

**Tech-Clarity Insight:
World Class Service Management
for Medical Equipment**

Preface

Equipment companies today have been plagued with reduced liquidity and shrinking business activity. Many are relying on service to help them maintain their customer base, improve margins and drive growth for the future. In spite of the economic downturn, medical equipment companies have fared rather well compared to other industries. Yet competition is growing in light of current market dynamics and a global playing field. Just as in other industries, service is becoming a vital differentiator and key strategy for medical equipment manufacturers. Now is the time for these companies to adopt best practices developed in other industries to serve as a roadmap as they continue "the transition to service."

Lawson strives to keep you informed of changing trends and strategies that directly impact your industry. In November 2009 we commissioned a study through independent research and consulting firm, Tech-Clarity, to examine the developments and business practices being adopted by medical equipment companies. The findings in this report by Jim Brown show that improved service can help companies achieve top-line growth concurrently with cost reduction, while protecting and growing profit margins as global competition increases. The author provides a list of recommendations to help medical equipment companies transform their service into world class, profitable businesses with strategic value.

As in other equipment service industries, Equipment Service Management processes and tools can help provide companies with the operational control and equipment intelligence they need to execute these strategies. With the right infrastructure, they can fine tune their service operations and deliver greater value to their customers while enhancing their own long-term growth and profitability.

About the Author

Jim Brown is the President and founder of Tech-Clarity, an independent research and consulting firm that specializes in analyzing the true business value of software technology and services. Jim has over 20 years of experience in application software for the manufacturing industries, with a broad background including roles in industry, management consulting, the software industry and industry research spanning enterprise applications such as PLM, ERP, Service Management, SCM and others.

Jim is an experienced researcher, author and public speaker and enjoys the opportunity to speak at conferences or anywhere he can engage with people who are passionate about improving business performance through software technology.

Contact details:

Jim.brown@tech-clarity.com

www.tech-clarity.com.



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Executive Overview

Profitability from equipment service is at risk across most industries due to current, global market dynamics. Optimizing equipment service in these times is critical to maintaining margins and business growth, particularly as many manufacturers have seen product sales revenue dip. While the medical equipment industry has maintained profitability better than others, competition is heating up and service is becoming an important differentiator, just as it already has in many industries. One company competing in this market is Getinge, which provides complete solutions for effective and efficient cleaning, disinfection and sterilization in the healthcare and life science sectors. Per-Olof Schrewelius, CFO for Getinge Infection Control AB, describes the state of the market, **“We have seen increased price competition on equipment.”** In this challenging environment, manufacturers need to consider service a strategic imperative. This is true for companies small and large alike. For example, Olympus is a leading manufacturer of professional opto-digital products including medical equipment such as endoscopes. Helge Hildebrand, Department Manager for International Projects for Olympus Europa explains, **“Service is an important factor for our business.”**

Due to the increased strategic importance of service to maintain corporate profits, now is the time for companies that sell and service medical equipment to adopt best practices developed in other service-led industries, including Equipment Service Management (ESM) processes and tools. Although these processes need to be adapted to the specific challenges of the healthcare industry, the lessons learned are both applicable and valuable. They are also achievable. As *Tech-Clarity Insight: Equipment Service Management – Maximizing Profit and Customer Value over the Equipment Lifecycle* research paper describes, **“Profiting from service requires two fundamentals of service organizations – operational control and equipment intelligence.”** Operational control allows medical equipment companies to better manage the cost of service so they can profit from service contracts while ensuring a quality customer experience. Equipment intelligence helps them meet regulatory requirements and provides business insight that enables more proactive service and supports follow-up on sales. ESM can help to enable both of these essentials.

ESM provides an integrated approach to the business of service, and helps companies address complexities such as managing global operations and complex contracts that may include lease or rental. ESM best practices offer a roadmap for medical equipment companies to follow as they transition to service-led businesses, and help them learn from other industries that have already faced this transition. But servicing medical equipment has distinct differences from servicing industrial equipment or consumer products. It requires additional attention due to the need to protect patient welfare and meet regulatory requirements. But the end goal for ESM in any industry is the same – to develop profitable, long-term partnerships with customers and drive higher revenue and profit from service. ESM offers the transparency and an integrated view of product information that helps medical equipment companies achieve the level of control and equipment intelligence they need in this highly regulated, global industry.

