

Cross-Border Engineering – Its Prospects and Challenges

by Ms. Reika Kua Kee Eng

THREE decades after its establishment, the ASEAN Federation of Engineering Organisations (AFEO) has finally achieved its full membership when Lao P.D.R. joined AFEO as its tenth member in September 2002. Comprising engineering institutions and organisations of ASEAN countries, this non-governmental body aims to promote goodwill and mutual understanding, as well as to create and develop common standards for the engineering profession with the objective of facilitating the mobility of engineers based in the ASEAN countries. Undeniably, AFEO has contributed towards promoting the mobility of our engineers within the ASEAN region and beyond.

However, apart from AFEO which focuses on the development of a regional framework for the practice of engineering within ASEAN, there are also other supporting organisations within the country itself which are involved in facilitating and promoting the globalisation of the Malaysian engineering industry. In order to take a closer look at some of the attributes as well as the prospects and challenges of cross-border engineering, *JURUTERA* recently interviewed three prominent personalities from both the government and private sectors, namely Dr Wong Lai Sum, the Chief Executive Officer (CEO) of Malaysia External Trade Development Corporation (MATRADE), Y.Bhg. Dato' Ir. Dr Dennis Ganendra, Director of Minconsult Sdn Bhd, and Ir. Ahmad 'Asri Abdul Hamid, the Senior General Manager (SGM) of the Chief Executive Office and Corporate Division of Construction Industry Development Board Malaysia (CIDB) to obtain their views and observations on the export of Malaysian engineering services.

ROLE OF AFEO IN GLOBALISATION OF ENGINEERING SERVICES

AFEO has played an important role in helping Malaysian firms embrace globalisation and take on the challenge openly. "It has done that through its active involvement in promoting cross-border engineering such via the Mutual Recognition Arrangements (MRAs) and now the ASEAN Engineers Register (AER) – very

important steps towards liberalisation of the industry," said Dato' Ir. Dr Ganendra of Minconsult Sdn Bhd, an established Malaysian engineering consultancy firm that has carried out projects in over 20 countries. According to him, the AER plays a significant part in setting a framework towards globalisation and in openly addressing the issues of globalisation.

"The most important fact is that globalisation has already hit us," Dato' Ir. Dr Ganendra remarked, "and even before AFTA, there were already a lot of international firms which have been openly operating in this region and they work their way around the local legislation by having a clever, proper structure." Subsequent to this development, AFEO serves as an important avenue where engineering issues within the region can be openly discussed. "It's a very good platform for regional consultants and engineers to meet up – a good networking opportunity for us, not just working on projects within our region, but also for project collaboration outside the region," emphasised Dato' Ir. Dr Ganendra.

THE MAJOR CHALLENGES AND ISSUES

According to the CEO of MATRADE, Dr Wong Lai Sum, the global market is a complex environment comprising of contractual, technical, legal, social and political factors, and every country has its own rules, and in terms of its domestic legislation, more often than not, it is tied towards protectionism and promotion of local companies and entities. Hence, it is inevitable that Malaysian engineers will have to compete and identify their risks, especially when they plan to venture into a foreign market.

"To optimise market entry, the challenge is to assess and define clearly the mechanism for successful bidding and executing projects in different markets. Because of these issues, some engineering companies may feel that they prefer doing business locally rather than exporting," said Dr Wong. She added, "Convincing our local companies to export their expertise abroad is another challenge to us at MATRADE and this may be attributed to



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Y.Bhg. Dato' Ir. Dr Dennis Ganendra, Director of Minconsult Sdn Bhd



Ir. Ahmad 'Asri Abdul Hamid, Senior General Manager of the Chief Executive Office and Corporate Division of Construction Industry Development Board Malaysia (CIDB)

two points – talk of soured deals abroad or that Malaysia already has a lot to offer, in terms of business opportunities.” She continued, “To address this situation, I think we should hold continuous discussions with the engineers to better understand their needs. By doing so, we can help tailor our programmes according to their requirements.”

Dato’ Ir. Dr Ganendra remarked that the basic challenge is that international projects have to be based on the market forces. “Malaysian engineers have to be of a sufficiently high quality topped with pricing at a reasonably rate, to be able to compete internationally with foreign engineers”. In the long run, Dato’ Ir. Dr Ganendra strongly believes that constant upgrading of the quality of our engineers is the key to sustaining the competitiveness of Malaysian engineers in the international arena. Additionally, keeping abreast with the current developments in technology is as crucial amongst Malaysian engineers as maintaining their qualifications to keep up with the challenges of the international market. According to Dato’ Ir. Dr Ganendra, financial assistance offered by the Government or related organisations could work as a short-term measure to help kick-start Malaysian companies with their ventures abroad.

