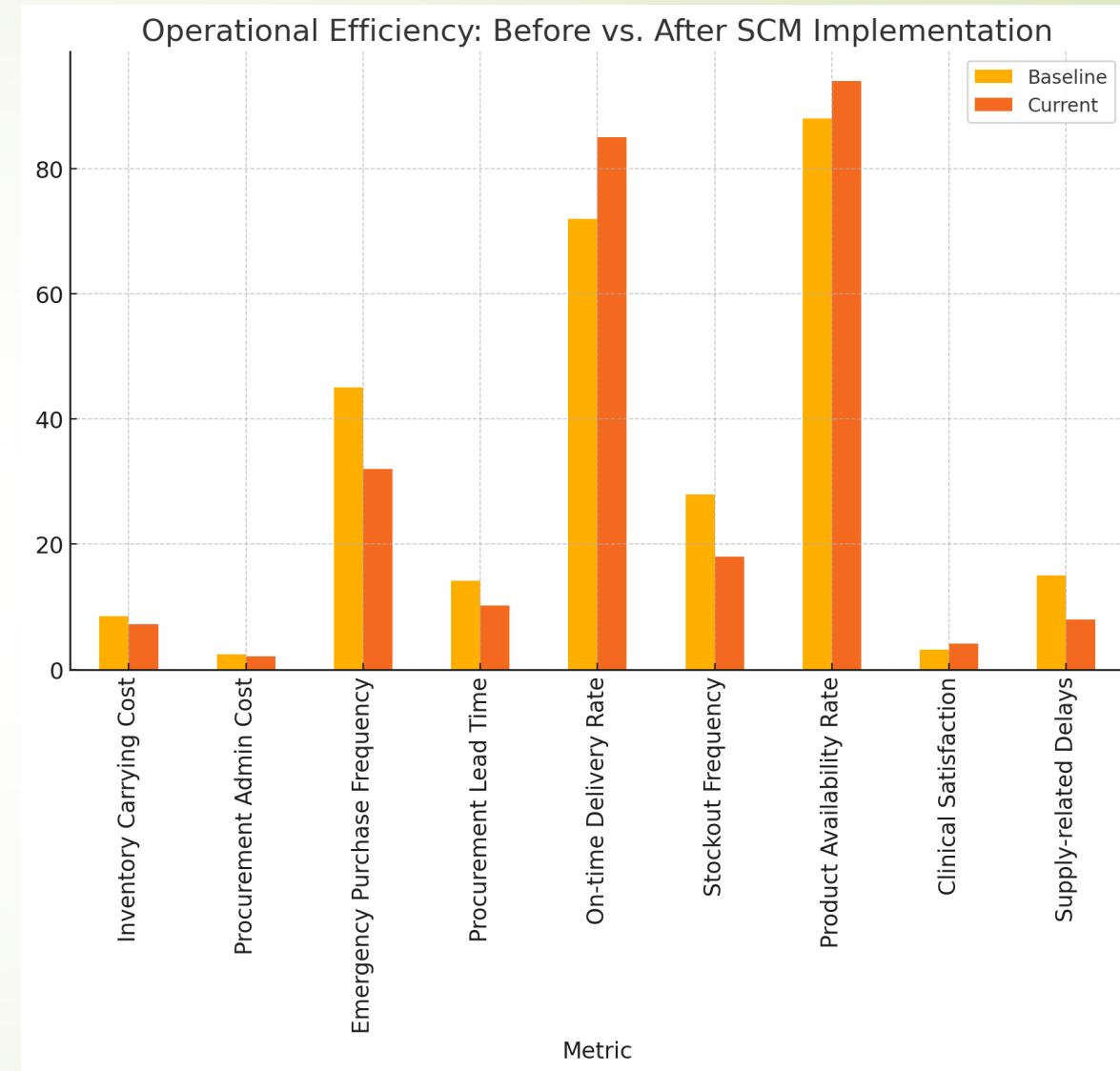
❑ Mean Scores of SCM Practice Dimensions (Chart 2):-

- Supplier Selection Practices received the highest average score (3.67/5), indicating that structured vendor evaluation is relatively strong.
- Strategic Supplier Partnerships (3.42) and Collaborative Inventory Planning (3.18) scored moderately showing scope for deeper collaboration.
- Information Technology Integration scored lowest (2.89/5), highlighting it as a weak link in the current SCM framework.
- These ratings reflect the mixed maturity level of SCM practices — with room for integration and modernization.



