No Demand for Local Training Centre for Foreigners:

Established in 1990, CKE Manufacturing Pte Ltd (CKE) provides precision engineering machining services to companies in Asia including Singapore, the Middle East and Europe.

As precision engineering is a core enabler for many industries requiring complex equipment, CKE’s clientele belongs to specialised sectors such as Oil & Gas, Marine, Semiconductor, Electronics, Offshore, Biomedical and Aerospace.

With its roots in a single precision machine shop established in 1946 to its incorporation in 1990 to what it is today, CKE has constantly innovated and upgraded its capabilities and technical knowhow through robust training for staff, acquisition of new technology, and adoption and implementation of modern management systems. It continues to look for ways to enhance its business with the aim to bring more value to its customers. It also aims to leverage on the strong potential of precision engineering to add to its bottom line, as well as support Singapore’s ongoing progress.

Market Perspectives and Prospects

The precision engineering sector has moved from its support role to Singapore’s first manufacturing investments in the 1970s to become the backbone of manufacturing. As manufacturing is a key pillar of the Singapore economy, accounting for some 20% to 25% of the GDP\(^1\), it is a crucial contributor to the country’s continued success.

The precision engineering sector employs 92,000 people, or over 20% of the total manufacturing workforce. In 2011, it contributed S$26 billion, or 9% of Singapore’s total manufacturing output value-add\(^1\). With such significant numbers, it is no surprise that the government has launched numerous schemes to enhance all aspects of the sector – from growing a robust supplier ecosystem to strengthening the talent pool, improving R&D capabilities and increasing productivity.

For example, October 2007 saw the launch of a government-led S$76-million Precision Engineering Manpower Initiative aimed at training 2,000 professionals over five years. As part of this initiative, in January 2010, the Centre for Digital and Precision Engineering was officially opened at Nanyang Polytechnic.

The 10-Year Precision Engineering Productivity Roadmap involves the injection of S$52 million to boost productivity in three broad ways – support industry transformation, enhance firm-level operational efficiency, and boost manpower development. The roadmap is aimed at tripling the value-add per worker from S$67,000 to S$178,000 by 2020\(^2\).

In line with the national effort to raise productivity, the government has also committed S$1.1 billion a year over the next five years in the form of tax benefits, grants and training subsidies to support national efforts to raise productivity\(^2\).

With the strong national support for precision engineering, and Ministry of Manpower figures that show healthy demand for workers in the sector, the prospects are bright. Yet, companies have reported difficulty in filling vacancies as candidates do not meet the prerequisites. Job openings for “Craftsmen & related Trades Workers”, for example, require both academic/vocational qualifications the equivalent of

\(^1\) EDB website, May 2012
\(^2\) Precision engineering factsheet, EDB website, May 2012
upper secondary school education or Institute of Technical Education (ITE) certification, plus working experience. Jobs like “Plant and Machine Operators & Assemblers” have less stringent criteria, with the majority requiring only lower secondary school education; experience is often not required.

**Low Interest, Low Demand**

With the perennial manpower shortage, many precision engineering-related positions are filled by foreigners who received training in their home countries. Chinese nationals, for example, would have attended training in centres such as Shanghai Modern Applied Technology Training Centre, Shanghai Sheng Ding CNC Mold Training Centre and Hubei Tianci College of Mold CNC Professionals. The training, which includes internship, is spread over 12 months and typically costs between S$1,960 and S$2,080. However, only the qualifications from Shanghai Modern Applied Technology Training Centre are considered on par with Singapore’s ITE certification. This means that workers from the other two centres do not qualify for jobs that demand higher academic/vocational qualifications.

As qualifications and experience are important in precision engineering, there appears to be some potential for local precision engineering companies to offer training or upgrading courses to foreigners who wish to work here, or are already working here. But real issues such as cost and demand need to be carefully studied before setting up the training facilities.

Foreign workers face a series of complex procedures and have to pay high fees to recruitment agencies before they eventually land, live and work in Singapore. A recent survey among Chinese foreign technicians reveals that most respondents felt that their existing qualifications were sufficient – even though they think higher qualifications will lead to promotions and higher salaries. The majority is not actively looking to obtain an ITE certification or its equivalent as firstly, there is little awareness of an ITE certification’s global recognition in technical jobs; secondly, the two-year course duration is too long; thirdly, the course is conducted in English, which poses a language problem, and lastly, a course fee of about S$9,000 is daunting.

With low demand for such training, there is little impetus for precision engineering companies in Singapore to establish their own training centres targeting foreign workers.

**More than Precise Results**

Prior to participating in the SME Consulting Programme, managed by UOB-SMU Entrepreneurship Alliance, CKE had reservations about engaging a team of undergraduates although the company is aware that the Project Adviser is an industry practitioner. “We took a leap of faith and the experience far surpassed our expectations,” said Mr Kwan Lifeng, Business Development Executive, CKE. He complimented the student-consultants’ “professionalism, enthusiasm, resourcefulness and pro-activeness which made this project a huge success. Moreover, the recommendations are very useful to our business as they provided us with 360-degree perspective of the business landscape”.

The lack of industry knowledge proved to be the major stumbling block for the student-consultants, followed by their lack of industry contacts to undertake the research survey. They overcame the initial setbacks by communicating closely with CKE and tapping on its networks. “We learnt to be true team players and gained valuable experience in the workings of the real world – including how to inform the client that their project was not feasible,” said a student-consultant.

Project Adviser Mr Steven Chan lent his expertise and experience throughout the project. He also encouraged the team to be “sure of your findings, and stand firm when you have to tell the client that they may be headed the wrong way”. After all, their findings are based on a methodological and scientific approach, which is a key tenet of the SME Consulting Programme.
Although the result was not what CKE had hoped for, the company’s satisfaction was clear. “We have not adopted 100% of the recommendations, but we have taken into account 100% of the recommendations in our plans, and will exercise due diligence in our execution of projects, and navigation of the business landscape,” said Mr Kwan, crisply… and precisely.

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