THE GRID VIEW

Disruption Ahead:
Automotive Manufacturers Look to the Future

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HERE COME THE TECHIES

After a banner year in 2015—with over 17.5 million vehicles sold in the U.S., according to the Wall Street Journal—the automotive industry is poised to continue this pattern of growth through 2016 and beyond. That doesn't mean the industry is without challenges, though. Automakers are beginning to feel the effects of an increasingly competitive market as an influx of tech companies enter the automotive game, embracing big data to solve and identify problems, and touting a "fail fast" mentality that enables the quick production of innovative new products.

For decades, a handful of companies dominated the auto industry, building some of the most recognizable brands in the world. As recently as 2012, Information and Communications Technologies (ICT) companies like Apple and Google began dipping their toes into the automotive market, starting work on the much-hyped driverless car, and bringing with them a decidedly different way of doing things.

Tech companies are notorious for releasing products every few years or even months, encouraging consumers to continuously upgrade to the latest and greatest versions of their technologies. To achieve this quick turnaround, many of Silicon Valley's most valuable companies abide by the "fail fast, fail often" mantra, which encourages embracing failure as a means of innovating quickly.

"FAIL FAST, FAIL OFTEN."

Failing fast leads to a rapid product development cycle, which stands in stark contrast to the way automotive manufacturers have operated for decades, designing products in one, years-long development cycle, writes McKinsey. Automakers need to optimize efficiencies and embrace flexibility in their plants in order to keep up with the agility and speed of innovation inherent to Silicon Valley.

CAPITALIZING ON BIG DATA

Arguably some of the first to embrace IoT and big data, tech companies are known for capturing massive amounts of data and using it to make strategic decisions about product development, user experience, and more. As they enter the automotive manufacturing industry, ICT companies will undoubtedly bring this love of data to the plant floor, collecting data about when machines are in use and how efficiently their plants are working.

Many automotive executives have already recognized the value of connectivity in their facilities. In KPMG's 2016 survey of 800 automotive executives, more than 80% of respondents believe that connectivity and digitization will strongly disrupt the auto industry by the end of this decade. Similarly, 74% of respondents in a recent Accenture survey stated they are planning initiatives in the next 12 months to invest in and strengthen IT applications. Clearly, automotive manufacturers recognize the need to capitalize on big data to stay ahead of the tech companies on the innovation front. The next step is to implement IIoT-enabled technologies.

THE FUTURE IS HERE

Automotive manufacturers ahead of the Industry 4.0 curve have embraced big data and flexibility within their plants as a means of innovating ahead of the competition. Traditional automakers and tech companies alike are investing in flexible, data rich technologies like vision guided vehicles (VGVs) to autonomously transport parts and other materials throughout their facilities.

Ahead of many other machines on the factory floor, VGVs themselves are sensors that accurately and consistently capture performance data. VGVs provide auto manufacturers with valuable insights into plant workflows, including predicting maintenance needs before equipment breaks and tracking parts as they move through the supply chain. Importantly, VGVs are 100% flexible, which means automakers can use the same vehicle to perform different functions on different shifts or in different facilities as processes change and organizations grow.

Automotive manufacturers are seeking ways to simultaneously embrace big data, stay flexible, and continue to innovate ahead of fellow automakers and new competition from Silicon Valley. The race to be the automaker of the future will depend on their ability to achieve all three-faster than everyone else.