SUSTAINING THE MOTIVATION OF QUANTITY SURVEYORS IN FACING THE COMPETITIVE ENVIRONMENT

Siti Sarah Herman^{1*}

¹Department of Architecture, Faculty of Design and Architecture, Universiti Putra Malaysia, 43400 UPM Serdang, Selangor, Malaysia

> * Corresponding author: h_sitisarah@upm.edu.my

ABSTRACT

The construction industry is complex and is frequently associated with occupational stress. Following this, the employees' motivation is important as it affects job performance. Motivated employees tend to be better at their jobs as they find and create initiatives to achieve their goals. In the construction industry, quantity surveyors are highly involved in the contractual and financial management of projects. The increasingly challenging environment has changed their work method, causing various significant impacts on performance. This paper explored the impact and effectiveness of motivation on quantity surveyors from three types of organisations in Malaysia; government agencies, private consultancy firms, and private contracting firms. A mixed-methodology was adapted, which included questionnaire surveys and a semi-structured interview with quantity surveyors registered with the Board of Quantity Surveyors Malaysia (BOSM). The findings demonstrated that 'good relations amongst staff and management team' sparked motivation the most, reflecting that it is the most effective motivational practice in many organisations.

Keywords: : Malaysian Construction Industry; Industrial Revolution 4.0; Motivation; Quantity Surveyors.

1. INTRODUCTION

The major feature of construction processes is that they are infamous for their complexity (Construction Industry Master Plan for Malaysia [CIMP], 2005). This naturally creates occupational stress on the employees (Gunning and Cooke, 2007). In addition, the industry relies on the ability of individuals, the people-reliant nature of the industry (Smithers and Walker, 2010) causing the industry to be known as a stressful environment (The Chartered Institute of Building [CIOB], 2013). These significantly affect performance. In the construction industry, it is typical that construction employees with different skill sets work together in a project (Dainty et al., 2007). Malaysia has its own new emphasis on sustainability in design practise and construction, creating new and unprecedented responsibilities on quantity surveyors' profession. On top of their traditional job scopes, quantity surveyors are currently required to offer new services such as analysing and advising on the benefits of life cycle costing management and cost-effective sustainable strategies. Due to its competitive nature, there has been a shortage of qualified workers in the Malaysian construction industry (Hee and Ling, 2011). This situation threatens the long term survival of the profession (Frei, 2010), creating additional pressure in assuring the flexibility of employment and working arrangements (Ofori and Toor, 2009). Following these observations, this research investigated the alternatives for individuals to endure the challenges in this competitive industry to improve job performance based on the motivation aspect.

There are many motivational practices that can influence job satisfaction and overcome performance problems due to occupational stress (Machungwa

and Schmitt, 1983). Nevertheless, there is a lack of knowledge on the same matter for those who work in the construction industry (Smithers and Walker, 2010). An in-depth understanding of motivational practices may improve the mechanisms for enhancing performance within the sector, in addition to providing possible insights into the types of people that the industry currently attracts and employs (Asad and Dainty, 2005) including quantity surveyor professionals. Smithers and Walker (2010), Oyedele (2010), and Ruthankoon and Ogunlana (2003) are among the researchers whose studies focus on the motivation of construction professionals. Despite their efforts, there is a lack of knowledge on the impact and effectiveness of motivational practices on construction professionals (Herman, 2017). Therefore, this paper seeks to identify the impact and effectiveness of motivational practices on quantity surveyor professionals in the Malaysian construction industry.

Moreover, motivation theories such as needs theories: Maslow's Hierarchy of Needs Theory (1943), Herzberg's Two-Factor Theory (1959), McClelland's Need for Achievement Theory (1961), and Alderfer's Existence-Relatedness-Growth (ERG) Theory (1972) describe the components necessary for human behaviour to occur. These theories are concerned with the factor that energises, directs, and shapes behaviour (Hellrigel *et al.*, 1995). Meanwhile, process theories are other motivation theories that are concerned with the analysis and description of the impact of personal factors such as cognitive processes determine people's motivation. Some of the process theories include Vroom's Expectancy Theory (1964), Adam's Equity Theory (1963), Porter and Lawler's Expectancy Theory (1968), and Latham and Locke's Goal-Setting Theory (1979) (Bowen et al., 2008).