THE NEED TO DEVELOP COMPETITIVE ADVANTAGE AND DELIVER VALUE

On the other hand, the Construction Industry Development Board Malaysia (CIDB) pointed out some equally pressing concerns involving the cross-border construction and engineering industry. Malaysian firms are advised to only venture in a foreign soil when they are fully prepared and well-equipped. According to Ir. Ahmad ‘Asri, the SGM of the Chief Executive Office and Corporate Division of Construction Industry Development Board Malaysia (CIDB), the major challenge faced by CIDB and the now defunct Professional Services Development Corporation (PSDC) in promoting the export of professional services is the absence of a clear competitive advantage of Malaysian firms over their foreign counterparts.

Malaysian consultancy firms are at a disadvantage in terms of size and resources since most of them are small businesses, comprising sole proprietors. These individual companies do not have the scale or the resources to be competitive overseas. “A recent example is when an international tender by the Brunei Economic Development Board was made available only to companies with an annual turnover of RM250 million. Very few Malaysian firms are able to comply with this condition,” said Ir. Ahmad ‘Asri.

He added, “Furthermore, most consultancy firms are generalists and do not possess specific areas of specialisation. The major contributing factor is that most clients do not practice quality-based assessment when procuring the services of the consultancy firms. At best, firms are awarded jobs on rotation and paid according to some predetermined scale of fees. Most, however, are selected based on their low bid offering which in the end will significantly reduce their margins.” Ir. Ahmad ‘Asri said that



Some of the country guides that are available from CIDB

such conditions and the uncertainty in securing further jobs would consequently reduce the aspiration of these firms to grow in terms of size and resources.

Similarly, most local firms are not driven to become specialised since opportunities for specialised jobs may be limited. “Local firms also lack exposure in managing international contracts, in particular FIDIC contracts. Full understanding of FIDIC and other contracts used internationally is necessary to appreciate the full implication of contractual obligations.” He continued, “Failure to do this could result in undue disputes and litigation which can be both lengthy and costly. Professionals need to develop expertise in understanding, designing, formulating and managing an international contract.”

Conversely, Ir. Ahmad ‘Asri acknowledges that many Malaysian consultancy firms do possess world-class capabilities. He said that a number of Malaysian firms have excelled and secured prestigious as well as iconic projects both locally and abroad. “It is imperative that more Malaysian consultancy firms be encouraged to take the bold step of venturing abroad,” added Ir. Ahmad ‘Asri.

He suggested a few measures to counteract the above challenges, firstly through the planned and systematic creation of large construction firms specialising in strategic areas, through smart mergers and acquisitions. He further elaborated that sufficient opportunities should then be provided for the large and merged entities to excel domestically, build up the necessary branding and then to venture in overseas. “Additionally, clients should be encouraged to procure construction-related services through a mechanism which promotes value rather than relying purely on cost. This quality-based approach which is routinely applied by international agencies like the World Bank and Asian Development Bank has proven to deliver long-term value to clients” emphasised Ir. Ahmad ‘Asri.

THE BENEFITS OF VENTURING ABROAD

Dato’ Ir. Dr Ganendra believes that undertaking projects in overseas countries has a number of benefits. He explained,

“Firstly, it offers an additional income stream to the company, and typically is it quite a profitable venture. Secondly, it’s also a way of diversifying risks. If there’s a downturn in Malaysia, at least your overseas projects can keep you going.” He further elaborated that venturing into an international project is also a way of keeping abreast with the cutting-edge, and one would be exposed to a lot more advanced technologies and contemporary engineering issues, which would help keep one at the highest pinnacle in the industry. According to Dato’ Ir. Dr Ganendra, it also serves as an avenue for engineers to further develop themselves. “Last but not least, it’s all about branding, whereby your company will be branded as an international consultant firm, not just a Malaysian firm,” said Dato’ Ir. Dr Ganendra.

Ir. Ahmad ‘Asri also has similar opinions on going global. He said that participating in international ventures is a natural avenue for a consultancy firm to grow and expand its business and provide greater return to its shareholders. “A firm can significantly enhance its capacity and capability through exposure to new cultures, environments, practices, methods and technologies in the international market.” He continued, “A firm can spread out the risks due to fluctuation in demand in the home market by expanding its market overseas. Besides, international ventures can enhance a firm’s track record, reputation and branding, and hence, become much more competitive and highly sought after”.

