

A background image showing a close-up of a microscopic cell structure, likely a plant cell, with green and blue tones. The cell walls are clearly visible, and the overall image has a soft, ethereal quality.

FINDING THE PROBLEM FOR THE SOLUTION LEADS TO MULTIBILLION-DOLLAR OPPORTUNITY

CHALLENGE

When a global medical device company initiated the development of a new, lower-cost surgical robot technology, the market seemed primed for more opportunity. However, after six years of investment and still more needed, market growth had started to plateau before launch. The company's leadership was determined to understand this unexpected dynamic and define strategic solutions, especially as multiple competitors announced plans to launch surgical robots as well.

Since surgical robots were developed in the early 2000s, one company has dominated the U.S. and global markets, and initially experienced significant growth year over year. No clinical evidence existed to explain why the robotic market experienced such high growth in its early stages, or why it tapered off. Anecdotally, many believed because robots enabled surgeons to sit — rather than stand — during the long procedures, increased comfort drove adoption. Others pointed to surgical time savings and improved patient results.

SOLUTION

Navigant Consulting, Inc. conducted market analysis and research to determine the robotics market's current dynamics and future potential. Of the 450,000 robotics procedures being done in the United States annually, more than 70% were for specific, complex procedures in urology and gynecology.

By 2015, more than 60% of large U.S. hospitals had robotic systems. The penetration in the select group of targeted procedures was high, and sales of new systems were slowing. Furthermore, no evidence supported the global company's belief that a lower-priced option would find market preference. Rather, research showed that lack of an identified clinical value proposition — not price — had delayed expansion into new procedures.

While clinical studies showed slight time savings and improvements in patient recovery, these were not significant enough to explain or sustain early market growth. Neither was surgeon comfort, because robots only were used in certain complex, long, urological and gynecological procedures, and had not exhibited adoption in lengthy, complex procedures within other specialties. In fact, research showed that robots were used specifically in surgeries that experienced high intraoperative conversion rates, and subsequently observed historically low rates of manual laparoscopic adoption. In these types of procedures, surgeons who used robots saw significantly lower conversion rates.

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About Navigant

Navigant Consulting, Inc. (NYSE: NCI) is a specialized, global professional services firm that helps clients take control of their future. Navigant's professionals apply deep industry knowledge, substantive technical expertise, and an enterprising approach to help clients build, manage, and/or protect their business interests. With a focus on markets and clients facing transformational change and significant regulatory or legal pressures, the firm primarily serves clients in the healthcare, energy, and financial services industries. Across a range of advisory, consulting, outsourcing, and technology/analytics services, Navigant's practitioners bring sharp insight that pinpoints opportunities and delivers powerful results. More information about Navigant can be found at navigant.com.

Intraoperative conversion is correlated with surgeon experience, procedure complexity, and learning curve, and is associated with less successful clinical and economic outcomes. Therefore, if robotic surgery could demonstrate reduction in intraoperative conversion in other surgical specialties, it could provide proof of a real and quantifiable value proposition and justify procedural expansion, which would ultimately increase system capacity.

Further Navigant research and analysis identified other long, complex procedures that might benefit from surgical robots. Driving preference for surgical robots in these procedures would create the potential to expand the already billion-dollar market into a multibillion-dollar opportunity.

RESULTS

The global company aimed to expand the market by creating a clinical rationale and economic justification for using surgical robots in other procedures. While this investment would expand the market for all players, it made the competitive dynamics more manageable. Navigant created a road map of investment strategies and a predictive forecasting model to support the company's expansion initiative.

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