

Article

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Capitalise on technology and save time, add value and improve manufacturing performance

More and more Australians are placing a high value on the manufacturing industry. According to research published by the Advanced Manufacturing Growth Centre in 2021, around 72 per cent of Australians see it as important or very important.

The Covid-19 pandemic has also concentrated minds and opened them to reality. As Sevaan Group co-founder Jim Tzakos was reported in the Australian Manufacturing Forum: "Supply chains that couldn't get product from overseas are now having it made in Australia. Some of them have seen that there's not that much of a cost difference."

The upheaval of the past two years has presented a window of opportunity for manufacturers, but it is not one that should be squandered by trying to make a quick buck; capitalising without undertaking essential change.

The businesses that survive and prosper into the future have to devise ways of differentiating themselves from the run of the mill. This may be by means of better service, improved on-time delivery in full (OTIF) or even looking to offer advanced add-ons like predictive maintenance or analytics, or taking the initiative for just-in-time delivery that doesn't rely on the client to make the order.

Technology provides the means to seize the chance, capitalise on it and build competitiveness, market share and profitability – as well as to cement relationships with customers.

Time to move on

We know from bitter experience that manual systems are inefficient, open to human error, time consuming and have restricted availability – there's only one spreadsheet book, for example. Or should be; if there's more than one, then the potential trouble is multiplied. As discussed in our previous article [here](#), manual systems are vulnerable to unauthorised, misunderstood or misinterpreted amendment. They aren't compiled in real time – they are inevitably historic, whether looking back only a single shift, a week's production or a monthly report. They are more a source of problems rather than a solution.

It's amazing they have lasted as long as they have.

If there was an alternative that wasn't frightening, didn't involve major capital investment, didn't disrupt the business while it was being implemented and could be easily understood by any factory floor worker, it could make a huge difference – couldn't it?

The answer is obviously yes and, luckily, such technology is already available. Even the least automated business is probably using some aspect, in some form, and most tech-phobic executive is aware of the value of collecting information from production machinery. Automating the process simply involves plugging into technology that is already there – the PLC – but the smart bit is bringing it all together and using the information effectively. Better collection, better availability and greater data accuracy can help to cut waste through better understanding of the extent and origin of the waste issue; reduce energy through seeing and analysing how energy is being used and where it should be switched off; improve inventory management and material usage; and so boost productivity.

Clearing the fog

It is not massively complicated to improve access to information and collection of data, through means already available such as PLC and OEE (overall equipment effectiveness) equipment monitoring tools. Automating collection and improving access to it can deliver significant benefits, quite quickly.

All the machinery on the production floor does not have to be exactly the same type, series or age. Applications and programs already exist that make sure that data from various sources can be brought together and presented in the same way, clearly and understandably. More effective collection of information can reveal previously unknown problems or emerging issues; real-time availability will make the picture clearer, help to reduce the number of unscheduled stoppages – and enable better decision-making – because it will be more accurate and up to date. Less management time will be devoted to trying to work out what went wrong and better spent on constructive, profitable activity – or even getting home at weekends.

Process automation usually follows making the processes right – but when more effective data collection and management is in place it is often seen that the processes are already essentially right. It's just that manual handling is slow and error-strewn; the business thought it was the process, rather than the system, that was the problem.

Make hay, fast

Benefits can flow very quickly. Better visibility of stock will help to move from 'just in case' stocking to 'what we need' and save hundreds of thousands of dollars in tied up capital. Better operations will help to reduce finished goods inventory, reducing work in progress and, again, liberating valuable capital resources.

Synergy, an Australian energy provider, is investing in IQ bots and virtual agents. The strategy is reported to help the company to reduce errors, increase profitability and better manage the instability of COVID-19 on their industry.

A component producer for the auto industry that automated its manufacturing operations management reported stock level savings of over Aus\$350,000 on revenues of less than Aus\$20 million.

A company involved with propellants saw an eruption of supply chain disruption because of Covid-19. Scheduling descends from OK to chaotic, leading to ballooning materials levels. Automating manufacturing operations management helped to save 25 per cent of its inventory costs in six months – pretty much a life saver. Improved processing, finished goods and deliveries management were the icing on the cake.

Improving worker productivity is a top driver for technology investments, including automation – but there's a lot of fear about the word 'automation' itself. According to Andrey Derevyanko, Waterstons' Head of Customer Success, APAC: "It sounds huge, like it's going to crush the business," he says.

A survey conducted SSON Analytics among Productivity and Time Management practitioners (eg, lean Enterprise consultants) in APAC (Asia Pacific region) found that 34 per cent of recipients saw an increase in process productivity and 25 per cent thought it assisted in human productivity and workload management. These results are OK but could be made better with improved focus, prioritisation and implementation – including employee engagement in the process.

"A partner like Waterstons can help you get started on a project and get a lot of business value, quickly and quite simply. And you don't have to talk about robotics and all that stuff until you want to and are ready," Andrey Derevyanko says.

Join our Webinar on 26 May, 1-2pm - Everything you need to know about Manufacturing Automation

Join our webinar and learn all there is to know about Automation – From automating emails to AI, join us to see how you can do more, with less, starting today!

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