Use Service Line Analysis to Make Wise Investments

by Cecily Lohmar

Hospital executives must invest increasingly scarce capital and management resources ever more prudently.

- Eroding profit margins require providers to better balance services that make little or no money with more profitable ones in order to maintain a healthy financial position.
- Capital requirements are rising because of a need to replace outdated facilities and add new technologies. At the same time, internal competition for capital dollars is increasing.
- The days of excess hospital capacity – where providers looked to fill beds with any patient volume – has given way to significant capacity constraints – where providers look to capture the best volume.

Service line analysis (sometimes called portfolio analysis) can be a valuable tool to assess the current mix of services and guide resource allocation. It is useful at both the hospital and system level. For hospitals, service line analysis helps focus resource investment. Service line analysis can facilitate key decisions on strategic investments, such as acquiring new imaging equipment versus developing a dedicated orthopedic institute. At the system level, service line analysis is used to evaluate the system’s portfolio of businesses, allowing the organization to divest those services that do not provide adequate value.

The underlying objectives of service line analysis apply to either the hospital or system example. Service line analysis provides a structure for determining resource allocation and service investment or divestment initiatives. The analysis can be valuable in setting organizational priorities and strategies. Specific objectives are to identify:

- Services that are not performing to their potential.
- The best opportunities to grow existing services.
- Services that drain or do not contribute to organizational resources.

The traditional model most people associate with service line analysis (developed by Boston Consulting Group) has been used in the private sector for years and evaluates two variables of performance – market and financial – to drive investment and divestment decisions. Depending on their market and financial scores, services are placed in one of four quadrants.

<table>
<thead>
<tr>
<th>Hold</th>
<th>Invest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consider</td>
<td>Divestment</td>
</tr>
<tr>
<td>Grow</td>
<td></td>
</tr>
</tbody>
</table>

The quadrants show what services should be grown, maintained, divested, or receive considerable investment.

Although this model has worked in the private sector, where market and financial performance are often the two primary measures of a product’s success, it offers too limited a perspective to be of value in the not-for-profit health care industry. Some of the primary reasons this approach falls short in health care include:

- Financial performance is not the sole determinant of importance or success in not-for-profit health care.
- The two-dimensional approach doesn’t consider the role of operations in performance. Given the considerable differences in operating efficiency among providers, understanding operating performance is important in making investment decisions.
- Health care services are often interrelated, and growing or eliminating one often affects other services.
- Hospitals must address multiple constituents – patients, payers, physicians – whose interests are not always aligned.
- Government regulation often affects investment/divestment decisions. For example, a promising market and financial opportunity may not be worth pursuing if regulatory constraints severely limit the ability to develop and expand the service.

Given those shortfalls, a more comprehensive process that integrates data analysis with strategic thinking is required.

A three-dimensional process
A three-dimensional process combines operating indicators with market and financial factors. Despite different levels of sophistication in data availability, organizations should be able to access some, if not all, of the following indicators.

Market performance looks at market share, market draw/patient origin, volume trends, market outlook, utilization patterns, and other factors to understand each service’s performance relative to others provided by the hospital. Key questions may include:

- Do utilization trends, such as length of stay and use rates, follow regional or national norms? Are
there valid reasons, such as physician access issues, for significant differences?

- Do services draw from the same market area, or are there differences?
  - Do tertiary services or centers of excellence continue to draw from a larger geographic area?
  - Do services draw from those areas identified in the organization’s strategic plan?

- Is the service volume (as a percentage of total discharges) consistent with peer hospitals? Or is the organization more or less reliant on one or two services?

- How do market share trends compare with the market share trends of other services and with the organization as a whole? What services maintain a stronger market share? Is their strength because of access (e.g., only service in town) or physician/patient preference?

Operational performance is best reviewed in the context of regional or national norms. An evaluation of operations will help determine if market or financial performance reflects an internal situation. Some key questions:

- How do staffing ratios compare with those of peer groups?
- What do patient and physician satisfaction surveys say about the service?
- Is there a physician champion for the service? Is there a management champion?
- Are physician and other contracts reasonable for what is being provided?
- How do costs compare with those of peer groups?
- Are quality measures available, and how do services rate against peer groups?

Financial performance, depending on the hospital’s financial system, may be difficult to assess. Nevertheless, getting accurate financial information is necessary. Questions include:

- How does pricing compare with that of peer groups?
- What is the contribution margin and net income/profitability for each service? An evaluation of both measures will provide a more comprehensive view of a service’s “value.”
- How reliant is the organization on the service, based on its gross and net revenue contribution and/or its net income contribution? How vulnerable is the service’s financial condition to outside forces, such as payment and regulatory changes or technology advances?

