A Study of the Hospital Supply Chain
Survey Questions and Summary of Survey Responses

Report prepared by
David Peng and Arunachalam Narayanan
Department of Decision and Information Sciences
University of Houston

Disclaimer: The views represented here does not reflect that of University of Houston or AHRMM. The findings are based on the authors’ interpretation of the survey data.
Incentive Alignment

IA1. Physicians are actively involved in supply chain led initiatives to reduce costs
IA2. Interest of physicians is aligned with the hospital rather than with manufacturers
IA3. At our hospital, the percentage of hospital-employed physicians has been increasing
IA4. Our incentive systems encourage cross-functional involvement in supply chain initiatives
IA5. Our incentive systems do NOT align physicians’ interests with supply chain cost savings
Supply chain training and awareness

SCT1. Our hospital employees are informed about supply chain cost saving strategies
SCT2. Our supply chain staff actively communicates supply chain management goals to all the hospital employees
SCT3. Physicians and nurses in our hospital understand the total cost impact of supply chain management

![Survey Results Graph]
Formal Training

Evaluate the amount of formal training (internally or externally) your supply chain staff receives in the following areas:

| T1. Value analysis/value engineering | T5. Lean management |
| T2. Negotiation | T6. Data analysis |
| T3. Contracting | T7. Communication and presentation |
| T4. Process mapping | T8. Project management |

Formal Training

<table>
<thead>
<tr>
<th>Rating Scale</th>
<th>No Training at all</th>
<th>Moderate Training</th>
<th>Extensive Training</th>
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Formal Training

- Extensive training
- Adequate training
- Moderate training
- Little training
- No training at all
Supply Chain Organization

SCO1. Supply chain management group has earned credibility by delivering sound, consistent results

SCO2. We continually acquire new talents in supply chain management

SCO3. Our supply chain professionals have diverse background/ experience (e.g., clinical, accounting)

SCO4. Our supply chain professionals have experience working in cross functional teams

SCO5. Supply chain leaders communicate the importance of supply chain management to hospital employees
Senior Management Support to Supply Chain Organization and Initiatives

SMS1. Senior management is supportive of our efforts to improve supply chain
SMS2. Senior management communicates the importance of supply chain management to all the hospital employees
SMS3. We have clear supply chain goals identified by senior management
SMS4. Senior management participates in major supply chain management initiatives
SMS5. Senior management encourages cross-functional involvement in supply chain initiatives
Supply Chain Staff's Competence Levels

Please evaluate your supply chain staff's competence levels compared to those at peer hospitals.

COMP1. Analytical skills
COMP2. Clinical understanding
COMP3. Working knowledge of current organizational productivity and efficiency approaches (such as lean process management)
COMP4. Business administration and strategic planning
COMP5. Ability to influence the corporate culture

![Supply Chain staff's Competence Level](image)
Information Systems Planning

ISP1. Requirements of supply chain staff is considered to be a key component of overall information systems planning

ISP2. Supply chain leaders participate in information systems planning

ISP3. The supply chain function has an information system strategic plan that is shared with CIO or other senior IT leadership

ISP4. Information system executives and the supply chain executives have a good working relationship
**Information Systems Integration**

ISI1. Information systems across different functions (e.g., clinical systems, supply chain systems) are interoperable

ISI2. Our hospital has established a common SCM data architecture

ISI3. Data stored in different databases across the supply chain is consistent

ISI4. Automatic data capture systems are used for material flows within the hospital (e.g., barcode, Pyxis etc.)
Information System’s Functional Capability

ISF1. Our information systems provide hospital wide visibility
ISF2. Our information systems have the capability to capture patient outcomes, procedural costs and pricing
ISF3. Our information systems allow for the complete automation of procure-to-pay processes
ISF4. Our information systems capture data on material utilization
ISF5. Our information systems capture the effectiveness of material used
ISF6. Our information systems capture the effectiveness of the equipment used
Electronic Linkage

Describe the extent to which your hospital is electronically linked with

EL1. Vendors (Suppliers)
EL2. Distributors
EL3. GPOs.

