

The importance of contractors' performance appraisal system for biophilic city development in Malaysia

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Abstract. Biophilic city is a new term of sustainable cities that connects human to nature by lessening the barrier between them. With a few additional elements from the sustainable city approach, the biophilic city brings human to nature instead of nature to cities or human as adopted by the former concept. Since biophilic city is a new approach not just in Malaysia but worldwide in general, no guideline has been published including the appraisal system on the contractors undertaking biophilic city projects. Many problems occur in the construction industry, and it persists across different projects. Problems related to performance, safety and environment amongst all need to be controlled by both the government agencies and private bodies such as developer and consultant. Even so, the contractor's appraisal system should also be implemented to ensure the above problems can be reduced or eventually avoided. If regular development facing those problems, a new approach of cities development will face even worst. Hence, this paper, via literature review, aims to investigate the importance of contractors' performance appraisal system for a biophilic cities development project in Malaysia. This found that: (1) since biophilic city is alien to many, appraisal system for contractor's performance is important; (2) the current contractor's appraisal system should be improvised by adding the biophilic elements and; (3) contractors need to mutually understand the appraisal system and the concepts of biophilic cities approach. Since there is a significant need to implement the contractor's performance appraisal in biophilic city development in Malaysia, this paper suggests that a deeper study in terms of the critical success factors of current contractor's performance appraisal system should be conducted as to ensure their best performance in reducing or avoiding future problems in biophilic city development in Malaysia.

1. Introduction

The highest Total Factor Productivity (TFP) growth contribution to productivity in Malaysia was recorded by the construction sector, followed by services sector, manufacturing sector and agricultural sector (Malaysia Productivity Corporation, 2016). This was primarily due to the high demand resulting from mega construction projects nationwide. This is apparently in line with the Vision 2020, where Malaysia is committed to be an industrial country, at the same time uplifting the economic growth via the delivery of mega construction projects implemented through the Eleventh Malaysia Plan (11MP). One of the strategies in achieving this vision especially in becoming a high-income nation is by



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establishing four main focus areas known as; focus area A (transforming services); focus area B (energising manufacturing); focus area C (modernising agriculture) and; focus area D (transforming construction) (Economic Planning Unit, 2015). Focus D undeniably proves that the government pays major attention to construction industry as the driving sector in achieving Vision 2020.

During the last 20 years from 1960-2018, the average contribution of services, manufacturing and agriculture sector in Gross Domestic Product (GDP) is 55.68 percent, 23.16 percent and 7.7 percent respectively, while in the same period, the average contribution of the construction sector was 4.85 percent only (Khan *et al.*, 2014). Yet, the importance of this sector cannot be ignored. Being one of the focuses in the Vision 2020, construction is seen as one of the typical industries that is developing rapidly in the economy sector. In fact, construction is prioritised by government besides other industries as one of the National Key Resource Areas (NKRA) that assists the development of the nations. This is supported by Ismail (2009) who highlights that RM 20 billion has been set initially for basic infrastructure development in the Ninth Malaysia Plan (9MP) (Economic Planning Unit, 2006), followed with the improved transportation network and construction more facilities like hospitals and sports facilities in the Tenth Malaysia Plan (10MP) (Economic Planning Unit, 2010) and the pavement of 3000 km rural road in the 11 MP (Economic Planning Unit, 2015).

In addition, Transformasi Nasional 2050 (TN50) focuses on ten main topics, which are science and technology, living cost, education, sport and culture, foreign relationship, politics, religion and unity, urban prosperity, environment and micro-economy (Ithnin *et al.*, 2017). Construction industry is under three main topics discussed in TN50, which are science and technology, urban prosperity and environment. Construction is the application of science and technology that will affect the environment either in a good way or oppositely. The construction offers urban prosperity to public with the existence of complete and well working hospitality.

Thus, it is undeniable that the construction industry is having a massive expansion in Malaysia although with the fact that construction industry is well known as a complicated and dangerous environment. This is so true as being claimed by Smith (2007) that construction industry is a complex, creative and important activity that transforms physical resources into useful structures and basic resources, including raw materials, machinery, manpower, finance and technology. Construction industry could therefore be one of the dangerous work environments, as it involves several parties, such as clients or developers, architects, consultants, main-contractors, sub-contractors, suppliers, local authorities (Smith, 2007), and even the members of the public. The involvement of various parties apparently demonstrates that construction industry is undoubtedly a significant resource as being claimed by Sing *et al.* (2014), who identify that people management drives project success more than technical issues do, and in most of situations, contractor seems to be the one who always being blamed whenever the project does not meet the goals.

