

**MANAGING THE IMPACT OF ECONOMIC CRISIS
TO CONSTRUCTION PROJECTS**

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MANAGING THE IMPACT OF ECONOMIC CRISIS
TO CONSTRUCTION PROJECT

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*Akal dan belajar itu seperti jiwa dan raga.
Tanpa raga, jiwa hanyalah udara hampa.
Tanpa jiwa, raga adalah kerangka tanpa makna.*

Kahlil gibrán

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ABSTRACT

The development of a country is closely associated with performance and growth of the country. Economic growth will bring new sources of demand for construction in line with the increasing expansion of business, number of workers, and also need for accommodation to support business activity. The construction products provide the necessary public infrastructure and private physical structures for many productive activities such as services, commerce, utilities and other industries. The Construction industry is closely related to the Gross Domestic Product (GDP) of a country. The activities of construction industry can influence GDP and vice versa. Hence the 2008 economic crisis has impacted the construction industry. This study aims to examine the impact of economic crisis to construction projects and identify how contractor manage the impact of economic crisis on construction projects. The study was based on 5 construction projects undertaken during the economic crisis. This project included Mediterania Garden Residences – 2, Kelapa Gading Square, Royal Mediterania Garden Residences, Off Take Metering Station Package – 3, and Main Building of Mabes Polri, which were used as the case studies. Data were collected using semi-structured interview technique. The respondents were Project Managers and/or Deputy Project Managers of the respective case studies. Data obtained from the respondents were analyzed by qualitative analysis. The impact of economic crisis on the construction projects were categorized in to 10 aspects: money, material, manpower, machinery, subcontractor, supplier, time, cost, quality, and contract. Overall, the economic crisis has impact all the above aspects except manpower, machinery, and quality. Among strategies undertaken by the contractors in handling the impact included: tightening in logistics for example: materials needed shall be in accordance with the needs and minimizing waste material, conduct value engineering, appoint the most competitive subcontractors and suppliers with strong financial situation, negotiate with subcontractors and suppliers for easy payment, negotiate with employers for price adjustment / escalation, negotiate with employers for prompt payment, establish priority for project completion, speed reduction of project (slow down), and stopped the project when the employer has been unable to finance the project.

ABSTRAK

Pembangunan sesebuah negara adalah berkait rapat dengan prestasi dan pertumbuhan negara. Pertumbuhan ekonomi akan membawa sumber permintaan untuk pembinaan selaras dengan pengembangan perniagaan yang semakin meningkat, bilangan pekerja, dan juga perlu untuk penginapan untuk menyokong aktiviti perniagaan baru. Produk pembinaan menyediakan infrastruktur awam dan swasta struktur fizikal yang perlu untuk aktiviti yang produktif seperti perkhidmatan, perdagangan, utiliti dan industri lain. Industri Pembinaan adalah berkait rapat dengan Keluaran Dalam Negara Kasar (KDNK) sesebuah negara. Aktiviti-aktiviti industri pembinaan boleh mempengaruhi KDNK dan sebaliknya. Oleh itu, krisis ekonomi 2008 telah memberi kesan kepada industri pembinaan. Kajian ini bertujuan untuk mengkaji kesan krisis ekonomi kepada projek-projek pembinaan dan mengenal pasti bagaimana kontraktor menguruskan kesan krisis ekonomi ke atas projek-projek pembinaan. Kajian ini adalah berdasarkan pada 5 projek pembinaan yang dilaksanakan semasa krisis ekonomi. Projek ini termasuk Mediterania Garden Residences - 2, Kelapa Gading Square, Royal Mediterania Garden Residences, Off Take Metering Station Package – 3, and Main Building of Mabes Polri, yang telah digunakan sebagai kajian kes. Data dikumpulkan menggunakan teknik temu bual separa berstruktur. Responden adalah Pengurus Projek dan / atau Timbalan Pengurus Projek kajian kes masing-masing. Data yang diperolehi daripada responden dianalisis dengan analisis kualitatif. Kesan krisis ekonomi ke atas projek-projek pembinaan telah dikategorikan kepada 10 aspek: wang, bahan, tenaga kerja, jentera, subkontraktor, pembekal, masa, kos, kualiti, dan kontrak. Secara keseluruhan, krisis ekonomi mempunyai kesan semua aspek-aspek di atas kecuali tenaga kerja, jentera, dan kualiti. Antara strategi yang dilaksanakan oleh kontraktor dalam menangani kesan termasuk: menegang dan logistik untuk contoh: bahan yang diperlukan hendaklah mengikut keperluan dan mengurangkan bahan buangan, menjalankan kejuruteraan nilai, melantik subkontraktor dan pembekal yang paling kompetitif dengan keadaan kewangan yang kukuh, berunding dengan subkontraktor dan pembekal bagi pembayaran mudah, berunding dengan majikan bagi pelarasan harga / maklum balas dari, berunding dengan majikan bagi pembayaran segera, menubuhkan keutamaan untuk menyiapkan projek, pengurangan kelajuan projek (melambatkan), dan menghentikan projek tersebut apabila majikan telah gagal untuk membiayai projek berkenaan.

