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## Malaysian Construction Sector and Malaysia Vision 2020: Developed Nation Status

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### Abstract

Malaysian economy has to perform efficiently and to play effective role in making true the dream of developed nation status. This study examines the role and performance of construction sector of Malaysia during the last two decades of Vision 2020 i.e. 1991 to 2010. The time series data over the period 1991-2010 for construction sector and economic growth of Malaysia is obtained from statistic department Government of Malaysia. The results exhibit that there is a strong correlation between construction sector and economic growth of Malaysia. The construction sector has been playing a significant role in aggregate economy of the country in term of its contribution to revenue generation, capital formation and employment creation which ultimately support the gross domestic product (GDP) and the socio-economic development of Malaysia. Considering the substantial role of construction sector in economic development of Malaysia, it is necessary for Malaysia government to give due attention and focus on construction sector for qualifying the title of developed nation.

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### 1. Introduction

The Federation of Malaysia was established in 1963 after getting independence from British rule. Initially it was comprised of Malaya, Sarawak, Sabah and Singapore. In 1965 Singapore was separated from the federation and became an independent state because of internal political conflicts. Present Malaysia known as Peninsular Malaysia consists of east and west part. It is regarded as one of the most successful non-western countries that has achieved a very smooth and gradual transition to modern economic growth at the end of 20th century. By the year 1990 Malaysia had achieved the status of Newly Industrialized Country (NIC) and now it is the 37th largest economy in the world according to gross domestic product (GDP) at current prices US dollars. In February 1990, the former prime minister Tun Dr. Mahathir Mohummad introduced a vision for the strong industrialized economy and modernized Malaysia. He defined clear crystal path for making Malaysia a developed nation not only in an economic sense but also in terms of social justice, political stability, system of government, quality of life, social and spiritual values, national pride and confidence. This vision is known as Malaysia Vision 2020. The main

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objective of this vision to transform Malaysia into prosperous, competitive, dynamic, robust and resilient country by the year 2020. In this regard the construction sector can play a significant and effective role because of its dynamic nature and extends backward and forward links with other sectors of economy. This is the sector which provides the socio-economic infrastructure for industrial growth and production and basic amenities for instance residential and commercial space, parks, playgrounds and stadiums, health care units, roads, highways, railways, ports, airports, dams, power generating and supplying stations, communication utilities, and also the other basic infrastructure which is necessary for the country and to develop and improve living standards of the society.

It is indisputably true that the construction sector is positively related to the success of any economy. It can be defined as some sort of an economic engine for developing and developed economies. The construction sector plays a significant role in producing wealth and providing a better quality of life to the nation that is essential for development of the nation. Furthermore it contributes in generating huge employment in the economy.

Malaysia had realized the significance of the construction sector in the early days of its independence so it began to develop this sector. Today it has become one of the major sectors of Malaysian economy although its contribution is relatively small as compared to other sectors of economy like services, manufacturing, and agriculture. For instance the average contribution of services, manufacturing and agriculture sector in gross domestic product (GDP) during the last 20 years from 1990 to 2010 is 48.3, 28.2, and 9.3 percent respectively, while the average contribution of construction sector in the same period was 4.1 percent only. Its contribution to GDP is 12 times smaller than services sector, 7 times smaller than manufacturing sector and 2.2 times smaller than agriculture sector of Malaysia (Negara, 2011). In spite of that the importance of the sector can not be ignored. It provides great support to aggregate economy by backward and forward linkages with other sectors of economy. The objective of this study is to examine the role and past two decades (1990-2010) performance of Malaysian construction sector in moving towards the Malaysia Vision 2020.

## 2. Literature review

Both developing and developed nations have realized and understand the significance of construction sector in socio-economic and sustainable development of a country. Construction activities are closely linked with the various phases of economic development of a country. This has been discussed for several years at macroeconomic level. Historically construction activities have been associated with the process of industrial and urban development since the dawn of Industrial Revolution (Rostow, 1963). The key role of construction sector in aggregate economy has been widely highlighted in the literature. It is stated that there is a direct relationship between construction output and national output. It is also pointed out that the construction output grows more rapidly than national output when economy grows and vice versa (Hua, 1995; Turin, 1969; Wells, 1986). A number of studies have confirmed that approximately half of the investment in gross fixed capital formation is arranged by the construction sector in most developing countries. It plays a significant role in creating employment opportunities and generating new income sources for both skilled and unskilled people of the society. Therefore the variation in construction sector and its activities have great impact on all aspects of human life (Jorge, 2008; Khan, 2008; Rameezdeen, 2008; Chen, 1998; Ofori, 1988; Hillebrandt, 1985; Wells, 1985; World Bank, 1984; Turin, 1978;). This implies that the construction sector is highly integrated with other sectors of the economy through both backward and forward linkages and strongly linked with many economic activities (Bon, 1988; Bon, 1990; Geadah, 2003; Lean, 2001; Rameezdeen, 2006). These linkages are stems for the sector through which it generate higher multiplier effect in the economy (Park, 1989). So that any change in the construction sector must affect other sectors of the economy and finally impact goes to national income (Ofori, 1988). Hence the construction industry is often considered as an engine of economic growth specifically in developing economies. The industry can activate and successfully consume locally produced material and manpower in the construction and maintenance of buildings and infrastructures to motivate local employment and improve economic efficiency (Anaman, 2007). Construction sector thus has a great impact on socio-economic development of a country.

