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Introduction

As competition shifts and customer needs change, OEMs historically focused on equipment first-sales are now prioritizing aftermarket products and services

Over the past two decades, Original Equipment Manufacturers (OEMs) have faced increasing global competition, which has changed the economics of equipment sales. Simultaneously, customers have started to expect improved parts and service levels. In many industrial sub-segments, this shift towards aftermarket service has been so strong that purchasing decisions are primarily driven by the service – not the equipment offering (e.g., elevators). Many OEMs have resisted or adapted to this change incrementally, failing to realize the revenue and profit opportunity that exists when aftermarket is prioritized.

This is changing – OEMs are evaluating if they are still leading with the right product (i.e., product vs. service) for their customers, increasingly prioritizing aftermarket services to grow and diversify their revenue streams and increase margins.

To assist in this change, Kaiser Associates has developed a framework to help OEMs gauge the maturity of an aftermarket service offering relative to peers. The framework presented in the following pages will help OEMs assess their current aftermarket offerings and the steps they can take to better position themselves to meet customer needs.

Lastly, Kaiser Associates has identified several opportunities that OEMs with more mature aftermarkets programs can address, creating greater value for customers and additional revenue.

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Aftermarket at a Glance

MAINTENANCE MATURITY CURVE PREDICTIVE MAINTENANCE PREVENTATIVE/PLANNED MAINTENANCE MAINTENANCE 1 TIME

 Equipment is shut down and inspected

1

- Failure is determined and corrective action is taken; components are repaired, or replacement parts are ordered
- 2
- At scheduled time, equipment is shut down and serviced; KPIs are tracked
- Components are maintained and/or repaired; replacement parts are ordered

3

• A telematics system monitors and compares real-time KPIs of operating equipment to parameters determined by factors such as historical performance data to make maintenance decision



- Equipment can detect/ self-diagnose issues through software and sensors during downtime and use
- Some basic maintenance can be done automatically (e.g., minor cleaning); larger issues, such as repairs, are communicated to equipment owners and OEMs

KEY DRIVERS OF CHANGING AFTERMARKET NEEDS

Increasing Use of Technology in Equipment

OEMs are implementing more technology in equipment to drive higher output and efficiency, which also leads to more complex maintenance and repairs

New Customer Approaches to Data

Customers are tracking, monitoring, and comparing real time performance metrics to better understand the operations, maintenance, and service needs of their equipment

Customer Focus on Total Cost of Ownership

Customers are increasingly examining expenditures as part of the equipment's 'total cost of ownership', rather than prioritizing the initial purchase price

Shift in Vendor Preferences

Customers are increasingly looking towards OEMs to service critical components due to the OEM's specialized knowledge of the equipment and existing relationship

Increasing Customer Expectations Raised by Non-Industrial Technology



Advances in non-industrial technology for consumers are driving customer demand for similar types of tools and capabilities for industrial equipment

As customer aftermarket needs evolved, so too have OEM's aftermarket programs. Below is a list of aftermarket offerings Kaiser has identified



PARTS

- Direct parts orders
- Phone
- -Online
- -Via service visits
- Sourcing other OEM parts
- Installation
- Exchange



MRO

- Setup
- Inspections
- Maintenance -Preventive
- -Routine
- Emissions testing
- Technical support
- Audits
- Equipment exchange

2

Documentation

- Diagnostics
- -Remote
- -On-site

 Upgrades
- Retrofits
- Remanufacturing
- Overhauls
- Decommissioning



VALUE-ADDED SERVICES

- Safety assessments
- Efficiency assessments
- Process optimization consulting
- Root cause failure analysis
- Equipment relocation
- Asset tagging

- System design
- -Feasibility studies
- -Computer aided design
- -Capital planning
- -Business case development

Outsourcing

- -Inventory management
- -Full-time on-site maintenance

Training

- -On-site
- -Traditional online
- -Virtual and augmented reality
- -Classroom

Remote monitoring

- -Dashboards
- -Utilization data
- -Pattern flow configuration

Key Drivers of Changing Aftermarket

Customer aftermarket needs are rapidly evolving across end markets driven by multiple trends, including:



INCREASING USE OF TECHNOLOGY IN EQUIPMENT

Over the last decade, the prevalence and integration of technology within industrial equipment has and continues to rise. Condition-monitoring tools, such as sensors and real-time connectivity enable customers to monitor equipment and identify anomalies in performance in order to predict when potential issues may arise. These tools allow customers to increase production and efficiency, while reducing the amount of unplanned downtime by enabling customers to make critical maintenance decisions earlier. OEMs have also rolled-out new aftermarket products and services specifically designed to support these tools, which will continue to evolve as customer needs change.