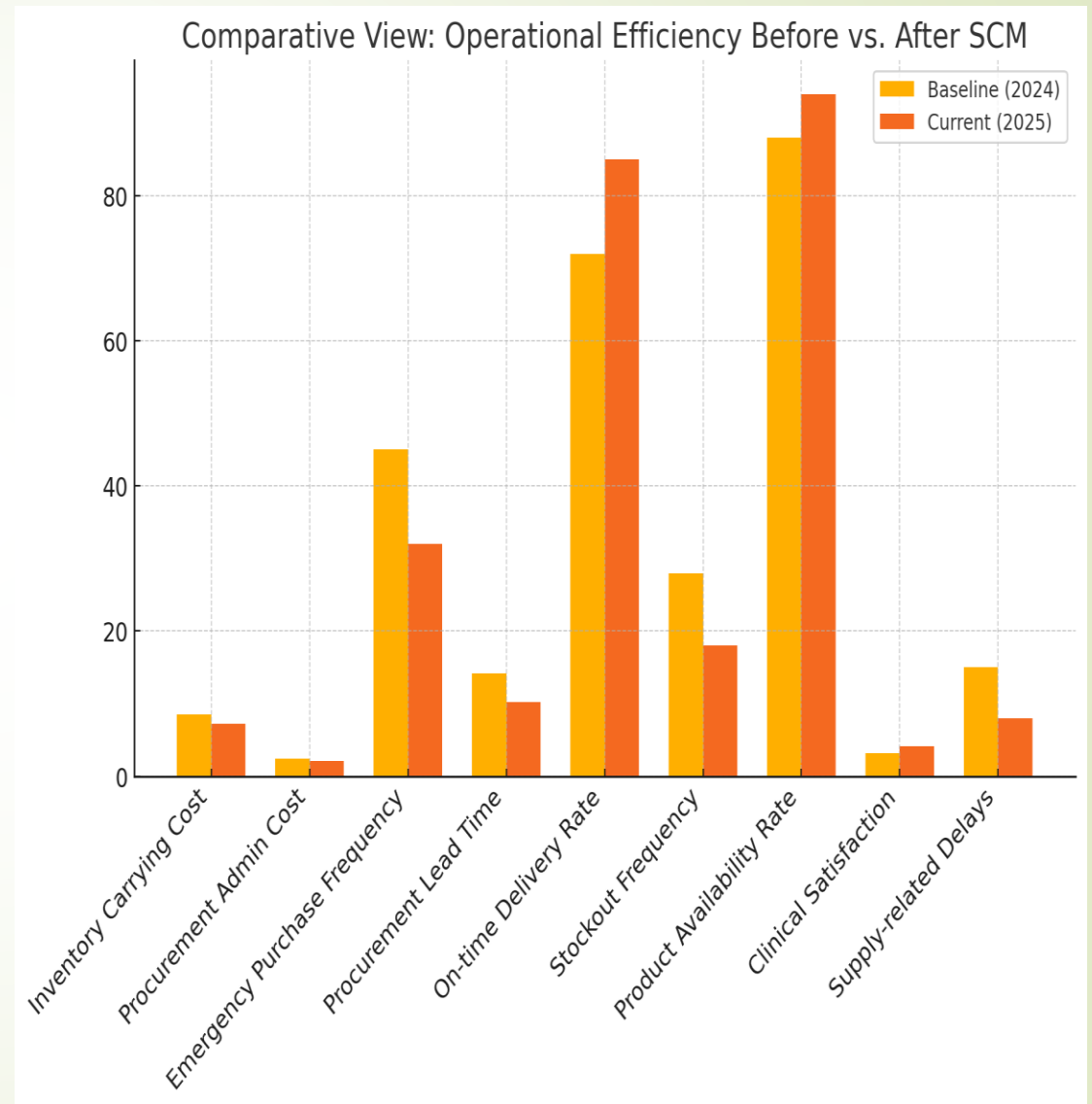
❑ Operational Efficiency – Before vs. After (Chart 3):-

- SCM improvements led to noticeable gains across all operational KPIs:
- 1. Inventory carrying cost reduced by 15.3%.
- 2. Procurement lead time shortened from 14.2 to 10.2 days (28.2% improvement).
- 3. Stockout frequency dropped by over 35%, easing pressure on clinical departments.
- 4. Clinical satisfaction improved by 0.9 points (from 3.2 to 4.1/5), confirming SCM's impact on service delivery.
- These changes represent measurable and significant operational improvements.



