

## Chapter 2

# Entry Location Strategy: Development of Entry Location Model (ELAC) for Malaysian Construction Firms in International Markets

Norizzati Ibrahim<sup>1</sup>, Che Maznah Mat Isa<sup>1</sup>, Christopher Nigel Preece<sup>2</sup>,  
Nur Kamaliah Mustaffa<sup>1</sup> & Nur Izzati Abd Rani<sup>1</sup>

<sup>1</sup>Faculty of Civil Engineering, Universiti Teknologi MARA Pasir Gudang

<sup>2</sup>College of Engineering and Computer Science, Abu Dhabi University

*norizzati\_ibrahim@yahoo.com.my*

### ABSTRACT

The construction industry plays a major and important role in transforming the Malaysian construction industry to the international level apart from the domestic level. The construction industry in Malaysia consists of over 8,000 companies registered under Grade 7 with CIDB but, only a few numbers of firms which is about 59 firms (0.74%) have been involved in international market. In reality, entry location decision involves complex factors that are needed to be considered by these firms prior to their international operations. Hence, this paper focuses on a preliminary study to develop an entry location strategies namely Entry Location Assessment Criteria (ELAC) based on Malaysian construction firms sustained in international markets. Based on a secondary data provided by Construction Industry Development Board (CIDB, 2019) Malaysia, presently there are twelve (12) firms that are currently operating in international markets. In this study, a set of dimensions of ELAC were identified and established using a Five-point Likert scale. Hence, based on the ELAC scores, three (3) firms were ranked as the top construction firms that have sustained in their international operations in various locations. The findings indicate that the top three (3) firms which scored more 50% are: (1) Sapura Energy Berhad (66%), (2) Gamuda Berhad (53%) and Sime Darby Berhad (50%). The results found that the top 3 higher ranking firms run their project in both Asean and non-Asean countries. These firms have made entry location decisions to developing countries, least developed countries, newly industrialised countries, developed countries and highly developed countries. This study benefits the Government's intention to enhance 'Capacity Building' of construction players on their level of preparedness due to the Trans-Pacific Partnership Agreement (TPPA). This assessment model is also useful especially for construction firms who are just beginning to explore foreign business opportunities or for global players who are expanding geographically to new markets.

**Key Words:** assessment criteria, construction firms, entry location, international markets

**1. BACKGROUND OF STUDY**

Over the years, Malaysia has attracted a good deal of well-known worldwide companies from overseas like from Korea, Japan, United States, Australia and others (Aishah, Hamdan and Adnan, 2008). According to Schwab (2015), Malaysia among the world's top 20 most competitive economies and is ranked the highest among developing countries in Asia. However, in construction industry situation reveals that moves towards international marketplace face a higher risk than the local markets. Furthermore, according to Bris (2018), Malaysia's performance shows a recovery sign in 2018, at 22nd position among other countries after experiencing 3 years of consecutive declines (year 2017, 2016 and 2015). Therefore, understanding the foreign market entry strategy is critical to achieve sustainable business growth in foreign country.

International construction is generally defined as where a firm, resident in one country, executes construction work in another country, and has traditionally implied companies from least developed countries and advanced industrialised company. However, globalisation defined as an ongoing process, which generates new ideas, practices, competition, values, identities and movement (Gunnarson, 2011). According to Mat Isa, Mustafa, Mohd Saman, Mohd Nasir and Che Ibrahim (2012), globalization has provided an enormous opportunities and demand of development worldwide such as the charting the strategic and future planning of the Malaysian construction industry; and Construction Industry Transformation Programme (CITP 2016-2020). However, this efforts made by the industry to increase the involvement of local contractors to foreign market have been futile. In the primary stage of the current study, according to CIDB (2019), Malaysia statistical record indicates that out of 8023, Grade 7 construction firms, only 59 (0.74%) firms have been involved in international market. That amount was reducing about 1.5% compare to data recorded in 2013 (Mat Isa, 2016). Therefore, the purpose of this research is to identify the market selection and entry-location strategies by firms in international markets. This paper is organized by four sections. The first section presents a conceptual framework and discussion of market selection and market entry literature. The second section reports the method used. The third section discusses the general findings of the market selection based on ELAC assessment. The final section provides a general discussion of the research findings and limitations.

