



## THE MOTIVATION FACTORS OF QUANTITY SURVEYORS IN MALAYSIA

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**ABSTRACT** The construction industry is significantly influenced by the competitive environment, which has in turn affected the economy and quality of life. Inevitably, this has also changed the way people work in order to sustain themselves. Motivation is the key factor that influences people to do better by initiating action into achieving goal(s), resulting in greater performance. This paper presents a research on the motivation factors of quantity surveyors in different types of organisations. Seventy one questionnaires were received and analysed statistically using Kruskal-Wallis. The results suggest that the motivation factors of quantity surveyors in the construction industry do not differ based on the different types of organisations. Overall, working conditions, good teamwork, and good facilities/ resources at the workplace are among the top motivation factors of the quantity surveyors.

**KEYWORDS :** Malaysian Construction Industry; Performance; Motivation; Motivation Factors; Quantity Surveyors.

## 1. INTRODUCTION

The construction industry plays a substantial role in many economies and is a major productive sector in Malaysia. It is the key contributor towards the nation's economy through the Tenth Malaysian Plan (10MP) (MOF, 2012) as it has a domino effect on other industries.

In the construction industry, a quantity surveyor is one of the key professionals and the profession has long been established in Malaysia (RISM, 2011). Although the quantity surveyor plays important roles in construction projects, there is still lack of studies regarding this profession that relates to motivation for job performance other than a study by Bowen *et al.* (2008) and Bowen and Cattell (2008), which is limited to the context of the South African construction industry.

Little is known of the motivational factors underlying the performance of those who work within the construction industry, or if motivational factors differ for the various occupational groups within the sector (Smithers and Walker, 2010). Therefore, a better-informed understanding of the motivational factors could lead to the development of improved mechanisms for enhancing performance of all professionals involved within the sector including quantity surveyors and providing possible insights into the types of people that the industry currently attracts and employs (Asad and Dainty, 2005).

Motivation has been widely researched and although there are many theories available to be referred to, there is no single theory or model that has been able to capture the full dynamics of motivated behaviours (Bong, 1996). Neither is there a single model of the motivation theories that can best summarise the motivation of employees in the work organisation.

Therefore, one possible solution for integrating numerous motivational constructs and findings is to create a new conceptual framework of motivation for construction professionals and quantity surveyors. This research examines the motivation factors of quantity surveyors that contributes to job.

## 2. MOTIVATION FACTORS

Motivation is a significant driver on the performance of employees in the organisation. This is in line with Churchill *et al.*, (1987) and Sonnentag and Frese (2002) who respectively stated that: the determinant of performance amongst other things is motivation; and motivation is acting as the only direct determinant of performance.

### *Growth and advancement opportunity*

Themes grouped under the growth and advancement opportunities are very frequently mentioned as motivating conditions. These include the: possibility for promotion; opportunity to learn more about the job; receive further training; receive trust; confidence shown by superiors and co-workers; job conditions allowing responsibility; job conditions allowing autonomy; placement in a job with regards to one's skills; placement in a job with regards to previous training; and the degree of

corrective feedback received on the job. Some job characteristics contribute to certain psychological states and the strength of the employees' needed for growth has an important moderating effect (Karasek *et al.*, 1998). All needs theories and process theories (except Adam's Equity Theory) contain one or more growth and advancement theme.

### *Work Nature*

The second set of items relates to the: nature and characteristics of the works (Karasek *et al.*, 1998); amount and difficulty level of the work; and how such work is assigned. Themes in this group include the: amount or difficulty level of work assigned, e.g. – too much or sufficient work; presence of urgently required work or tasks with a completion deadline; work described as interesting and challenging; work perceived as important and offering variety; and work that allows a sense of achievement and opportunity to prove oneself. When specific goals were assigned, more effort was exerted than when nonspecific goals were set. This is in line with Locke's (1968) and Manchungwa and Schmitt, (1983) that more difficult goals result in greater effort but should be achievable. Achieve target or goal; interesting work; and work life balance; are among the motivation factors of construction professionals including quantity surveyors (Holmes, 2012). Meanwhile, Bowen *et al.* (2008) identifies: recognition of achievements; variety of works; non-repetitive work; and having social interaction as the factors that motivate quantity surveyors. These factors reflect that quantity surveyors will be more motivated to do their work if they enjoy the work rather than tailoring their lives to their work. Maslow's hierarchy of needs theory; and Alderfer's ERG theory; Herzberg's two-factor theory; and Latham and Locke's Expectancy theory; are the theories that contain one or more work nature motivation factor variables. Steer's (1987) individual characteristics' dimension; and Brian's (2014) structure also contribute to the work's dimension.