Biophilic city is a new term of sustainable cities that connects human to nature by lessening the barrier between them. With a few additional elements from the sustainable city approach, the biophilic city brings human to nature instead of nature to cities or human as adopted by the former concept. Since biophilic city is a new approach not just in Malaysia but worldwide in general, no guideline has been published including the appraisal system on the contractors undertaking biophilic city projects. Many problems occur in the construction industry, and it persists across different projects. Problems related to performance, safety and environment amongst all need to be controlled by both the government agencies and private bodies such as developer and consultant. Even so, the contractor's appraisal system should also be implemented to ensure the above problems can be reduced or eventually avoided. If regular development facing those problems, a new approach of cities development will face even worst. Hence, this paper, via literature review, aims to investigate the importance of contractors' performance appraisal system for a biophilic cities development project in Malaysia.

2.0 Project Management Practice

A good construction project needs a good project management practice, which will assist those parties involve in construction industry, especially contractors to manage not only peoples involved in the industry, but also to manage the utilisation of resources properly. Project management refers to the application of knowledge, skill, tools, and techniques to project activities to meet a relatively short-term objective that has been established to complete specific goals and objectives (Project Management Institute, 2017), which is accomplished through application and integration of the project initiating, planning, executing, monitoring, controlling and closing (Heagney, 2016). Yet, lack of awareness of this part has made copious of construction project do not meet their objectives. Hence, to produce a good outcome, contractors have to come up with a good plan. As the construction project involves more than one party, thus, a comprehensive project management is very essential. As a matter of fact, to make the project management becomes more effective, an observation, or to be more specific, an appraisal, could be implemented to assess the performance of construction project players, particularly the contractors as they are the major player involved directly in constructing a particular project.

In management field, performance appraisal system is most commonly being implemented in work environment, both government and private sectors. It is vital for the organisation who seeks for the improvement of their employee's performance since through this system, the employer may know what is lacking, such as in terms of employee's job satisfaction and level of organisation commitment. Performance appraisal is one of the most vital components in ensuring the quality of performance amongst the employee and this appraisal is normally being implemented not only for the mid workers and subordinates, but also among the top management. This is to ensure the enhancement of the competence and effectiveness of the manpower in the organisation. This is supported by Mowday *et al.* (2013), who explain that the success and survival of an organisation can be determined by the efforts of employees according to McClelland's human motivation theory, where each individual has one of three fundamental driving inspirations: the requirements for accomplishment, connection, or power. These inspirations are not intrinsic, yet it is created through the way of life and educational encounter. Therefore, appraisal is seen as potentially one way in which those efforts can be aligned with the aims of an organisation, employees can be motivated and their performance managed. Wanjala *et al.* (2015) further claimed that performance appraisal is used to appraise employees and build up their capability, upgrade execution and disperse rewards. This should also be done in the project management practice, which similarly has a project team that needs to be motivated and managed properly.

Performance appraisal can be useful for employee development under a certain condition, which clarifies employee's main responsibility, develops performance standard, provides performance feedback in periodic, diagnoses and coaches performance of the employee and conducts an overall performance review (Noe *et al.*, 2014). Gorman *et al.* (2017) report that more than 64 percent of organisations use performance appraisal system. It shows that performance appraisal system nowadays is very demanding since it is important that members of the organisation know exactly what is expected of them. Hence, by taking into the aforementioned performance appraisal system in the management field, it is highly recommended that the system must be applied to the manpower of the project, notably the contractors and the project manager. These parties, as the directly involved person in construction project delivery indeed will be facing various risks and uncertainties, which eventually will create negative impacts to the project. Therefore, their performance must be appraised similar to the other workers, specifically to enhance their performance in giving the best commitment to the project.

3.0 Contractors' Performance Appraisal System For Biophilic City Development In Malaysia

Greater technology development nowadays has seen construction project as increasing in number and complexity. The successful construction project is very reliant on contractor, and the arrangement of the right contractor will not just guarantee the general nature of the project, but also offer the opportunity of saving on costs (Alzahrani *et al.*, 2013). Nevertheless, it cannot be argued that most of the project is unsuccessful, whilst Alzahrani and Emsley (2013) alluded to venture successfully as having results much superior to anything expected or regularly saw as far as cost, schedule, quality, safety and member satisfaction. However, restraints, such as resource, cost and time by poor management are failed to be utilised properly, causing the project did not meet its mission and objectives. Study conducted by Memon *et al.* (2011) shows that poor contractor management results to cost overruns, whilst contractor's poor site management leads to time overrun. In overcoming these problems, Economic Planning (Unit) has established the performance appraisal guidelines in 2006 as outlined in the Ninth Malaysia Plan (9MP), which formally revises and assesses the performance of construction projects throughout the construction phases (Economic Planning Unit, 2006).