Customers are increasingly looking towards OEMs (and away from 3rd party providers) to service critical components. This shift is largely due to the OEM's specialized knowledge of the equipment and existing relationship, as equipment becomes more sophisticated and integrated with technology. The criticality of the equipment often serves as deterrent for switching, as customers appear to be risk averse with expensive equipment. This preference for OEMs tends to hold for both planned and unplanned maintenance events. As a result, OEMs have clear advantages over 3rd party vendors at the point of sales to win aftermarket business and should be a prioritized focus opportunity.



As equipment has gotten smarter, customer access to and understanding of data has also increased significantly. Customers are tracking, monitoring, and comparing real time performance metrics to better understand the operations, maintenance and service needs of their equipment. For example, real-time monitoring of equipment performance data can help detect minor issues early, mitigating the occurrence of larger, more complex and costlier repairs. Additionally, customers are using historical data to make better and more informed decisions, which can sometimes lead to longer equipment useful life, less downtime, enhanced facility safety, and higher trade-in values.



Advances in non-industrial technology and service for consumers (e.g., touch-screen interfaces, over-the-air updates) are driving customer demand for similar types of tools and capabilities for industrial equipment. Most OEMs have heard customers at some point ask, "why doesn't this work like my iPhone?" or "why can't you deliver like Amazon?" Customer expectations will only continue to rise, and OEMs that invest time and resources in their aftermarket programs can beat competitors to meeting those expectations.

CUSTOMER FOCUS ON TOTAL COST OF OWNERSHIP

Customers are increasingly examining expenditures as part of the equipment's 'total cost of ownership', rather than prioritizing the initial purchase price. This approach puts greater emphasis on the cost of parts and service, and requires OEMs to clearly articulate the potential aftermarket costs to customers. It also allows for new and innovative business models and financial products that can share the risk of equipment downtime between the OEM, distributor, and customer.

"Condition monitoring tools allow customers to increase production and efficiency, while reducing the amount of unplanned downtime by enabling customers to make critical maintenance decisions earlier."

Aftermarket Maturity Assessment Scorecard

Through our research engagements and ongoing conversations with clients across the industrials sector, Kaiser Associates has developed a scorecard to help OEMs understand the current state of their aftermarket program and the steps they can take to further enhance their offering to meet customer needs.

AFTERMARKET MATURITY SCORECARD

AFTERMARKET FEATURE	DEVELOPED? (CIRCLE Y/N)		DESCRIPTION
Operational Model	Y	N	OEM has established an operational model in which the corporate and business levels share optimal amounts of responsibility and resources
Lifecycle Focus	Y	N	Aftermarket program addresses customer needs throughout the equipment lifecycle (e.g., from point-of-sale to end-of-life), rather than a limited portion of the lifecycle (e.g., break-fix decisions)
Offering Focus	Υ	N	Aftermarket program tends to be service-focused (as opposed to parts-focused)
Service Customizability	Y	N	Aftermarket services are customized to meet the varied needs of customers either through a tiered service approach, custom service level agreements, or performance-based contracts
Scalability	Y	N	Aftermarket program is designed to address a broad custom base, as opposed to key customer accounts only
Delivery Model	Y	N	Aftermarket services are delivered through a combination of OEM employees and 3 rd party vendors
Support Location	Y	N	Aftermarket services can be delivered to customers through physical and remote locations (e.g., call center support, remote monitoring)
Brand	Υ	N	Aftermarket program is one of several, but narrowly defined brands or as one overarching brand

