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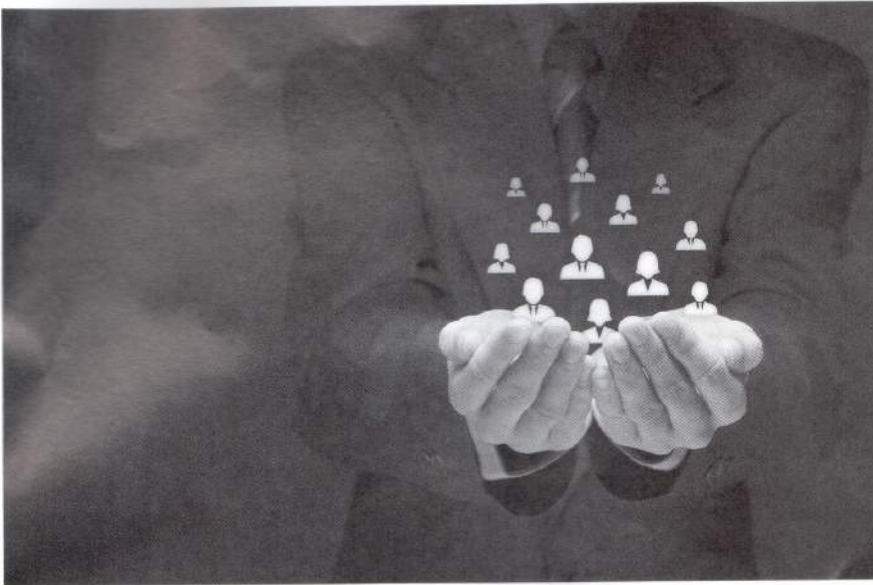


A compilation of
the best articles
of the year

EXECUTIVE
DERAILMENT:
WHAT AND WHY 24

RESEARCH IN MANAGEMENT:
FROM IDENTIFICATION
TO PUBLICATION 52

ENTERPRISE PERFORMANCE
MANAGEMENT: THE NEED
FOR ENTREPRENEURSHIP 80



PHOTOS: THINKSTOCK

AFTERMARKET MATURITY IN ORGANISATIONS

Maturity framework is a useful tool for OEMs and their partners to analyse their aftermarket process portfolio

BY T R MADAN MOHAN, RUDRESH S BASAVARAJAPPA & R GANAPATHY

Based on analysis of OEMs, their dealers, their investments and consistency on delivering the eight dimensions, we identify four stages of aftermarket maturity, like, 1) rudimentary, 2) internally evolved, 3) externally focussed and 4) strategically evolved. Figure 2 presents four maturity models with their respective elements of aftermarket practices and processes.

In maturity stage 1, we observe many OEMs, especially in construction and heavy industry segment, have no formal aftermarket processes, parts planning is either weak or completely reactive, support and service are completely reactive. Customer engagement is mostly transactional, limited to purchase and use philosophy. OEM in this stage have

made no investments in aftermarket standards, information gathering or systems required to plan, predict, manage and measure complete processes.

At maturity stage 2, internally evolved OEMs have investments in aftermarket organisation, process and measurements. OEMs in this stage would have defined service standards; planned CM, PM processes and dealer sales and service SOP are defined and will be in place across OEM's network chain. OEMs in this stage have defined key performance criteria and customer engagement process. However, these OEMs suffer from incomplete, inconsistent, islands of process, systems and controls.