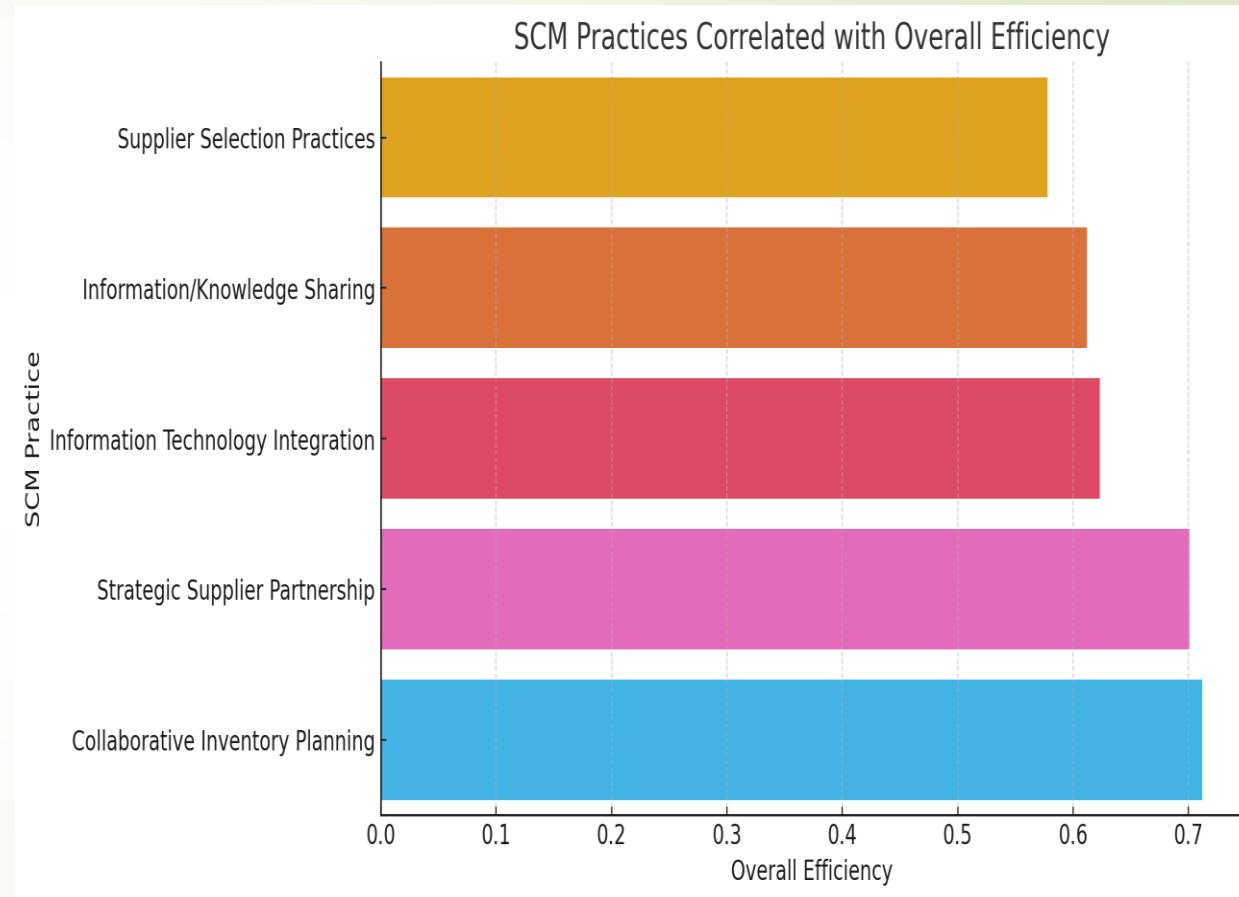
❑ Comparative View – Efficiency Before vs. After (Chart 3 Comparative):-

- The side-by-side chart highlights how every key metric improved post-SCM strategy implementation.
- Areas with the largest visual jumps include:
 1. Supply-related delays cut nearly in half.
 2. On-time delivery improved from 72% to 85%.
 3. Emergency purchases decreased sharply, showing better stock availability.
 4. The visual narrative reinforces SCM as a driver of both cost savings and clinical reliability.



