Current Speculation in Costing Approach For Malaysian Residential Construction

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Abstract. The construction industry has been under pressure for many years to produce economical buildings which offer value for money, not only during the construction phase, but more importantly, during the full life of the building. Whole Life Cycle Costing (WLCC) is a relatively new concept for the construction industry especially for residential development and particularly for Malaysia. Discussing the speculation in using WLCC for the Malaysian residential constructions is the aim for this paper and it is one of the research questions on my research. This paper also wants to gather more speculation that may involve through others experienced. Basically, this paper is written to facilitate the current or future individual which will involve in residential property development sector with a new sensible approach to what at times seems impressively confusing especially in simplifying the operations and maintenance services and rehabilitation as well.

Keywords: Whole Life Cycle Costing, Residential, Construction

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1. Introduction

It is essential to value for money purchasing or spending in which the WLCC is a major consideration especially in the case of the building and civil engineering construction industry. While the time value for money is strongly linked with terotechnology; which is defined as a combination of management, financial, engineering, surveying and other practices applied to physical assets in pursuit of economical whole life cycle costs (Kirkham and Boussabaine, 2005). The developments of WLCC have been founded since 1870.

Within the reviewed literature, one aspect that all expressions and descriptions have in general is that the merging of the earlier cost and significant cost over the life period of building by the practitioners. In some cases, the building cannot be compared just on the basis of costs, because the benefits provided by the building differ with respect to return and comfort risks. It is then necessary to extend the expression of whole life cycle costs to life cycle economy that is to add life cycle income to life cycle cost analysis (Pelzeter, 2006).

2. Definition and condition on WLCC

Understanding the various definitions of life cycle costing and WLCC, researcher determined that, WLCC is the systematic and sustainable approach to consider at the initial level of budgeting with all significant costs by taking into account the economic interest for the assets involved at various stages of development. While, Kirkham and Boussabaine (2005, p.8) advocated WLCC as a dynamic and ongoing process which enables the stochastic assessment of the performance of constructed facilities from feasibility to disposal. The WLCC assessment process takes into account the characteristics of the constructed facility, reusability, sustainability, maintainability and obsolesces as well as the capital, maintenance, operational, finance, residual and disposal costs. The results of this stochastic assessment forms the basis for a series of economic and non-economic performance indicators relating to the various stakeholders’ interests and objectives throughout the life-cycle of a project.

Dunk, 2004, stated that the life cycle costing is a subset of a much wider and more difficult analysis contained in a life cycle analysis. Life cycle costing only quantifies the monetary value of design options and regulation changes. While, life cycle analysis has a much wider scope and is concerned with the sustainability impact of design options and regulations. The entire lifecycle of buildings are planning and design, procedure and construction, use and operation, maintenance and reparation, rehabilitation, and finally dismantle or reuse or demolition and recycle. Building products should, as far as possible, be reusable and materials recyclable. An effective service planning should include life cycle costing, life cycle assessment and building audit. Besides those determinations given, Amaratunga et. al., 2002 had published a state of the art review on the product of life cycle cost analysis, it involved many of the cost estimation models and these
researchers only tried to review some cost models conventionally which approximation on the whole life costs.

Best valued concept has dominated public sector capital investment policy in UK since 1990s. These policy changes are clearly demonstrated in UK government publications such as ‘Construction Procurement Guidance, No 7 Whole life Cycle Costs’ (Office Government Commerce, 2003), which stated that all procurement must be made solely on the basis of valuing the money in terms of the optimum combination of whole life costs and quality to meet the user’s requirements. Within the UK public sector situation, WLCC must now be taken into consideration in all business cases which aim to justify the capital investment in construction especially towards residential development.

Whole Life Cycle Costing is a relatively new concept for the construction industry especially on residential development and particularly for Malaysia. It is an essence of an evolution of life cycle costing techniques that are now commonly used in many areas of procurement. Like LCC, the primary purpose of WLCC is to aid capital investment decision making by providing forecasts of the long term costs of construction and ownership of a building or structure (Kirkham and Boussabaine, 2005). Overall, this whole life cycle costing leads to more sustainable pattern of consumption and production and helps to use limited financial and natural resources more effectively.

