

Let's get real about S'pore's manufacturing sector manpower needs

Younger Singaporeans are shunning manufacturing jobs and automation has its limits. A reset on foreign manpower policies can help ease the crunch.

Kok Ping Soon

Watson EP, a precision engineering firm, has been manufacturing professional audio, hygiene and plastic products in Singapore since 1977. It has about 70 employees. By expanding to China and Vietnam with affiliated companies, it has enhanced its capacity to provide vertically integrated manufacturing services across diverse market segments.

The company has embraced technology and innovation since the 1990s. But some tasks are still dependent on humans. For instance, the quality inspection process for some of the specialised products requires careful calibration of the right focal length and lighting conditions. Investments in highly customised automation machinery are not viable.

Achieving Singapore's target of 2 per cent to 3 per cent economic growth annually with near-zero labour force growth requires significant productivity gains.

Nowhere is this push for productivity more ingrained than in manufacturing. Multinational firms with manufacturing bases in Singapore have highly advanced plants, with as much as 90 per cent of newly built shop floors fully automated, driven by advanced robots and machines.

But as with Watson EP, many say technology has not eliminated the need for manpower.

Humans are still required to operate complex machinery, manage quality control and perform system maintenance. Manufacturers undergoing process and digital transformation often require additional manpower to support their transition.

These manpower challenges faced by manufacturing firms have surfaced through focus group



Businesses are not asking for a broad-based relaxation of foreign workforce policies but targeted flexibilities to help them fill roles where it really matters, says the writer. ST FILE PHOTO

discussions, conducted by the Singapore Business Federation (SBF) and the Ministry of Trade and Industry (MTI), as part of the Alliance for Action (AFA) on Business Competitiveness, which ran over a nine-month period and concluded on Nov 1.

WHY MANUFACTURING MATTERS

Several business leaders have asked whether, given resource constraints, Singapore should cut back its manufacturing footprint and focus on being a services-led economy.

They reason that we simply cannot compete with economies flush with resources including vast supplies of low-cost labour.

To quote one participant: Is Singapore still serious about manufacturing? We should be, for three reasons.

First, manufacturing continues to be a significant engine of growth, contributing to about one-fifth of our gross domestic product. It employs 12.1 per cent of our total workforce and offers wages that are on average 5 per

cent higher than the country's overall median.

The sector is highly productive, with value added per worker doubling over the past 15 years.

Second, having a strong manufacturing sector is vital to our economic diversification and resilience strategy, which is crucial for a small, open economy like ours.

This was demonstrated during the recent Covid-19 downturn, where the manufacturing sector held strong due to sustained demand for medical supplies and essential goods, even though the services sector suffered considerably.

Third, manufacturing has a strong multiplier effect on the broader economy. When it thrives, it boosts sectors like construction, logistics, retail, services and trade.

A 2017 study by the MTI found that every \$1 million of value added in manufacturing generated \$290,000 in the services sector, and every 100 new jobs in manufacturing led to 27 new jobs in services.

Manufacturing is also a key

driver of innovation in our economy as it has consistently accounted for at least half of Singapore's business expenditure on R&D.

LACK OF MANPOWER IS OUR ACHILLES HEEL

Many of the manpower challenges surfaced by the manufacturing sector are not new.

This is why manpower was such a critical pillar in the Manufacturing 2030 (M2030) vision released in 2021. As part of this, the Government announced the M2030 Careers Initiative to support manufacturing companies in attracting talent and upgrading their existing workforce.

Feedback from businesses suggests these interventions, while helpful, cannot fully mitigate the chronic manpower shortages in the manufacturing sector.

Manufacturing firms say they have exhausted all efforts to attract locals to the sector by raising wages, participating in career fairs and organising

internship programmes with educational institutions to attract younger workers. They have also tried to redesign jobs to accommodate untapped workforce pools such as older workers and people with disabilities.

Still, they fall short. Based on the latest figures from the Ministry of Manpower, there are over 3,000 unfilled production operator and labourer vacancies. And these shortages are set to worsen given the speed at which our local manufacturing workforce is ageing.