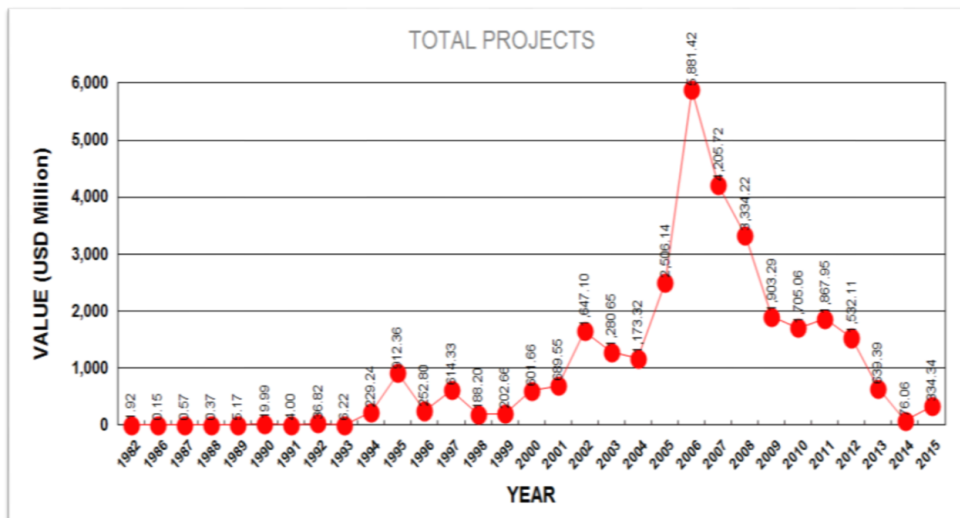


Figure 1.0: Total of International Construction Project by Malaysian Contractor (CIDB, 2019)

**2. LITERATURE REVIEW****2.1 International Market Entry Decision**

The issue of international market entry decisions by construction firms is of on-going concern in construction industry as a response to the political, environment, financial, and economic concerns (Preece, Mat Isa, Mohd Saman, & Che Ibrahim (2016); Abdul Rashid, Awil, and Yi (2006); Mat Isa, Adnan & Endut (2006); Loo & Abdul Rahman (2012); Low, Abdul-Rahman, & Zakaria (2015) although this issue has been attracting the attention of practitioners and researchers since the 1990s (Abdul-Aziz, 1993; Agarwal & Ramaswami, 1992). As this study only focus on entry-location decision strategy, several questions of interest to both researchers and practitioners will be increasingly asked including: “What are the factors that influence the firm’s decision in choosing the location?” and “Where the markets with potential are?”

**2.2 Country Classification**

This study is different from previous study, where the studied conducted through descriptive analysis by Chen (2005) and Lim, Oo and Ling (2010) by categorising the firms’ countries choices into ASEAN region, non-ASEAN region and both regions and Tiong & Yeo (1993) classify the ASEAN countries into rapidly developing countries. However, the data obtained in this study by classifying the firms’ decision factor in international business locations according to developing countries, least developed country, newly industrialised countries, developed countries and highly developed countries as tabulated in Table 1.

