Value creation in medical device M&A

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The medical device industry has evolved over the last several decades from a high-flying, fast-growing market to a slower-growing, maturing one, driven by a slowdown in volumes and significant increase in pricing pressure. As a result, the industry is in the midst of accelerating consolidation. Over the last 15 years, the industry has increased in concentration in most segments of the market (Exhibit 1).

Exhibit 1: The global medical device landscape has consolidated over the past 15 years

As market pressures have increased, the pace of consolidation has accelerated with deals such as Medtronic-Covidien, Zimmer-Biomet, J&J-Synthes, and Thermo Fisher-Life Technologies, which are examples of deals that have created (or will create) players of unprecedented scale in their relevant market segments.

To assess the impact and performance of M&A in medical devices, we analyzed 396 M&A transactions over a 15-year period (1999 to 2014) and categorized top acquirers by M&A program. We also looked in more detail at the performance of 22 large deals – those that were larger than USD 750 million and where the target company represented at least 15 percent of the acquirer’s market capitalization. To analyze shareholder returns, we calculated excess shareholder returns above the industry index of the acquiring company over a time series of two to five years after the announcement date. We also evaluated economic profit growth, margin evolution, and trading multiples for acquirers over time.
Based on our analysis, we have three conclusions:

1. **Medical device leaders relied on M&As to stay on top**

The top 15 companies from 1999 pursued significant M&A to remain on top in 2013. These companies deployed USD 131 billion in capital for 123 transactions, representing 45 percent of the total capital deployed on medical technology M&A over the time period. This capital was a significant outlay, representing approximately 17 percent of the top 15 aggregate market capitalizations in 1999 (excluding GE).

2. **Large deals are high risk, high reward in medical devices**

Large deals in medical devices are not value creating on average and have significant volatility in performance (Exhibit 2). While the median performance of deals two years after deal announcement is positive, the average return is zero with large volatility – in short, there was a significant number of bad deals mixed with good deals in large, medical technology M&A over the last 15 years. Excess returns for good deals tended to dissipate over the longer term as both the average and median excess shareholder returns fell to zero five years after the deal announcement.

Our findings for the medical device industry are in contrast to our analysis of large deals in pharmaceuticals, which have positive excess returns. More broadly, the large medical technology M&A return profile resembles that of other industries (except for technology deals, which underperform significantly).

**Exhibit 2: Large medical device deals, in contrast to pharmaceuticals, have been neutral in TRS with a wide distribution of outcomes**

In most cases, acquirer multiples compress following large acquisitions in medical devices. On average, multiples decrease 13 percent following a large deal, representing lower growth expectations for the
combined company. We also find that operating margins do not grow significantly and economic profit in aggregate shrinks in these transactions. When segmenting those deals where acquirer TRS outperforms the benchmark, we do see that equity performance correlates with improved fundamental performance (Exhibit 3).

**Exhibit 3: Large device deals have had variable performance, with positive TRS driven by improved economics**

<table>
<thead>
<tr>
<th>Percentage point change in EBITDA margin</th>
<th>Aggregate change in acquirer’s economic profit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median 2 years following close, n = 21</td>
<td>Aggregate 2 years following close, n = 19</td>
</tr>
<tr>
<td>Acquirers with excess TRS &gt; 0 (n = 11)</td>
<td></td>
</tr>
<tr>
<td>Median of all deals</td>
<td>3.3</td>
</tr>
<tr>
<td>Acquirers with excess TRS &lt; 0 (n = 10)</td>
<td>-2.6</td>
</tr>
<tr>
<td>Aggregate change in acquirer’s economic profit</td>
<td>1,036</td>
</tr>
<tr>
<td>Aggregate of all deals</td>
<td>-3,316</td>
</tr>
<tr>
<td>Aggregate change in acquirer’s economic profit</td>
<td>-4,353</td>
</tr>
<tr>
<td>Aggregate of all deals</td>
<td></td>
</tr>
</tbody>
</table>

SOURCE: CPAT; Dealogic; McKinsey large deals database

3. **Programmatic M&A campaigns perform better and more consistently than other M&A strategies**

Looking at the longer-term performance of M&A programs, we find that smaller and higher-frequency M&A programs deliver better shareholder returns than other deal programs, including big deals.