Lifecycle Service for Medical Equipment

While best practices from more service-led industries can provide strategic insight, manufacturers servicing the healthcare industry recognize that producing and servicing medical equipment is different. The equipment itself may be similar, but there are unique characteristics of the medical equipment industry that must be considered when embarking on an ESM program. These differences have more to do with the nature of the healthcare industry that medical equipment companies serve than the nature of their products. First, and most obviously, are the additional regulations that apply to the medical equipment industry. As Mikael Gustafsson, Getinge's Global Process Owner of After Sales explains, **"The impact is enormous if you don't follow regulations. If you don't have all of the historical data it can close down a facility."** There is also a lot of complexity to servicing medical equipment, ranging from product complexity to commercial complexity.

Perhaps most importantly, however, is that service is a crucial part of the customer relationship for medical equipment companies. As Tech-Clarity's *Service Lifecycle Management for Medical Equipment – The Strategic Role of Service* research paper states, **"Service in the medical equipment industry, however, is not optional. Service is integral to the relationship with the customer and very tightly tied with the success or failure of the company."** In short, service is mandatory. It is also becoming more strategic. Today, differentiation comes through support and total customer experience. **"It is a global market today, customers can just use Google and get six different suppliers,"** explains Getinge's Mikael Gustafsson. **"The trick is to give the customer what they are looking for – up time."**

Service should not just be viewed as an unwanted byproduct of a successful sales campaign. It is an opportunity for continued profit. Many manufacturers miss this opportunity for enhancing profitability. Medical equipment companies can learn to extract greater top-line and bottom-line results from other industries that have moved to a service-led strategy. Medical equipment companies have an opportunity to ensure customer value and long-term profitability, but must also ensure they meet strict industry demands as they move to world class service management.

Servicing the Top Line

With medical equipment, service is your right to participate in the market. Without service, there will not be sales. **"We can't sell equipment if we can't offer service and parts,"** explains Getinge's Per-Olof Schrewelius. **"It's like an entrance ticket to sell."** But service is not just important to the initial sale, it is also critical to future product sales. Unlike other industries, customers typically rely on the equipment manufacturer for service due to the sensitive business of protecting patient health. If they like your product but not your service, it results in a negative customer experience and future revenue streams will suffer. Offering world class service is the key.

Adopting ESM processes and tools improves customer satisfaction and helps to increase top line product sales, but it can also directly increase top line revenue. In fact, many are starting to look at service as a profit center itself. Companies have begun to recognize the profitability potential from service. For many medical device companies, service and parts are only about one-third of their revenue, but service compromises a fair share of their total profit. By focusing on raising the profitability of both your company and the customer, service organizations can help develop long-term relationships with higher levels of profitability.

There are other benefits of moving to a service-led approach. During uncertain economic times, service revenue is more recession proof than product sales. Although the medical equipment industry hasn't been as impacted as others have from the global economic downturn, it is important to recognize that down markets still need service. Mikael Gustafsson of Getinge sums up the opportunity, **“Even when capital sales are down, service can be there for profits.”**

Even without a view of service as a profit center, service can drive significant top line results. Quality and superior customer service are keys to customer satisfaction, and building a reputation for service helps drive repeat sales. Trusted technicians can help suggest product replacement, and also ensure timely orders for consumables. This requires good communication between service and sales, and transparency to equipment intelligence across the enterprise. **“Information from our service area is also valuable for sales,”** explains Hildebrand of Olympus. Getinge's Mikael Gustafsson points out the opportunity, **“The life of our products is 15–20 years, some out there are 45 years old. In that time, you are going to profit from service. Then, when the customer replaces the unit you will be there, and they will only think of you,”** he explains. **“Repeat business normally comes through aftersales,”** he adds.

Margins for medical equipment, although they are still more favorable than those in other industries, have started to decline due to globalization and competition. Whether a medical equipment manufacturer is ready to move to service as a profit center or just an enabler to product sales, visibility to equipment intelligence helps drive profitable revenue. In the same way, operational control helps ensure customer satisfaction and can also ensure top line results from product sales as well as direct margin contributions from service itself.

Bottom Line Results

Top line growth is important, but service organizations of all kinds still have to watch costs in order to maintain profitability. Cost management is particularly important in the healthcare industry because customers frequently bundle services into product sales, which means that service efficiency directly impacts company profit. Fixed cost and performance-based contracts are becoming more common. **“We offer fixed preventative maintenance, where we take full responsibility (and risk) by just charging a fixed number,”** explains Mikael Gustafsson of Getinge. Olympus also offers similar types of contracts. **“We offer a variety of contracts up to complete coverage where we bundle equipment, consumables, and service including preventative maintenance and in consequence have to closely monitor the reality of the consumption,”** says Helge Hildebrand. With service revenue fixed, the lever to pull in order to maintain profit margins is cost. The consumption of spare parts, response rates, and first time fixes are all important to customer satisfaction, but also to equipment lifecycle profitability.