Moreover, motivation themes are derived from motivation theories and consisted of motivation factors that have similar nature or characteristics. Job characteristics, work nature, intrinsic rewards, and extrinsic rewards are among the examples of motivation themes. Among the many authors studying motivation themes – Brian (2014), Lim and Ling (2012), Oyedele (2010), Leung et al. (2008), Bowen *et al.* (2008), Steers (1987), and Machungwa and Schmitt (1983) – the themes discussed by Machungwa and Schmitt (1983) was used as a basis for this paper since it is the most comprehensive evaluation of motivation themes (Herman, 2017). The themes include growth and advancement opportunity, nature and characteristics of the works, material and physical provisions, relations with others, and fairness in organisational practices.

The first theme of growth and advancement opportunity include the possibility for promotion, opportunity to learn more about the job, receive further training, receive trust, confidence shown by superiors and co-workers,

placement in a job with regards to one's skills, and placement in a job with regards to previous training. In the context of this research, quantity surveyors are motivated with work or assignment that they enjoy or understand better. The strength of the employees (in terms of skills) has an important moderating effect (Lim and Ling 2012). Therefore, when quantity surveyors are sent to training, they have a tendency to become experts in their job scope since their confidence level of success is higher.

The second set of themes relates to the nature and characteristics of the works. This includes the amount or difficulty level of the work assigned (a lot of work, sufficient or more but not too much), jobs with short deadline, interesting and challenging assignments; work perceived as important and offering variety, and work that allows a sense of achievement and opportunity to prove oneself (Hytti *et al.*, 2013). Based on these themes, achieving target or goal, interesting work, and work-life balance are among the motivations of construction professionals including quantity surveyors (Holmes, 2012). Meanwhile, Bowen *et al.* (2008) identify that a variety of works, non-repetitive work, and having social interaction motivate quantity surveyors. This factor reflects that quantity surveyors will be more work-motivated if they enjoy the work rather than having to tailor their lives to their work.

Furthermore, the third group of items 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, and fringe benefits. Quantity surveyors are also affected by the mentioned motivation factors (Bowen *et al.*, 2008; Holmes, 2012), in addition to the quality of the work environment (Clark, 2000). Imagine a situation; traditional method requires frequent reference to drawings, therefore, an adequate work station (i.e. a table with the wide surface) will make the drawing reading and referencing more convenient to the quantity surveyors. Other than that, office facilities such as a personal computer with sufficient software will increase efficiency, particularly in preparing tender and contract documents.

Next, the fourth set of items is concerned with the relations of an individual with others. This includes: recognition or praise from superiors, co-workers, or subordinates, consultative and participative supervision, good interpersonal relations, supportive family and friends, and the concerns on the employees' problems shown by the company (Machungwa and Schmitt, 1983).

In addition, the fifth category of the themes pertains to the degree of fairness perceived in organisational practices. Manchungwa and Schmitt (1983) identified two divisions for this cluster: (1) perceived fairness in promotion decisions; pay rises, work assignments, and other personnel practices and

decisions, and (2) keeping promises made to employees. This is in line with Adam's Equity Theory (1963). Nonetheless, Holmes (2012) and Bowen et al. (2008) argue that quantity surveyors are not affected by the degree of fairness in organisational practices.

Motivation affects how and to what extent the employees will utilise their skills and abilities. The organisation is defined as a social entity that is goal-oriented, deliberately structured with coordinated activity systems, and is linked to the external environment (Daft, 2007). An organisation is made of people and their relationships with one another. Nevertheless, there is no single theory of motivation that can claim to embrace the entire range of organisational and personal circumstances that exist. The difference of knowledge amongst the motivational theories requires managers to think contingently and to understand the work attitudes of each employee. Only then they can deal with the employees differently according to the strongest motivational drive identified in each employee. Consequently, employers will face challenges in implementing suitable motivational practices in the organisation that will be effective in causing a positive impact on the employees.