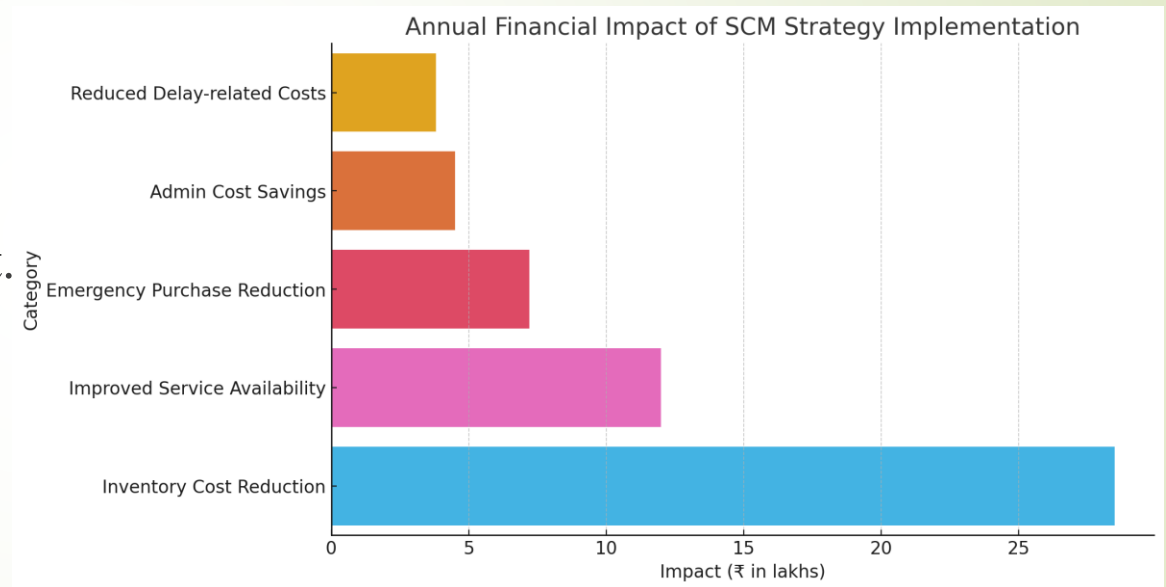
❑ SCM Practices vs. Overall Efficiency (Chart 4):-

- Among all practices, Collaborative Inventory Planning ($r = 0.712$) showed the strongest positive correlation with overall efficiency.
- Strategic Supplier Partnerships and Knowledge Sharing also had strong influences.
- Interestingly, even Information Technology Integration, despite being underdeveloped, showed meaningful correlation ($r = 0.623$).
- The data proves that integrated, collaborative practices deliver the best operational outcomes in hospitals.



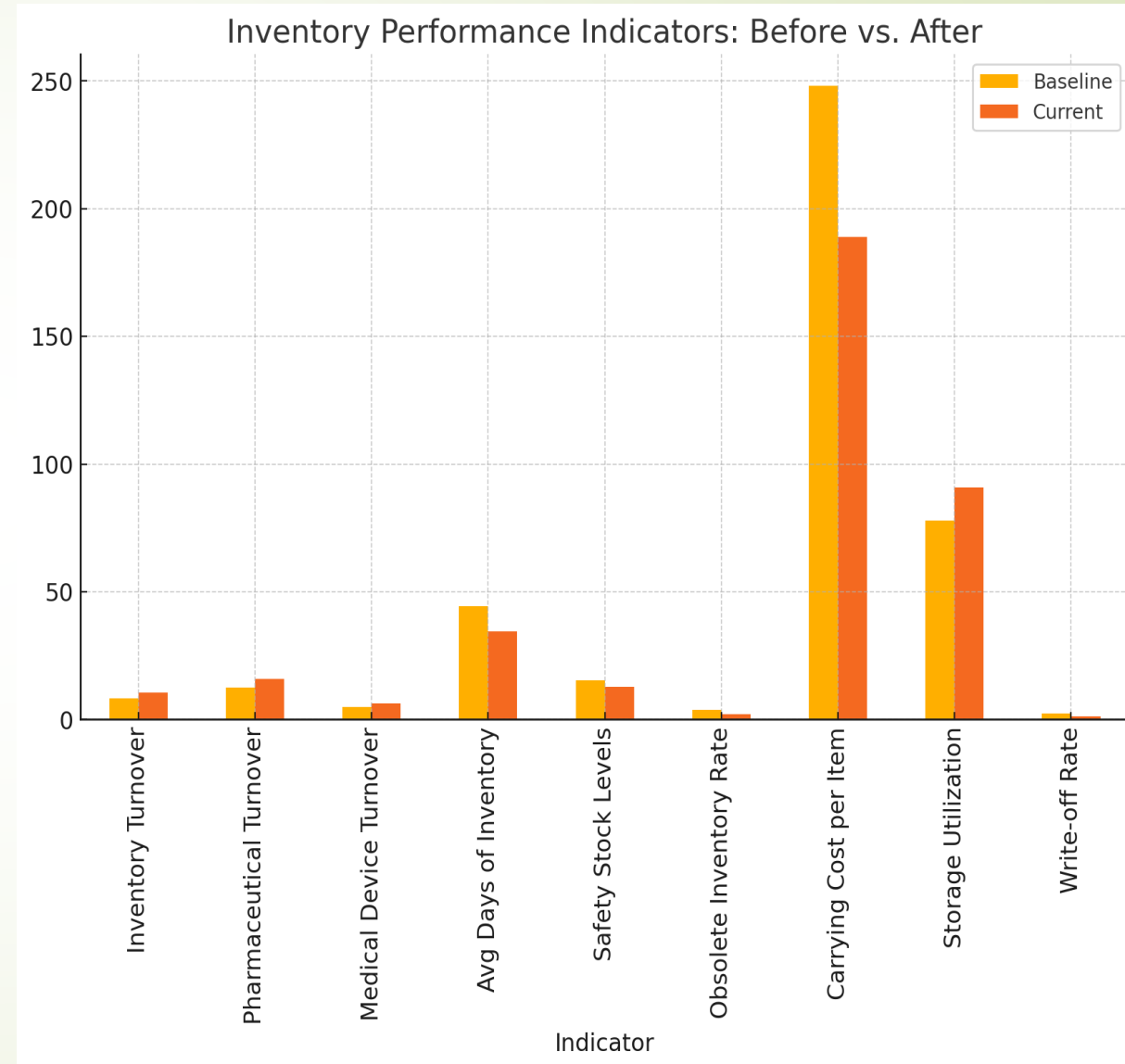
❑ Financial Impact – SCM Cost-Benefit (Chart 5):-