Younger Singaporeans shun manufacturing jobs that require them to perform shift duties or work onsite in remote locations. For many workers, they can find equally well-paid roles in other services-related jobs. But they are essential for manufacturing firms to survive.

This is why manufacturing firms need to rely on a complementary foreign workforce pool, especially work permit and S Pass holders, in addition to locals.

However, tighter policies such as higher qualifying salaries, especially at the S Pass level, and source restrictions at the work permit holder level are making it hard for such firms to survive, driving up manpower costs and undermining competitiveness.

In a recent SBF survey, one in four manufacturing firms said it was considering relocating its operations to another country in response to manpower challenges faced here.

Global manufacturers tell us that decisions on where to site their production facilities are driven by three key considerations – government stability, productivity and cost competitiveness.

Singapore leads in the first two areas, but we rank poorly when it comes to cost.

In the IMD World Competitiveness Ranking 2024, where Singapore ranked first overall, we were also top-ranked in government efficiency factors such as adaptability of government policy and transparency, and business efficiency factors such as overall productivity. We were, however, ranked 38th for unit labour costs and 62nd for prices, out of 67 countries.

While global manufacturers may choose to invest in Singapore for reasons other than cost, how long will they continue to do so if business costs continue to rise at this pace?

TIME FOR A RESET

If we are serious about manufacturing, we will need several "resets" in our foreign manpower policies and businesses

will need more concessions to bring in complementary foreign workers. To be clear, businesses are not asking for a broad-based relaxation of foreign workforce policies but targeted flexibilities to help them fill roles where it really matters.

First, we need to help manufacturing firms hire for roles that can't be automated and are unattractive to locals. An example would be operators handling machines dealing with metal finishing or milling, chemical processing, or packaging and filling.

In the AFA report, we recommended expanding the non-traditional source occupation list to enable businesses to access higher-skilled work permit holders. These specialised job functions are essential to the manufacturing process but challenging to localise as young Singaporeans entering the manufacturing sector typically start in technician or assistant engineer roles with relevant skills picked up at post-secondary education institutions.

Secondly, we recommend expanding the list of non-traditional source countries for work permit holders to include Thailand and Vietnam.

Currently, manufacturing firms can recruit only from Malaysia, China and North Asia, but these sources are drying up. Malaysian wage expectations have risen, retention rates are low, and worker supply from China and North Asia is dwindling as local governments improve wages and working conditions.

Third, we need to provide transitional support for companies undergoing transformation.

There is an existing Manpower for Strategic Economic Priorities Scheme to provide transitional support for businesses undergoing transformation and invest in longer-term talent development for locals. But the take-up is low.

In the AFA report, we recommended lengthening the duration of each tranche of support or increasing the types of manpower support provided based on the quality of jobs that companies hire or train for.

The goal is to ensure that manufacturing is not a lost cause in Singapore but our winning hand to enhance our standing as a globally competitive economy in an increasingly challenging global market. This can be achieved only if businesses and the Government work together to ensure Singapore's business competitiveness.

• Kok Ping Soon is chief executive officer at the Singapore Business Federation.

As govts push for teen social media bans, scientific debate erupts

Part of the reason for so much debate is that experiments that have people reducing their social media use produce varied results.

Gideon Meyerowitz-Katz and Matthew B. Jane

As governments worldwide move to restrict teenagers' access to smartphones and social media, a fierce scientific debate has erupted over whether these digital technologies actually harm young people's mental health.

The controversy, sparked by an influential recent book blaming phones for rising youth anxiety, has exposed deep uncertainties in the research evidence – even as policymakers from the US state of Arkansas to Australia forge ahead with sweeping bans and restrictions.

CONTROVERSY TIMELINE

In March, New York University social psychologist Jonathan Haidt published a popular science book called *The Anxious Generation*. This blames a rise in youth mental illness over the past 15 years or so on the advent of smartphones and social media.

One early review of Dr Haidt's

book by Duke University psychological scientist Candice Odgers, published in *Nature*, voiced a common criticism among expert readers: While social media is sometimes associated with bad outcomes, we don't know if it causes those bad outcomes.

In April, Dr Haidt responded that some recent experimental studies, where researchers got people to reduce their social media use, showed a benefit.