In the last decade, the roles of the quantity surveyor have undergone significant changes and challenges that threaten its existence (Frei, 2010). This can be seen from the statement of several major industrial researchers, reviewed by Cheung et al. (2010). His study identified that the construction industry must improve its efficiency. As stated by Adros *et al.* (2011), globalisation forces the construction industry to be more competitive amongst other firms to secure projects.

The quantity surveying profession began with core services from the seventeenth century. More services have continuously evolved throughout the nineteenth century. For the past fifty-five years, the roles of quantity surveyors have changed quite dramatically – from being a cost consultant to being a project solution provider (RISM, 2011). The change in the quantity surveyor's role reflects that this profession is being recognised in the industry and is increasingly becoming more important in Malaysia. The development of the quantity surveyors' roles are due to the competitiveness of the construction industry such as the increase in competition both from other practices and from firms attempting to replace their role (Jenning and Betts, 1996), and clients become more complex and demanding (Abidin *et al.*, 2011). To sustain the profession in today's competitive construction industry, it is necessary for the quantity surveyors to transform their work method to increase efficiency (Frei, 2010). This is in line with the latest demands required by clients and the construction industry (Abidin *et al.*, 2011).

2. RESEARCH METHODOLOGY

This study employed surveys and archival reviews as its research strategies. In addition, questionnaire surveys and face-to-face semi-structured interviews were used to collect the data other than document reviews. A total of 71 out of 200 distributed questionnaires were received and 22 quantity surveyors were interviewed. The respondents were quantity surveyors from the government agencies, private consultancy firms, and private contracting firms. Furthermore, the questionnaire surveys were analysed using descriptive analysis and statistical tests. Meanwhile, the semi-structured interviews were analysed using the content analysis method.

3. ANALYSIS AND DISCUSSION

By using the Kruskal-Wallis test, the results showed that the respondents' length of working period in the quantity surveying profession in the Malaysian construction industry (QS experience) and respondents' length of working period in the current organisation (experience in current organisation) did not affect both the level of impact and the effectiveness of current motivational practices for all the items of motivational practices. This contradicted Lim and Ling (2012) who emphasised that the experience of quantity surveyor impacted their performance. In addition, the gender of respondents did not affect the level of impact and the effectiveness of current motivational practices for all items of motivational practices.

With regards to the impact of current motivational practices employed, the results showed that three out of five motivational practices were statistically significant with types of organisation. The motivational practices were receive growth and advancement opportunity (item 14-1), prepare appropriate nature of work (item 14-2), and receive material and physical provisions (item 14-3). Meanwhile, two out of five motivational practices' influences on the individuals were statistically significant in terms of their job title, which included receive growth and advancement opportunity (item 14-1), and prepare appropriate nature of work (item 14-2).

Apart from that, the results from the semi-structured interviews showed that having good relations with colleagues and management team were also important to most quantity surveyors. Nineteen interviewees agreed that being in a caring and friendly environment brings them joy and that they wanted to stay longer to expand the organisation. Most of them agreed that this particular motivational practice contributed significantly to their work motivation.

In addition, job title and types of respondents' organisation were also statistically significant on the effectiveness of current motivational practices on individuals. The motivational practices were receive growth and advancement opportunity (item 15-1), and *receive material and physical provisions* (item 15-3), respectively. On top of that, the gender of the respondents was statistically significant to two of the motivational practices items, namely *prepare appropriate nature of work* (item 15-2), and *receive fairness in organisational practices* (item 15-5).

From the interviews, 19 out of 22 interviewees stated that having good relations amongst staff and management team contributed to high effectiveness. The interviewees agreed that having a good relationship with colleagues and employers made them feel like they were a part of a big family and made them feel comfortable to work in the organisation. Nonetheless, one interviewee commented that his organisation did not provide him with this incentive, and it was the staffs that initiated similar incentives by themselves.