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CHAPTER 1

INTRODUCTION

1.1 Background of Study

The development of a country is closely associated with performance and growth of the country. Economic growth will bring new sources of demand for construction in line with the increasing expansion of business, number of workers, and also need for accommodation to support business activity. The construction sector is considered to be one of the most important sectors in the economy, because the construction sector could increase the performance of other sectors. The economic crisis in the financial system is has a big impact on the construction industry. Private developers and public owners are rethinking their spending priorities.

The economic crisis may be a sentence that is often heard, always repeating itself, and worth to watch. Based on experience, we can only guess it will happen again. But no one know exactly, when the next economic crisis will comes. Still fresh in our mind, those economic crises in 1997 have a great impact to Asia, used to call Asia Financial Crisis. Effects of the crisis to each Asian country are different. The effect to Indonesia begin with the decrease of Rupiah exchange rate to US\$, from Rp 2.450 per US\$ in June 1997 to Rp 13.513 per US\$ in January 1998 (Kuncoro, 2008)¹. It spread and damage to all economic sector. Due to Rupiah exchange rate which was falling to US\$, many Indonesian companies who borrowed

¹ Kuncoro, M. (2008). *Tujuh Tantangan UKM di Tengah Krisis Global*. Bisnis Indonesia. Jakarta.

money from other countries in US\$ currency which were not be able to pay back the loan, and then the company collapsed. The weakness of banking system caused many national bank liquidity crisis emergencies. And the uncertainties of political environment made Indonesia's economic worse. Indonesia suffered the most severe crisis and the longest recovery than other countries in Asia.

The crisis happened again at the end of 2007, culminating in 2008, used to call Financial Global Crisis. It began with the collapse of Financial giant company such as Bear Stearns, Lehman Brothers, Merrill Lynch, AIG, Fannie Mae, and Citigroup have either disappeared or been rescued through large government bailouts (Kuncoro, 2008). The crisis spread fast from US to Europe and Asia, Indonesia no exception. Again, the impacts of crisis to every country are different between Indonesia, Malaysia, Singapore, Thailand, and other countries. Improvement of banking system in Indonesia, learnt from the previous crisis, there is only 2 private Bank which is being liquidated. And it is different from US, which is a lot of bank have been rescue with US government bailouts.

The monetary crisis in the United States this time tremendous impact globally. This can be seen from the panic of investors of the world in their efforts to save their money in the stock market. They were busy selling shares so that the stock market fell free. Since early 2008, China's stock market plunged 57%, India 52%, Indonesia 41% (before the activity was suspended), and the European zone of 37% (Kuncoro, 2008). Experience has shown that the global economy is in a very reactive period, where investors flood or abandon markets rapidly and in large numbers.