TOTAL YES: _____







Aftermarket Scoring Guide

Based on the number of Yeses circled in the Aftermarket Scorecard, OEMs can determine how their aftermarket offering ranks to peers

AFTERMARKET MATURITY SPECTRUM

NASCENT PROGRAMS (Scored between 0-2)

CHALLENGER PROGRAMS (Scored between 3-4)

LEADING PROGRAMS (Scored between 5-6)

VISIONARY PROGRAMS (Scored between 7-8)

REPRESENTATIVE AFTERMARKET PROGRAM FEATURES

- Operational model lacks adequate corporate level resources and strategy
- 2 Aftermarket program addresses limited portion of the lifecycle
- Heavy reliance on parts, rigid service offerings with no value-added services
- 4 Aftermarket program limited to select customers
- Typically aftermarket program is unbranded
- Margins relatively low for aftermarket offerings

- 1 Increased corporate level interest and investment in aftermarket program
- Heavy reliance on parts, with limited value-added services
- 3 Some levels of flexible service (likely in the form of tiers, not full customization)
- 4 Aftermarket program available to all customers
- 5 Aftermarket services limited to physical locations (e.g., no remote offerings)
- 6 Improved, yet not ideal, margin profile of aftermarket offerings

- Business units granted appropriate amount of flexibility
- 2 Focused on lifecycle, leverages sticky products early in sales relationship
- 3 Flexible service (likely in the form of tiers and some levels of customization)
- 4 Services delivered through combination of 3rd party vendors and OEM employees
- 5 Provides services primarily through physical locations, with some remote capabilities
- Attractive margins, often higher than those of equipment sales

- 1 Focused on lifecycle, leverages sticky products early in sales relationship
- 2 Tiered products with customizable and innovative service contracts
- 3 Uses new technology to offer additional value-added (remote) services
- 4 Aftermarket program is one of several, narrowly defined brands or as one overarching brand
- 5 Attractive margins, often higher than those of equipment sales

Aftermarket Foundational Criteria and Definitions

Aftermarket Program Overview: The eight key factors addressed in the scorecard can be organized into two categories to reflect the stages in which an aftermarket program is developed. First, by defining the operational model, lifecycle and offering focus, and service customizability, an OEM defines the scope of its aftermarket program. Once this foundation is established, the OEM can determine who and how its aftermarket program will serve.

OPERATIONAL MODEL

DEFINITION: The aftermarket program framework and strategy are either established at (i) the corporatelevel (top-down) or (ii) the business unit (bottom-up)

Mature aftermarket programs tend to be guided by a corporate-centered group, but provide business units flexibility in tailoring their respective offering to meet customer needs. This can be accomplished in two different ways. First, the corporate-level can define the operating model and offerings and allow individual business units to develop their own program-specific services. Alternatively, individual business units can design and execute their aftermarket programs independently, with branding and resources granted from the corporate level. Either approach has been successfully deployed by best-in-class industrial firms, which are working to accomplish the same critical goal of ensuring high quality service across the organization with flexibility to address specific customer needs.

LIFECYCLE FOCUS

DEFINITION: The aftermarket program tends to address either (i) the entire equipment lifecycle or (ii) a limited portion of the equipment lifecycle

One key attribute that differentiates mature from nascent aftermarket programs is the focus on addressing customer needs throughout the lifecycle, rather than at specific, critical moments (e.g., break-fix decisions, end-of-life). This includes supporting customer aftermarket needs from the point-of-sale to equipment disposal. Services can range from parts to MRO¹ to value-add services. Conversely, nascent programs tend to have a narrower scope, primarily focusing on part or limited MRO services. As a result, customers are likely to procure several vendors to address more advanced MRO and value-added service needs.

OFFERING FOCUS

DEFINITION: The OEM's aftermarket program tends to be either (i) parts or (ii) service-focused

Most OEMs and 3rd party vendors with aftermarket programs began by focusing on parts sales but have

shifted to services over time. This has been primarily driven by diminished margins with parts sales due to greater availability, as well as the prevalence and integration of technology within equipment. As a result, there is greater demand for specialized technicians who are intimately knowledgeable with equipment. Many large OEMs have responded by outsourcing parts sales and ad-hoc maintenance to 3rd party vendors and partners, while developing and leveraging their internal capabilities to meet customer needs.