Based on the whole life cycle costing formulae provided by Boussabaine, Kirkham, and Kirkham (2005) in equation 1;

\[ WLCC = C_p \sum_{t=0}^{n} \frac{C_t}{(1+d)^t} \]  

Where;

- \(WLCC\) = total WLCC in present value of total ownership of a building asset
- \(C_t\) = sum of relevant whole life costs, including initial capital costs and future costs up to the end life of the asset or period of study, less any positive cash flows, such as residual value of the asset or land resale value
- \(n\) = number of years of the period study, usually the service life of the asset or components
- \(d\) = discount rate that captures the time value of money by adjusting cash flows to the present
- \(C_p\) = initial capital costs.

The assumption in the given computation states that all costs can be identified by year and by amount with certainty. Results from this simple approach, have helped more than enough in providing the best cost effectiveness especially during the construction and development process in developed countries.

3. Environments and Influences

Speculation has its effects not the only directly on the building equipment markets, there is also an indirect effect through oil price speculation. The oil price is a strategic price since it influences the prices of all other products where oil is involved as fuel in production and distribution.

As in figure 1, the World Oil Prices Index is a major contributor in the presence of the speculation. Impacts from the World Oil Prices Index, it causes many reactions from different focus groups. Based on the simulation that has been done through this research, it is about 86.22% of the price changes for the building construction equipments have seen affected by the world oil price.

The high oil price was explained by factors such as the huge petrol demand of the Chinese economy and other emerging economies as well as by the Peak Oil thesis. But a drop from almost US$ 150 to US$ 45 per barrel showed that general speculation and capital flight from financial markets to commodity markets was a decisive factor in the oil price development. Such an extreme fluctuation can only be explained as a result of a speculative bubble (US Energy Information Administration, 2011).
Some could argue that speculation is good and useful in causing prices to decline. However, the problem is that speculation on falling prices is detached from the real economic data and leads to an exaggerated decline in prices (World Bank, 2008 & 2008b).

Based on the researcher survey, there are about 5 critical factors that related to the speculation existence. The index of these 5 critical factors defined in Table 1.

Table 1: Critical factors related to the speculation existence

<table>
<thead>
<tr>
<th>Item</th>
<th>Yes</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Oil</td>
<td>24</td>
<td>96%</td>
</tr>
<tr>
<td>2 Politician</td>
<td>22</td>
<td>88%</td>
</tr>
<tr>
<td>3 Supplier</td>
<td>22</td>
<td>88%</td>
</tr>
<tr>
<td>4 Stock</td>
<td>18</td>
<td>72%</td>
</tr>
<tr>
<td>5 Rumors</td>
<td>17</td>
<td>68%</td>
</tr>
</tbody>
</table>

Table 1 shows the movement of oil prices given really sensitive impact on the building equipment price. It has been followed by the approach of politicians and suppliers in managing the situation of the equipment. Storage or the availability of the stock and rumors ranked at number 4 and 5 because of the situation of inter-related to items number 1 to 3. Other than as stated above, few considerations that have always been speculated in the used of WLCC is as described in Table 2. Results from the surveys by the author shows that it should be taken seriously in confirming any decisions in applying the WLCC approach.

Table 2: Surveys on WLCC Issues

<table>
<thead>
<tr>
<th>Item</th>
<th>Yes</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Taxation</td>
<td>86</td>
<td>0.95555556</td>
</tr>
<tr>
<td>2 Discounting</td>
<td>80</td>
<td>0.88888889</td>
</tr>
<tr>
<td>3 Net Present Value</td>
<td>84</td>
<td>0.93333333</td>
</tr>
<tr>
<td>4 Annual Value</td>
<td>82</td>
<td>0.91111111</td>
</tr>
<tr>
<td>5 Variation of Price</td>
<td>82</td>
<td>0.91111111</td>
</tr>
<tr>
<td>6 % on Inflation</td>
<td>86</td>
<td>0.95555556</td>
</tr>
</tbody>
</table>

Table 2 demonstrated that specified information in WLCC that have at least a negative impact and will be given difficulties to provide a decision to the decision maker. Although there are many other issues, this paper will only cover six items only. The situation in using WLCC is actually equal to a valuation and assessment is made, every decision taken has its own evidence and reason. Although it is influenced by
issues such as the above, however, it will be supported by the evidence, and then it will be adopted accordingly.

