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More than just spare parts: how technology changes in the auto industry are affecting aftermarket supply

For both dealers and car makers, the aftermarket has long been characterised by short-term, transactional relationships. The prime relationship—with the vehicle owner—exists only as long as the owner owns the vehicle. Owners may replace vehicles with another from the same marque, or they may not. A subsequent owner may continue to have their vehicle at the same dealer, or they may not. But as the auto industry electrifies and changes, how the aftermarket supply chain responds will be crucial to its own survival. By Malcolm Wheatley.

“When you’ve had your car serviced at a dealer, they wave goodbye to you, and have to just hope that you’ll return,” sums up Andrew Tongue, research director at automotive industry analysts ICDP. “They have a relationship with you, and they have a relationship with the car—but there’s a real need for relationships that are closer.”

And that secondary relationship, with the vehicle itself, becomes progressively less sticky with age. Serviced within the car maker’s dealer network for the first few years of their lives, vehicles inevitably tend to gravitate towards independent repairers with age, propelled by successive owners’ budgets, and the declining worth of the vehicle itself.

Yet despite the fluidity of its relationships with its customer base, the automotive aftermarket business has traditionally been highly profitable. Acknowledging that there were few reliable estimates of precisely how profitable a proposition the automotive aftermarket offered, a 2006 article in the Harvard Business Review nevertheless reckoned that car makers earned 45% of their profits from the aftermarket, even though aftermarket activity accounted for just 24% of revenues. Citing a report by consulting firm Accenture, it noted that GM earned more profit from $9bn of aftermarket sales that it did from $150bn of car sales.

But that was then—and this is now. And now, new technologies look set to disrupt this cosy state of affairs. Going forward, claims a report from consulting firm McKinsey, Ready for inspection: the automotive aftermarket in 2030, as much as 30–40% of automotive aftermarket profits could be subject to redistribution along the value chain.

“E?commerce and digital players will disrupt the traditional parts distributor business ... start?ups

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and incumbents will fulfil roles as intermediaries, seizing opportunities to connect customers and services in new ways ... new touch points will be created, giving new entrants access to end customers and threatening to reduce end customer access for other players, and ... customers will increasingly rely on automated systems and recommendations," it predicts.

Talk to automotive aftermarket industry experts, and several major trends quickly become clear. Taken together, the picture that emerges is one of digital technology upsetting the automotive aftermarket industry in the way that it has so many others.

First, vehicle technology itself is changing: not only are vehicles lasting longer, with longer service intervals, but electronics and digital technology make up a growing proportion of a vehicle's value. McKinsey, for instance, points to vehicles containing 300 million lines of software code by 2020. In addition, it adds, electric-based powertrain technology looks set to have a major impact on automotive aftermarket demand, potentially delivering a 2–11% hit to aftermarket revenues by 2025. Going forward, as much as 30–40% of automotive aftermarket profits could be subject to redistribution along the value chain.
Second, on-board diagnostics and telematics are re-shaping the aftermarket proposition: cars and vehicle manufacturers can increasingly diagnose faults and make service recommendations based on a combination of on-board diagnostics and captured usage data.

And third, a combination of e-commerce and new business models has the potential to dramatically disrupt the traditional structure of the automotive aftermarket industry: at its starkest, new entrants such as Amazon, eBay, or China's Alibaba could become consumers' aftermarket service providers of choice.

In short, present-day incumbents—today's dealers, car makers, and independent repairers—face dangers and downsides from new entrants and changing requirements, but are also presented with opportunities. The difficulty faced by those incumbents, as they prepare for this brave new world, is predicting when exactly it will arrive—and just what it will look like.

Take electric vehicles. As industry observers such as Matthias Loebich of consultants BearingPoint notes, these are significantly less complex products than internal combustion-propelled vehicles.

"There's no engine, no gearbox, and far fewer associated ancillary components. So not only are there fewer parts to maintain, replace, or repair, but also far fewer parts to keep in inventory and

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sell. Inevitably, the aftermarket service proposition is going to look very different."

But different when, exactly? Sebastian Kempf, a partner at McKinsey specialising in the automotive aftermarket, and lead author on Ready for inspection: the automotive aftermarket in 2030, uses the analogy of a ketchup bottle.

"You hold it upside down and shake it, and you know something is coming—but how much, and when, is uncertain. No one yet knows how fast or how extensive the level of electric vehicle penetration will be—and hybrid automotive models complicate things even further."

Others are even more dismissive. Chris Gardner, senior vice-president and technology lead at America's Automotive Aftermarket Suppliers Association (AASA), expects the impact of electric vehicles to be gradual.

"There is no doubt that electric vehicles will affect the replacement rates of many parts, and the categories of parts needed, and that new categories of parts that will emerge. But despite this, electric vehicles will not impact the aftermarket supply chain for many years, with our research indicating that internal combustion engines and hybrids will comprise the bulk of new vehicle propulsion systems for several years. The automotive aftermarket industry will continue to maintain hundreds of millions of internal combustion-propelled vehicles for many years."

