Capital Resource Management

Outline

- Capital Equipment Selection
  - Procurement process
  - ROI/Justification
- Capital Prioritization
  - Budget creation
- Implementation
  - Contracts for equipment and services

What Is a Capital Purchase?

- Capital or inventorial equipment can be defined as:
  - Not permanently attached to buildings or grounds, stand alone
  - Not real estate or software
  - Acquisition cost of $5k or more, including but not limited to tax, freight, and installation cost
  - Not disposable or consumable
  - Has a useful life of one year or more
What is a capital purchase?

- Acquisitions are generally planned, managed, and funded on an organization-wide basis in a capital budget instead of an operational budget.
- Capital purchases may be approved by different managers, using criteria different from operational purchases.
- Capital purchases have a defined asset life cycle, an economic life of a certain number of years where it returns value to the company greater than its costs – cost to acquire, maintain, and operate.

General management of capital assets

- Assets are assessed on performance periodically with profitability metrics and investment financial metrics such as:
  - return on investment (ROI)
  - return on assets (ROA)
  - return on capital employed (ROCE)
- Values are maintained on a balance sheet and generally depreciate over time.

Capital purchase, or not?

- New lab where all supplies total $8,000
- Conference room table and 12 chairs
  - Table $3,000 and Chairs $6,000
- Computer server $4,700 and software of $5,500
- PC cluster with multiple nodes (6) total $10,000
Procurement — “Buying Stuff Per the Plan”

- The act of obtaining or buying goods and services.
- The process includes preparation and processing of a demand as well as the end receipt and approval of payment. It involves:
  - Purchase planning
  - Standards determination
  - Specifications development
  - Supplier research and selection
  - Value analysis
  - Financing
  - Price negotiation
  - Inventory control and disposals

Importance of Procurement

- Essential business strategy
  - Need materials to perform the job
  - Material prices need to be such to allow for a profit
- Communication?

<table>
<thead>
<tr>
<th>Purchase planning</th>
<th>Relationship building</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standards determination</td>
<td>Credibility</td>
</tr>
<tr>
<td>Specifications development</td>
<td>Influence</td>
</tr>
<tr>
<td>Supplier research and selection</td>
<td>Process</td>
</tr>
<tr>
<td>Value analysis</td>
<td>Negotiation</td>
</tr>
<tr>
<td>Financing</td>
<td>Contract writing</td>
</tr>
<tr>
<td>Price negotiation</td>
<td>Risk analysis</td>
</tr>
<tr>
<td>Inventory control and disposals</td>
<td>Teamwork</td>
</tr>
</tbody>
</table>

Equipment Selection

- Who is involved?
  - Multidisciplinary process
  - In healthcare, this includes individuals that summarize information about the medical, social, economic and ethical issues related to use of a technology in a systematic, transparent, unbiased, robust manner
- Technology assessment
  - Reports are available from several organizations and they evaluate new and emerging technologies and include evidence reports
Equipment Selection

- Device evaluation — does it do what they say it can do?
  - IEC or ISO certification?
- Planning and needs assessment
  - Planning to fulfill the need(s) identified in gap analysis between current and desired state
  - Asking for bids, evaluating and comparing bids
  - The entire cycle from installation to maintenance
- Are there regulatory or accreditation standards related to the selection of equipment?
  - TJC Environment of Care Standards
  - Special state, county, or city regulations?

Budget Creation - Capital

- Capital purchases will depreciate over time using one of two models:
  - Fixed amount each month over the useful life
  - “Front-loaded” for greater depreciation in the first years compared to later years
- Removal of equipment before the end of useful life may require reporting taxable gain, depending on the book value
- Capital purchases are prioritized by an organization
  - Return on Investment (ROI)

Simple ROI calculation for a capital purchase

- ROI = (Gains - Cost) / Cost
- Simple calculation to tell you the bottom line return on any investment
- If an investment is $5000 and is sold for $6250, the ROI is ($6250 - $5000) / $5000 = 0.25 or 25%
Simple ROI for New MRI

- Equipment purchase price $1.5M
- Construction $500k
- Annual maintenance of $150k for 5 years
- Reimbursement per exam $600
- 6250 exams per year
- Gains = ($600 x 6250) = $3,750M
- Costs = $1.5M + 0.5M + (150M x 5) = $2.75M
- ROI = $3.75M - $2.75M / $2.75M = 36%

New HDR Service

- Equipment purchase price $250,000
- Total maintenance of $50,000 for 7 years
- Reimbursement per treatment $10,000
- 50 exams per year
- Gains = (7 years x 50 exams x $10,000) = $3.5M
- Costs = $250,000 + (7 x $50,000) = $0.6M
- ROI = $3.75M - $0.6M / $0.6M = 84%

Implementation - Once purchased, then what?

- Installation
- Commissioning
- Accounting/record keeping
  * New equipment is defined as a capital asset
  * Transferred to the asset inventory program
  * Annual Inventory
- Monitoring - management of data for current purchase and to inform future purchase decisions
- Maintenance
Budget Creation - Operational

- Operational budgets typically contain:
  - Salaries, wages, and benefits for department employees
    - Benefits include PTO, employer paid expenses towards insurance or other benefits
  - Non-capital equipment repairs and costs
  - Travel expenses
  - Annual merit increases or cost of living adjustments
  - Employee bonuses
  - Supplies
  - Service contracts

Contracts – Equipment and services

- Best time to negotiate is when equipment is purchased
- Service agreements should be in the range of 5-15% of the equipment purchase price
- Evaluate costs by tracking equipment purchase date and cost, contract length, coverage level, annual contract cost, and service cost ratio

What should be known to plan for service and replacement?

- Thorough inventory, including age and service costs, and estimated lifecycle
- Utilization data
- Upgrade options
- Opportunities for cost avoidance
Service options?

- OEMs
  - Typically offer an uptime guarantee
- Third-party service organizations
- Insurance policy for building and a fixed equipment-repair fund
- In-house maintenance
- Pay as needed
- Combination of the above (i.e. in-house for first call, basic OEM contract after that)

Benchmarks for service cost and impact for a department

- Cost of service percentage
  - Cost of a year of service / purchase price
  - Increases with complexity of equipment
  - Generally around 10%
- Mean time between failures, based on actual failure events over a fiscal year
  - Measured in mean number of days between downtime events for a given machine
  - National benchmarks available for vendors/models

Contract negotiation opportunities

- Software and hardware upgrades
- Uptime guarantees (typically > 97%) – adding downtime as warranty extension
- Response time, after hours and weekend charges
- Preventative maintenance schedule
- Repair coverage
- Remote/telephone support
- Training for in-house staff
- Start of warranty (after first clinical use)
- Prorated coverage of specialty parts