4. Speculation

Unnoticed, statements without a strong basis in fact led to a speculation. Forgetfulness and pleasure to express an opinion on a matter without verifying from the right source will lead towards the existence of speculation.

Speculation does not occur in mainstream economics, neo-classical theory. At the most, speculation is dismissed as an obsolete category in Keynesian, Marxist or other heterodox positions (Schulmeister, 2008). Instead, what these theories describe as speculation is understood to be as an investment. Therefore, everything is considered as investment for which assets are used on the basis of a future expectation of achieving profit at a later date. Speculation can occur with commodities as well as with businesses and financial assets.

However, there is a fundamental difference between investment and speculation. Although a future expectation applies to both as a starting point, their respective logics diverge. Added value is made possible with a real economic investment (World Bank, 2008). A business is established (or an existing one is expanded), and with a successful investment it is capable of extended reproduction through its own means, it is self-supporting and sustainable. The corporate profits are then nurtured by the permanent appropriation of the surplus value (World Bank, 2008b).

The objective of speculation, however, is to profit from a future difference in the prices of assets. If, for example, a supplier does not place his cement on the market as soon as it is packed, but hoards it for a couple of weeks because he expects that the price will be higher, this is speculation. No real, additional value is created; there is merely speculation on a higher price. Schulmeister in year 2008 added that Speculation can occur with all kinds of goods. There are, of course, differences in extent depending on the characteristics of the object of speculation. The economically most important form of speculation has developed in the financial sector during the past two decades. Bets are made on the future development of price differences in strategic areas such as interest rates and exchange rates or the price trends of securities.

5. Improvise on Finding

The formation of speculative bubbles linked to condition of Whole Life Cycle Costing approaches can be prevented by the combination of two technically relatively simple measures:

A. Manage the transaction information and historical data related to the building equipments safely and orderly,
B. Introduce of a trade registers at the stock exchanges,
C. Corresponding regulation of authorized traders.

Persons that keep the transaction information and historical data should prepared them in well manage and properly. All these evidences must be kept orderly in making sure there will be no more speculation exists.

That entire person who involved in trading of building equipment on the spot or derivative markets would need to be registered. Only those traders, who enable hedging, know the market and are subject to stock exchange supervision would be permitted. Hedge funds and other speculative business models would not be admitted. This is to ensure that no interruption in data and information management in enhancing WLCC.

Speculation would then be restricted to its security function for buyers and sellers, and the formation of speculation bubbles would be prevented. Political will is decisive for this to be achieved. The chances are not too illusory. This offers a unique opportunity to civil society, especially to the development NGO community, to exert corresponding political pressure and present proposals on a development-friendly restructuring of the financial system. The ideology that the markets are best left to regulate themselves has finally completely disgraced itself before history.
6. Conclusion

Speculation creates no added value. In contrast to the real economy, gains are not sustainable or self supporting, but can only be repetitively achieved through new speculation activities. Investment and speculation are also fundamentally different when they fail. When a speculation fails, the assets dissolve into nothing. This is the greatest problem with speculation: the macroeconomic consequences for stability. When speculation has become an important part of wealth accumulation, then the system is highly unstable. Even in times when there is no crisis, volatility has a structural impact.

Besides, if these situations keep on going, it would be more harm than advantages. Based on the WLCC terms of use, the existence of any financial concept will not help, but only create difficulty to all the information needed. However, the efficiency and maturity of the existing WLCC concept, it will help overcome such speculation.

7. References