OEMs in stage 3 of maturity are more externally focussed with aftermarket. They have made signif-

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FIGURE-2
AFTERMARKET MATURITY AND ELEMENTS

Levels Dimension	Level 1: Rudimentary	Level 2: Internally evolved	Level 3: Externally focused	Level 4: Strategically evolved
Parts	<ul style="list-style-type: none"> No strategic parts planning, warranty and replacement reactive, no data capture from design to deployment 	<ul style="list-style-type: none"> Strategic parts planned, warranty costs estimated, design to deployment captured 	<ul style="list-style-type: none"> Strategic parts variety reduced, move to platform 	<ul style="list-style-type: none"> Complete parts planning, design to deployment tied up, platform based planning & monitoring
Service	<ul style="list-style-type: none"> No service organisation, users fend with 3rd party, no service standards 	<ul style="list-style-type: none"> Service standards, enabled fields service, reactive service 	<ul style="list-style-type: none"> Service is core part of OEM, dealer top management 	<ul style="list-style-type: none"> Strong organisation, focus at OEM, dealers, service delight
Support	<ul style="list-style-type: none"> No support or rudimentary support, delays & lead times normal 	<ul style="list-style-type: none"> Planned CM, PM support, enabled support organisation 	<ul style="list-style-type: none"> Complete support organisation, help desk, part desk, etc. 	<ul style="list-style-type: none"> Integrated service & support organisation, one touch organisation
Dealer	<ul style="list-style-type: none"> No SOPs, poor adoption, low gross contribution of sales, service 	<ul style="list-style-type: none"> SOPs and high adoption, poor review, Gross contributions service recognised 	<ul style="list-style-type: none"> High SOP adoption, continuous review, service & parts sale margins core part 	<ul style="list-style-type: none"> Aligned for high sales, service & support, top management complete buy in & support
Customer	<ul style="list-style-type: none"> Customer management recognised, continuous monitoring and funding limited 	<ul style="list-style-type: none"> Customer management investment, linked to profitability cycles, no consistency at OEM, dealer 	<ul style="list-style-type: none"> Customer experience is core part of OEM, dealer top management, deep lock-in 	<ul style="list-style-type: none"> Customer experience drives the OEM, dealer, all process enshrined for customer delight
Information	<ul style="list-style-type: none"> Islands of information, poor data capture, traceability challenges 	<ul style="list-style-type: none"> ERP and DMS deployed, aftermarket information islands, incomplete warranty cost. 	<ul style="list-style-type: none"> Integrated ERP, DMS and PLM/PDM systems, data driven, reactive 	<ul style="list-style-type: none"> Proactive integrated intelligent systems, predictive analytics
Performance	<ul style="list-style-type: none"> No after sales metrics, behaviour not aligned to metrics 	<ul style="list-style-type: none"> Key after sales metrics used for control, more alignment needed 	<ul style="list-style-type: none"> Gamut of metrics used, performance driven, outcome management 	<ul style="list-style-type: none"> Outcome based, behaviour aligned integrated performance systems
Partner	<ul style="list-style-type: none"> Poor integration, lack of information sharing, low trust 	<ul style="list-style-type: none"> Major partners aligned, SLA drive behaviour, reactive strategies 	<ul style="list-style-type: none"> Predictive, collaborative planning and parts management 	<ul style="list-style-type: none"> Integrated, high trust, collaborative planning and delivery, co-ownership

icant investments in terms of dealer, OEM and channel sales integration. They exhibit more data driven planning, control and measurement of parts, spares and services. These OEMs and their associates place a premium on customer experience and outcome driven management. While these OEMs have evolved to plan, predict and manage service failures, there is room for improvement in incidence management, information integration and partner management.

At stage 4 of maturity, strategically evolved are most advanced aftermarket OEMs, that are completely platform based for their parts, manage inventory at platform level and have completely optimised variety and inventory costs associated at various echelons and continuously invest in customer delight. They manage complete aftermarket process using integrated predictive information system. They align behaviour of complete stakeholders at different ech-

elons to build a high trust, integrated and effective supply response aftermarket organisation.

