

MAKING CHANGES

WHETHER they were looking to improve business processes, venture overseas, or improve productivity, the small and medium-sized enterprises (SMEs) that we spoke with had one thing in common: They had taken steps to improve their productivity through capabilities upgrading. In most cases, this involves automation and introducing specific equipment to ease the work flow. Some businesses however went back to basics and relooked their entire operational process to sift out areas for improvement.

The first step for all businesses, also often the most difficult step, is to step out of their comfort zone and recognise that change is required to reach the next stage of development.

Adopting the change, and garnering buy-in from staff is the next major hurdle.

As we enter the National Productivity Month in October, we asked businesses in sectors that are traditionally heavily reliant on labour what they have done to maintain their edge in today's competitive business environment or even achieve the quantum leap.



TRADITIONAL YET MODERN

Dimsum restaurant Yum Cha has automated the making of some dumplings and introduced the use of iPad menus

WHILE it was never her ambition to be a firefighter, Melody Tan's job as Yum Cha's general manager involves fighting the twin "fires" of rising manpower and rental costs. Compared with five years ago, manpower and rental expenses are rising at a faster clip, says Ms Tan. Labour costs have gone up by a third on higher levies and tighter quotas, while rents have risen by half.

To raise staff efficiency, Ms Tan decided to standardise operating systems and procedures across Yum Cha's outlets in Chinatown and Serangoon. The company hence partnered the Restaurant Association of Singapore (RAS) two years ago to implement the 5S programme – which stands for sort, systemise, shine, standardise and self-discipline. The 5S programme helps restaurants achieve organisational cleanliness and standardisation to drive productivity.

A system is put in place to sort and organise processes, ensure cleanliness and operational efficiency. For instance, instruction cards are fixed to machines in the kitchen. When a machine breaks down, staff can contact a maintenance worker whose details are listed on the card. "They don't have to always ask the manager, they're better informed to make a decision themselves," says Ms Tan.

In addition, kitchen staff are now assigned their own sections to take charge of. Recipes are documented and ingredients better arranged to prevent over-orders or stock-outs.

There was some initial resistance to the changes, especially when it came to tedious procedures such as labelling of expiry dates for ingredients that are used quickly. Ms Tan also acknowledges that there is not

always full compliance. "But at least staff know what to do. If efficiency falls back to 80 per cent, they know how to achieve 100 per cent," says Ms Tan.

Having a system that everyone is aware of also brings about a greater sense of accountability. Without it, staff efficiency will not be optimal, she adds.

At its latest outlet in Changi Business Park (which opened last November), Yum Cha explored more ways to streamline production. As many menu items in the Changi outlet had to be supplied by the other two outlets, each outlet essentially acts as a central kitchen, producing and supplying certain items for the others. Since *dimsum* is mostly hand-made, this concept led to more consistency across all outlets.

In addition, Yum Cha purchased four machines with the help of a grant to produce *dimsum*. The first machine helps to wrap *siew mai* and is used by Yum Cha's biggest outlet in Chinatown, which provides *siew mai* for the other outlets. The other three machines – a dough divider, rounder and sheeter – will arrive by year-end.

Besides automating kitchen processes, Ms Tan introduced the use of iPad menus for the restaurant floor in the smaller Changi outlet. Compared with the other outlets where patrons take a longer time for meals and require more service attention, the Changi outlet mostly serves an office crowd. It has a faster pace of service and turnover, and the use of iPads suits the outlet. Customers use the device to browse the menu and place their orders, which speed up ordering processes especially during peak hours.

To further ease labour shortages, the restaurant started outsourcing part of its dishwashing operations and non-core menu items last November. Having outsourced about 5 per cent of its menu to another *dimsum* producer, the chefs now focus on improving the quality of core products.

Collectively, these initiatives have allowed Yum Cha to work with 5 to 10 per cent less manpower. While increasing manpower has traditionally been a solution to heavier workloads, especially for Chinese restaurants, Ms Tan notes that staff mindsets have started to shift towards productivity solutions.

Especially since *dimsum* production is a labour-intensive process, they are starting to realise that productivity is the way to go.

As government help comes a step behind tightening foreign labour, productivity initiatives become a necessity rather than a choice, Ms Tan says. "We have to find a way to do the same amount of work with less staff." ■



WORK BETTER
To raise staff efficiency, Ms Tan decided to standardise operating systems and procedures

PHOTOS: ARTHUR LEE



ALL GOOD
The CAD/CAM system has given the company opportunities to improve both the front and back end operations, says Mrs Fong

A PATTERN FOR SUCCESS

CYC The Corporate Label's automated process elevated its presentation skills along with cutting costs and raising productivity

THE product development department of CYC Shanghai Shirt Company's corporate uniforms label has got a new outfit. In the textile industry where the devil is in the details, CYC The Corporate Label found that automation not only helped it to cut costs and raise productivity, it also elevated presentation skills by shining the appropriate spotlight on the company's designs.

Back-end processes have become more seamless after the company implemented the Optitex computer-aided design and computer-aided manufacturing (CAD/CAM) system in April as the digital drawing and cutting capabilities are more precise than the human hand. These capabilities also sped up traditionally time-consuming processes.

In the production of paper patterns for example, a pattern needs to be graded, or scaled, to create multiple patterns for various uniform sizes. Instead of producing each one by hand, the tailor can create just one pattern, digitise and grade it within the system for additional sizes.

After digital paper patterns are obtained for each size, they are sent to a linked digital plotter and cutter. The machine cuts perforated lines along which tailors can tear a pattern out. With digital grading and cutting, the time required for the entire process is reduced from three days to just half a day.

