

TOP GLOVE ADOPTS DIGITAL TECHNOLOGY TO REMAIN COMPETITIVE

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MALAYSIAN rubber glove manufacturer Top Glove Corporation Bhd has been pursuing aggressive expansion recently, led by a strategic digital adoption strategy.

Top Glove's management's focus is to use technology to further automate its production lines, reduce the number of workers, and improve the efficiency of its line and quality of its products. The world's largest rubber glove manufacturer is also aiming to completely computerise the company's manufacturing and operational processes.

The company has been working with the Malaysian Digital Economy Corporation (MDEC) to refine the digital integration within its factory lines and management system. Its digital adoption strategy started about six years ago, with active digital adoption taking place for the past three years, converting concepts into real-life applications to assist the business improve efficiency and costs.

According to managing director Lee Kim Meow, information technology, the Internet of Things and Industry 4.0 are all top of mind of export-oriented companies such as Top Glove, which operate in a highly competitive international arena.

"We compete like it's the Olympics, so we have to continuously think of ways to improve, reach out to other parties and have value-added cooperation with bodies such MDEC to advise and guide us on how we can improve," says Lee .

"Future-proofing the business and innovation are necessary for every business to survive and thrive. The ability to reimagine the business is determined by a clear digital strategy supported by leaders who foster a culture of innovation. This is what we see at Top Glove," says MDEC chief operations officer Ng Wan Peng.

"Digitally mature and successful organisations are focused on integrating digital technology, into their operations and not just using it. Digital tech is not just about putting your data on the cloud, it's how you then use the cloud to expand your business and extend your reach," she adds.

Top Glove's IT Department general manager Chee Yih Tzuen says that digitalisation is an on-

going process in Top Glove, but the knowledge of how to truly integrate the available technology into all systems to improve company efficiency is relatively new.

Chee revealed that Top Glove plans to spend about 1% of this financial year's revenue on digital adoption (including research and development), having spent about 1% of each year's revenue on it for the past three years, meaning it has spent an increasing amount each year. The company's revenue for its financial year 2017 (ending August 2017) was RM3.4 billion (US\$870.5 million).

The technology provider of some of Top Glove's digitalisation processes is an MSC-status SME that is part of an MDEC grant programme. MDEC declined to reveal the name of the company.

Putting processes online

Chee explains external factors out of the company's control are a major reason Top Glove wants to computerise processes. Regulatory requirements (health and the environment), an increasing minimum wage, and increasing use of resources, including water, energy and labour, are all challenges to be overcome by technology.

Technology is being used to enhance productive capabilities and to ensure production can be scaled efficiently in the future. To this end, tech with predictive capabilities has been installed in factories so that engineers are able to monitor and control what happens in each factory. The tech also ensures processes are accurate and repeatable, and that data is available in a timely manner.

Top Glove has identified four areas to digitalise as its first pilot projects: in process chemistry quality assurance, overall equipment effectiveness, chlorine emissions, and combined heat and power system energy efficiency.

The technology has been built into Top Glove's latest factory – Factory 34 – and is steadily being installed into older factories. As of now, about 60% of its 34 factories and 150 production lines have sensors installed to link them to a centralised control.

Digital integration means less costs

Both Chee and Lee make it clear that the digitalisation of Top Glove's processes must yield substantive results, as technology for its own sake is essentially useless.

The tech allows for decentralised automated decision making and scope for predictive and prescriptive applications, which means that corrections and adjustments can be automated and completed significantly quicker, increasing line efficiency.

It has generated quantifiable business outcomes, as per Top Glove's strategic objectives. Where the company generally hired about 1,000 foreign workers per year, over the past three years, the company has reduced the amount of foreign labour by 1,000 people.

Given that labour traditionally costing about 10% of the cost of production and the increasing cost of levies on foreign labour and the increasing minimum wage, this translates to a significant decrease in cost.

"For a company like Top Glove, a saving of 1% or 2% is a big amount," Lee points out. Top Glove's net profit for its financial year 2017 was RM328.4 million (US\$84.16 million).

"If a traditional company has a good digital strategy, they typically perform 26% better than their peers who do not have a digital strategy," adds Ng.

“We know that disruptive technology has the potential to change the status quo, to reshape the world we live and work in. It is also one of the many enablers of the digital economy, if we do it right,” she says.

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