

E have to increase our productivity." "We are finding new ways to innovate." The buzz-words of "productivity" and "innovation" have become so entrenched in our corporate vocabulary that it is hard to imagine any working adult in Singapore today not having heard about them. The government's Productivity and Innovation Credit (PIC) scheme has been in place since 2010, offering tax deductions or cash payouts to companies that invest in productivity-boosting areas such as staff training, information technology or automation equipment.

A PIC+ scheme was introduced this year in Budget 2014, further encouraging small and medium-sized enterprises (SMEs) to adopt infocomm technology and promoting internationalisation.

But while the financial resources have been placed at the disposal of SMEs, the question remains of exactly how these resources should be used to boost productivity or to innovate.

The answers may differ from company to company – we speak to two firms which have found theirs. Both winners at the 2013 Singapore Workforce Development Agency (WDA) and Singapore Manufacturing Federation (SMF) Productivity and Innovation Awards, Horsburgh Engineering (Gold award) and Systematic Laundry (Bronze award) are also in traditionally labour-intensive businesses.

We ask them about the surprisingly simple but effective ideas that they have each implemented with no small degree of success.



NO WISHY-WASHY BUSINESS

MIGHT innovation and automation have reached a plateau in the laundry business? This might seem like a reasonable conclusion since washing machines of any size still require human operators, with the same applying to the folding and ironing of clothes.

However, it is not a conclusion shared by Systematic Laundry's chief executive officer Chan Tai Pang who has found ways to innovate and improve productivity in parts of his business.

In 2008, Systematic was one of three companies that were awarded a \$\$300,000 grant from the government to trial radio-frequency identification (RFID) systems. RFID technology uses radio-frequency electromagnetic fields for the wireless identification and tracking of chips attached to objects. In Systematic's case, the objects identified and tracked are individual pieces of clothing.

According to Mr Chan, the RFID system has made counting pieces of clothing before and after washing as simple as wheeling the entire bundle past an RFID reader, which then picks up the chips attached to each garment. The productivity gains have been tremendous.

"In the past, for – let's say – 20,000 garments, we would probably need about 30 to 40 people just to do the counting and sorting," says Mr Chan. "But with the RFID, we can settle everything with just two people or even one person."

So impressed has Mr Chan been with the RFID technology that he has even used it to improve the productivity of some his clients. For example, in addition to laundering the uniforms of Marina Bay Sands' (MBS) 16,000 staff, Systematic also helped to design and install an automated uniform storage and retrieval system for the integrated resort.

All that an MBS employee has to do after reporting to work is punch in a certain combination of numbers; and by finding the corresponding sequence on an RFID tag, the conveyor-belt system identifies within 30 seconds which set of uniforms belongs to that employee.

Mr Chan has also managed to automate the ironing and folding of bed-sheets using machines known as sheetfeeders – so called because one simply feeds the bed-sheets into one end of the machine and they come out of the other end ironed and folded. The sheet-feeders have improved productivity by about four times, and can process about 700 bed-sheets per hour.

Mr Chan is keen not to rest on his laurels, and is continuing to look for new ways to improve Systematic's business model. He has one especially compelling reason not to take anything for granted.

Mr Chan suffered 33 per cent burns after being caught in the blast of the 2003 JW Marriott Hotel bombing in Jakarta and was in a coma for 37 days.

Even after he awoke, he was unable to move at all for a period of time due to the severity of his burns. It was a bad time for Systematic as well, which had not fully recovered from the loss of bulk laundry business during the 1997 financial crisis.

That was the point when Mr Chan first gave the matter of innovation serious consideration. "I'm not a person who can just sit around and do nothing, and the only thing that was working then was my mind," says Mr Chan. "So I thought about certain things over the years that we (Systematic) hadn't done quite right or were too optimistic about, and about what we can do to be better than others."

Mr Chan's decision to invest in RFID technology has paid off in a big way for Systematic. The company's turnover has increased from S\$4 million in 2005 to about S\$20 million for FY2013. Systematic has also won the Singapore SME 1000 award every year in the last three years.

