



“SMES MAY NEED TO JOIN FORCES TO AUGMENT THEIR RESOURCES AND SPREAD OUT THEIR RISKS, WHICH WILL ALLOW THEM TO BID FOR MORE PROJECTS AS WELL AS PROJECTS OF LARGER SCALE.”

– Tan Khay Boon (right), Senior lecturer, SIM Global Education



# BUILDING ON A STRONG FOUNDATION

BY VIVIEN SHIAO

SMEs in the construction industry are gearing up for a pickup in the property sector by investing in talent and technology

FOR the past few years, the construction sector has been languishing as the property market remained soft due to cooling measures that dampened demand. Small and medium-sized enterprises (SMEs) have been especially hard hit. As the pie continues to shrink, some smaller players have since bowed out amid cut-throat competition for tenders. Many SMEs have resorted to taking up jobs that are financially not viable just to keep busy.

But with the recent en bloc activity and the bringing forward of public sector projects, industry watchers believe that there is light at the end of the tunnel. However, recovery is not expected to take place so soon. While waiting for the sector to bottom out, construction SMEs are finding creative ways to make the most out of the situation. *The SME Magazine* looks at how firms are

gearing up for the big property pickup by investing in talent and technology.

## BAPTISM OF FIRE

Industry watchers concur that the last few years have been a baptism of fire for many businesses in the construction sector.

According to the Ministry of Trade and Industry, the construction sector shrank by 8.4 per cent in 2017, weighed down primarily by weakness in private sector construction work.

While observers are expecting the worst to be over for construction, SMEs in the sector still face considerable headwinds. Kenneth Loo, president of Singapore Contractors Association Limited (SCAL), says: “There is a time lag for the current en bloc and property market pickup to reach contractors, especially SME contractors that are further down the construction value chain.” He warns that it could be up to a year more before the effects of a pickup can be felt.

Darren Wee, head of project and development services at JLL Singapore, explains that SMEs make up a significant portion of the construction value chain, as main contractors, subcontractors, material and equipment suppliers and professional service providers. With less work to go around, they end up bidding aggressively for projects and end up with margin compression, he notes.

“This may result in increased performance risk, especially if certain aspects of service delivery are compromised in order to protect profit margins,” adds Mr Wee.

Increased competition from foreign entrants to the market is another headache. Jonathan Ho, head of enterprise at KPMG Singapore, says: “For major infrastructure projects, local SME participation remains low due to bigger local or overseas players coming into the fray.”

All these are on top of the usual problems such as labour costs, manpower shortage and uncertainty in project availability that SMEs are already plagued by, he adds.

The talent issue is another factor that could hinder a faster turnaround. “Most smaller SME construction companies are still stuck with recycled manpower . . . Most feel there is little they can do, especially to attract people such as engineers and have them continue to work in the construction industry,” observes Mr Ho.

Changes in government policies as well as the macroeconomic environment could also easily derail any fragile recovery that takes place. Senior lecturer at SIM Global Education Tan Khay Boon points out potential

challenges such as restrictions in land supply, further property cooling measures, as well as further interest rate hikes which will cause an increase in the costs of servicing property loans.

## LEVERAGING ON TECH

But even with the ongoing softness in the market and the obstacles encountered, there are SMEs that are flourishing despite the circumstances. Small, progressive builders such as CMC Construction and Unison Construction recently proved that they are able to hold their own against the big boys. They were recently recognised at the Building and Construction Authority’s Construction Excellence Awards for their capabilities in digital technologies and innovative solutions.

Goh Boo Kui, contracts director, Unison Construction, is frank about the limitations of SMEs: “Investing in productive technologies is never an easy decision to make for SME contractors, especially when it involves huge financial investments.”

But nonetheless, it decided to make the bold move in 2013 to invest S\$10 million in a 55,000 square foot factory in Tuas to embrace the concept of Design for Manufacturing and Assembly (DfMA) so that work can be done off-site as often as possible, he says.

The company also set up its Building Information Modelling (BIM) department two years ago to raise construction productivity. Moving forward, Unison is planning to focus on the greater use of digital technologies such as BIM and the virtual design and construction (VDC) process throughout the project lifecycle, says Mr Goh.

Similarly, CMC Construction’s managing director Loh Siew Khoon strongly believes in tapping into new technologies to improve construction processes instead of relying on the same old methods. “We are taking advantage of the lull period in the construction industry to gear ourselves towards a higher level of competitiveness and competency,” he says.

It is already renewing its fleet of machinery and equipment as well as training staff to meet future demand in the industry, especially on new project delivery approaches such as Prefabricated Prefinished Volumetric Construction (PPVC) and BIM technology adoption. In the past, BIM was used to assist in the company in building service co-ordination and visualisation of building models prior to construction, he explains.