The review of above cited literature confirm that the construction sector is one of the key sectors that governs the lion's share of financial resources of any economy and can play a role as a stepping stone towards improved social well-being in the country. The sector helps to accelerate social and economic development and fight against poverty and unemployment. It has multiple links with other sectors of economy therefore it is consider a driver of economic growth especially in developing economies like India, Pakistan, Vietnam, Indonesia, Malaysia etc.

The purpose of this study is to see the role of the construction sector Malaysian economy during the cited study period i.e. 1990-2010 and to examine how this sector is contributing effective part in attaining the goal of vision 2020.

### **3. Research methodology**

This study is based on the quantitative paradigm of research. The annual data series over the study period from 1991 to 2010 for construction sector output, growth, employment and GDP of Malaysia are obtained from the Department of Statistics Malaysia website ([www.statistics.gov.my](http://www.statistics.gov.my)) and Bank of Negara Malaysia report for the years 2000, 2005, 2008 and 2011 and Central Bank Malaysia Bulletin, 2008. The descriptive statistics are used to understand the general properties of the data and to develop line chart. Pearson correlation technique is used to examine the relationship between the variables of interest like construction sector and gross domestic product of Malaysia (GDP). The data is divided into groups for comparing the performance of Malaysian construction sector in first two decades of vision 2020 from 1991 to 2010. The first group consists of 1991 to 2000 data i.e. first decade of vision 2020, and the other group consists of 2001 to 2010 data i.e. second decade of Vision 2020.

### **4. Discussion and analysis**

The construction sector is a very important and productive sector of the Malaysian economy. As a developing nation Malaysia has realized the pivotal role of the construction sector not only in economic growth but also in improving the quality of life and living standards of Malaysian people. Over the last two decades it has been contributing between 3 to 5 percent of the aggregate economy GDP. The construction boom in Malaysia began in early 1990s, just after the launch of Vision 2020. Today Malaysian construction industry continues to grow significantly in the domestic as well as international market.

Malaysia recognized the importance of the construction sector since its independence in 1957 when the industry was low-tech, labour intensive crafts-based industry (Kamal, 2012). Today the Malaysian construction industry is more advanced, modernized and well equipped. It has a potential to deliver complex heavy infrastructure and skyscraper projects by using highly sophisticated mechanized techniques. This has resulted in rapid execution of many projects like high rise commercial and industrial buildings, highways, expressways, bridges and tunnels, housing schemes, schools and hospitals and sports and spa centers, monorail and mass rapid transit rail system, and power plants. The expansion of tourism and manufacturing sector have also been playing an effective role to maintain growth momentum of the construction industry. Some of the major projects that completed by the Malaysian construction industry during the study period are the world tallest tower, Petronas Twin Towers (1992-1998); the Kaula Lumpur International Airport (1993-1998) (which has a capacity of handling 35 million passengers per year. It has thrice time voted as the world best airport); North South Expressway in 1994; Maju Express Way; Penang Bridge with 65000 vehicles running daily over it; Stromwater Management and Road Tunnels constructed during 2003-2007; Commonwealth Games Village; Pavilion and Bangsar Apartments; Price Court Medical Centre and several other projects. Malaysian contractors have also completed worldwide projects outside the Malaysia like Burj-al- Arab (Dubai), International Circuit Bahrain, New Doha International Airport, Dukhan Highway in Qatar (Hasan, 2012).

4.1. Construction output

Figure 1 depicts that construction output grew sharply between 1991 -1997 and reached to RM 19103 million in 1997 from RM 8693 million in 1991. Due to Asian economic crises during 1998-1999 output of industry rapidly decreased by RM 5216 million and reached RM 13887 million. From 2001 to 2007 industry output fluctuated between RM 14427-RM 14903 millions. Thereafter industry output gradually increased and reached RM 17426 million in 2010. Table 1 shows that during 1991-2000 the average output of the sector was RM 13508 million with a standard deviation of RM 3282 million, while in next ten year period i.e. 2001-2010 it was RM 15325 million with a standard deviation of RM 972 million. This situation reflects the significance of construction industry in the Malaysian economy, highlights its role in infrastructure development, and show importance of the sector in industrialization and urbanization process. From 1991 to 2010 Malaysian construction sector suffered two economic crises. One is Asian economic crises between the year 1997-1998 and the other is global financial crises between 2007-2008. It was noted that the Malaysian construction sector was not as much influenced by the global financial crises as by the Asian crises in which construction output decreased by RM 5316 million during 1998-1999.

