

Robots to the rescue as various sectors battle manpower crunch

Dominic Low and Anjali Raguraman

SINGAPORE - Wheeled robots carrying cargo are important members of the Singapore General Hospital as it battles a manpower crunch that has only become more acute in recent times.

Whirring around SingHealth Tower - [which opened in January this year](#) as part of a \$4 billion, 20-year revamp of the SGH campus - the 13 robots deliver meals, linens and medical supplies to 16 wards in the building.

The robots, which look like refrigerators on wheels, have relieved SGH of the need to hire five support staff for such deliveries, its director of service support Joseph Chua told The Straits Times.

SGH said this allows it to focus on filling in-demand roles such as nursing and medical support.

"By automating supplies transportation, SGH can (also) optimise productivity and schedule deliveries more effectively," said Mr Chua.

Sensors on the robots help them navigate around the campus autonomously. The sensors map out the route and identify obstacles to avoid collision.

There are plans for the robots to deliver medical supplies to the upcoming Elective Care Centre on the SGH campus.

Healthcare, hospitality and aviation are among the hardest-hit sectors by an ongoing labour crunch amplified by the Covid-19 pandemic.

Job vacancies in health and social services rose to 7,700 in March from 6,500 in December, according to the Ministry of Manpower's June labour report. Job vacancies in accommodation and food services also rose to 9,900 in March this year from 8,900 last December.

When Covid-19 restrictions started to ease in April this year leading to spikes in service demands, the tight manpower situation in consumer-facing sectors worsened.

The 1,252-room Swissotel The Stamford relies on 10 self-service kiosks to automate check-ins as the hospitality sector faces a manpower crunch with the return of travellers.

Check-ins can also be initiated through a Web link on guests' devices before their arrival at the hotel to save time.

"The automated check-in and check-out counters help to alleviate the challenges of the tight labour market in Singapore," said Mr Marcus Hanna, managing director of Swissotel The Stamford and Fairmont Singapore.

Besides simplifying work processes and eliminating paperwork, Mr Hanna said it has also freed up front office staff for more personalised interactions, such as welcoming guests when they arrive at the driveway and assisting with simple concierge inquiries.

What is more, the kiosks, which blend seamlessly into the living room-like hotel lobby, use in-built biometric facial scanners to verify guest identities by matching the data against the Immigration and Checkpoints Authority's database. This increases the level of security. The machines also require guests to encode their own room keys before they can be used.

The kiosks were fully rolled out in June 2020 at the height of the pandemic to minimise physical contact and interaction.

Electronic kiosks are also a new feature all 10 information counters in Changi Airport Terminals 1 and 3, allowing travellers to contact the airport's service staff stationed in an office at another part of the airport through video call. Up to three staff members can be present to take any calls.

The kiosks, which were introduced during the pandemic by Changi Airport Group (CAG), allow the counters to be manned even when service personnel are deployed physically away from them.

Besides deploying the kiosks, CAG is trialling three autonomous baggage tractors to transport passenger baggage between airplanes and Changi Airport Terminal 3.

Mr Yeo Kia Thye, CAG's managing director for airport operations planning and airside, said by automating baggage transportation, airside workers can focus on more complex last-mile operations such as aircraft handling.

"Automation will also enable the airport to redesign and upgrade the job scopes of our airside workers," he added.

SGH's Mr Chua said some roles that require human traits such as empathy, or roles involving planning and decision making, still cannot be replaced by machines.

Mr Hanna said while many hotel guests appreciate the quicker check-in process, some still prefer to interact with staff.

"These guests will be assisted by our guest relations team to either complete their check-in through the automated system, or via the normal check-in desk," he said.