



Reducing business costs through technology

GREATER USE OF advanced technologies in the supply chain are seen by global economic forecasters as the crucial requirement for lowering cost structures and lifting productivity in the post-COVID-19 business environment.

Application of the latest digital platforms and devices adopted by such international business giants as BMW, Airbus and Unilever are no longer the domain of the big players in world-wide commerce because pricing formulas are now better attuned to medium and small businesses on a scale appropriate to New Zealand firms.

Recognition of the need for pricing adaption to market realities has been greatly motivated by the realisation that, in the emerging debt-ridden world of the 2020s, profitability can best be achieved through internal operating efficiencies and better ways of managing supply chains.

Constraints on margin pricing to consumers will be extreme.

To this end, the Callaghan Institute, the Employers & Manufacturers' Association and BRANZ are exploring the use of advanced technology and means of encouraging the business community to make maximum early use of it.

Their work follows on the adoption of "Industry 4.0" as a mantra of the World Economic Forum, a concept based on adoption of new wave technologies to lift economic growth around the globe.

Under Industry 4.0 advanced technologies can be split into three categories:

1. **Operation** – Planning and execution of processes which lead

to the production of goods and services with the end goal of converting raw materials and labour into goods and services at the lowest cost.

2. **Supply chain** – planning and management of raw materials and inventory of a company's goods and services, all the way from the point of origin to the point of consumption.

3. **Product lifecycle** – sequence of stages that every product goes through from conceptualisation to its eventual removal from the market, with these stages ranging from design, engineering and manufacturing to customer use, service and disposal.

Research by global IT companies shows that businesses which focus on improving their supply chain productivity outperform their competitors with a 50% average cost advantage.

The reason is that supply chain costs are one of the largest costs in profit and loss assessments.

For manufacturers, the tighter control and efficiency that can be generated by greater use of artificial intelligence (AI) through analytics provides for asset optimisation, elimination of losses and greater productivity.

Global IT research company, Gartner, says supply chain "visibility" – instant visibility of business performance enabled by technological advances – is "a key foundational capacity".

The World Economic Forum in its 2018 report *Impact of the Fourth Industrial Revolution on Supply Chains*, broke down the expected impact of supply chain visibility on productivity in business sectors:

- **Manufacturing industry** – Plus 20.1% in productivity gains with cost reductions and additional revenues amounting to more than 39% (additional revenue 22.6% and cost reductions 17.6%).
- **Logistics services** – Plus 14.5% in productivity gains and additional revenues of 17.8% (additional revenues 33.6% and cost reductions 34.2%).
- **Retail** – Plus 25.5% in productivity gains and additional revenues 33.3% (cost reductions 7.8%).

Recent research surveys in the US and Europe have shown that priorities for industry investment are warehouse automation, predictive analytics, the internet of things and cloud logistics.

Warehouse automation gets the lead position in advantages that can be gained from AI technology because of its use in cutting delivery times and improving overall margins. Analytics and cloud logistics are the technologies that can readily integrate into efforts to achieve best results from supply chain automation.

On local basis, **Mark Singh**, Chief Executive of Auckland IT and supply chain technology company Kaptura (www.kaptura.co.nz), says an example of the efficiency that can be gained through AI is a German product that analyses contract procurement bids according to the procurer's set criteria.

The AI system grades those which meet requirements and those which do not, so analysis of bids, especially those that are complex, may be reduced to hours, not days.

Kaptura also offers analytical tools based on sensors can monitor factory production lines to pinpoint areas retarding maximum efficiency; tracking devices trace products globally from origin to on-site delivery and are enabled to monitor temperatures and condition of cargoes as well as movement; health and safety platforms provide real time read outs to central management of staff positioning and well-being; feather light glove scanners enable warehouse staff picking, packing, storing and shipping to give instant read-outs to a central management of the work they are doing and items dealt with – product, packaging, storage and movement.

Also available from Kaptura is a product using Bluetooth technology coupled to sensors which enables predictive analysis of concrete curing, cutting time in the construction process by up to 30%.

Although systems like these inevitably come at a cost, Mark Singh says a rethink of world markets among global suppliers of these technologies has enabled them to be brought to New Zealand with a range of different pricing mechanisms that allow transfer of expenditure from capital to operational costs through subscription leasing.

"This makes introduction of them much more feasible to the local market with its comparatively small-scale revenues compared with industrial economies of the western world.

"The impact of tools like this on the profitability of the hardware sector can be especially significant given the increasingly competitive state of the market."

Article by Bruce Kohn. Bruce is a member of the Building Research Advisory Council (BRAC) as representative of the Building Industry Federation

SmartMate

MITRE 10

Mitre 10 launches new trade account solution

On top of renovating its Mitre 10 Club programme (see the August magazine), Mitre 10 NZ has also launched a new account solution for trade, business and commercial customers called SmartMate.

The SmartMate suite includes three different account types:

- **SmartMate Cash** – a pay-as-you-go account which unlocks trade pricing for any SME kiwi business or sole trader.
- **SmartMate Charge** – a credit account to help tradies manage their day-to-day business needs.
- **SmartMate National** – designed for larger commercial enterprises.

All three give the account holder access to Mitre 10 Trade Hub, where they can see pricing, place orders online and manage accounts and users. Accounts can be used at any participating store nationwide, offering convenience and flexibility, and there are no account fees.

With SmartMate Cash, **Derek Heard**, General Manager Trade at Mitre 10 New Zealand, says the introduction of trade pricing for any kiwi business has landed at an opportune time.

"SmartMate Cash has been in the planning for some time, but off the back of COVID-19 we've seen an increasing amount of business from SMEs both within and outside the construction industry that prefer to pay as they go. SmartMate Cash is perfect for these customers."

Smartmate Charge is designed to create a more seamless experience specifically for Mitre 10 Trade customers and includes tools specific to construction and related trades, including estimation and quotation, to support their business operations.

"Our trade customers will still have a local 'home store', so they'll keep their relationships with Mitre 10 account managers and teams who know their business and how they like to work," says Derek.

"The key benefit SmartMate brings for tradies is that they can transact across all stores using the one account, saving time and simplifying monthly accounting. This streamlining of the trade experience brings the Mitre 10 co-operative into a new space more aligned to how our customers work."

SmartMate National offers a tailored solution for large enterprise, with a dedicated commercial team to help set up accounts for national businesses.

Mitre 10 SmartMate accounts require the cardholder to use a secure PIN, which adds a layer of protection for customers.

Although development will, of course, be ongoing, feedback from trade and retail customers so far has been "outstanding" with pilot programmes having been run in Christchurch and Auckland to ensure that the systems work and that they "solve old pain points".

www.mitre10.co.nz/trade/smartmate