Next in the pipeline for Mr Chan are 24-hour coin laundries with an automatic locker system. "Basically, the computer assigns you a locker for your dirty laundry. We collect it, and about three to five days later, you will receive an SMS telling you to collect the done laundry from the shop," says Mr Chan.

Because rental costs continue to be a concern, Mr Chan is thinking of setting up these new concept laundries in community centres or petrol kiosks.

Although some people have questioned the value of Mr Chan's commitment to his laundry business, he remains unperturbed. "People think laundry is a very low-class business but to me, it can be a profession as respectable as any other."

HANDS-ON UPGRADING

ENVIRONMENTAL and waste management company Horsburgh Engineering's director Sharon Kee walks the productivity talk.

"Any (skills upgrading) course I want to send my staff for, I will attend myself first to see if it is worth it" she says

For example, Ms Kee learnt how to clean floors and toilets at the now-defunct Centre for Cleaning Technology in 1999 and has also attended courses for pest control and landscaping. Horsburgh offers services in all three of these functions, employing about 300 staff in total.

For Ms Kee, there is no getting away from the fact that Horsburgh operates in a heavily labour-intensive environment, which is why she has centred productivity improvements on people rather than machinery.

"To me, the key to productivity is teamwork. You need a dedicated team of people to sit down and discuss what things can be streamlined," she says.

"Even if machines can help us, you still need the human brain to think of how to cut down the time spent."

Furthermore, when implementing streamlined processes or innovations, she has had to take into account the significant number of elderly workers employed by Horsburgh. "Some of our workers from the mature workforce demographic can be quite reluctant to try new things, so the company has to convince them," she says.

One way that Horsburgh does this is through the use of visual aids. For example, the cleaning chemicals used by the cleaners are colour-coded for easy reference. "Trends have changed, and most of our workers can converse in English or Mandarin now but it's still very tough when it comes to reading," says Ms Kee.

A certain degree of social dexterity also helps. Says Ms Kee: "You can't keep telling them again and again what to do – the cleaners will just nod their heads and repeat the same mistakes. So sometimes I remind them of their training and let them figure out themselves what they have missed."

It helps that Ms Kee is familiar with almost all the work that her staff have to do on a daily basis.

With these considerations in mind, it is no surprise that whirring high-tech machinery features only slightly among the measures that Horsburgh has introduced to improve productivity over the last decade.

In fact, one of the innovations that Ms Kee is most proud of involves just a simple piece of cloth.

"We teach our cleaners what we call the eightfold method to save them the time spent from always having to rinse the cloth after one round of cleaning," said Ms Kee. "Because eight faces of the cloth are used, our cleaners can clean eight partitions or eight tables before needing to rinse the cloth."

Cutting Edge



PHOTO: YEN MENG JIIN

≺PEOPLE-CENTRIC

Ms Kee (second from left) has centred productivity improvements on staff rather than machinery

Another idea has been to reduce the size of the trolleys that Horsburgh's cleaners push around, which were originally too large to push into the toilets that were being cleaned. As a result, a lot of time was spent walking back and forth.

"This is all part of daily maintenance work, which we normally overlook," says Ms Kee. "But after we were taught to video our processes at a productivity management course, we were surprised to notice the many things that our cleaners do unnecessarily."

Horsburgh's efforts at innovation and improving productivity culminated in a large-scale evaluation of its workers last year, in collaboration with the Singapore Manufacturing Federation (SMF) and the National Environment Agency (NEA).

Individual cleaners were filmed over three days, with the resulting video then painstakingly examined and analysed. "We started to pick out the weaker cleaners. A lot of funny things started to come out that are not part of the SOP (standard operating procedure)," says Ms Kee. "We then filmed an expert cleaner and then played back both videos to see what can be improved."

The project achieved a 44 per cent reduction in time spent for cleaners aged 55 and above, which exceeded Horsburgh's initial aims of a 23 per cent improvement in productivity.

But Ms Kee is already looking beyond the results. "It's easy to go about implementing something, but how you sustain what you have implemented is more important," she says.

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