SERVICE CUSTOMIZABILITY

DEFINITION: Aftermarket services can be (i) customized to meet the numerous needs of customers either through a tiered service approach, custom service level agreements, or performance-based contracts or (ii) highly rigid, with one program offering

Mature aftermarket programs tend to tailor their service offerings to meet the unique needs of their customers. This can be accomplished several ways, but the most basic and common approach is through service tiers. This enables customers to choose the level of service that best meets their individual needs. Often, these tiered systems have a base offering (in which basic offerings such as inspections, corrective maintenance, and repairs are included in service level agreements), a middle tier (that offers a full set of MRO that includes audits and preventative maintenance), and the highest tier (that includes value-added services such as priority service, parts shipment within a guaranteed time frame, and remote monitoring, in addition to encompassing all lower tiered services).

Key customers can often be granted higher levels of service, outside of what an OEM may market. This can include fully custom service agreements, where the customer can specify their needs for routine inspection, consulting, training, and monitoring. Some larger, global OEMs offer aftermarket services that are fully customizable to all customers. Regardless of which model is leveraged, mature aftermarket programs offer some level of customization, rather than a rigid, one-size-fits-all approach.

¹ Maintenance, Repair, and Overhaul

Secondary Criteria

SCALABILITY

DEFINITION: The aftermarket program is designed to address (i) broad customer base or (ii) key customer accounts only

Mature aftermarket programs tend to serve a broad range of customers, with levels of service available to all customers. Alternatively, more nascent aftermarket programs tend to limit their service offering to key accounts. These tend to be for large, legacy customers with services limited to parts and MRO. While a focus on large accounts can simplify service delivery, it significantly limits the OEMs potential aftermarket revenue and incremental margin.

DELIVERY MODEL

DEFINITION: Aftermarket program services are delivered by (i) 3rd party vendors; (ii) OEM employees; or (iii) combination of 3rd party vendors and OEM employees

OEMs with mature aftermarket programs are keenly aware of their competitive advantage and focus their efforts on higher margin, value-added services. They can accomplish this by offering services through partnerships with 3rd party vendors in combination with services delivered by OEM employees. By utilizing a blended delivery model, the OEM can offer customers a comprehensive aftermarket program. The OEM can capture the higher margin opportunities, while outsourcing the lower margin services, such as parts sales and ad-hoc maintenance to associated 3rd party vendors. More nascent aftermarket programs tend to deliver services in-house, primarily focusing on parts sales and ad-hoc maintenance.

SUPPORT LOCATION

DEFINITION: Support location refers to where OEMs provide aftermarket services, ranging from (i) a physical location; (ii) a remote location or (iii) through a combination of both

Mature aftermarket programs tend to offer some

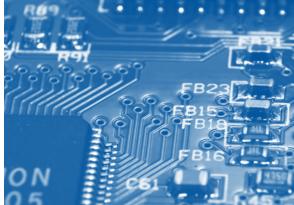
degree of remote services relative to less developed programs. These typically represent higher margin services, enabling OEMs to leverage and scale technology to create value for their customers. Remote monitoring enables OEMs to track the performance of equipment in real-time and communicate any irregularities that would necessitate a service event to customers. Additionally, OEMs have developed new forms of remote support, such as virtual repairs, where customers purchase augmented reality glasses and are guided through repairs and maintenance in real-time by an OEM representative, or virtual trainings for customer employees. Other forms of remote support, such as call center support, are also common amongst mature aftermarket programs.

BRANDING

DEFINITION: OEMs market their aftermarket programs as (i) unbranded; (ii) one of several, but narrowly defined brands; or (iii) as one overarching brand

OEMs take many different, yet successful, approaches to their aftermarket program branding. Some mature programs, for example, have an overarching aftermarket brand that encompass all their product and service offerings, while others have distinct branding for each of their different aftermarket programs. Additionally, some OEMs will create distinct brands for each tier of its aftermarket offering. While branding is helpful from a marketing perspective, OEMs can still offer well-developed programs that are unbranded and conversely, a poorly structured branded program. A well-defined brand improves program maturity but is insufficient independently to yield a program "mature", unless accompanied by the other 7 key factors of aftermarket success. If OEMs have successfully designed and developed their aftermarket offering, then working to brand their program is a logical next step.