### *Material and physical provisions*

The third group of items is related to the amount of material and physical provisions present in the job situation. The components of the motivation under this theme are: financial incentives; job security; fringe benefits; and favourable physical work conditions. Quantity surveyors are also affected by the above mentioned motivation factors (Bowen *et al.*, 2008; Holmes, 2012) other than the quality of the work environment (Clark, 2000). For example, in doing work the traditional way, frequent reference to drawings is essential to quantity surveyors in doing measurements. Therefore, an adequate work station, i.e. a table with wide surface can help in understanding drawing, reading and referencing convenient to quantity surveyors. Other than that, the facilities of the office equipment can help in making the outcome more efficient. The motivation factor variables for material and physical provisions theme can be found in: Maslow's hierarchy of needs theory; Herzberg's two-factor theory; Alderfer's ERG theory; Steer (1987) individual characteristics dimension; and part of the reward system motivation factor dimension (Brian, 2014).

### Relations with others

The fourth set of items is relations with others, which includes: recognition or praise from superiors; co-workers, or subordinates; consultative and participative supervision; degree to which superiors and co-workers are hardworking and competent; good interpersonal relations; supportive family and friends; and the degree of understanding and attention to the employee's problems shown by the company (Machungwa and Schmitt, 1983), as well as the construction operators on site (Zakeri *et al.*, 1997).

### Fairness in organisational practices

The fifth category of themes pertains to the degree of fairness perceived in organisational practices. Manchungwa and Schmitt (1983) identified two divisions for this cluster, namely: perceived fairness in promotion decisions; pay rises; work assignments; and other personnel practices and decisions; and keeping promises made to employees. All the process theories (except Latham and Locke's Goal-Setting theory) contain the motivation factors of the said themes listed in table 1.

## 3. RESEARCH METHOD

A questionnaire survey was deployed in this research in order to obtain overall opinions and to summarise the findings as a whole. Structured survey technique which provided close-ended questions was used in the questionnaire survey of this research. The survey of the design provides a quantitative description of opinions of 71 respondents, and the questionnaires were distributed through three methods: web based questionnaire; email based questionnaire; and postal questionnaire; in order to enhance the response rate. Data acquired was analysed using SPSS version 19.0 software.

## 4. ANALYSIS AND DISCUSSION

Table 1 is a summary of the results of the overall mean score and Kruskal-Wallis test on the motivation factors of the quantity surveyors. The variables later were analysed using factor analysis method in order to obtain the themes or dimensions for the nineteen motivation factor variables.

Factor analysis is a technique for identifying clusters of variables. There are three focal uses of conducting factor analysis, namely: to understand the structure of a set of variables; to construct a questionnaire to measure an underlying variable; and to reduce a data set to a more manageable size while retaining as much original information as possible (Field, 2013). For this research, factor analysis was applied in order to simplify the long list of motivation factors of quantity surveyors by reducing the number of the factors into fewer dimensions. The dimensions will be useful for the development of the conceptual framework, which is the aim of this paper.

Before the data can be analysed by factor analysis, there are criterias that need to be fulfilled to ensure that the data has an adequate level of multicollinearity. Firstly, is the sample size to item ration, for this research, the sample size-to-item ratio is 3.75:1. The minimum acceptable ratio is 3.25:1 (Henson and Roberts, 2006). The common recommended number of samples is a minimum of 100 but for this research, the sample was 71. There are several studies with samples below 100 (Fabrigar *et al.*, 1999); and a study with 42 samples (Henson and Roberts, 2006). The presence of a sufficient number of significant samples as indicated by Bartlett's test of significance  $p$  is .000, confirmed the applicability of factor analysis. The Kaiser criterion for selecting factors with an eigenvalue greater than 1 was employed and the KMO sampling adequacy value more than 0.7 is the common threshold for confirmatory analysis (Hair *et al.*, 2010).

After running the factor analysis, four new dimensions have been developed for motivation factors. The dimensions are: efforts recognition (MF 1); supportive environment (MF 2); employer's organisational support (MF 3); and work nature (MF 4) (table 1). The process involves scientific and artistic effort (Tian and Pu, 2008) and is in line with another study by Machungwa and Schmitt (1983), where the themes of the factors were grouped together based on the judge's opinion and using the good research basis.

Table 1 shows the summary results of the Kruskal-Wallis test where there was no statistically significant difference between the level of impact of motivation factors of quantity surveyors according to the different types of organisations.

'Working conditions' of MF 3, has the highest overall mean score for

level of impact of motivation factors followed by 'good team work' and 'good facilities and resources at the work place' of MF 2.

The most important motivation factor is from MF 3, (Employer's organisational support), which is 'working conditions' (ranked first). However, all motivation factors in MF 2 (supportive environment), dominate the next top ranks based on the overall mean score. The factors are: good teamwork (ranked second); good facilities and resources at the work place (ranked third); good relations with colleagues (ranked fourth); good direction and monitoring from superior (ranked fifth); and support from family and friends (ranked sixth).

For overall mean score, the lowest score is 0 and the highest score is 3. There are two motivation factors which have a score below 2 and the factors are: non-financial incentives (1.89); and off-the-job training (1.92).