From MATRADE’s perspective, Dr Wong said that there are many benefits in exporting one’s services. She briefly stated some of the main benefits of undertaking projects overseas. “Exporting helps leverage your unique product or service by increasing your customers’ base beyond Malaysia, resulting in economies of scale. It also offers exposure to new technologies, ideas, and business processes. Obviously, this would help to enhance knowledge and increase your competitiveness.” On top of that, she believes that by dealing with different customer requirements, markets and cultural environments, one is forced to boost productivity, skills and innovation.

Despite various benefits of embarking on international projects, Dr Wong also cautioned that it is never always a bed of roses for the local companies to succeed in these undertakings. “However, the export world is not everybody’s game. It is important to check whether your business is ready and to be sure that you understand exactly what exporting entails before you start. Exporting consumes time and money, and it requires strong management and commitment.” She added, “To achieve success in export,

proper planning and strong execution as well as control over your business is essential. You cannot let the business control you.”

INITIATIVES TO PROMOTE CROSS-BORDER PROJECTS

MATRADE offers the “Market Development Grant”, a scheme that is introduced to assist the small and medium enterprises (SMEs), service providers, cooperatives, trade and industry, associations, chambers of commerce and professional bodies in undertaking export promotional activities. Companies can apply for a reimbursable grant on the eligible export promotional activities undertaken.

“We help promote Malaysia’s export to the world. Our tools come in various forms – international trade fairs, focused missions and we also have high-level programmes where the Prime Minister or Minister would be leading the business missions overseas. Apart from that, we also provide market consultation through seminars, talks and consultation sessions as well as market intelligence received

through our network of offices overseas,” explained Dr Wong. She continued, “However, before we organise any programmes, consultation is done with the service providers in order to properly understand their needs.”

Meanwhile, CIDB also plays an important role in stimulating, assisting and promoting the export of Malaysian construction services. For these, CIDB highlights and promotes Malaysian construction expertise and capabilities to the global market through missions and visits, seminars and conferences, as well as through exhibitions and publications. Additionally, CIDB assists and facilitates Malaysian construction services firms in venturing abroad by collecting and disseminating information on international markets and business opportunities, performing market research and provide assistance in building up relationships with host countries.

On top of that, CIDB also helps identify suitable Malaysian players and potential partners for a project and promote partnerships amongst these players and the foreign firms. CIDB also strives to promote and facilitate the export of construction services in an integrated manner, involving consultants, contractors and developers. According to Ir. Ahmad ‘Asri, the Malaysian Government does provide double tax deduction benefits for promotion of export of professional services. Among other incentives, it allows deduction of costs of feasibility studies, tender preparation, market research, and participation in trade exhibitions.

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IMPACTS OF THE ECONOMIC TURMOIL IN EUROPE

Given the unfavourable economic conditions prevailing in America and Europe which have begun to affect the rest of the world, the interviewees generally agree that this could have an impact on the engineering and construction industry.

“However, Malaysian professional service providers are less likely to be affected by the slowdown in USA and Europe since these are not the traditional markets for Malaysian professionals. Nevertheless, the economy of the rest of the world will have some bearing on what is happening in the USA, Europe, China and Japan. Hence, indirectly, there could be fewer opportunities in some of the more affected countries,” commented Ir. Ahmad ‘Asri. He carried on, “However, there are countries which will continue to grow despite what is happening to the major economies. Myanmar, Indonesia and India will continue to receive foreign investment to develop and modernise their infrastructure”.

Ir. Ahmad ‘Asri further explained that in an economic downturn, the competition for overseas works is likely to become more severe and cost would be a major factor. He added, “Companies capable of offering a total solution at a reasonably competitive price will be sustainable. Of course, with modern technology, Malaysian consultant firms would still be able to provide the necessary design services to multi-national companies without leaving home. However, in the longer term, domestic investment in building and infrastructure projects must be increased to enhance the sustainability of Malaysian firms”.

Dr Wong of MATRADE had a slightly different view on this issue. She explained, “Obviously at a glance, it will look as if there will be lesser opportunities for us. Yet, if America and Europe do not present any more opportunities to us, then let’s shift our market focus to those countries closer to home – Let’s try ASEAN!” Thus, she urged businesses in ASEAN countries to take advantage of the economic integration within the region with the formation of the

ASEAN Economic Community (AEC) by 2015. By doing so, bi-lateral trade between the member states could be improved. Dr Wong added, “Another option would be to take advantage of the Brunei-Indonesia-Malaysia-Philippines East ASEAN Growth Area (BIMP-EAGA) cooperation framework to expand economic ties between Malaysia and the countries involved”.