The effects of crisis to Indonesia are the decline of Composite Stock Price Index, the weakening of currency exchange, and the increase of oil price. The exchange rate of Rupiah to US\$ was decreased more than 30%, from Rp 9,076 in June 2008 to almost Rp 13,000 in November 2008 (Kuncoro, 2008)². The worst effect of crisis in 2008 to Indonesia is the increase of oil price. The increase of oil

² Kuncoro, M. (2008). *Tujuh Tantangan UKM di Tengah Krisis Global*. Bisnis Indonesia. Jakarta.

prices in world that had penetrated up to US\$147/barrel in July 2008 (Nellemann, 2009)³. The increases of oil price makes Indonesia Government cannot longer hold by subsidy the oil price for domestic consumer. Finally the Government policy is to release the subsidy and let the oil price follow the international market price. This caused inflation in all sectors in Indonesia. The increase of the prices of good globally led to an inflation out of control. Even after oil prices decline, the commodity prices do not go straight down. The increase in oil prices has caused the price of industrial products such as building materials to increase by approximately 10 to 15 percent. In fact, the increase of iron price was suspected to have reached over 20 percent.

This crisis also affects the construction project. Inputs for all construction projects consist of materials, wages, and machineries. The decrease of Rupiah exchange and the increase of oil price was the trigger of increase the three aspects above. The projects that use materials from overseas will occurred increases of price due to the declining rupiah against the US\$ and the project that use material from domestic will occurred increase of price due the increase of oil price.

The economic crisis makes the cost of construction project become higher and difficult to financing the project. The economic crisis effects are slowing down of the construction growth rates. The downward trend is generally reflected in the number of construction permits or construction starts and completions.

High rise building projects and transportation projects, which was the main pillar of construction activity until 2007, is now following a clear downward trend since 2008. The construction in the new house building segment is continuing and even deepening suffering, because of the lack of confidence in future market prospects. Credit conditions are tightening and obtaining credit insurance is increasingly difficult.

³ Nellemann, C. (2009). The environmental food crisis: the environment's role in averting future food crises : a UNEP rapid response assessment. UNEP: Earthprint.

Each project in construction is expected to be completed on time, on quality and on budget. But the effect of the economic crisis on construction projects, led projects to end up with schedule delays, budget overruns and compromised specifications. A significant number of ongoing projects are suffering from financial distress. In the worst cases, developers will be forced to put projects on hold or default on their payment obligations. Lack of credit could render a contractor or key subcontractor and supplier being insolvent, which could put the project in jeopardy.

1.2 Problem Statement

Strong economic fundamentals are relatively high economic growth, inflation under control, relatively low unemployment rate, balance of payments surplus despite the overall current account deficit tends to swell but the number was still under control, foreign reserves are still quite large, the realization of the government budget still showed a slight surplus. This is what every country expects and runs for.

Construction sector is an important and a strategic role in national development. Considering the construction sector produces the final product either in the form of buildings and infrastructure facilities that support the growth and development of various sectors. In other words, the construction services sector is a major sector that can trigger the success of other economic sectors.

Takim and Akintoye (2002)⁴, define a construction project as commonly acknowledged as successful when it is completed on time, within budget, and in accordance with specifications and to stakeholders' satisfaction. Profitability to contractors, absence of claims, court proceedings and fitness for purpose for occupiers has also been used as measures of project success.

⁴ Takim, R., Akintoye, A. (2002), "A conceptual model for successful construction project performance", paper presented at the Second International Postgraduate Research Conference in Built and Human Environment, University of Salford, Salford, 11-12 April 2002

According to Albert *et al.* (2004)⁵, factors affecting the success of a construction projects are: project related factors, procurement related factors, project management factors, project participants related factors, and external factors. All of these five factors are applicable to all types of construction projects.

All of these successes are expected to be realized in all construction projects. But when the project on the progress and the economic crisis comes, the chance of the project to success is very small. The economic crisis has affected many sectors, and also the construction sector. A crisis is a situation which cannot be handled by the use of normal routine procedures and in which stress is created by sudden change. A crisis is an unexpected event for which there are no contingency plans in place, which threatens high priority goals and demands a time and pressured response.