A different story emerges with respect to software. Software-driven capabilities contribute a growing proportion of a vehicle's value—not least among millennial vehicle purchasers, who are heavily influenced by a vehicle's range of entertainment offerings, and its ability to integrate with smartphones and other devices. More fundamentally, software lies at the heart of the microcontrollers and sensors on vehicles' CAN buses and—on more modern, connected vehicles—the ethernet bus.

Consequently, say observers such as McKinsey's Kempf, it is rational to expect software updates to become an increasingly important part of the automotive aftermarket service offering. Both car makers and aftermarket service providers will have to make investments in delivering those capabilities, and providers' labour forces will require some significant re-skilling.

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Implicit in such a prediction, though, is the assumption that only dealers and independent repairers will have the skills and capabilities to carry out such updates—an assumption called into question by the growing emergence of ‘over the air’ software update technology.

Over-the-air software updates offer consumers the convenience of being able to initiate updates themselves, while cars are parked on their driveways. While there may be some initial reluctance to do this, says BearingPoint’s Loebich, this is likely to quickly dissipate.

But for the automotive aftermarket industry, over-the-air update technology is doubly disruptive. First, it eliminates the dealer and independent repairer from the value chain: updates can be carried out anywhere. But it could also eliminate car makers from the value chain as well, by opening the door to new entrant disruptors.

“Our biggest competition is from car makers deciding to build their own over-the-air capabilities,” says Andrew Till, vice-president of technology at Harman, a vehicle electronics technology specialist now owned by Samsung, which supplies 23 vehicle manufacturers with over-the-air technology, including the Renault-Nissan Alliance, and China’s Great Wall.

“Manufacturers’ engineering departments can see over-the-air as a project that they’d like to work on, without really understanding all the complexities. It’s certainly not unknown for them to come back four or five years later, and concede that the technology is more complicated than they had at first thought.”

While there’s little denying that new entrants such as Harman are going to disintermediate functions carried out by traditional automotive aftermarket providers, over-the-air also presents opportunities for traditional providers. First, it extends the level of contact that car makers and their dealer networks can achieve with their vehicles, post-sale—and especially once the vehicle is three, four, or five years old. And second, the provision of services, as well as updates, further enhances the level of engagement between car makers, aftermarket providers, and vehicle owners.

“The traditional aftermarket service model doesn’t drive a great deal of engagement,” explains Till. “The more that you can sell ongoing services—such as back-seat entertainment, alongside software updates and upgrades, the more you can open up the path to a broader sense of engagement.”

And clearly, the increasing penetration of telematics within the modern vehicle parc extends this

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paradigm—cleverer and more capable vehicles, to be sure, but also vehicles that can capture and transmit data. Data on the vehicle's condition, data on the vehicle's location, and data on how the vehicle has been driven, for example. Together, such data not only informs a better aftermarket service provision, but can also trigger proactive servicing decisions.

McKinsey's Kempf, for instance, talks of vehicles that can not only identify that they need attention, but also recommend a nearby aftermarket provider where that attention can be delivered. Or, alternatively, point to an attractive offer from Amazon, eBay, or China's Alibaba.

What about telematics?

"Telematics has been the 'next big thing' for about 20 years, but now it may actually be coming to fruition," says ICDP's Tongue. "There are more devices in the typical vehicle, there's more connectivity between those devices, and there's more connectivity back to 'base camp'. Car makers are gathering a huge amount of data, some of which is highly relevant to the aftermarket."

But who exactly owns that data? This, as AASA's Gardner observes, is a critical question—especially for independent parts manufacturers, and the independent repairer sector, where there are fears of being 'locked out' of proprietary computer networks and diagnostic information.

"There isn't yet a clear view on the question of ownership," concedes Tongue. "Our view is that a lot of it can be associated with an individual, and so is actually personal data. In fleet situations, however, the vehicle driver isn't the owner, which further complicates matters."

Moreover, car makers are cautious about licensing that data to third parties. Information provider Lexis Nexis, for instance, is building a Global Telematics Exchange to hold telematics-sourced data for insurance purposes, explains Paul Stacy, the company's automotive director for Europe.

"Motor manufacturers are very, very prescriptive about what we can do with their data—especially since GDPR," he notes. "Their core competency is vehicle engineering and manufacturing, and they're still learning about the digital data business and digital data products. Given that the fines that can be levied under GDPR are a percentage of global revenue, they are approaching the issue very cautiously."

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There’s every incentive to get it right, he concludes, as the prize is better—and cheaper—insurance for consumers. But in the meantime, telematics-sourced data serves as a poster child for many of the technology-led questions facing the automotive aftermarket: a lot of promise, but as yet, little clarity.