

Spending money to make money as manufacturing digitises

After years of developing cost-saving programmes, Australian manufacturing companies are beginning to see digital as a business-growth tool, not simply as a means of ensuring efficiency. Manufacturers now have the opportunity to increase revenue streams and results through investment in digital strategies. By Robert H Brown and Prasad Satyavolu.

Implementing a successful growth-generating digital strategy comes down to vision and top-down leadership. Without these, imagining the future and thinking big become stuck in short-term budgetary concerns. The reality is: it's about spending money to make money as the manufacturing industry digitises.

Embracing digital services directly impacts business growth. Increased financial investment in manufacturing digitisation allows businesses the opportunity to see the big picture and adapt appropriately to demand volatility.

Evidence shows that globally, investment in digital initiatives has increased manufacturing costs by 1%. Much of this is due to the investment, training and skills needed to use and operate cutting-edge technologies, but this increase in costs is not in vain, as manufacturers are already beginning to see growth from investment in digital strategies. For certain manufacturers, digital is estimated to have added 5.4% to total revenue between 2015 and 2016. This is a worthwhile return on investment from a 1% growth in cost. As technology advances, the relationship between manufacturers and customers will drastically evolve due to digital communication and new routes to market. Personalisation is one of the keys to growth in this Fourth Industrial Revolution as digital becomes increasingly embedded in societies and its role becomes synonymous with manufacturing success.

The power of digital

The opportunities that digital technology presents to the manufacturing industry are seemingly endless. Digital allows manufacturers to diversify, and offer better solutions and products for their customers. There has never been a better opportunity for businesses to invest in advanced manufacturing processes in which software and hardware converge to create rapid production times and to meet all-important customer demand.

Consider new technologies such as augmented reality that can cut the time needed to lay complex wiring harnesses in a jumbo jet by 25%, or 3D imaging as a route to gather further insights into what can be automated in production and field service and repair. Robots and other autonomic systems are working alongside humans on modern manufacturing floors rather



Robert H Brown



Prasad Satyavolu

than being contained in "just designed for robots" floors. A great example is the Airbus factory, in which robots are strapped to the sides of fuselages, riveting thousands of holes, with operators "piloting" the robots.

The benefits extend to creating new routes to market and new product streams. The traditional supply chain becomes newly connected, smart, and efficient, as integrated planning and execution systems, logistics, and warehousing forms a new ecosystem within manufacturing.

Customer experience is also a major benefit of digitisation. No longer is it acceptable for manufacturers to take a 'one-size-fits-all' approach with customer pain-points. Consider the advent of 3D printing, and the global rise of so-called "maker-artisans" in diverse locales worldwide, heralding a near-term future of "what you want, when you want it" manufacturing.

Delivering better and more personal service to customers through digital is the best way to address these new demands, and results in increased sales. Manufacturers need to recognise that digital technologies are the most cost-effective way to produce the

personalisation that customers now expect.

An example of this can be seen in technologies such as self-driving cars, and the increasing personalisation of connected cars. Indeed, the connected-car market is growing globally at a five-year compound annual growth rate of 45% — 10 times as fast as the overall car market.

It's the investment in digital to power personalisation that is driving this growth. Manufacturers are realising that a car can better represent and serve the needs of their drivers by doing anything from providing entertainment experiences or offering push notifications to inform drivers when they are near a branch of their favourite shop, making the car fully 'mobile-ready.' Auto manufacturing has moved beyond the building and sale of a car off a factory line to a fully integrated hardware and software ecosystem, thanks to digital investment.

Looking in to a digital future for manufacturing

It is predicted that by 2018, digital will drive almost 25% additional growth in the global manufacturing industry.

In response, companies must acknowledge the importance of adopting a broader transformation strategy that will affect all stakeholders, whether they be customers, suppliers, products, markets or employees. It's this exact mind-shift of thinking big that will ensure manufacturers are well-placed to use digital wisely.

Investment in digital services is vital to the success of any manufacturer and the real value of digital comes from the power to drastically change the business offering, leading to significant growth through increased sales and entirely new revenue streams. While there are some difficulties in implementing a growth-generating digital strategy, the largest one by far is vision. For many businesses, imagining the future and thinking big are the main roadblocks for success. A major mindset shift is required to think big and embrace digital and once this shift occurs, technology can bring this vision to life.

Robert H Brown is the Associate Vice-President, Centre for the Future of Work at Cognizant. Prasad Satyavolu is Head of Innovation, Manufacturing and Logistics at Cognizant.
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