Table 1: Country classification

Country classification	Type of Scale
Developing country, least developed country, newly industrialized country, developed country and highly developed country	Categorical: 1=Developing Country (Wn) 2= Least Developed Country (WI) 3= Newly Industrialized country (Wy) 4= Developed Country (Wd) 5= Highly Developed Country (Wh)

**2.2.1 Developing Country**

Developing countries are often classified as those with a low living standard, an under-developed industrial base, and a low Human Development Index (HDI) relative to other countries with more advanced economies (Kuepper, 2018). A developing country is generally based on that country’s annual per capita income (Brambila et.al., 2017). According to the World Bank (2019), for the current 2019 fiscal year, the developing country’s annual per capita income can range from low-income economies as those with a GNI per capita, calculated using the World Bank Atlas method, of US\$995 or less in 2017; lower middle-income economies are those with a GNI per capita between US\$996 and US\$3,895; upper middle-income economies are those with a GNI per capita between US\$3,896 and US\$12,055; high-income economies are those with a GNI per capita of \$12,056 or more. List of developing countries are Afghanistan, Benin, Burkina Faso, Burundi, Central African Republic, Chad, Comoros, Congo, Dem. Rep Eritrea, Ethiopia, Gambia, The Guinea, Guinea-Bissau, Haiti, Korea, Dem Rep. Liberia, Madagascar, Malawi, Mali, Mozambique, Nepal, Niger, Rwanda, Senegal, Sierra Leone, Somalia, South Sudan, Tanzania, Togo, Uganda, Zimbabwe, Angola, Armenia, Bangladesh, Bhutan, Bolivia, Cabo Verde, Cambodia, Cameroon, Congo, Rep.Côte d'Ivoire, Djibouti, Egypt, Arab Rep.,El Salvador, Yemen, Rep. Zambia, Vanuatu, Vietnam, Uzbekistan, Georgia, Ghana,

Guatemala, Honduras, India, Indonesia, Kenya, Kiribati, Kosovo, Kyrgyz Republic, Lao PDR, Lesotho, Mauritania, Nigeria, Pakistan, Papua New, Ukraine, Sudan, Swaziland, Syrian Arab Republic, Tajikistan, Timor-Leste, Tunisia, Micronesia, Fed. Sts., Moldova, Mongolia, Morocco, Myanmar, Nicaragua, Guinea, Philippines, São Tomé and Príncipe, Solomon Islands, Sri Lanka, West Bank and Gaza (Materials Research Society, 2019).

### **2.2.2 Least Developed Country**

According to Department of Social Economic and Social Affairs (2019), least developed countries (LDCs) define as a low-income countries confronting severe structural impediments to sustainable development. There are currently 47 countries on the list of LDCs including Afghanistan, Angola, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, South Sudan, Sudan, Timor-Leste, Malawi, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Togo, Tuvalu, Uganda, United Republic of Tanzania, Vanuatu<sup>5</sup>, Yemen, Zambia, Comoros, Democratic Republic of the Congo, Djibouti, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia and Madagascar which is reviewed every three years by the Committee for Development (CDP).

### **2.2.3 Newly Industrialised Countries**

Newly industrialized countries (NICs) is an economic classification that can define this group of countries, which are still developing but are closer to achieving the goal to be stronger developed market country. This includes technology enterprises, manufacturing, and other industries that bolster the economic activity of the region. The countries falling under this categorization are characterized by rapid export-driven economic growth and a secular migration of workers from rural to urban areas. Countries that are classified as NICs have rapid export-driven economic growth and a migration of workers from rural areas to urbanized regions. There are a several nations that are currently categorized as NICs such as Brazil, China, India, Indonesia, Malaysia, Mexico, Philippines, South Africa, Thailand and Turkey (World Population Review, 2019). According to Kuepper (2018), newly industrialized countries or NICs are important markets for international investors.

### **2.2.4 Developed Countries**

According to Cheprasov (2019), Developed countries are characterized by comparatively high standards of living as their economies tend to be more stable and prosperous than developing nations, which, in comparison, have less industrialization, higher population growth, and higher unemployment. Many developed nations are also known for a lot of technological innovation. Investopedia (2016) stated that even the country exceeding the \$12,000 GDP does not automatically qualify a country as being developed. There are seven (7) countries classified under developed country such as Brazil, Chile, Greece, The Netherlands, Spain, Sweden and Taiwan.

