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Will rising F&B salaries see workers replaced by machines?

Higher wage floors may prompt some food and beverage firms to adopt technology more quickly. But automation rarely replaces labour.

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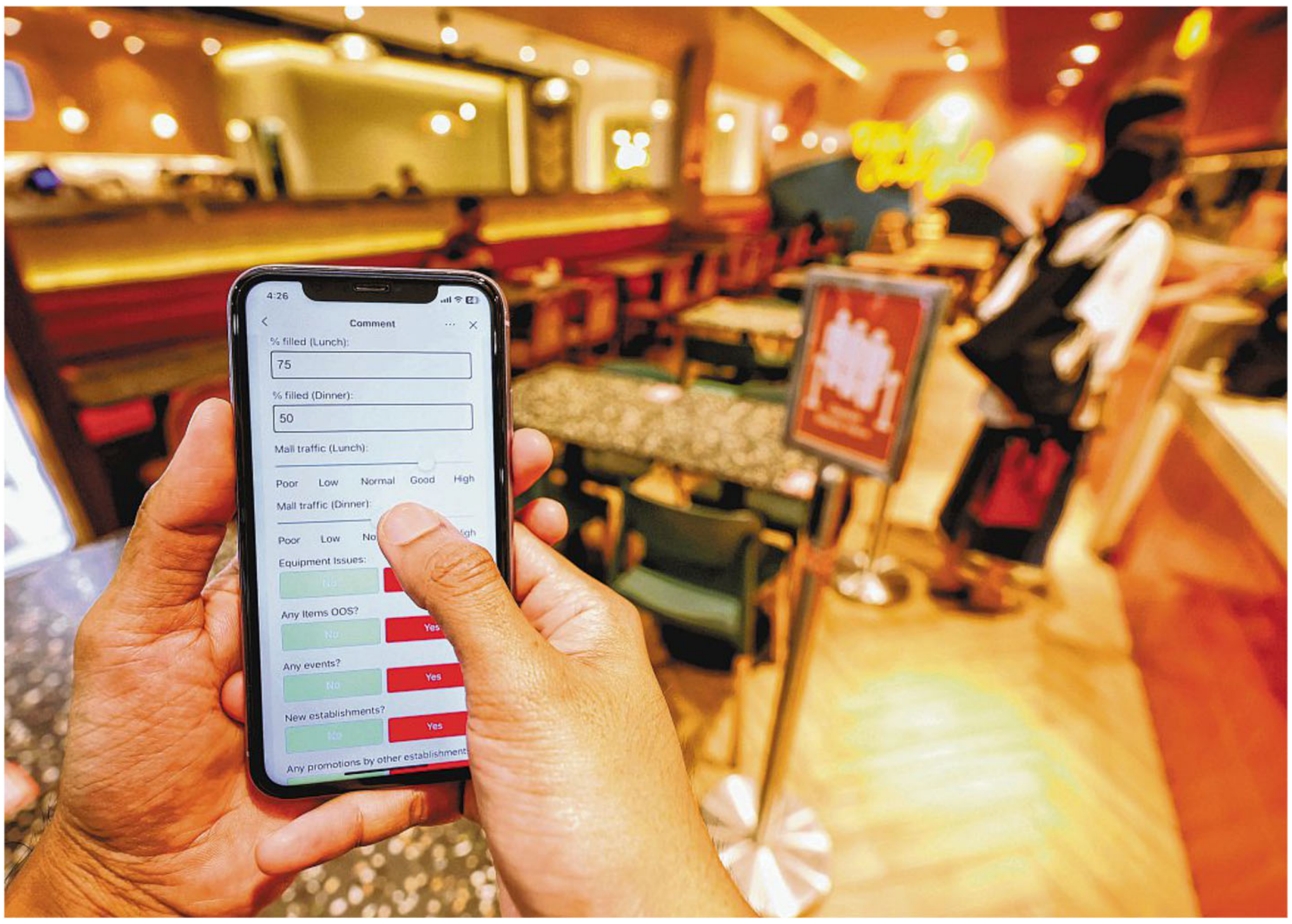
A diner scans a QR code, places an order in under a minute and assumes the restaurant has become more efficient. But anyone who has worked in food and beverage (F&B) knows the story does not end at the screen. Someone still has to watch the orders coming in, sort out mistakes, manage the kitchen flow, calm frustrated customers and keep service moving when the system falls short.

Economists have long debated what happens when wages are pushed up by policy. Faced with higher labour costs, firms often turn to machines. Using US Census microdata from 1992 to 2021, a National Bureau of Economic Research publication found that a 10 per cent increase in the minimum wage is associated with roughly an 8 per cent rise in robot adoption relative to the mean. Evidence from other countries points in a similar direction, suggesting that when wages rise, firms invest more in labour-saving technologies to raise productivity. On paper, the logic is straightforward. In real business, it is rarely so simple.

While global macroeconomic data highlights a general trend towards automation, local policy interventions require a closer look at the reality on the ground. That gap between theory and reality is especially visible in Singapore's F&B sector. Here, wage floors under the Progressive Wage Model (PWM) now sit alongside a wider push to digitalise, streamline operations and do more with limited manpower. The PWM links wages to skills, productivity and career progression, and food services is one of the sectors covered.