In May, Stetson University psychologist Christopher Ferguson published a "meta-analysis" of dozens of social media experiments and found, overall, that reducing social media use had no impact on mental health.

Next, in August, Dr Haidt and his colleague Zach Rausch published a blog post arguing that Dr Ferguson's methods were flawed. They said doing the meta-analysis in a different way showed social media really did affect mental health.

Not long afterwards, one of us (Matthew B. Jane) published his own blog post, pointing out issues in Dr Ferguson's original meta-analysis but showing Dr

Haidt and Dr Rausch's re-analysis was also faulty.

This post also argued that properly re-analysing Dr Ferguson's meta-analysis still did not provide any convincing evidence that social media affects mental health.

In response to Mr Jane, Dr Haidt and Dr Rausch revised their own post. In September and October, they came back with two further posts, pointing out more serious errors in Dr Ferguson's work.

Mr Jane agreed with the errors Dr Haidt and Dr Rausch found, and has set out to reconstruct Dr Ferguson's database (and analyses) from scratch.

The discussion and further work is still ongoing. Yet another team has recently published an analysis (as a pre-print, which has not been independently verified by other experts) disagreeing with Dr Ferguson, using similarly unreliable methods as Dr Haidt and Dr Rausch's first blog post.

EVIDENCE IS VARIED, BUT NOT VERY STRONG

Why so much debate? Part of the reason is that experiments where researchers get people to reduce their social media use produce varied results. Some show a benefit, some show harm, and some show no effect.

But the bigger issue, in our opinion, is simply that the evidence from these experimental

studies is not very good.

One of the experiments included in Dr Ferguson's meta-analysis had some German Facebook users reduce their use of the social media platform for two weeks, and others continue using it normally. The participants then had to self-report their mental health and life satisfaction.

People who were asked to use Facebook less did report spending less time on the platform. However, there was no detectable impact on depression, smoking behaviour or life satisfaction at any time point between the two groups. There was a difference in self-reported physical activity, but it was very small.

Another famous study recruited 143 undergraduate students and then randomly assigned them to either limit their Facebook, Snapchat and Instagram use to 10 minutes per day for a month, or to make no changes. The researchers then asked participants to report their anxiety, depression, self-esteem, autonomy, loneliness, fear of missing out and social support.

At the end of the month, there was no difference between the two groups on most measures of mental health and well-being. Those who reduced social media use showed a small decrease in self-reported loneliness, and there was also a small improvement in depression scores among people who reported high levels of

depression to begin with.

EXISTING EXPERIMENTS CANNOT ANSWER BIG QUESTIONS

Studies like these address narrow, specific questions. They are simply unable to answer the big question of whether long-term reduction in social media use benefits mental health.

For one thing, they look at specific platforms rather than overall social media use. For another, most experiments do not really define "social media". Facebook is obviously social media, but what about messaging services such as WhatsApp, or even Nintendo's online gaming platform?

In addition, few, if any, of these studies involve interventions or outcomes that can be measured objectively. They consist of asking people – often undergraduate students – to reduce their social media use, and then asking them how they feel. This creates a range of obvious biases, not least because people may report feeling differently based on whether they were asked to make changes in their life or not.

In a medical study assessing a drug's effect on mental health, it is common to administer a placebo – a substitute that should not have any biological effect on the participant. Placebos are a powerful way to mitigate bias because they ensure the participant does not know if they

actually received the drug or not.

For social media reduction studies, placebos are virtually impossible. You cannot trick a participant into thinking they are reducing social media when they are not.

INDIVIDUAL CHANGES AND A SOCIAL PROBLEM

What's more, these studies all work at the level of changes to the behaviour of an individual. But social media is fundamentally social. If one college class uses Instagram less, it may have no impact on their mental health even if the platform is bad, because everyone around them is still using it as much as ever.

Finally, none of the studies looked at teenagers. At present, there is simply no reliable evidence that getting teenagers to use social media less has an impact on their mental health.

Which brings us back to the fundamental question: Does reducing social media improve teen mental health? With the current evidence, we don't think there's any way to know.

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