Operational control leads to higher levels of productivity and profitability, particularly in fixed price agreements. This is even more true for performance-based agreements, where customers pay only for uptime, and any downtime represents a revenue loss. Companies need to have easy access to equipment intelligence in order to provide effective, efficient service. Equipment intelligence and operational control also allows them to plan and execute service proactively, saving time and money. Of course, customer experience cannot be sacrificed for cost. **“On one hand you have to focus on cost optimization to keep the customer happy, and on the other hand you have to fully comply to the medical device regulations set for patient safety,”** explains

Helge Hildebrand of Olympus. The good news is that world class service helps to simultaneously improve customer service, maintain compliance, and manage costs. In this way, world class service supported by ESM processes and tools helps medical equipment companies improve the bottom line while growing the top line, impacting both sides of the profitability equation.

Managing Medical Equipment Complexity

Operational control and equipment intelligence may be easier to say than accomplish, however, due to the complexity of the medical equipment business. Medical equipment companies face most of the complexities as in other industries, such as managing complex configurations and change. In fact, it is even more important in the medical equipment industry because it is regulated by the FDA, EU and other agencies across the globe. The medical equipment industry requires traceability from manufacturing through service, which can be demanded at any time. This “device master record” as it is often called requires a central view and complete control of the full lifecycle of the medical equipment – from manufacturing to end of life. **“Keeping a complete history of the equipment is obliged by law,”** explains Helge Hildebrand of Olympus. **“We have to track every time we touch the equipment and document all work performed.”** Maintaining service history is only a part of the regulatory challenge, as Per-Olof Schrewelius of Getinge explains. **“For the sake of patient safety, our industry is very regulated. We need to keep track of everything that breaks down, analyze what might break down frequently, and do something proactively about it if it is a critical component.”**

But regulatory requirements are only a part of the challenge. Medical equipment companies have become much more global, adding service complexity in addition to regulatory complexity. Service contracts are already very complex, and come in different forms. Many contracts include specific service level commitments, warranties, entitlements, renewals, amendments, and other considerations. Some are more complicated due to fixed price agreements or rental and leasing arrangements. Now consider that contracts may also be different by geography in order to meet local needs and customs. **“We have a big variety of service agreements, and they are different for each market,”** explains Olympus' Helge Hildebrand. **“They depend on local market needs in different countries and can cover guarantees, uptime availability, specific repair duration times, and some also include loaner equipment.”**

If that wasn't enough complexity, the products themselves can also be complex, i.e. equipment that includes intricate mechanical, electrical, and software elements. There are also other challenges and extra considerations unique to life sciences, such as managing complaints, issues, and corrective actions or managing products with very long lifecycles compared to consumer products. Given this complexity, it is clear to see why many companies don't have the level of control and visibility that other industries have developed. But now that the market is getting more competitive, these hurdles must be overcome.