- The SCM strategy yielded an annual benefit of ₹5.6 million, with a net return of ₹3.05 million after costs.
- Inventory cost reduction alone contributed ₹2.85 million — the highest ROI component.
- Other gains included:
 1. ₹7.2 lakh from reducing emergency purchases.
 2. ₹12 lakh worth of service availability benefits due to reduced disruptions.
 3. These savings underscore that SCM isn't just a logistics upgrade — it's a strategic financial investment.



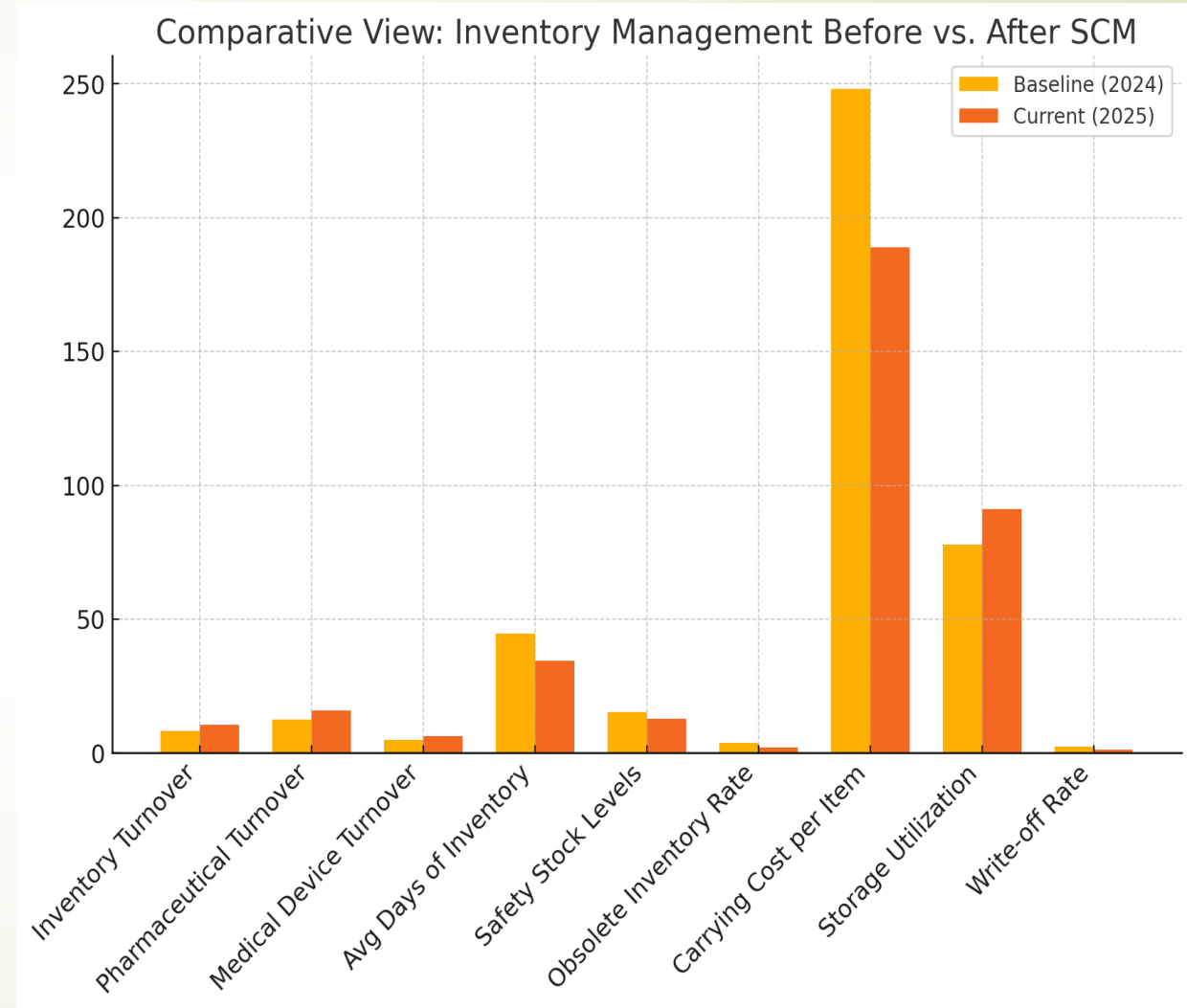
Inventory Management – Before vs. After (Chart 6):-