From the discussions above, it can be concluded that many of the impacts and effectiveness of the motivational practices on individuals were not affected by the demographics of the respondents (Table 1).

The highest impact and the highest effectiveness of motivational practice (item 14-4 and 15-4) in organisations suggest that the perceived quality of team support and the quality of relationship with colleagues and management team are important and valued by the individual quantity surveyors (Table 2). The qualitative analysis also supports the results from the quantitative analysis as almost all the interviewees responded positively to this particular motivational practice as being effective. This is in line with the study done by Anderfuhren-Biget et al. (2010) who concluded that the quality of team support – recognition by and relationship with superior and teammates – positively impact work motivation. The results also mirrored the conclusion from Bowen et al. (2008), who mentioned that the participation in a team and having a good relationship with co-worker were among the factors that motivate the quantity surveyors. This result also supports all the theory of needs (the Third Level of Maslow's Hierarchy Theory, the Hygiene Factor of Herzberg's Two Factor Theory, the Need for Affiliation of McClelland's Need for Achievement Theory, and the Relatedness Needs of Alderfer's ERG Theory) which state that there is the element of social needs and awareness in each individual (Herman and Sharom, 2017).

Table 1: Kruskal-Wallis analysis on the effect of demography on motivational practices

Questions	Item ID	Motivational practices	Job title	QS experience	Experience in current organisation	Gender	Types of organisation
To investigate the level of impact of current motivational practices on individual quantity surveyors.	14-1	Receive growth and advancement opportunity	.001*	.753	.707	.775	.008**
	14-2	Prepare appropriate nature of work	.016*	.863	.688	.129	.029*
	14-3	Receive material and physical provisions	.078	.417	.865	.184	.005**
	14-4	Have good relation amongst staff and management team	.134	.636	.920	.155	.084
	14-5	Receive fairness in organisational practices	.130	.333	.749	.083	.169
To investigate the level of effectiveness of current motivational practices on individual quantity surveyors.	15-1	Receive growth and advancement opportunity	.023*	.157	.874	.405	.128
	15-2	Prepare appropriate nature of work	.168	.685	.796	.001**	.102
	15-3	Receive material and physical provisions	.620	.513	.943	.072	.009**
	15-4	Have good relation amongst staff and management team	.162	.505	.958	.052	.071
	15-5	Receive fairness in organisational practices	.759	.622	.739	.045*	.621

^{*}Result is statistically significant at $\rho < 0.05$.

^{**}Result is statistically significant at $\rho < 0.01$.

Table 2: Summary of findings of the impact and effectiveness of current motivational practices employed by organisations in motivating quantity surveyors

Questions	Item ID		Overall mean score	Kruskal-Wallis test	Thematic analysis (no. of sources
To investigate the level of impact of	14-1	Growth and advancement opportunities	2.24	Significant	16
current motivational	14-2	Appropriate nature of work	2.25	Significant	20
practices on quantity surveyors.	14-3	Material and physical provisions	2.41	Significant	20
	14-4	Good relations amongst staff and management team	2.42	Not significant	19
	14-5	Fairness in organisational practices	2.28	Not significant	16
To investigate the level of effectiveness	15-1	Growth and advancement opportunities	2.29	Not significant	18
of current	15-2	Appropriate nature of work	2.36	Not significant	20
motivational practices on	15-3	Material and physical provisions	2.32	Significant	17
individual quantity surveyors.	15-4	Good relations amongst staff and management team	2.51	Significant	19
	15-5	Fairness in organisational practices	2.30	Not significant	17

4. CONCLUSION

This research investigated the impact and effectiveness of motivation practices on quantity surveyors in the organisations. The results demonstrated that the highest impact of motivational practices, as well as the most effective motivational practices on individual quantity surveyors is good relations amongst staff and management team. New quantity surveyors should consider the driving forces of the green environment to have high motivation level. Malaysia is in the era of industrial revolution 4.0 and the construction industry is moving towards it, encouraging various technologies to replace the traditional method. Quantity surveying organisations are pertinent in supporting the change by preparing the quantity surveyors to adapt and embrace the new revolution. Quantity surveyors should be motivated in preparing themselves for the competitive environment of the industrial revolution 4.0 (BQSM, 2018).