“More recently, CMC has adopted BIM to assist us in cost estimation and facilitate asset management,” he says. It is now looking to run the firm’s projects on





◀ **TOWERING HIGH**

Small Singapore builder Unison Construction's residential project Thomson Three

▼ **ATTRACTING TALENT**

Jonathan Ho, head of enterprise at KPMG Singapore says that SMEs should pay attention to their branding strategy to attract a younger pool of talent from the Institutes of Technical Education as well as the polytechnics



of functions across the organisation, which is less possible in a larger and more structured company," he adds.

**IN THIS TOGETHER**

Another area that the government has been urging companies to work on is internationalisation. However, this is a more complicated pathway for construction SMEs to take. "Because construction is highly-regulated and 'localised' in nature, there are considerable challenges for SMEs to go beyond Singapore," explains Mr Wee. "Those that possess a distinct capability and expertise that is desired but not available in overseas markets will find it easier to move abroad."

Many of those that move to new emerging markets take the joint venture path with local partners to overcome licensing and other local business requirements, he observes. But he also notes that those who decide not to grow beyond Singapore can still operate as highly successful, profitable and sustainable businesses in the local market.

Even for businesses that do not intend to internationalise, collaboration can also be a potential solution for smaller players to grow. SIM Global Education's Dr Tan says: "SMEs may need to join forces to augment their resources and spread out their risks, which will allow them to bid for more projects as well as projects of larger scale."

With the construction sector on the cusp of recovery, construction companies are hopeful that the rest of the year will be an improvement from the last. But no matter which stage of the cycle the sector is at, firms say that it is about keeping a long-term view.

Rather than worry during the down cycle, Mr Goh says that the company's philosophy is to take this period to consolidate as well as to rethink and improve work processes. In addition to conducting workshops and lectures to embrace innovative thinking and a productivity mindset, build up capabilities of staff and workers through upgrading programmes and courses to prepare them for new challenges when the market recovers, he advises. ■

collaborative work platforms where all parties in a project team can work together on a cloud-based platform. This allows quicker dissemination of information and encourages efficient collaboration, he adds.

The firm is also testing out the use of virtual reality headsets to aid visualisation of mock-up models. It is hoped that this can facilitate in the selection process of materials and finishes, as well as shorten the overall decision making process.

**BUILDING UP PEOPLE**

Technology is a key aspect of boosting efficiency and productivity, but it is not enough. After all, it is the people who will be using the technology and coming up with the strategy to bring the firm to another level.

As QXY Resources' managing director Patrick Koh puts it: "If there is a way to train staff to obtain business for the company, I trust all bosses will like to do it . . . Good staff are our company's assets."

Unison's Mr Goh says that its workforce is constantly updating their skills through continuing education and training to stay competitive. "PMETs (professionals, managers, executives, and technicians) are consistently sent to courses in their respective fields to upgrade and learn new knowledge and skills to prepare them for future career progression and the future of construction," he adds.

About 47 per cent of Unison's construction workers are at the higher skilled (R1) level, which he says is four times higher than official requirements of at least 10 per cent.

CMC, Mr Loh says, has "intensified effort" to train key technical staff for relevant courses, in line with the productivity drive in the construction industry. The company believes that particularly in the construction

sector, people will feel more committed if they can provide higher value-added contribution to the project, he adds.

While many construction SMEs are still labour-intensive for now, those with foresight are leveraging on technology to cope with a shortage of manpower. For example, CMC is phasing out its traditional labour intensive work methodology and increasing purchase of mechanised equipment, particularly those that improve work processes, says Mr Loh.

But while a lack of fresh blood remains an issue, industry watchers suggest that companies take a proactive approach to build a pipeline of talent. KPMG's Mr Ho says that one way that SMEs can get around their manpower constraints is to pay attention to their branding strategy to attract a younger pool of talent from the Institutes of Technical Education as well as the polytechnics.

JLL's Mr Wee points out that while SMEs are less likely to succeed against large-sized local companies and international enterprises in the draw for talent, they can still offer a unique and equally rewarding career for many especially if they focus on their strengths. "Being smaller in size means they can be more agile, nimble to react to the market and allow their staff room to take on a variety

**"WE ARE TAKING ADVANTAGE OF THE LULL PERIOD IN THE CONSTRUCTION INDUSTRY TO GEAR OURSELVES TOWARDS A HIGHER LEVEL OF COMPETITIVENESS AND COMPETENCY."**

– Loh Siew Khoon, managing director, CMC Construction