Importance of IT for automotive industry

By Michael Frans   17 Oct 2014

The automotive industry has become increasingly competitive in the past few years with manufacturers and brands jostling for a leadership position in both international and local markets.

Automotive manufacturers need to find innovative new ways of differentiating themselves by streamlining processes and reducing costs within their dealer networks and supply chains. Efficient information and communication technology systems are at the heart of this.

Further impacting the automotive industry is the move towards lower fuel consumption and a greener environment, giving rise to electric cars or e-cars. This is possible through collaboration between energy providers, IT enterprise and automotive manufacturers, creating a powerhouse of innovation and possibilities that can reduce the cost of travelling whilst lessening the impact on our environment.

The importance of IT for automotive manufacturing is seeing significant upswing, particularly with regard to lowering the cost of manufacturing as well as adding value to core business processes. Streamlining production, optimising processes and understanding exactly how long expected production times are for any particular automotive component, are all key in accurate planning and forecasting of resources. Technology can enable automotive manufacturers to accurately calculate production times, synchronise production, improve planning and control and more. This ultimately leads not only to reduced costs but improved quality as well.

Standardising processes

Centralising this across multiple distributed locations presents a challenge that connected technology and intelligence solutions are perfectly poised to address. Standardising processes across the globe, consolidating suppliers and optimising costs in the production process requires the support of sophisticated IT from a global partner. Such a partner is also perfectly positioned to provide strategic direction, as well as contribute significantly towards lowering the cost of production as well as research and development.

Innovative enhancements delivered by IT partners can also assist automotive manufacturers to gain an important competitive edge. One example of such innovation is 3D printing platforms. Using 3D printing in the R&D and production spaces can help to improve costs and enhance agility, among other benefits. Developing and printing components can be conducted at a lower cost to produce the finished product, at a faster pace, without upsetting the production time. In addition, turnaround time for changes is far faster and more cost effective, and alterations can be made on the fly, providing unprecedented levels of agility.

Within the e-car space, there are many opportunities for IT to partner with automotive and other players in this space. For example, IT provides the back-end platforms that enable public charging payment and management systems, which are essential in the uptake of e-cars. Commercial property owners can use the provision of e-car charging stations as a point of differentiation and a value add for customers, helping to generate additional footfall.

Enterprise development

There are also opportunities for enterprise development regarding charging station ownership and management. Green energy is an essential component of the smart city concept and in providing zero distance between governments and citizens, as well as businesses and customers. This technology will see significant growth in the future.

In addition, connected technology can aid automotive manufacturers in differentiating themselves from the competition. By effectively enabling the 'connected car' concept, automotive manufacturers can leverage proactive, direct consumer contact, which aids in the development of new revenue streams, as well as continuous product improvement through more effective customer feedback. This can also assist with process optimisation and cost reduction in fleet management and logistics, amongst other benefits.

At its heart, the automotive sector is a business like any other, generating data that needs to be analysed for more effective future operations. The core technology systems used by business across various other industries stand to provide enormous benefit in a sector that faces increasing challenges from many sides.

ABOUT MICHAEL FRANS

Michael Frans is Head of Business Development & Strategy, Sales & Service Automotive / Manufacturing Industries at T-Systems South Africa.
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