Supply Chain Information Systems
Outsourcing

OUT1. Distribution (shipping, receiving and fulfillment) activities are outsourced in our hospital

OUT2. Procurement activities are outsourced in our hospital

OUT3. Contracting activities are outsourced in our hospital

OUT4. IT services are outsourced in our hospital

OUT5. Clinical services (e.g., dialysis services, diagnostic imaging) are outsourced in our hospital

OUT6. Support services (e.g., food, linen) are outsourced in our hospital

![Outsourcing Rating Scale](image_url)

The bar chart illustrates the percentage of responses for each outsourcing activity across different rating scales. The x-axis represents the six outsourcing activities (OUT1 to OUT6), and the y-axis represents the percentage of responses. The legend indicates the color codes for each rating level (Strongly Agree, Agree, Neither Agree Nor Disagree, Disagree, Strongly Disagree).
Supply Chain Processes

SCP1. Our hospital actively pursues supply chain process improvement (e.g., six sigma, lean) initiatives
SCP2. We actively benchmark our performance and practices against industry standards
SCP3. Our supply chain processes are aligned with overall strategic objectives of the hospital
SCP4. Distribution processes are standardized in our hospital
SCP5. Procurement processes are standardized in our hospital
SCP6. Contracting processes are standardized in our hospital
Quality of Data Collection and Utilization in Your Hospital

DA1. We analyze product effectiveness and usage (utilization) on a regular basis
DA2. We keep track of supplier performance metrics
DA3. We regularly evaluate product prices and supply base
DA4. We make extensive use of statistical techniques to understand the variance in processes
DA5. We embrace data-informed decision making in the supply chain

![Quality of Data Collection and Utilization Graph]

Quality of Data Collection and Utilization

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<tr>
<th>Rating Scale</th>
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<th>Neither Agree Nor Disagree</th>
<th>Strongly Agree</th>
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System Coordination
(Hospital that were part of a multi-hospital system answered the following questions).

SC1. We have an integrated/centralized supply chain strategy at the hospital system level
SC2. Our IT strategy is coordinated at the hospital system level
SC3. Our procurement activities are coordinated at the hospital system level
SC4. Our GPO contracts are coordinated at the hospital system level
SC5. Our Non GPO Contracts are coordinated at the hospital system level
SC6. Our distribution and fulfillment activities are coordinated at the hospital system level
**External Collaboration**

EC1. Clinical utilization data are shared with our supply chain partners

EC2. We share performance feedback with our supply chain partners

EC3. We promote collaboration with our supply chain partners

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<tr>
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<th>Strongly Disagree</th>
<th>Neither Agree Nor Disagree</th>
<th>Strongly Agree</th>
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![External Collaboration Chart]

- EC1: 30% Strongly Agree, 20% Agree, 20% Neither Agree Nor Disagree, 10% Disagree, 10% Strongly Disagree
- EC2: 50% Strongly Agree, 30% Agree, 10% Neither Agree Nor Disagree, 5% Disagree, 5% Strongly Disagree
- EC3: 10% Strongly Agree, 20% Agree, 35% Neither Agree Nor Disagree, 20% Disagree, 25% Strongly Disagree
Internal Collaboration

IC1. We have cross functional teams for product standardization initiatives

IC2. We hold regular planning and communication meetings with physicians and nurses

IC3. Supply chain analysis results are shared with other departments in the hospital

IC4. Financial and utilization goals are shared with physicians and nurses
**GPO Relationship and Services**

GPO1. Our relationship with GPOs is based on contract compliance

GPO2. We typically obtain lower prices through GPO contracts

GPO3. Our GPOs offer mostly single-vendor multi-product contracts

GPO4. We use GPO pricing as the starting point of our own contracting efforts

GPO5. Our GPOs help us benchmark with peer hospitals

GPO6. Our GPOs assist us in supply chain analysis and improvements (supply spend audit tools, technology assessment, etc.)

GPO7. We use GPO services in selecting and standardizing our materials

GPO8. We have multiple suppliers for commodity items

GPO9. We have multiple suppliers for physician preference items

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**Rating Scale**

1. Strongly Disagree
2. Neither Agree Nor Disagree
3. Strongly Agree

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**GPO Relationship and Services**

- **GPO1**
- **GPO2**
- **GPO3**
- **GPO4**
- **GPO5**
- **GPO6**
- **GPO7**
- **GPO8**
- **GPO9**

### Bar Chart Description

- **Strongly Agree**
- **Agree**
- **Neither Agree Nor Disagree**
- **Disagree**
- **Strongly Disagree**
Performance Changes

Reflecting back on your performance for the last three years, please indicate how your performance has changed

PC1. Logistics costs
PC2. Procurement costs
PC3. Contract flexibility
PC4. Number of SKUs (having a low number of SKUs is better)
PC5. Product utilization

![Change in Performance over the last 3 years](image)
Performance Comparison to Peer Hospitals

C1. Logistics cost
C2. Utilization of material and equipment
C3. Number of SKUs (having low number of SKUs is better)
C4. Supply Cost as percent of total expenditure

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<th>About the Same</th>
<th>Much Better</th>
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Comparison of Performance with respect to Peer Hospitals