As Prime Minister Lawrence Wong noted in Budget 2026, the PWM "goes beyond a simple flat minimum wage" by tying pay increases to productivity and career progression. That is the promise: raise wages, push firms to upgrade, and make better jobs and better businesses reinforce each other. The Progressive Wage Credit Scheme (PWCS) is meant to help employers adjust by co-funding eligible wage increases.

You can already see why this matters in F&B. Restaurants operate on tight margins. Rent is high, ingredient costs fluctuate, and labour remains a major operating cost. So when wages rise, the obvious question is whether firms will simply automate their way out of a squeeze.



Home-grown chain The Soup Spoon has begun using AI to process daily reports across its outlets, say the writers. Technology in F&B rarely makes work disappear, they noted. More often, it shifts the work elsewhere: into troubleshooting, coordination, oversight and service recovery. ST PHOTO: KEVIN LIM

THE WORK GETS SHIFTED

Technology shifts work rather than removes it. To some extent, that shift is already happening. Diners are now used to self-service kiosks at fast-food outlets, QR code ordering in cafes, and mobile apps for beverage chains. Robot servers are increasingly common in places like Haidilao. Behind the scenes, restaurants such as Sushi Express, which rely heavily on speed and efficiency, are using kitchen tools such as sushi-making machines. Others use automated slicers, inventory management systems and workforce scheduling software. But technology in F&B rarely makes work disappear. More often, it shifts the work elsewhere: into troubleshooting, coordination, oversight and service recovery.

A local example shows what this looks like in practice. Home-grown chain The Soup Spoon has begun using AI to process daily reports across its outlets. Sales figures and managers' notes are turned into summaries that help management spot patterns faster and direct problems to the right teams. The goal is not to take people out of the loop; it is to help managers spend less time sifting through paperwork and more time running outlets and serving customers.

A more cautionary example makes the point from the other side. At Margaret Drive Hawker Centre, the operator behind Wok A.I. drew attention for using a machine to cook Hokkien mee. Yet the stall closed after about 10 months, with its owner citing manpower shortages. The machine helped with consistency, but it did not remove the need for people to wash the equipment, prepare ingredients, cook stock and keep operations running. Even eye-catching automation does not neatly solve the labour problem in F&B.

This highlights where much of the sector is headed: not staffless restaurants, but selective digitalisation that removes friction, tightens coordination, and helps stretched teams work better. Digitalisation in F&B is neither a silver bullet nor a single pathway. Furthermore, it did not begin with PWM. The sector was already moving in this direction, pushed by pandemic-era labour shortages, broader productivity pressures, and years of policy support for upgrading. PWM may speed up that shift, but it did not invent it.

LIMITS OF DIGITALISATION

Not every business can digitalise in the same way. Larger chains are better placed to invest in new systems and spread the sizeable upfront costs across multiple outlets. Smaller businesses often lack the financial resources, technical know-how or simply the confidence that the investment will pay off. So higher wages do not lead neatly to more automation across the board. They can just as easily widen the gap between businesses that can upgrade and those struggling to keep up.

Also, full automation may neither be possible nor desirable in the hospitality industry. Not every part of restaurant work can be standardised. Taking orders and processing payments are easier to automate. Some food preparation can be mechanised. But menus with more variety, dishes requiring improvisation, and foods whose appeal lies in craft or heritage are harder to fold into a neat automated system. A bowl of noodles or a kopi order is not always just a unit of output; it is also habit, memory, taste, and trust.

The same goes for service. Hospitality depends on reading a customer, handling complaints, calming frustration and making judgment calls on the spot. Ethnographic research on Singapore's food centres underscores this: Interpersonal interactions often shape how work gets done, sometimes in ways that resist the clean logic of streamlining. Efficiency is not the only thing diners are paying for.

Firms are therefore unlikely to respond to rising wages by automating everything at once. What is more likely is a patchwork response. Some will raise prices, shorten hours or simplify menus. Some will digitalise only the most routine parts of the workflow. Over time, others may move towards central kitchens, tighter standardisation or new service models. The transformation will be gradual, uneven, and highly dependent on the business type.

Policy matters here. The PWCS gives firms breathing room by helping to fund wage increases, rather than forcing immediate adjustments. Without it, the pressure to cut labour quickly can become stronger than the push to redesign work well. Broader economic conditions will matter, too. Persistent cost pressures will push firms to look for productivity gains, and as digital tools become cheaper, more firms will find them within reach. But success still depends on getting both the system and the service right.

International experiences offer clues. South Korea's sharp minimum wage hikes in 2018 and 2019, and the United Kingdom's repeated increases to its National Living Wage, were both associated with a visible increase in self-service kiosks and automation in retail and food services. Yet even in these contexts, adoption patterns remain uneven.

The real story is not machines replacing workers; it is work being reorganised. Some tasks disappear, others are reshaped, and new forms of backstage labour appear. In many cases, human effort is redirected to the parts of the job where judgment, responsiveness and hospitality still matter most.

For policymakers, if the aim is to raise wages and productivity together, wage policy alone is not enough. Firms need support to redesign jobs and adopt technology in ways that improve operations rather than simply cutting headcount.

For businesses, the challenge is how to digitalise without losing the value people bring. For workers, the question is how roles will change and how best to prepare.

The future of Singapore's F&B sector will not be one of wholesale automation. It will be messier and more human. The real challenge is to build businesses in which technology raises productivity without hollowing out the human core of hospitality – because ultimately, efficiency can never fully replace the warmth of human service.

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