### **2.2.5 Highly Developed Countries**

In this study, highly developed countries (HDC) define as the world's leading industrialized nations. HDC consists of the seven biggest developed economies in the world including Canada, Japan, France, Germany, Italy, United Kingdom and United States (DPAD 2014). France is a developed country and has one of the world's largest economies (Investopedia, 2016). While at US\$39,678, its GDP per capita is a bit lower than other European nations such as Germany and Switzerland. Italy is a developed nation with extensive infrastructure,

a rich cultural history and control over several exports. Italy has the eighth-highest nominal gross domestic product (GDP) in the world at US\$1.16 trillion; its per capital GDP stands at US\$35,896. Italy's manufacturing industry is very well-developed, and it is ranked sixth in the world.

### **2.3 Development of Entry Location Assessment Criteria Model**

Entry location decision integration involves choosing the right location to enter international markets. There is a need for an effective entry location decision practice over the lifecycle of construction firm strategic planning to enhance the continuity of the entry location decision towards organizational performance. However, only a few studies focused on developing a systematic framework to measure entry location decision. In response to this need, an assessment model for measuring entry location decision integration will be developed. In addition, past efforts have only focused on subjective assessment with little empirical evidence of assessing entry location decision integration. The dimension used in this study is types of country. Five (5) different measures have been identified from previous models, based on types of country namely: developing country (Wn), least developed country (Wl), newly industrialized country (Wy), developed country (Wd) and highly developed country (Wh). As a result, Entry Location Assessment Criteria (ELAC) has been developed based on identified measurement.

## **3. METHODOLOGY**

Previous study shows there have been many articles published on international entry decision strategies, which makes reviewing all of the empirical studies very difficult work. Owing to this, this study focused on the sampling frame based on (CIDB, 2019) which recorded that 59 firms registered as International players. The target population is from Malaysian construction firms who are undertaken and completed projects in international market in various fields including buildings; power transmission and plant; oil and gas and also mechanical and electrical basic. However, out of 59 firms, only 12 firms were found still actively operating construction projects in international market in 2019. After classifying the secondary data derived from CIDB record, assessment of the level of ELAC from all finalized 12 active firms were generated. The value of the decisional framework will be measured based on "decision location quality". Decision quality is a function of the independent variable decision tools for each company and then calculated by using the 5 point scale as separated into different type of location category.

## **4. ANALYSIS AND DISCUSSION**

### **4.1 International Experience of Malaysian Contractors**

For this preliminary study, a review of the number of international experience of the 12 contractors identified some potential dimensions for measuring the level of contractors' sustained international by entry location assessment criteria (ELAC) such as UEM Sunrise Berhad (Firm A), Sapura Energy Berhad (Firm B), Sime Darby Berhad (Firm C), MRCB Berhad (Firm D), Gamuda Berhad (Firm E), Bina Puri Holdings Bhd (Firm F), IJM Construction Sdn. Bhd (Firm G), Zelan Construction SDN BHD (Firm H), WCT Construction Sdn Bhd (Firm I), Nakano Construction SdnBhd (Firm J), Jetson Construction Sdn Bhd (Firm K) and Chase Perdana Sdn Bhd (Firm L)

**4.2 Development of Entry Location Assessment Criteria (ELAC)**

The ELAC score for each company is calculated by using the 5 point scale as separated into different type of location category as mentioned in Table 2. The formula adopted to determine the ELAC score is as follows:

$$ELAC = 2Wn+3WI+4Wy+5Wd+6Wh$$

The preliminary analysis based on secondary data provided by CIDB has identified five (5) dimension of strategic location namely; (1) developing country; (2) least developed country; (3) newly industrialized countries; (4) developed country ; and (5) very developed country as shown in Table 1.