- Turnover rates improved significantly, especially for pharmaceuticals (from 12.4x to 15.8x/year).
- Obsolete inventory rate fell from 3.8% to 2.1%, showing better stock rotation and expiry tracking.
- Average days of inventory dropped by 10 days — freeing up cash and storage.
- Overall, the hospital shifted toward a leaner, faster-moving inventory model without compromising availability.



Comparative View – Inventory Indicators (Chart 6 Comparative):-

- The bar comparison clearly illustrates the efficiency transition in inventory management:
- 1. Lower safety stock levels with maintained availability.
- 2. Improved storage utilization from 78% to 91%.
- 3. Cost per item reduced from ₹248 to ₹189.
- 4. These numbers validate the direct financial and logistical gains of SCM streamlining efforts.



DISCUSSIONS

❑ Integration of SCM Practices:-

The most important insight from the study is that supply chain efficiency doesn't come from isolated improvements — it comes from synchronized execution across multiple areas. When supplier engagement, IT tools, and inventory processes were integrated, Apollo Medics saw measurable improvements in cost, service delivery, and staff satisfaction.

Key Takeaways:

- SCM integration acted like a chain reaction— improving one area (e.g., supplier planning) boosted performance in others (e.g., inventory levels).
- Coordination between departments helped reduce miscommunication and delays.
- The integrated approach led to smooth flow of supplies, minimizing disruptions to clinical services.
- Rather than fixing one weak link, the hospital adopted a systems-level view, aligning people, processes, and technology.
- This supports the principle that healthcare SCM must be treated as a multi-dimensional strategy, not just a backend function.

❑ Strategic Supplier Partnerships:-

The hospital moved beyond transactional buying toward long-term relationships with reliable vendors. These partnerships resulted in shared responsibility, better communication, and stronger performance from suppliers, which directly reduced delays and emergency purchases.

Key Takeaways:

- Suppliers were no longer just product providers they became planning collaborators.
- Joint forecasting led to better supply visibility, reducing last-minute scrambling.
- High-trust vendors supported the hospital with faster deliveries and emergency backups.
- Strategic partners offered flexibility in pricing and logistics not available in one-off transactions.
- Apollo's procurement team began using past performance data to select vendors — reducing risk and improving predictability.

❑ Technology Integration:-

While full-scale digital transformation is still underway, even basic technological integration yielded real benefits. The hospital started seeing the impact of simple tools like shared Excel trackers, basic inventory alerts, and centralized records.

Key Takeaways:

- IT tools allowed real-time visibility into stock levels, enabling proactive reordering.
- Manual paperwork delays were reduced, and data errors dropped significantly.
- Staff became more comfortable using digital systems — opening the door for future automation.
- Hospital leadership acknowledged that even minimal IT adoption created a foundation for bigger changes.
- However, full potential of technology — like AI-based demand forecasting or ERP — remains untapped and represents a key opportunity area.

❑ Collaborative Inventory Planning:-

When inventory planning involved more than just the stores department including pharmacy, nursing units, and suppliers the system became faster, leaner, and more accurate. This collaboration reduced overstocking and ensured that the right supplies were available at the right time.