Establishing Operational Control and Equipment Intelligence

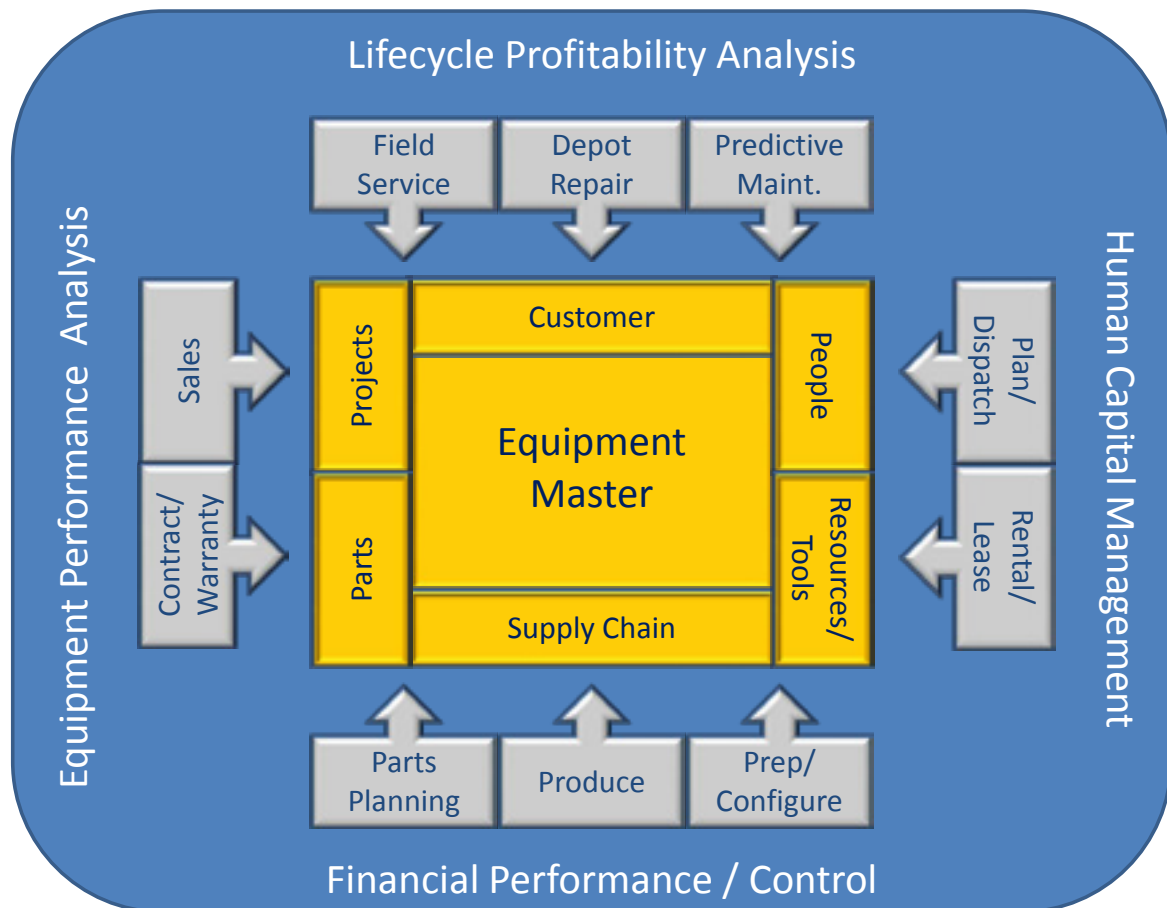
How can companies meet these challenges without an integrated view of their business? The answer of course is that they can't. But ESM is well suited to manage these difficulties. The Equipment Service Management Framework can help medical equipment companies address the complexities of servicing their products and customers and put in place a foundation to drive higher levels of profitability. The first step in ESM for most companies is to put in place operational control. Medical equipment companies need to manage service operations efficiently, as in any other industry. Capturing the right information from the service technician accurately is critical to compliance and control. **"We try to make processes as easy as possible for the people in the field and minimize the amount they have to do,"** explains Getinge's Mikael Gustafsson. **"We want the service technicians to be fixing equipment, not focusing on administration or software."** From a business perspective, companies also need to know what entitlements and levels of service are contracted or agreed upon in order to invoice quickly and accurately without giving away free service. Simply billing for all service and knowing what the customer is entitled to or not can provide significant bottom line value for most companies.

ESM tools can also help support standardized processes and best practices. **"Common processes and technology can improve productivity by 5 percent – that's easy math,"** explains Getinge's Mikael Gustafsson. Clearly, service organizations need to have the basics of service management well in hand to control service operations. More strategically, this level of control provides the opportunity to leverage advanced equipment intelligence capabilities in ESM. For example, the technician spends more time with the customer than anyone else. They are there, they see what the customer sees, and they hear what the customer hears. But this information is not frequently leveraged inside the medical equipment company. The important thing is to not only enable the field personnel, but also to communicate the information they gather to Sales and the rest of the enterprise. In this way, the medical equipment manufacturer can know the customers' equipment better than they know it themselves. This is how companies become a trusted advisor to their customers.

Capturing correct information from service technicians provides better equipment intelligence and allows for more accurate, timely invoices that can improve cash flow. More importantly, the ESM framework allows companies to leverage that equipment and customer knowledge throughout the business to make better business decisions. For example, understanding actual service costs is important to developing pricing for service-based contracts. Without good knowledge and history to forecast from, the choice is to either cushion the deal to protect margins (and come in too high) or keep the contract lean (and potentially sell unprofitable business).

Consolidating service information across the business provides the product intelligence needed to optimize service processes and performance. Integrating this information also provides a tremendous opportunity to "close the loop" and provide visibility to real-world equipment performance, engineering and manufacturing that helps drive continuous improvement. As Per-Olof Schrewelius of Getinge summarizes,

“There are a lot of advantages to getting your service information from one source.” The ESM Framework (see Figure) starts at the core with centralized, equipment-centric data. For medical equipment companies, this can serve as the single source for the “device master record” in addition to tying all manufacturing, service, and commercial activities back to the underlying equipment to provide an integrated view of device history from cradle to grave.