ACKNOWLEDGEMENT

This research may contribute to the job performance of individual quantity surveyors, other construction professionals, construction organisations, academicians, and professional bodies such as the Board of Quantity Surveyors Malaysia (BQSM) and The Royal Institution of Surveyors Malaysia (RISM).

REFERENCES

- Adams, J. S., (1963). Toward an understanding of equity. *Journal of Abnormal and Social Psychology* 67, 422-436.
- Abidin, N. Z., Yusof, N., Hassan, H., and Adros, N. A., (2011). Applying competitive strategy in quantity surveying firms: An evolving process. *Asian Journal of Management Research*, Vol. 2, Issue 1.
- Adros, N. A., Abidin, N. Z., Hassan, H., Yusof, N. A., (2011). Enhancing competitive edge: quantity surveying firms in global market. *The Quantity Surveying International Convention 2011, Penang Malaysia*, 11th-12th October 2011.
- Alderfer, C. P., (1972). Existence, relatedness, and growth. New York, USA: Free Press.
- Anderfuhren-Biget, S., Varone, Frédéric, Giauque, D., and Ritz, A., (2010). Motivating employees of the public sector: Does public service motivation matter? *International Public Management Journal*, Vol. 13, No. 3.
- Asad, S. and Dainty, A. R. J., (2005). Journal of Construction Research, 6 (2).Bowen, P., and Cattell, K., (2008). Job satisfaction of South African quantity surveyors. Engineering, Construction and Architectural Management, Vol.15, No.3, pp 260-269.
- Bowen, P., Cattell, K., Distiller, G., and Edwards, P. J., (2008). Job satisfaction of South African quantity surveyors: an empirical study. *Construction Management and Economics (July 2008)* 26, 765-780.
- Brian, T., (2014). The four factors of motivation, American Management Association. http://www.amanet.org/training/articles/The-Four-Factors-of-Motivation.aspx (Retrieve in: 20.09.2018).
- Campion, M. A., and Lord, R. G., (1982). A control systems conceptualization of the goal-setting and changing process. *Organizational Behaviour and Human Performance 30*, 265-287 (1982).
- Cheung, S. O., Wong, P. S. P., Wu, A. W. Y., (2010). Towards an organizational culture framework in construction. *International Journal of Project Management*.
- CIMP, (2005). Construction Industry Master Plan for Malaysia 2005-2015. Kuala Lumpur Construction Industry Development Board Malaysia.
- CIOB, (2013). The Chartered Institute of Building: Quantity surveyor's career. http://www.ciob.org.uk/career/quantitysurveyor (Retrieved on: 20.09.2018).
- Clark, S. C., (2000). Work/Family border theory: A new theory of work/family balance. Sage Journals.
- Daft, R. L., (2007). Understanding the theory and design of organizations. *Mason*, *OH: Thomson South-Western*.
- Dainty, A., Grugulis, I., and Langford, D., (2007). Understanding construction employment: the need for a fresh research agenda. *Personnel Review, Vol.*