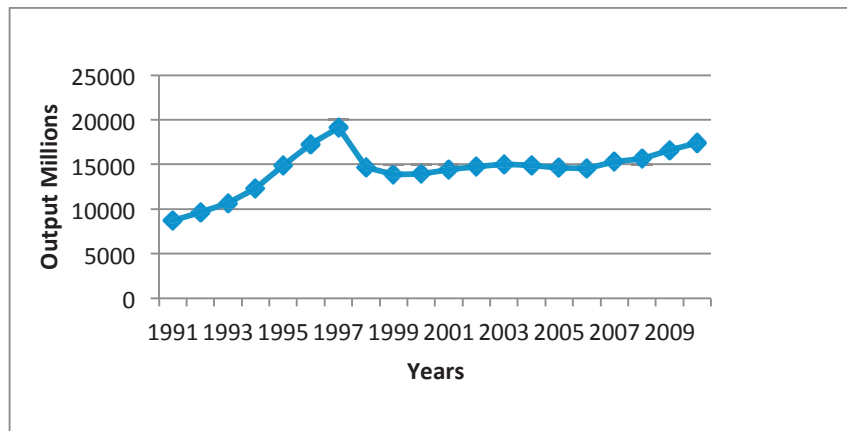


Figure 1. Construction output (1991-2010)  
Data source: Department of Statistics Malaysia (2000 price index)

Table 1. Construction output summary

Description	Output (1991-2000) (RM) millions	Output (2001-2010) (RM) millions	Output(1991-2010) (RM) millions
Average Output	13508	15325	14417
Standard deviation	3282	973	2534
Minimum	8693	14427	8693
Maximum	19103	17426	19103

4.2. Correlation coefficient

There is a strong positive correlation between construction output and GDP of Malaysia during study period 1991-2010 as shown by a correlation coefficient (0.65) in Table 2 below. It shows that construction activities in Malaysia are heavily dependent on volume and size of the country economy's while at the same time aggregate

economy and its growth also depends on heavy investment in construction sector. The correlation coefficient, 0.82 in the first decade is little higher than the coefficient of second decade, 0.78 of Vision 2020. This indicate that the construction activities are highly associated and has direct relationship with GDP of Malaysia.

Table 2. Correlation coefficient

Period	1991-2000	2001-2010	1991-2010
correlation	0.82	0.78	0.65

4.3. Construction sector growth and GDP

Construction output is the function of level of investment in the sector. It varies with the construction investment in the economy. In the period 1991 to 2010, the average growth in construction sector registered 4.74% with a standard deviation of 9.60 % in relation to average growth in GDP 5.92 % with a standard deviation of 4.34 % in the same period as shown in Table 3. The highest growth in construction sector was 21% in 1995 and highest decline -23% was in 1998. While the highest GDP growth 10 % was in 1996 and higher recession in economy -7 % was in 1998. The construction sector and GDP growth in first decade (1991-2010) of vision 2020 were much higher as compared to the second decade (2001-2010). The average growth in construction was 7.22 % in relation to average GDP growth 7.2 % during 1991-2000. In contrast it was 2.27 % vis-a-vis an average economic growth of 4.64 % in 2001-2010, as shown in Table 3-

Figure 2 illustrates the fluctuation in annual growth in the construction sector with respect to percentage change in GDP growth of Malaysia during study period. It can be observed from Figure 2 that construction sector growth generally follows the aggregate economy trend except in 2000-2001 and 2008-2009. Furthermore construction sector grows at a higher rate than the GDP growth when the aggregate economy expands, and during the period of recession the construction sector declines more rapidly and remain in recession longer than the aggregate economy.