In Indonesia, the impact of the economic crisis are also affecting construction project. Building materials is one of them. If there is issue of fuel price increases, usually the supplier hold their materials. It makes stock material in market being reduced. While the demand is going up and the stock material is limited, it makes the material price increase sharply. The increase of steel prices reached 20%. Concrete, wood, cement, sand, bricks, paint and other materials rise varied from 10% to 15% (Kuncoro, 2008). The price increase is certainly very burdensome to the contractor, all building materials prices which was submitted at the tender was no longer relevant with the increase of prices during the economic crisis.

Effect of the increase in oil prices not only to building materials, construction wages had priced increases cannot be avoided. The high cost of living of workers demanded the raising of wages for workers. For high rise building, it needs a lot of worker. Although the increase of wages not as much as the increase of materials, but it is influences enough to overhead of the project.

⁵ Albert, P.C.C, Scott, D., and Chan, P.L. (2004) Factors Affecting the Success of a Construction Project. *Journal of Construction Engineering and Management*, ASCE, 130(1): 153-155.

The economic crisis also impacted on the finances in construction projects. Employer cannot escape from financial difficulties, progress payments to the contractor were not been paid yet. Contractors also have the same constraints, difficulties in financing the project. Contractors usually finance the project by borrowing money in the bank with interest rates that are still affordable. However, due to the effects of the economic crisis make banks raise interest loans, the rising of interest loan makes the contractor to recalculate and thinking again to borrow money from banks. With the financial constraints that are owned by contractors and the late payment of employers, make the cash flow of contractors to be not good, it makes payments to sub contractors and suppliers to be late.

With the late of payments, sub contractors stopped the work because of the sub contractors refused to continue the work without any payment, and suppliers refusing to deliver goods not only because of late payments but also because of the price was increased. From all of this, the work progress to be delayed and even stopped. The contractor has delays in progress and there is no work activity, then the employers giving notice to contractor and finally terminate the contractor contract. Construction companies facing finance difficulties and in some extreme cases, even bankruptcy. There was also restriction of activity and therefore reduction of staff cannot avoid. A lot of workers lose their job at this moment.

Construction activity has fallen dramatically in the crisis event. During the crisis, there is a lot of abandoned building project. Most of the project was failed to complete the project and/or it was completed late, and/or the project was not completed in accordance with the contract documents. The contractor who feels loss will reducing the quality of product, or does not comply with the required quality, and reducing the quantity of work items.

Hence, from the above discussion, there are two major question related to the effects of economic crisis to construction projects:

- a. What are the effects of economic crisis to construction project?
- b. What are the strategies being carried out by contractors in reducing the effects of the economic crisis on construction projects?

1.3 Objectives of the Research

The objectives of this study are to:

- a To examine the impacts of the economic crisis on construction project.
- b To identify how contractors manage the impact of the economic crisis on construction projects.

1.4 Scope of the Research

The scope of this study is limited to the following:

- a. This study focus on the effects of the 2007 economic crisis to construction projects in Indonesia.
- b. The respondents of this study are contractors. Hence, the impacts examined are those experienced by contractors.
- c. The projects being studied are high rise building projects with high construction cost.

1.5 Importance of the Research

In Indonesia, there have been so many books, articles and reports, discussing what have happened to economic crisis, the causes and effects, descriptions and analyses as well as lessons learned or not learned together with attempts to theorize of what generally labeled as economic crisis. Usually the discussion is much discussed on the impact of economic crisis to banking, economic growth, and policy. But only a few focused on the impact of economic crisis to construction projects. Therefore, a study to examine the impact of economic crisis to construction projects and find out the ways to handle it is necessary.

This study is useful for projects with long construction period, because of the possibility of high price fluctuations, especially when the economic crisis occurred. By knowing the effect of economic crisis on projects, contractors are expected to be better prepared if the economic crisis occurred. Contractors have to be very careful in selection of projects, with a strong preference towards projects, with good quality cash flows and knowing the right step for contractors, it might help reduce the effects of the economic crisis. This study can be used by contractors to anticipate the economic crisis effects to the projects in the future.

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