From data to decision making

The conversion of raw data into some kind of service line score makes the information easier to understand. A scoring system also often highlights the relative strengths and weaknesses of different services. The organization needs to establish criteria for what constitutes a high, medium, and low score for each variable in the data set. Organization-wide performance may be a good starting point for a medium score. Other measures for scoring include statistics from a high-performing peer, national benchmarks, and targets established by quality measurement groups. An example, showing only a few variables, is shown below.

Market share – Assume organizational market share is 40 percent.
  - High – Any service with more than 50 percent market share.
  - Medium – Services with market share between 30 percent and 50 percent.
  - Low – Services with less than 30 percent market share.

Net income per case – Assume organizational average is $500.
  - High – Services yielding more than $600 per case.
  - Medium – Services yielding $300 to $600 per case.
  - Low – Services generating less than $300 per case (including any unprofitable services).

Staffing – Use organizational number of full-time-equivalent employees per occupied bed as average.
  - High – Staffing is 10 percent below average, suggesting greater efficiency.
  - Medium – Staffing within 10 percent of average.
  - Low – Staffing 10 percent higher than average, indicating inefficient operations.

Key: High (3), Medium (2), Low (1)

A completed scoring sheet may look something like this.
The total scores make it easy to compare various services. Inevitably, there will be surprises – services that don’t perform as well as perceived, “sleeper” services that have considerable market and financial strength but have received little or no management attention, and services that raise questions about their fit in the organization. From this information, basic strategies can be developed, including:

- Ways to improve performance through operational enhancements if analysis suggests a worthwhile return on investment.
- Ways to grow services through changes in utilization patterns or gains in market share or market reach.
- Ways to divest services whose market or financial performance cannot be turned around with operational improvements.

The next step in the service line analysis process is to incorporate the implications of each strategy into the context of the organization as a whole. This step involves considering the more intangible factors that will guide resource allocation. Strategic implications can include:

- Revenue impact. To what degree will investment/divestment decisions affect the bottom line? An understanding of the impact on revenues will help determine if any individual opportunity is worth pursuing.
- Capital investment. How much capital is required to invest in this service? Will $2 million be needed to make $1 million? Understanding capital investment requirements provides perspective. Typically, strategies with high capital requirements are given a lower score on the priority matrix.
- Strategic fit. How important is this service to the organization’s strategic mission, vision, and priorities? Are there any findings that suggest the strategy should be re-evaluated?
- Medical staff support. Will physicians accept the service investment/divestment decision? Will the decision make their lives easier or more difficult? Is there a medical staff champion to lead the effort?
- Regional impact. What kind of impact will changes to this service have on other providers – including physicians, competitors, and partner hospitals – in the region?
- Ease of implementation. How difficult will it be to address the service? Are there regulatory hurdles to overcome? Are cultural changes needed to capitalize on the opportunity, and are they realistic?

A sample matrix of how these factors might play out is shown below. It provides a framework for establishing priorities, which in turn should drive the allocation of leadership and financial resources. Higher scores are given higher strategic priority.
<table>
<thead>
<tr>
<th>Service</th>
<th>Revenue Impact</th>
<th>Capital Investment</th>
<th>Strategic Fit</th>
<th>Medical Staff Support</th>
<th>Regional Impact</th>
<th>Ease of Implementation</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bariatrics</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Rehabilitation</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Neonatal</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Women’s</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Ortho/Neuro</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>17</td>
</tr>
<tr>
<td>Sleep</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>Emergency</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Radiation Therapy</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>Cardiac</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>16</td>
</tr>
<tr>
<td>Imaging</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>16</td>
</tr>
</tbody>
</table>

The service line analysis enables organizations to make decisions based on data, not on internal perceptions. The process can easily be modified to meet the needs and data availability of a particular organization. However, the following rules of thumb apply:

- Use the same measures to evaluate all services; do not use an indicator if the information is available for only a few services. The intent of the analysis is to compare performance by evaluating services against the same measures.

- Use data that are valid, reliable, and can hold up to stakeholders’ scrutiny. The information will be challenged by many people, especially when it is inconsistent with perceptions.

- Invest the time and energy necessary to assess both service contribution and profit. Looking at only one of these variables will not provide a complete picture of financial value.

- Don’t hesitate to apply a weight to criteria used in evaluating services if a criterion is substantially more or less important than others. For example, capital investment may be much more important than regional impact in a cash-strapped organization.

Although the service line analysis process is time-consuming, the gain is well worth the investment. Once the database is set, the process itself can be used to monitor performance and progress toward goals.

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