Figure 3 shows various parameters of maturity models. For OEMs in rudimentary stage, parts' planning is poor, parts availability is limited and parts variety is too high. Failure rates are at estimated by subjective analysis, service incidence failure is high, asset resolution standards vary, dealer SOP adoptions are not standard, document accuracy requires improvements and ability to respond to unscheduled requests is challenging. Internally focused OEMs have improved SOP adoption, reasonable parts planning and standards for support and services. Externally focused OEMs have a comprehensive strategic parts plan, higher resolution times for both scheduled and unscheduled queries, higher document accuracy that helps them to RCA and develop proactive service plans. On the other hand,

FIGURE-3
AFTERMARKET MATURITY COMPANIES DIMENSIONS

Levels Dimension	Level 1: Rudimentary	Level 2: Internally evolved	Level 3: Externally focused	Level 4: Strategically evolved
Parts	<ul style="list-style-type: none"> No strategic parts, parts planning poor, 40% availability, parts variety reduction <30% 	<ul style="list-style-type: none"> MTTR, MTBF rules of thumb, no scientific inventory, 60% parts availability, parts variety reduction >50% 	<ul style="list-style-type: none"> Strategic ratio planned, 80% availability managed, parts variety reduction >60%, supersession >60% 	<ul style="list-style-type: none"> 90% parts availability, parts variety reduction >80%, supersession > 80%, key parts turns < 4
Service	<ul style="list-style-type: none"> Wrong service incidence >30%, service repair due to technicians >25% 	<ul style="list-style-type: none"> Wrong service incidence <15%, service repair due to technicians >20% 	<ul style="list-style-type: none"> Wrong service incidence <5%, service repair due to technicians <5% 	<ul style="list-style-type: none"> Wrong service incidence <1%, service repair due to technicians <1%
Support	<ul style="list-style-type: none"> Assist resolution rate >5 minutes, number of repeat call for same complaint >20% 	<ul style="list-style-type: none"> Assist resolution rate >3minutes, number of repeat call for same complaint <10% 	<ul style="list-style-type: none"> Assist resolution rate > 2 Minutes, No of repeat call for same complaint < 5% 	<ul style="list-style-type: none"> Assist resolution rate < 1 minutes, number of repeat call for same complaint < 1%
Dealer	<ul style="list-style-type: none"> SOP's adoption <50%, customer complaints <20% 	<ul style="list-style-type: none"> SOP's adoption <70%, Customer Complaints <10% 	<ul style="list-style-type: none"> SOP's adoption <90%, Customer complaints < 5% 	<ul style="list-style-type: none"> SOP's adoption 100%, Customer complaints < 2%
Customer	<ul style="list-style-type: none"> Low customer engagement, sell and forget, passive relationships 	<ul style="list-style-type: none"> Management investment in CRM, focus on extension of warranty and services, still no community brand 	<ul style="list-style-type: none"> Strong user community investment, integrated communications 	<ul style="list-style-type: none"> Integrated customer community, customer ambassadors, service referrals, repurchase high
Information	<ul style="list-style-type: none"> Document accuracy <70%, incidence reports <70% 	<ul style="list-style-type: none"> Document accuracy >90%, Incidence reports <90% 	<ul style="list-style-type: none"> Document accuracy > 95%, Incidence reports <95% 	<ul style="list-style-type: none"> Document accuracy 100%, incidence reports 100%
Performance	<ul style="list-style-type: none"> First call rate <70%, response to unplanned request <70% 	<ul style="list-style-type: none"> First call rate >80%, response to unplanned request >80% 	<ul style="list-style-type: none"> First call rate >95%, response to unplanned request > 90% 	<ul style="list-style-type: none"> First call rate <100%, response to unplanned request 100%
Partner	<ul style="list-style-type: none"> Perfect order rate <60%, % of failed parts >30% 	<ul style="list-style-type: none"> Perfect order rate >80%, % of failed parts <20% 	<ul style="list-style-type: none"> Perfect order rate > 90 60%, % of failed parts <10% 	<ul style="list-style-type: none"> Perfect order rate > 98%, % of failed parts > 3%

strategically evolved aftermarket OEMs have parts planning at platform level, low parts variety, very high wrong service incidences, integrated customer and partner management. Strategically evolved companies have integrated information management that helps to proactively predict the market changes.