Equipment Service Management Framework. Source: Tech-Clarity

Providing centralized information, however, delivers greater benefits and opportunity than serving as a historical record. Ideally, you would be able to run a P&L by customer or by a piece of equipment that encompasses everything from initial product sales through manufacturing and service. **“With better transparency and knowledge from an integrated solution, we will have an exact understanding of where we are making our margins on markets, products, and customers,”** says Getinge’s Per-Olof Schrewelius. This level of intelligence across the enterprise is highly strategic, giving the business tremendous insight to help drive company plans and strategy. The value to the enterprise extends far beyond service. For example, Getinge’s Mikael Gustafsson explains that the centralized information, **“not only helps the top line, but also enables decision-making based on seeing data on the installed base.”** This information can prove extremely valuable in everything from identifying possible product improvement opportunities to planning marketing campaigns for new products.

Summary

As Tech-Clarity's *Service Lifecycle Management for Medical Equipment – The Strategic Role of Service* concluded, **“Service is much more strategic to medical equipment, it is integral to the medical equipment value proposition.”** This is as true today as it was then. Improved service can drive top-line growth concurrently with cost reduction, protecting and growing profit margins as global competition heats up. The good news is that medical equipment companies have the opportunity to leverage best practices from other industries that have already moved to service-led business strategies.

ESM processes and tools are available to help provide operational control and equipment intelligence. These fundamentals help medical equipment companies better manage service complexity to reduce risk as they increase profit. ESM allows medical equipment manufacturers the opportunity to not only comply with regulations, but do so cost effectively and without adding additional workload to service technicians so they can focus on the equipment. Perhaps just as importantly, ESM allows these companies the ability to develop and maintain trusted customer relationships that help drive repeat business, upsells, consumable sales, and profitable service contracts. The resulting equipment intelligence provides a detailed understanding of equipment and customers that provides the insight needed to guide long-term corporate strategy and direction.

Recommendations

Based on industry experience and research for this report, Tech-Clarity offers the following recommendations to transform medical equipment service into world class, profitable businesses with strategic value:

- Centralize and integrate equipment intelligence and service knowledge to provide “one version of the truth” about equipment, including current configurations, service history, and usage. Leverage this information to improve product performance and service, and satisfy regulatory requirements for traceability;
- Integrate Equipment Service Management processes across organizational and enterprise boundaries to gain operational control of service;
- Provide enterprise transparency to service processes and status of work, and leverage technician knowledge to drive equipment upgrades, replacements, and consumable sales;
- Extend control to global organizations to standardize processes and better manage inventory across manufacturing, service centers, and mobile inventory (such as service vans) to contain cost and develop a broader array of service knowledge;
- Develop enterprise-level analysis to determine profitability of customers, contracts, and equipment and identify requirements for corrective action.

About Lawson

In 2006, Lawson Software and Intenia merged to form the new Lawson. We deliver software and implementation services to 4,000 customers in manufacturing, distribution and services industries across 40 countries.

Our financials, human capital management, supply chain management, business intelligence, asset management and industry-specific solutions help customers streamline processes and enhance their business performance. And by radically simplifying the process of deploying and using our applications, we help customers reduce costs while increasing their flexibility.

Why Lawson? Because simpler is better.

**Headquarters:****USA**

380 St. Peter Street
 St. Paul, MN 55102-1302
 Tel +1 651 767 7000
 info@lawson.com

Regional Offices:**Americas**

Brazil, Chile, Canada,
 Mexico, Honduras,
 United States, Venezuela

United States

Tel +1 651 767 7000
 infous@lawson.com

Asia

China, Hong Kong,
 India, Indonesia, Japan,
 Korea, Malaysia,
 Philippines, Singapore,
 Taiwan, Thailand, Vietnam

Singapore

Tel +65 6788 8769
 Fax +65 6788 8757
 infoasia@lawson.com

Australia & Oceania

Australia, New Zealand

Australia

Tel +61 2 8437 5600
 Fax +61 2 8437 5699
 infoanz@lawson.com

Northern Europe

Denmark, Estonia, Finland,
 Norway, Sweden

Sweden

Tel +46 8 5552 5000
 Fax +46 8 5552 5999
 infonordic@lawson.com

Northwestern Europe

Belgium, The Netherlands,
 Ireland, South Africa,
 United Kingdom

United Kingdom

Tel +44 1344 360273
 Fax +44 1344 868351
 infonw@lawson.com

Central Europe

Austria, Czech Republic,
 Germany, Hungary,
 Poland, Slovakia,
 Switzerland

Germany

Tel +49 2103 89060
 Fax +49 2103 8906 199
 infoce@lawson.com

Southern Europe

France, Israel, Italy,
 Portugal, Spain

France

Tel +33 1 34 20 80 00
 Fax +33 1 40 39 25 07
 infofo@lawson.com

www.lawson.com