**Table 1: Summary of findings of the factors that impact on the motivation of quantity surveyor's industry and at current organisation**

	Overall mean score	Kruskal-Wallis test
<b>MF 1: Efforts recognition</b>		
Financial incentives	2.34	No significance
Non-financial incentives	1.89	No significance
Job promotion	2.28	No significance
Progression in career	2.37	No significance
Assignment suitable to capability	2.30	No significance
Compliments from superior	2.25	No significance
Fair time to finish assignment	2.25	No significance
Company honouring any promises made	2.21	No significance
Fair pay equivalent to job scope	2.27	No significance
<b>MF 2: Supportive environment</b>		
Good relation with colleagues	2.41	No significance
Support from family and friends	2.38	No significance
Good direction and monitoring from superior	2.39	No significance
Good facilities and resources at work place	2.44	No significance
Good teamwork	2.58	No significance
<b>MF 3: Employer's organisational support</b>		
On-the-job training	2.20	No significance
Off-the-job training	1.92	No significance
Working conditions	2.62	No significance
<b>MF 4: Work nature</b>		
Challenges in doing task	2.35	No significance
Job description	2.20	No significance

### Working conditions

From the nineteen motivation factors listed, the principal motivation factor that impacts quantity surveyors in the construction industry appears to be the working conditions. Imposing these results with those of the interviews, it can be seen that the results from the interviews reflect similar findings

'Working conditions' has been the top factor in both analysis findings from both quantitative and qualitative result and these leads it for being the top motivation factor of the quantity surveyors in job performance. Efficient working condition, a pleasant and comfortable office, clean surroundings, good lighting settings and noise control can contribute to job satisfaction and consequently, increase the performance of the individual employees to work and this includes quantity surveyors as well (Oyedele, 2009, 2011).

### Have good teamwork

'Have good teamwork' is ranked as the second highest motivation factor through quantitative analysis, and this factor is among the top factor that has been frequently cited in the qualitative analysis. Oyedele (2009) in his study emphasised the importance of working harmoniously in a team. Variations and mistakes can be minimised and competence can be maximised, which will then lead to better job performance when good teamwork exists. Formal briefing session and formal regular meetings among professionals can enhance commitment and job performance (Leung *et al.*, 2008).

### Having good facilities and resources at work place

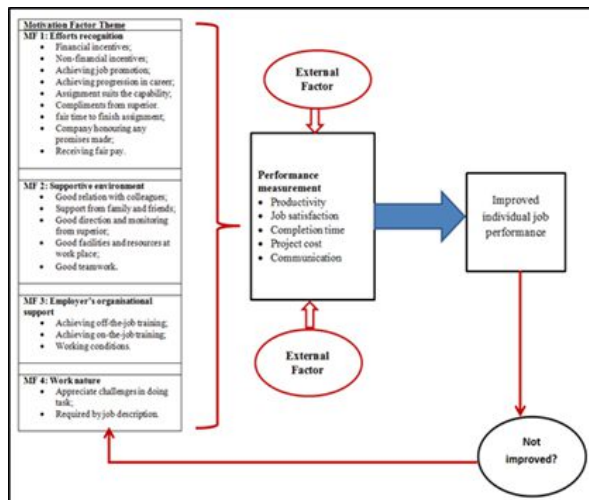
The third highest motivation factor from the analysis of the questionnaire result is 'having good facilities and resources at the work place'. Good facilities are also include updated relevant software and reasonable high speed internet connection. Some of the quantity surveyors in their organisations still use the traditional methods when doing taking off and the preparation of tender documents. This is in line with Oyedele (2009) where construction professionals favour tangible resources like relevant software and computer.

### Conceptual Framework

A conceptual framework is constructed based on the dimension obtained from the factor analysis (figure 1). Miles and Huberman (1994) describes conceptual framework as a "skeletal structure of justification, rather than a skeletal structure of explanation." This structure is based on either formal logic or experience. In simple words, conceptual framework is a set of specific ideas that can be used to make conceptual distinction and organise ideas, and can be used within the larger theoretical framework. Due to the statistically insignificant results from the Kruskal-Wallis test on all motivation factors of different types of organisations, a single conceptual framework is produced in encapsulating the motivation and its practices towards quantity surveyors in the Malaysian construction industry.

Variables in the performance measurements are affected by the external factors. External factors can be: competitive environment; nature of the construction industry; role of quantity surveyors; and shortage of qualified quantity surveyors. When the employee has achieved one or more variables in the performance measurement, after receiving one or more appropriate motivation factors, job performance of the individual will improve, and consequently, the performance of the organisation also improves.

**Figure 1: Conceptual framework for motivation factor of individual quantity surveyor**



### 5. CONCLUSIONS AND RECOMMENDATIONS

This paper investigated the impact of motivation factors of quantity surveyors in three different groups, using statistical analysis by determining the mean score of each variable.

The conceptual framework developed may differ if the sample number was larger or the research applied mixed methods or the qualitative method alone. The framework could also be more robust if further study could be done by focusing on the external factors and the performance measurements as well.

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