The score for each dimension are based on five-point likert scale, as shown in Table 2. The construction firms were then ranked based on weightage score given by five dimensions namely; developing country (Wn); least developed country (WI); newly industrialized countries (Wy); developed country (Wd); and very developed country (Wh). Other descriptive statistical analysis techniques such as the mean values are also calculated based on the level of scale for each dimension.

Table 2: Location Assessment and Scale for each Dimension

Dimension 3(Country Types)	Developing Country (Wn)	Least Developed Country (WI)	Newly Industrialized country (Wy)	Developed Country (Wd)	Highly Developed Country (Wh)
Scale	1	2	3	4	5
Wn	0	1-2	3-4	5-6	>6
WI	0	1-2	3-4	5-6	>6
Wy	0	1-2	3-4	5-6	>6
Wd	0	1-2	3-4	5-6	>6
Wh	0	1-2	3-4	5-6	>6

The ELAC score as shown in Table 3 is the summation of the weighted dimensions; where the coefficient is the individual weighting calculated based on data provided by the selected firms. An example of the ELAC score for Firm A (UEM Sunrise Berhad) is as follows:

$$ELAC (Firm A) = 2Wn+3WI+4Wy+5Wd+6Wh$$

$$=2(1)+3(1)+4(2)+5(2)+6(2)=\underline{\underline{35}}$$

ELAC scores formula generates ranking for 12 firms based on weightage scale. Result also shows the descriptive statistics presented by the mean values for each indicator contributing ELAC scores through identifying the key player of international Malaysian contractors as to increase number of involvement for other company in international level. Hence, top firm's position can be determined based on the set assessment criteria in order to improve and increase performance in foreign projects.

Table 3: ELAC score for year 2019 (N=12) with mean assessment criteria  
Weightage for each location assessment

	Weightage for each location assessment					ELAC Score (%)	Ranking	EL Decision
	2Wn	3WI	4Wy	5Wd	6Wh			
Firm A	1	1	2	2	2	35		2
Firm B	2	1	5	3	4	66	1	2
Firm C	3	3	2	3	2	50	3	2
Firm D	1	1	1	1	2	26		1
Firm E	2	3	3	2	3	53	2	2
Firm F	2	2	3	2	2	44		2
Firm G	2	1	3	2	3	47		2
Firm H	1	1	2	1	3	36		2
Firm I	1	1	2	1	3	36		1
Firm J	1	1	1	1	2	26		1
Firm K	1	2	1	1	1	23		0
Firm L	2	1	1	2	2	33		2
Mean	1.58	1.50	2.17	1.75	2.42	39.58		

Table 3 shows only three (3) firms have scored more than 50% which are Sapura Energy Berhad (66%), Gamuda Berhad (53%) and Sime Darby Berhad (50%) which means the company is heavily involved in projects in highly developed country. The findings also show the lack of firms' involvement in project located in highly developed country. However, results found that the top 3 higher ranking firms run their project in both region countries. In addition, the findings in Table 4 found the readings are below three (3) out of five (5) based on Likert Scale which it meant the poor involvement of Malaysian firms in international project.

Table 4: Mean Score for each dimension based on ELAC Scores for year 2019

Dimension	Coefficient (corresponding weighting)	Weighted Mean Score	Mean for each dimension
Wn	2	31.6	1.58
WI	3	30	1.50
Wy	4	43.4	2.17
Wd	5	35	1.75
Wh	6	48.4	2.42

## 5. CONCLUSIONS

This study has established a few dimensions related to location using measurement scales to assess the contractor success in international market by conducting analysis based on secondary data provided by CIDB Malaysia. The assessment criteria have enabled the identification and ranking of the most experienced and sustained international contractor in Malaysia. Hence, the development of the assessment scales will help local contractors and CIDB to assess the level of contractors' sustained in international level as well as to improve performance in international markets. The outstanding achievements by world-class firms winning project contracts globally will show a good value to local Malaysian construction firms in the construction industry.

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