Figure 4 shows maturity of four levels of OEMs and their respective performance characteristics on some measures of reliability, responsiveness, sustainability and cost (Gaiardelli et al., 2007). As seen from Figure 4, rudimentary aftermarket maturity OEMs have non-standard incidence resolution and 1st call effectiveness. They rank low in information accuracy, spare parts identification and incidence management. Rudimentary maturity OEMs have non-standard response times, waiting time is undefined, have limited capability to handle extra capacity and variety of customer queries. On end of continuum, strategically evolved mature companies have optimised incidence resolutions, have well de-

efined and well controlled first call effectiveness and response measures.

How can OEMs and their partners benefit from maturity framework?

The strategic framework developed by us can help OEMs re-claim competitive advantage in aftermarkets worldwide. Stage-wise maturity helps OEMs to establish an active aftermarket strategy. Maturity models help OEMs to meet customer needs and unlock hidden value. Benchmarking against maturity models help OEMs and their partners refocus operations on customer 'moments of truth' in order to sustain customer satisfaction while lowering service cost to OEM at same time. In order to establish a clear understanding of their current aftermarket chain, OEMs need to analyse complete aftermarket processes. Complete focus should be on customer perception or cost position or process maturity as shown above. Cus-

FIGURE-4
AFTERMARKET MATURITY PERFORMANCE METRICS

Dimension	Levels	Level 1: Rudimentary	Level 2: Internally evolved	Level 3: Externally focused	Level 4: Strategically evolved
Reliability					
1) Incidence resolution (MTTR,...)		1) Non standard	1) Defined	1) Controlled	1) Optimised
2) 1st call fix rate		2) Non standard	2) <70%	2) >90%	2) >99%
3) Information accuracy		3) <70%	3) >90%	3) >95%	3) 100%
4) Correct spare parts intervention		4) <70%	4) >85%	4) >90%	4) 99%
Responsiveness					
1) MTR for CM		1) Non standard	1) Defined	1) Controlled	1) 99%
2) MTR for PM		2) Non standard	2) Defined	2) Controlled	2) 99%
3) Waiting time for delivery of parts		3) Non standard	3) Defined	3) Controlled	3) optimised
4) Waiting for standard service		4) No standard	4) Defined	4) Controlled	4) optimised
5) TAT promise Vs delivery		5) <65%	5) >85%	5) >90%	5) 99%
Sustainability					
1) Time required for new request		1) Non standard	1) Defined	1) Controlled	1) Optimal
2) Ability to		2)	2)	2)	2)
■ Handle last minute changes		■ Saturated	■ Limited	■ Expansive	■ Robust
■ Turnkey solution		■ Saturated	■ Limited	■ Expansive	■ Robust
■ Unknown queries at desk		■ Saturated	■ Limited	■ Expansive	■ Robust
■ Unscheduled request		■ Saturated	■ Limited	■ Expansive	■ Robust
Cost					
1) Warranty cost as a % revenue		1) >3%	1) >2.5%	1) <2%	1) <1.2%
2) Cost of spare parts inventory		2) >11%	2) <9%	2) <6%	2) <3%
3) Cost of spare parts backlog		3) >9%	2) <8%	2) <6%	2) <2%

customer perception analysis helps them to differentiate OEMs and their partners to differentiate their aftermarket business from their competitors. Cost position analysis helps them to sustain and preserve their competitive advantage.

We propose a clear three-step methodology for analysing each aftermarket element shown in Figure 1, in order to shape a robust aftermarket value creation strategy. The first step involves conducting a comprehensive "as-is" aftermarket process audit. This helps to identify current processes, gaps, areas to improve productivity across dealers / network and regions. Aftermarket process audit can be focused on distinct customer "touch points" and internal stakeholders along aftermarket value chain. There are important "moments of truth" interactions between OEM (their dealer) and customer (Lam et al., 2004).