BUILDING A STRONG AND DEDICATED TEAM

Dato’ Ir. Dr Ganendra cautioned owners of local firms to remember that the contribution of their employees is as important as the other factors mentioned above. “Success of our overseas ventures is also attributed to the commitment of our staff who often have to make big sacrifices for us to achieve our international aspirations,” remarked Dato’ Ir. Dr Ganendra. “It is mainly due to their contribution that we have become one of Malaysia’s largest multi-disciplinary engineering consultancies, and will soon be celebrating our 50th anniversary in December 2012.” He also advised local firm owners to offer remuneration that is actually commensurate to the qualifications and efforts of their employees. Dato’ Ir. Dr Ganendra believes that only by building a team of staff who are committed and passionate about their careers could help the company to prosper in projects both locally and internationally.

Dato’ Ir. Dr Ganendra suggested that local firms should perform an independent assessment as to whether it would be safe to deploy their staff to work in a particular state or territory, especially if it is involved in armed conflicts. “If it is determined that a state or territory is safe for a company’s director to work in, then it follows that it would be safe to send your staff to work there,” said Dato’ Ir. Dr Ganendra. He also reminded local firms not to neglect the insurance coverage when operating abroad.

EVALUATING AND MANAGING RISKS

According to CIDB, companies which have done the necessary groundwork before deciding to go abroad tend to succeed in their overseas ventures. Experience gained from undertaking domestic projects in specific areas also helped these companies to succeed. Forming the right partnership with the right partners would ensure seamless project execution. However, there would be more risks inherent in overseas projects due to the more unknown variables.

Hence, Ir. Ahmad ‘Asri cautions companies who wish to go overseas to first identify the risks and put in mitigation measures. “Learning from similar experience by others should be part of the learning process. For companies who fully understand the market that they are venturing into are less likely to experience losses and problems of delivering. And staying within one’s area of expertise in trusted markets is a good way to start. Foreign currency issues such as the impact of interest and exchange rate fluctuations ought to be clearly understood.”

Ir. Ahmad 'Asri advises, "Firms should also get good and reliable local partners and they should consider venturing in groups, perhaps in the form of consortiums to share the risks. By adopting this strategy, firms can also enhance their overall capabilities and competitiveness through complementary strengths and resources".

"In choosing your business partners, ensure that you do enough due diligence before going into any partnerships. Go the extra mile by having any agreements or deals properly recorded to save potential headaches later on. You may want to consider hiring a lawyer to act on your behalf," added Dr Wong.

Dato' Ir. Dr Ganendra recommended that Malaysian firms need to be upfront with their potential clients when it comes to the payment terms and schedule. "Local firms need not be embarrassed to ask for advance payment, as this is very common among international firms," asserted Dato' Ir. Dr Ganendra.

FUTURE PROSPECTS OF CROSS-BORDER ENGINEERING

When asked about the prospects of cross-border engineering in the near future, the CEO of MATRADE replied, "Climate change and global warming is encouraging more and more governments towards having a cleaner and greener environment. Research and development in the engineering sector, be it in the infrastructure, building or manufacturing sectors, are geared towards "renewable" and clean technology." Hence, Dr Wong states that services related to green technology and environmental awareness such as renewable energy, recycling, waste disposal and water treatment would have better prospects in future.

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Ir. Ahmad 'Asri of CIDB also agrees with Dr Wong on this aspect and he corroborates, "Firms specialising in new areas of concern, particularly environmental sustainability and green technology are likely to derive greater benefits. Correspondingly, rail-based network transportation and logistics, which are acknowledged to be highly energy-efficient, will find greater support and acknowledgement from most governments".

He further asserted that the market structure would likely change and become more globalised, providing bigger opportunities for Malaysian firms. Likewise, the Malaysian market would be open to overseas competitors as well. "However, embracing globalisation and liberalisation will create its own domestic and internal challenges. Countries may have the need for domestic protection in key industries. They will also need to invest in building greater capacity and capability in order to compete in a liberalised environment," expressed Ir. Ahmad 'Asri.

Dato' Ir. Dr Ganendra viewed globalisation as a process that is not stoppable. "Cross-border engineering will inevitably increase with time. In some extreme cases, everything will be done over the internet. For instance, some transmission line design undertaken by us in North America is done via the internet. They sent us the data, we came up with the design, which we then uploaded back onto the internet so that they could view it," he said. He also suggested, "Malaysian engineers should pitch themselves not as a cheap engineering workforce, but as a high level international workforce. Hence, we should look at the top-end sophisticated work that is available, not the basic engineering work. We should be able to compete against major engineering firms from the advanced countries when bidding for projects abroad". ■