OEM Opportunities for Leading and Visionary Programs

OEMs with leading and visionary aftermarket programs should consider evaluating the following identified opportunities as to improve their customer offerings, further enhancing its aftermarket revenue and margin profile.



VALUE-ADDED SERVICES

In addition to distinguishing between parts, components, and MRO, OEMs should consider ways to incorporate 'value-added services' to distinguish their aftermarket offering, generating new revenue opportunities and customer stickiness. These services fall outside of the traditional MRO and parts umbrella and can include new value drivers such as safety assessments, root cause failure analysis, system design, training, and remote monitoring. Most OEMs continue to focus their time and resources on MRO and parts and have failed to develop a broad offering of value-added services.



USED AND LEASED EQUIPMENT SERVICES

OEMs should consider used and leased equipment and associated services as part of their broader aftermarket strategy. These markets tend to be underserved by OEMs, as second and third users tend to work with local or regional providers and could represent a significant opportunity. This opportunity poses unique challenges to OEMs, as most aftermarket program sales occur at the point of new equipment sales, and customers purchasing used equipment are less incentivized to maintain relationships with the OEM after the point of transfer.

This further drives the need for OEMs to develop sticky offerings, such as transferable services (e.g., warranty or service agreement) or remote monitoring or tagging, to help maintain the touchpoints with these customers. Additional, OEMs can work with customers to recoup some value at the end of the equipment's lifecycle (particularly for larger, more expensive pieces of capital equipment and for the most price sensitive customers), such as trade-ins, exchanges, retrofits, and other modernization efforts This presents another opportunity for OEMs to engage with customers and create additional point-of-sales opportunities.



FINANCIAL PRODUCT TERMS

While financial products, such as warranties and service agreements are not new aftermarket products, some OEMs are mandating maintenance, service, and consumable purchases with the OEM in order to maintain coverage. Furthermore, smaller customers appear to value warranties more than larger customers due to their financial constraints; however, this also presents an opportunity to capture additional revenue from these existing customers.



TRAINING & EDUCATION

Training & education also present a new opportunity, as customer are increasingly placing greater emphasis for their employees to engage directly with the OEM. These can take the form of either on-site or online trainings – with both driving greater stickiness. OEMs also benefit from the additional opportunity to connect with customers to better understand their perspective, needs, and pain points.

"OEMs should consider ways to incorporate 'value-added services' to distinguish their aftermarket offering, generating new revenue opportunities and customer stickiness."

About Kaiser Associates

Kaiser Associates is a global strategy consulting firm that set the standard for fact-based strategy and implementation. Since founding in 1981, Kaiser has deployed unmatched 360° research capability and rigorous analytics to generate original, granular insights that help our clients turn their most difficult challenges into game-changing growth and productivity opportunities.

Today, Kaiser continues to approach every engagement with an entrepreneurial spirit, often operating like a start-up to remain nimble and agile with a bias towards action. We are privileged to be a preferred thought partner to some of the world's most admired companies, currently working with 8 of 2020 Fortune's Global 50 most admired. Kaiser supports global clients from our headquarters in Washington, DC and offices in London, Hong Kong, and São Paulo.

KAISER'S INDUSTRIAL GOODS AND SERVICES BUSINESS

Kaiser's Industrial Goods and Services Practice has broad expertise across the industrial sector, including capital equipment, building products, engineered products, packaging, and chemicals & materials. Our global research capabilities makes us ideal partners to help clients decide 'where to play' and 'how to win' by leveraging direct market insights. Our approach combines rigorous qualitative and quantitative analysis, original primary research, and industry expertise. Our services are particularly effective in niche and fast changing sectors that are not sufficiency covered in the public domain due to our unique ability to create a totally 'new-to-the-world' and accurate fact base.

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