We categorized acquirers into three M&A program archetypes across different eras:

- **Big deal**: A company that executed one of the deals from the large medical device deal databases described above. The company is counted in the period where the large deal impacted TRS. For example, if a deal happened in December 2007, the company is counted in the period 2007 to 2009, as TRS for that period would be impacted by the deal.

- **Programmatic**: The capital deployed by an acquirer on an M&A is greater than 30 percent of its 1999 market value, and it has completed five or more deals, that is, approximately one every three years, or the capital deployed by an acquirer on an M&A is greater than 20 percent of its 1999 market value, and it has completed seven or more deals, that is, approximately one every two years. For big-deal acquirers, this is applied excluding the large-deal and the big-deal period.

- **Tactical**: All other acquirers, including those that did not pursue an M&A.
Programmatic M&A strategies outperform overall and most consistently for all time periods examined (Exhibit 4). While tactical acquirers lagged in some historical periods, they have outperformed benchmarks in more recent periods. Big-deal acquirers, as illustrated in the previous analysis, performed at parity to benchmarks overall and only marginally outperformed in some periods.

Exhibit 4: Programmatic acquirers outperformed the benchmark for medical devices

<table>
<thead>
<tr>
<th>Acquirer Deal Program</th>
<th>Median Excess Returns, %</th>
<th>n = 35</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programmatic</td>
<td>7.6</td>
<td></td>
</tr>
<tr>
<td>Tactical</td>
<td>5.6</td>
<td></td>
</tr>
<tr>
<td>Big deal†</td>
<td>0.1</td>
<td></td>
</tr>
</tbody>
</table>

† Company is counted in the big-deal category for the period where TRS is impacted by the big deal

SOURCE: CPAT; Dealogic; McKinsey large deals database; McKinsey longitudinal database

Concluding thoughts

Successful large, transformative deals are rare in medical devices. When we look back and compare medical device deal performance to our previous analysis on pharmaceutical megamergers, there is a stark contrast in economic performance in large deals for the two sectors (Exhibit 5). Pharmaceutical acquirers have managed to deliver approximately three times the margin improvement and multiple billions of dollars more in economic profit than medical device acquirers.

This contrast highlights a few important differences between the two industries. First, there are greater redundancies in most large pharmaceutical deals compared to medical devices, which can yield greater synergies. In the several large medical device deals we analyzed, acquirers entered new markets with little overlap between their core businesses. Furthermore, in pharmaceuticals, call point overlaps can be significant, particularly in primary care, while in medical devices, the call points tend to be more fragmented and specialist oriented, even when they reside within a hospital channel.

Second, there are structural differences in the two industries, which can impact value creation. Pharmaceuticals is a high-margin, high-ROIC industry where product life cycles tend to be long-lived with limited competition. Medical devices is a lower-margin and lower-ROIC industry where product life cycles can be shorter and where the risk of premature obsolescence is higher. Thus, the risk of a bad technological bet is higher.
With another wave of consolidation ahead for the medical device industry, we believe large deals have a role, but they should be carefully considered in the context of a programmatic M&A strategy. To create value in the future, we also believe the industry must rethink its approach in dealing with execution and synergy capture; the track record must improve for big deals to create value in medical devices.

Exhibit 5: Pharmaceutical megamergers have delivered greater economic performance compared to large medical device deals

<table>
<thead>
<tr>
<th>Percentage-point change in EBITDA margin</th>
<th>Aggregate change in acquirer’s economic profit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median 2 years following close</td>
<td>Aggregate 2 years following close</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>4.1</td>
</tr>
<tr>
<td>Medical devices</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>-3,316</td>
</tr>
<tr>
<td></td>
<td>13,991</td>
</tr>
</tbody>
</table>

SOURCE: CPAT; Dealogic; McKinsey large deals database
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