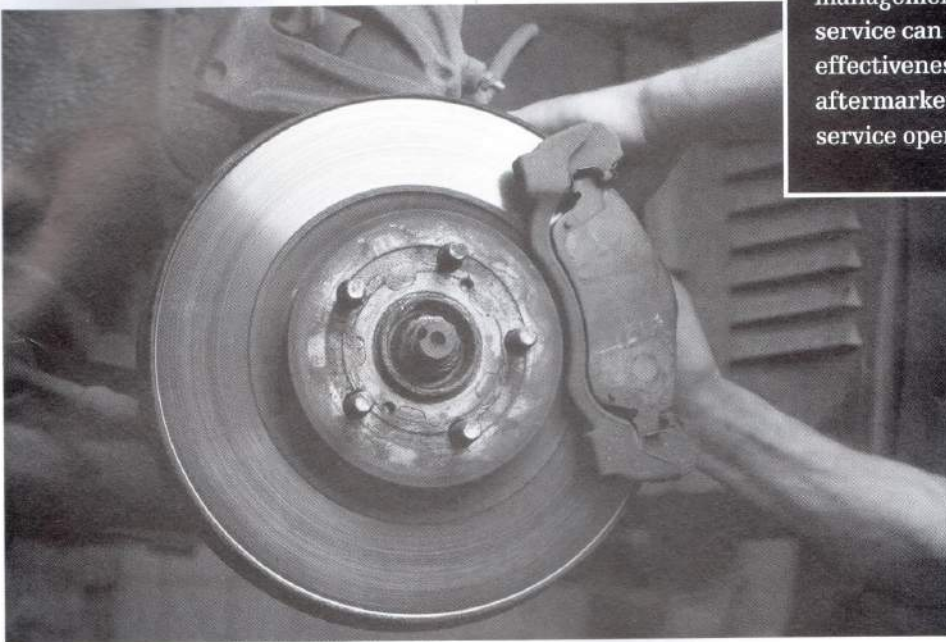
Evaluate performance of aftermarket services at dealer / partners and OEMs. From an OEM side evaluate service, parts revenues, dealer, model-wise, warranty cost analysis, service analysis, revenue leakages, etc. On dealer side, capture data on back end versus front end sales, percentage of revenue growth in parts

sales, gross margin growth in services, percentage of customers renewing service contracts or extended warranty, warranty and service analysis, order and execution SOP adoption, dealer sales process, customer satisfaction, etc.

In second stage, create and configure appropriate solutions based on Supply Chain Council, SCOR framework (SCC, 2013). Solution development should focus on scope (enterprise, functional or activity level) – means (task, technology, etc.) – ends (cost, perception, offerings). Focus only on few key aspects of changes first, allow iteration, localised experimentation and increase scope with smaller wins at different intervals so that overall motivation for exists all through life-cycle.

In third stage, define a roll out plan with key change owners at different levels and milestones to reach. Change owners at dealer are critical lynchpins in change management and buy-in from dealer management is a must. Create a continuous review mechanism and follow up rigorously. Design appropriate incentives for driving changes at all levels. Finally make assessment and change management a continuous process at OEM and dealer level.

Customer care, parts management and service can enhance effectiveness of aftermarket customer service operations



Aftermarket services and support do influence customer relationships to a significant level. Customer care, parts management and service can enhance effectiveness of aftermarket operations. Dealers and their management of "moments of truth" are crucial to reinforce brand experience and service quality. OEMs must invest in processes that provide an overview of services offered by them to their customers. OEMs must align employees at all levels to be aware of their organisational goals and have attitude towards service focused. Standardisation, whether how a customer service responds to a customer call or whether service engineer uses same procedures and cycle time to complete a task or a dealer plans their parts order is important element of aftermarket maturity.

Maturity framework presented here is a useful tool for OEMs and their partners to analyse their aftermarket process portfolio. The starting point for each OEM seeking to enhance an affective aftermarket strategy is different. But challenges are common: increasing competition, quarter by quarter drop in new sales, new technology developments and legislative changes. OEMs must begin an active assessment of where their aftermarket future lies and that discussion must at earli-

est. There is no time to waste or prolong their decision on focus towards aftermarket. **IM**

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(Series concludes)