Besides time savings, the system arranges patterns to be cut in the most economical way to save fabric usage, cutting down on raw material wastage. Additionally, a digital repository is now used to store patterns, making them easily accessible for re-use, and preventing torn or lost patterns.

Garment interfacings can now be produced digitally as well through the system. In a piece of garment, interfacings are used to add body, strength and shape to certain areas such as collars or lapels. These interfacings were previously manually drawn and cut. A tailor can typically produce about 50 interfacings per day.

With the CAD/CAM system, these interfacings can be drawn digitally. After the quantity is indicated, the design will be sent to a linked flatbed cutter to be automatically cut. This shaves the previously day-long process down to just a couple of minutes.

Besides digital drawing and cutting functions that enhance back-end operations, the system also has digital prototyping capabilities that boost front-end processes. Designers can use the system

to drape 2D patterns on a 3D avatar, in the colour or fabric that the client has chosen. Clients then have a realistic 3D view of the garment such as how it fits and its texture, without requiring a physical piece. The 3D samples of the garment enhances the quality of presentations that CYC makes to its clients.

Garments can be digitally altered and avatar body measurements adjusted to simulate various body types. In addition, the system archives the fabrics that the company uses. The CAD/CAM system also has a runway design function where the avatar does a catwalk wearing the garment to showcase fabric behaviour.

Previously, all samples provided to the client were 2D. The system, which offers a basic menu of designs, helps clients visualise what the garment looks like, says Fong Loo Fern, CYC's managing director. Time is also saved as digital viewing files can be e-mailed to clients instead of having them make a trip to CYC.

"The system gives us opportunities to improve ourselves in both the front and back ends," says Mrs Fong. She adds that the company looks to automate wherever possible and is currently looking into an enterprise resource planning system, a business process management software that integrates and automates back-office functions such as inventory and service delivery.

In the textile industry, automation is not always the ideal solution, especially for sewing processes. "If you automate, it means you can only produce very standardised items – and we don't produce standardised items," says Mrs Fong.

But automation has come in handy in pattern making. "Paper pattern makers are like engineers. They need to translate a design proposed by the designer into a template that can be cut on a fabric and sewn into a garment," says Mrs Fong.

Yet, finding skilled paper pattern makers and people to do blue-collar work is difficult. While an important skill for designers, pattern making is less glamorous than designing. Few young people are picking up the skill, and the experienced are getting on in age, she says.

While sewing still has to be done by hand, the company has managed to reduce the time and manpower needed for early steps in the garment production process. Says Mrs Fong: "We've basically gone from manual to using technology, I think it's really quite a quantum leap." ■

GETTING READY

Meat processor and distributor OJJ Foods is preparing for future growth by moving into the ready-to-eat and ready-to-cook businesses

MEAT processor and distributor OJJ Foods' expansion into the ready-to-cook market is still in its infancy but it already hopes to leverage this to enter overseas markets by the end of next year.

"OJJ Foods expanded into the ready-to-cook market two to three years ago, and has since been selling custom-cut marinated meat products targeted largely at restaurant chains," says Ting Puong Huat, managing director at OJJ Foods.

This results in savings for customers on various fronts – raw material import, storage, processing and deliveries to individual outlets. The distributor – which supplies chilled, thawed and frozen pork products in Singapore – counts major supermarkets, hotels, restaurants and hawkker centres as its customer base.

But while OJJ Foods had experienced tremendous growth in the past years, it faced increasing challenges in its operations, particularly in manpower and labour constraints, as well as rising competition in the raw meat market. It thus decided to prepare itself for future growth by moving into the ready-to-eat and ready-to-cook businesses.

"This resulted in savings for our customers in space and labour, and reduction in processing time," notes Mr Ting. "It also helped provide some relief for a sector facing a tight labour crunch." In 2013, OJJ Foods merged its ready-to-cook and ready-to-eat business with Tierney's Foods to form OJJ-Tierney's Food. "(We) focus on helping customers drive productivity improvements through new product ideas that will drive sales and reduce processing steps. We do this by producing the products nearer to the raw materials storage areas, and distributing directly to the retail outlets," says Mr Ting.

Moving up the supply chain and building the foundation for exports would have been far more difficult if OJJ Foods had not undertaken the decision to automate. With the support of Spring's Capability Development Grant, OJJ Foods invested in a range of equipment to automate its processes. One of them was an industrial scale microwave machine, which enabled it to thaw frozen meat from -20 degrees Celsius to -5 to -7 degrees Celsius in three to five minutes.

Thawing the meat in such a short time reduces handling and preserves its quality, and also frees up space in the plant previously required for manual thawing purposes. It also enabled the company to thaw at least three to four times the volume of pork in a normal eight-hour working day compared with manual thawing. The manpower required was also reduced by at least two to three persons, says Mr Ting.

In a further bid to ensure consistency in its product quality, the company invested in a meat sawing machine, which is able to cut frozen meat (at -20 degrees Celsius) in equal proportions. This circumvents the thawing process and reduces meat wastage. Previously, 10-15 per cent of the meat was wasted during the manual slicing process. Automating the process also reduces manpower as the two workers who previously weighed each portion are no longer required. In addition, the two personnel required for the slicing process are also redundant, said the company.

Looking ahead, OJJ-Tierney Foods plans to take part in international food exhibitions to showcase its range of highly innovative ready-to-cook and ready-to-eat products as well as tap into the network of overseas distribution partners.

While acknowledging that there are many new entrants providing ready-to-cook and ready-to-eat meat products, not many in the industry are able to offer such a fully integrated service which drives at the very core of productivity improvement through process re-engineering, says Mr Ting. "This trend of consolidating storage, processing, and deliveries will continue as the food and beverage industry works towards accelerating improvement in productivity," he adds. ■

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