Key Takeaways:

- Shared planning allowed teams to align ordering with real clinical demand.
- Vendor-Managed Inventory (VMI) was piloted with select suppliers, reducing overhead burden on hospital staff.
- Jointly reviewing demand patterns led to more predictable order cycles.
- Conflict between departments reduced — as all stakeholders were involved in inventory decisions.
- Collaborative planning helped the hospital maintain low safety stock without sacrificing availability.

❑ Service & Quality Improvements, Cost Management, and Change Challenges:-

Improving supply chain practices had ripple effects across the hospital — enhancing service reliability, reducing financial waste, and introducing a wave of organizational change that required careful handling.

Service & Quality Improvements:

- Fewer stockouts meant fewer postponed surgeries or delayed discharges.
- Availability of critical drugs and devices improved patient satisfaction and clinical team morale.
- Delay-related service breakdowns (e.g., rescheduling procedures due to missing items) declined by 46.7%.

Cost Management Achievements:

- Inventory carrying costs fell by over ₹28.5 lakhs annually.
- Procurement admin costs and emergency orders dropped by nearly ₹12 lakhs.
- Reduced waste and obsolescence contributed to overall cost optimization.

Challenges in Implementation:

- Cultural resistance from senior and long-tenured staff was common.
- Some feared job roles would be replaced by software.
- Others doubted the value of planning with vendors.
- Focused communication, training programs, and success stories helped address resistance.

Benchmarking with Industry Standards:-

The operational improvements achieved at Apollo Medics are not only internally valuable but also benchmark well against national and international standards reinforcing the credibility of their SCM approach.

Benchmark Achievements:

- Procurement lead time dropped by 4 days (from 14.2 to 10.2) faster than many comparable hospitals in India.
- Inventory turnover rose to 10.6x/year, closing in on international best practices (12–15x/year).
- Stockout frequency dropped from 28 to 18/month a 36% improvement, supporting uninterrupted clinical care.
- Administrative cost per order reduced without increasing the operational burden — a key efficiency signal.
- Conclusion: Apollo Medics is now performing at or above industry median levels in most SCM KPIs — positioning itself as a leader among similar Indian tertiary hospitals.

Sustainability & Continuous Improvement:-

The real challenge in any transformation lies in maintaining momentum. Apollo Medics has laid the groundwork, but sustainability depends on making supply chain optimization a permanent part of hospital culture.

Forward Strategy and Recommendations:

- Monthly dashboards should be institutionalized to monitor KPIs and guide decisions.
- Staff should receive ongoing training on SCM principles, ERP use, and supplier evaluation.
- Leadership should invest in building a dedicated SCM excellence team to drive further innovation.
- Performance-linked incentives can motivate staff to improve accuracy and coordination.
- Most importantly, the hospital should adopt a culture of continuous refinement, where feedback loops and reviews lead to incremental improvement.-

CONCLUSIONS

❑ Summary of Key Findings:-

The study at Apollo Medics Superspeciality Hospital confirmed that effective supply chain management (SCM) practices significantly improve operational efficiency in tertiary healthcare settings. Through a blend of quantitative analysis and qualitative insights, it became clear that SCM is not a back-office function but a core strategic enabler of better healthcare delivery.

- Five SCM practices — supplier partnerships, inventory planning, IT integration, vendor selection, and knowledge sharing — collectively explained 83.5% of operational efficiency variation.
- Tangible improvements were seen in:
 1. Procurement lead times (reduced by 28.2%)
 2. Inventory carrying costs (down by ₹2.85 million/year)
 3. Stockouts (reduced by 35.7%)
 4. Clinical satisfaction (increased by 28.1%)
 5. The financial analysis showed a 119.6% return on investment, with net annual gains of ₹3.05 million.---

❑ Theoretical & Practical Implications:-

This research bridges theory and practice by validating that supply chain principles — often developed for industry — can be effectively applied in healthcare when tailored properly. It also proves that SCM must be seen as a strategic function impacting not just logistics, but also patient care quality, financial performance, and hospital credibility.

Theoretical Implications:

1. Confirms systems theory- interconnected SCM processes deliver exponential results when improved together.
2. Supports lean and TQM models in hospital settings — emphasizing continuous, value-driven efficiency.