Even with the establishment of these guidelines, there are still some issues regarding public construction project failure, namely the recent poor-quality open hall of SMK Hutan Melintang (Bernama, 2018). In the same article, The Deputy Prime Minister, Dato' Seri Diraja Ahmad Zahid Hamidi says that the quality of the hall does not meet and commensurate with the budget provided. Thus, three months are given to the contractor to fix this poor-quality issue. Hence, undeniably the effectiveness of these guidelines establishment by the government is questionable. Therefore, study on the current practice of contractor's performance appraisal system in the Malaysian construction industry should be done.

It is an obvious fact that an excellent performance of the construction players affects the project management as well as the project delivery. Their commitment, attitude and compliance for instance, are very essential to avoid any problems in the construction site. Hence, with the performance appraisal existence, it is believed the system could improve their performance. In line with this, in 2012, Construction Industry Development Board (CIDB) has launched Assessment Program of Contractor's Capability and Capacity (SCORE), Quality Assessment System in Construction (QLASSIC) and Safety and Health Assessment System in Construction (SHASSIC) with the aim to appraise the construction contractor's capacity and capability before the project is granted and it turns out that the system is very helpful in selecting the right contractor for the right project (Plebankiewicz, 2015). This is in accordance with their objective, which is to develop the capacity and capability of the construction industry through the enhancement of quality and productivity by placing great emphasis on professionalism, innovation and knowledge, in the endeavour to improve the quality of life. Therefore, perception of construction player on the contractor's performance appraisal system should be examined. In ensuring the efficiency of the systems, the variables of the performance appraisal system are very important, where every element that contributes to the success of project delivery must be measured to ascertain the efficiency of the system.

Other than that, the understanding level of the contractors on the performance appraisal concept is very crucial. This is due to fact that the performance appraisal in the real practice is merely undertaken during the construction phase (de Araújo *et al.*, 2016; Ismail, 2009). Hence, better understanding of performance appraisal practice must be gained by contractors whilst improving the current implementation of performance appraisal in construction projects in Malaysia. From the previous statement, it is theoretically apparent that the performance appraisal system has a tremendous impact on the construction project. However, the critical success factors (CSFs) of the contractor's performance appraisal should be investigated. As the construction environment continuously changing, it is crucial for the contractor and project manager to gain the knowledge as much as they can to have more edge on delivering a better project.

In the meantime, contractor's perception on their performance being assessed via this performance appraisal while undertaking the construction projects however must be considered, as the satisfaction of the players of the project, particularly the contractors as the key players, need to be dealt with vitally. Hence, it is important to investigate the contractors' perception on the implementation of performance appraisal as this significantly affects the delivery of construction project. This statement is supported by Wanjala *et al.* (2015), who claim that performance appraisal has progressively moved toward becoming some portions of a more strategic approach to deal with incorporating human resource activities and business approaches. These may now be viewed as a non-specific term covering variety of activities through which organisation look to appraise employees and build up their skill, enhance performance and convey rewards. Eventually, low esteemed employees will affect the poor performance of the construction industry as well as badly impact the government inspiration in ensuring the National Key Result Areas (NKRA) is successfully achieved.

Biophilic is a term adopted from the word biophilia that giving a meaning, an innate and genetically determined affinity of human beings with the natural world (Simaika and Samways, 2010). Biophilic city in this paper focuses on the development of the cities that connecting human directly with nature in other word, development projects that integrating nature into urban design and planning. Malaysia is highly potential for the development of the biophilic city. The numerous conservative lands available in Malaysia can be used for biophilic cities development. For an instant, Langkawi, Kedah, Malaysia is a high potential of being awarded as a biophilic city. The existence of skywalk, national geopark, and numerous of untouch lands that can be used to interact with a human being with nature. All these characteristics can be considered to transform into a biophilic city. The established guidelines apply around the globe may not be ideal for Malaysian topographic, weather and demographics. As Sahal, (2006) mentioned in his study, development should consider the local weather condition. Biophilic city development in a new approach in construction industry. Contactor should first know the biophilics criteria and elements. This paper shows that the appraisal system capable of boosting the interest of the construction industry to meet a certain level of development; therefore, a suitable appraisal system for biophilic cities development should be established. Thus, the contractors' performance appraisal system specifically for biophilic city development in Malaysia is needed to boost the biophilic cities development and to control the development performance.

4.0 Conclusion

To sum up, (1) since biophilic city is alien to many, appraisal system for contractor's performance is important; (2) the current contractor's appraisal system should be improvised by adding the biophilic elements and; (3) contractors need to mutually understand the appraisal system and the concepts of biophilic cities approach. Since there is a significant need to implement the contractor's performance appraisal in biophilic city development in Malaysia, this paper suggests that a deeper study in terms of the critical success factors of current contractor's performance appraisal system should be conducted as to ensure their best performance in reducing or avoiding future problems in biophilic city development in Malaysia.

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