- 36, No. 4, pp. 501-508.
- Frei, M., (2010). QS relevance in a changing world: a research project. *The Building Economist, December 2010*.
- Gunning, J. G., and Cooke, E., (2007). The influence of occupational stress on construction professionals. *Building Research and Information*, 24:4, 213-221.
- Hee, C. H. S., and Ling, F. Y. Y., (2011). Strategies for reducing employee turnover and increasing retention rates of quantity surveyors. *Construction Management and Economics*, 29:10, 1059-1072.
- Herman, S. S. and Sharom, N. Q., (2017). The motivation of quantity surveyors in Malaysia. Indian Journal of Applied Research, Vol. 7, Issue 11.
- Herman, S. S., (2017). The Motivation of Quantity Surveyors in the Malaysian Construction Industry for Improved Job Performance. University of Salford, Manchester: UK. (Unpublished thesis)
- Herman, S. S. and Poon, J. (2018). The roles of employers in the motivation of the Quantity Surveyors: The Malaysian Construction Industry. *Royal Institution of Chartered Surveyors (rics.org/cobraconference) London: UK*.
- Herzberg, F. A., Mausner, B., and Sherwitz, L., (1959). *The Motivation of Work. New York:* John Wiley.
- Holmes, B., (2012). Employee motivation factors within a large New Zealand construction company, A Report for Industry Project CONS 7819. Department of Construction, Unitec, New Zealand.
- Hytti, U., Kautonen, T., and Akola, E., (2013). Determinants of job satisfaction for salaried and self-employed professionals in Finland. The International Journal of Human Resource Management, 2013, Vol. 24, No. 10, 2034-2053.
- Jennings, M. J., and Betts, M., (1996). Competitive strategy for quantity surveying practices: the importance of information technology. Engineering, Construction and Architectural Management 1996, 3, 163-186.
- Latham, G. P., and Locke, E. A., (1979). Goal-setting a motivational technique that works. *Organizational Dynamics*, AMACOM, American Management Associations.
- Leung, M., Chen, D., and Yu, J., (2008). Demystifying moderate variables of the interrelationship among affective commitment, job performance and job satisfaction of construction professionals. *Journal of Construction Engineering and Management*, Vol. 134, Issue 12.
- Lim, L. J. W., and Ling, F. Y. Y., (2012). Human resource practice of contractors that lead to job satisfaction of professionalism staff.

- Engineering, Construction and Architectural Management, Vol. 19 No. 1, 2012, pp.101-118.
- Machungwa, P. D., and Schmitt, N., (1983). Work motivation in a developing country. *Journal of Applied Psychology*, 1983, Vol. 68, No. 1, pp. 31-42.
- Mahbub, R., Spearheading industrial revolution 4.0 through quantity surveying education. QS link, Issue 2018. KDN PP 12472/01/2019 (031643), Board of Quantity Surveyors Malaysia Buletin Board of Quantity Surveyors Malaysia, KL.
- Mansfield, N. R., and Odeh, N. S., (1991). Issues affecting motivation on construction projects, *Project Management*, Vol. 9 No. 2, May 1991.
- Maslow, A., (1943). A theory of human motivation. *Psychological Review*, *Vol.50*, *pp. 370-96*.
- McClelland, D. C., (1961). *The achieving society*. New York: Van Nostrand Reinhold.
- Ofori, G., and Toor, S., (2009). Role of leadership in transforming the profession of quantity surveying. *The Australasian Journal of Construction Economics and Building*, Vol. 9, No. 1).
- Ogunlana, S. O., and Chang, W. P., (1998). Worker motivation on selected construction sites in Bangkok, Thailand. *Engineering construction and Architectural Management*, 1998, Vol. 1. No. 1, 68-81.
- Oyedele, L. O., (2010). Sustaining architects' and engineers' motivation in design firms: an investigation of critical success factors. Engineering Construction and Architectural Management, Vol. 17, No. 2, 2010, pp. 180-196.
- Porter, L. W., and Lawler, E. E. III, (1968). *Managerial attitudes and performance*. IL: Homewood.
- Ruthankoon, R., and Ogunlana, S. O., (2003). Testing Herzberg's two-factor theory in the Thai construction industry. *Engineering Construction and Architectural Management*, Vol. 10, No. 5, pp. 333-341.
- Smithers, G. L., and Walker, D. H. T., (2010). The effect of the workplace on motivation and demotivation of construction professionals. *Construction Management and Economics*, 18:7, 833-841.
- Steers, S., (1987). Motivation and work behaviour. London: McGrawHill.
- The Institution of Surveyors, Malaysia (RISM), (2011). 50 Years Surveying the Nation. Malaysia: RISM.
- Vroom, V. A., (1964). Work and motivation. New York: John Wiley and Sons.