Practical Implications:

❑ Final Thoughts & Recommendations:-

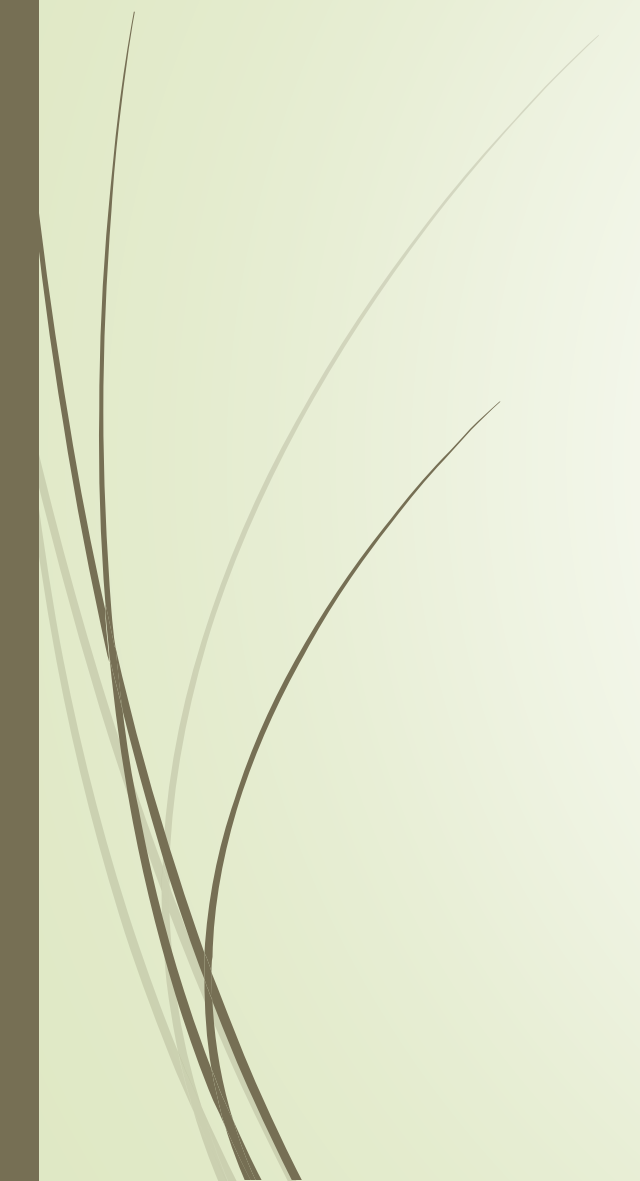
The project at Apollo Medics shows that even resource-constrained hospitals in India can achieve world-class performance through thoughtful, data-driven SCM strategies. The impact on patient care, staff coordination, and hospital reputation makes SCM a high-value focus area.

Strategic Recommendations:

- Expand and deepen strategic supplier relationships with long-term MOUs and shared KPIs.
- Invest in scalable digital tools starting with inventory automation and later moving to AI-based forecasting.
- Institutionalize monthly SCM reviews to maintain accountability and continuous learning.
- Establish a dedicated Supply Chain Excellence Unit for training, analytics, and innovation pilots.
- Promote SCM awareness among clinical staff to foster collaborative ownership over planning and stock usage.
- Final Conclusion: SCM is no longer a silent support function it is now a vital artery of hospital operations. Hospitals that manage it strategically will be better positioned to deliver quality care, manage costs, and respond to future challenges with agility.---

REFERENCES

1. Chopra S, Meindl P (2020). Supply Chain Management: Strategy, Planning, and Operation. Pearson.
→ Strategic frameworks for multi-tier SCM.
2. Christopher M (2016). Logistics & Supply Chain Management. FT Press.
→ Theoretical foundation for hospital SCM structure.
3. World Health Organization (2020). Health Supply Chain Management – Global Overview Report.
→ Guidelines on pandemic-era healthcare supply resilience.
4. Sharma A, Goyal M (2021). Hospital supply chain challenges in India: Lessons from COVID-19. Journal of Health Management, 23(2), 130–142.
→ Contextual insights for Indian tertiary hospitals.
5. Singh R, Pandey R (2019). Improving supply chain performance in healthcare through lean strategies. Operations and Supply Chain Management, 12(1), 15–24.
→ Lean methods applied to healthcare logistics.
6. Ugwu KC, Onyeizu RC (2019). SCM Practices and Hospital Operational Efficiency: Evidence from Nigerian Public Hospitals.
→ Empirical benchmarks for SCM efficiency outcomes.
7. Bhatia NK (2025). Transforming India's Healthcare Supply Chains: An AI-Driven Approach. LinkedIn Article.
→ AI strategies for future-ready Indian hospitals.
8. KPMG India (2022). Healthcare Supply Chain Management: Challenges & Opportunities.
→ Cost and efficiency benchmarks in Indian healthcare.
9. McKinsey & Company (2022). The Future of Healthcare Supply Chains: Digital Transformation and AI Integration.
→ Long-term SCM tech adoption roadmaps.



THANK YOU !