Table 3. Growth Comparison

Description	Growth (1991-2000)		Growth (2001-2010)		Growth (1991-2010)	
	Con	GDP	Con	GDP	Con	GDP
Average growth	7.2	7.2	2.3	4.6	4.7	5.9
Standard deviation	13.2	5.3	2.6	2.9	9.6	5.9
Minimum	-23	-7	-1.8	1.6	-23	-7
Maximum	21	10	5.8	7.2	21	10

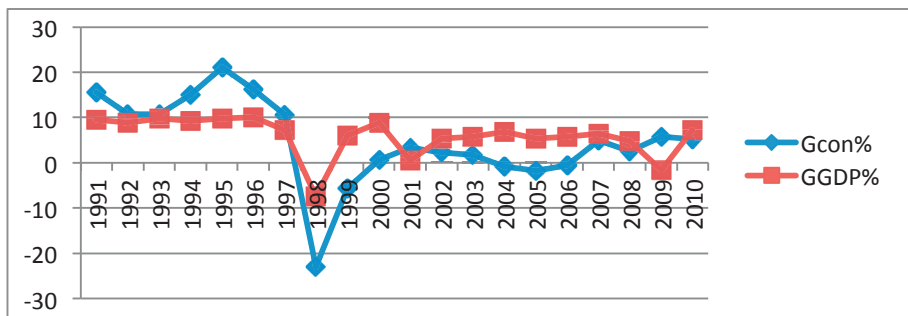


Figure 2. Construction and GDP growth  
Data source: Department of Statistic Malaysia (2000 index)

4.4. Employment Contribution

The construction sector is supposed to be a labour intensive sector that has a mechanism of generating employment and offering job opportunities for millions of unskilled, semi-skilled and skilled people (Khan, 2008). It plays a significant role in reducing unemployment and ultimately minimizing poverty. The Malaysian construction industry plays an important role in generating wealth for the country, developing of socio-economic infrastructures and buildings. The industry is providing job opportunities to more than one million people. In 2010, 1.02 millions people were engaged in the construction sector 9.2 % of the total available workforce. Figure 3 depicts the increasing trend in employment contribution of the construction sector. Table 4 shows that on average annual employment contribution was 8.56 % with standard deviation of 0.79 % during the study period. In first decade (1991-2000) of Vision 2020 the average annual employment rate 8.07% of available work force, while in second decade (2001-2010) it was reached to 9.15 % per year, reflecting that the sector is playing an effective role in socioeconomic development of society by providing job opportunities, increasing income sources and reducing unemployment from the society.

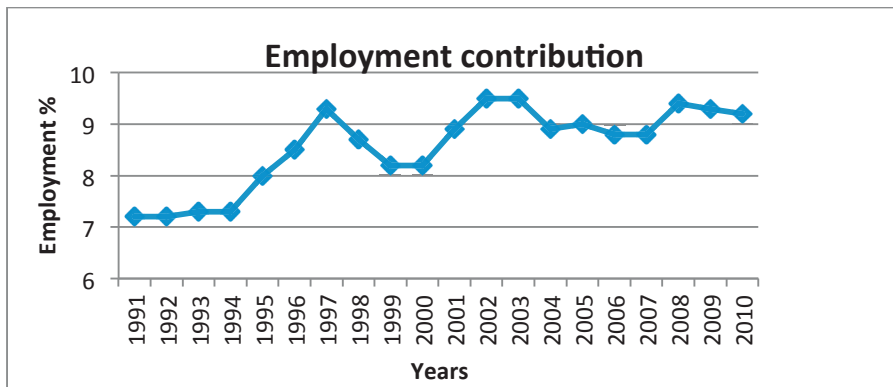


Figure 3. Name of the figure  
Data Source: Department of Statistics Malaysia

Table 4. Employment contribution (%)

Description	1991-2000	2001-2010	1991-2010
	Employment Level	Employment Level	Employment Level
Average employment	8.1	9.2	8.6
Standard deviation	0.7	0.3	0.8
Minimum	7.2	8.8	7.2
Maximum	9.5	9.5	9.5

5. Conclusions and recommendation

The Malaysian construction sector is an important gear in the wheel boosting the Malaysian economy. It is playing a pivotal role in the transformation, industrialization and urbanization process of Malaysia from developing nation status to developed nation status as imagined in Vision 2020.

Over the last twenty years (1991-2010) the construction sector has been contributing to averaged 4.09 % of GDP with minimum 3% and maximum 5.7 % of national economy. The average growth of the sector was 4.74 %

with minimum -23% and maximum 21% during the two decades of Vision 2020. Employment contribution is also considerable in the same period of time. On average employment contribution was 8.56 % with minimum value 7.2% and maximum 9.5% of total workforce of Malaysia.

Vision 2020 has created the environment for development of construction sector. It has enhanced the growth and scope of the sector by execution of large scale advanced and modern infrastructure projects like Petronas Twins Tower, Kuala Lumpur International Airport, North South Expressway, Penang Bridge, Stormwater Management and road tunnels, e Burj-al- Arab (Dubai), International Circuit Bahrain.

As Malaysia rushes towards achieving Vision 2020 to become a developed and high-income nation, the government will have to take strong measures to uplift its economy including construction sector as it is vital and essential for infrastructure development and has strong positive correlation with GDP as shown in Table 2.

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