

An initial investigation on the challenges of managing construction workforce in Saudi Arabia

N Al-Emad¹ and I A Rahman¹

¹Jamilus Research Centre, Faculty of Civil and Environmental Engineering, Universiti Tun Hussein Onn Malaysia, 86400 Parit Raja, Batu Pahat, Johor, Malaysia.

Corresponding author: df080116@gmail.com

Abstract. Most of the construction workers in Saudi Arabia are foreigners from several countries having different knowledge, skills and cultures. These create challenges to administer the workers in ensuring project success. This paper presents an initial investigation to uncover the challenges faced by construction professionals in managing construction workforce in Saudi Arabia. It describes insight processes of handling the workforce during planning stage, recruitment procedures and construction stage based on interview with senior manager who are well experienced in handling mega construction projects in Saudi Arabia. The interview was carried out in semi structured mode where the interviewee was given ample time to express the experiences encountered in dealing the workforce issue. This preliminary work able to identify among important issues related to construction workers are restrictions to non-Muslim skilled workers, limited visa quota, being away from family, delay in salary payment, cheating of workers skill's status, safety issues, communication barriers and living conditions. Hence, these issues require quality leadership attributes such as continuous empathy with workers, respectful, trustful, sincere, reliable, good communication skills and problem solving skills. These findings are useful to construction practitioners and also research work related to construction leadership in handling worker's issues.

1. Introduction

Saudi Arabia is considered amongst the fastest growing economies of the Middle East countries [1-3]. It has a robust growth due to more government spending on construction, infrastructure and hospitality to promote tourism especially religious tourism in order to host the people who are continuously coming for Hajj and Umrah in the holy cities Makkah Al Mukarramah and Madinah [4]. Saudi Arabia population is approximately 20 million with 10 million are foreigners mainly from India, Pakistan, Bangladesh, Egypt, Yemen, Philippine, Sri Lanka, Nepal, Turkey and others. Most of these foreigners obtained working permit (visa) to work in Saudi Arabia with majority are workforces for construction industry as Saudi Arabia is now experiencing rapid construction growth in all aspects of construction projects both in urban and rural areas [5]. The total number of foreigner's workforces that are working in construction industry is 4.4 million [6]. In holy cities like Makkah and Madinah only Muslim workers are allowed to work in; which restricts the choice of the contractors and narrows the band for the best choice. Hence construction professionals faced challenges in managing workforces' issues specifically in Makkah city. This article uncovers on how construction professionals able to handle issues related to construction workers. It is mainly based on the first author observation while working in Makkah construction industry as civil engineer and also based on interview session with senior



manager who has involved working for more than 15 years in mega construction projects in different part of Saudi Arabia.

2. Literature review

Literatures show that worker is considered an essential component to all industries including the construction industry. Works will not be able to be carried out without the involvement of skilled, semi-skilled or unskilled workforces [7-9]. With the engagement of these workforces many related issues are created which engulfing construction industry. An example of these issues are availability of skilled and unskilled construction workers, low productivity level, lack of experience, safety issues, long working hours, racial discrimination based on nationality and others [10-12]. According to Yankov & Kleiner [10], among important issues is selection of quality workforce because of a growing shortage of skilled workers in that field. Pramanik & Chackrabarti [13] stated that most of the construction workers are illiterate and ignorant about market conditions and labour market variations. In Saudi Arabia there are enormous problems and challenges surrounding construction workforces such as shortage of skilled workforce, poor living condition, low wages, delaying in wages payment, poor living condition, safety issues and others [12, 14]. These problems have adverse impacts to construction project performance which requires serious attention by construction professionals to handle them.

Addition to that, construction workforce face many problems in their daily life, these problems not only related to construction demanding tasks but also related to social, cultural and climate adoption [14].

3. Methodology

This initial study was conducted in an investigative and qualitative mode to identify challenges faced by construction professionals in managing construction workforce in Saudi Arabia focussing to Makkah city. It was conducted through semi structured interview with a senior manager who has 15 years experiences in handling mega construction projects in Saudi Arabia construction industry. Prior to the interview session, the objectives and questions to be asked were designed to ensure that the expert shared all his experiences in handling the workers. At the beginning of the interview, the expert was requested to describe his involvement in construction industry. Subsequently, requested to share his approaches and leadership qualities in handling the issues related to construction workforce. Interview session was conducted in face to face mode where all the given information was captured manually and also electronically. Expert was given ample time to voice his opinions on the given topic and gently guided to avoid deviation from the interview's objectives. The information gathered from the interview was converted into transcription. The issues faced by construction workers highlighted by the expert were analysed based on priority of the issues being mentioned by the expert. The issues brought up by the expert were extracted, sorted and tabulated as in table 1.

Table 1. Workers' issues.

Nos.	Worker's Issue
1	Restrictions to non-Muslim skilled workers
2	Limited visa quota
3	Being away from family
4	Delay in salary payment
5	Cheating of workers skill's status
6	Safety issues
7	Communication barriers
8	Living conditions

Table 1 shows the identified issues faced by Saudi construction workers from the views of construction expert who is well experienced in handling mega construction projects in whole Saudi Arabia especially in Makkah city. Based on these issues, the following section presented as a discussion on the issues as challenges to construction professionals.

4. Workforce planning and recruitment challenges

Planning and recruitment of Saudi Arabia construction industry workforces is crucial to ensure that the workers are available according to the need of work schedule. According to the expert, construction professional needs to plan the manpower for the whole construction project duration by determining man-hours for each activity based on bill of quantity work. Then it should be multiplied by a coefficient 1.2, due to some losses like vacations, absentees, pray times, weather conditions, accidents, training periods for semiskilled labours and possible increase in the BOQ quantities. The manpower schedule is prepared in line with construction schedule for each month of the project duration. The expert mentioned that to apply for visa quota, turn-over of the manpower should be considered where it is roughly 1.3 to 2 times more than the required manpower based on the nature of the works (length of project, difficulty factors and others). Professionals should invite for discussion with several sub-contractors in order to overcome lack of manpower at construction site.

Besides planning, recruitment of workforce is also a challenge to the construction professionals. The recruitment process is either can be done by labour agency of the workers home country or those workers who have been working in previous projects in Saudi Arabia. For new workers, a company representative should assess the capacities and eligibilities of the workers. While for the experienced workers, their skills are known and recruitment process can be carried out with proper documentation. According to the expert, activities for unskilled workers such as rebar and concreting can be easily performed by Indian and Pakistanis workforces. However activities such as formwork, ceramic, marble and paint preparation cannot be performed efficiently by these workers. Professional should structure the workforce skeleton of these labours' activities for countries like Turkey, Egypt and others even though the salary is high. Prior recruitment, the contractor should arrange accommodation, transportations and food services for their workforce. According to the expert, these services should not be compensated with the workers' salary as they will choose the cheapest alternatives and this consequently will affect their productivity negatively. The provided accommodation should be with comfortable space area of approximately 8 m² for each worker. While, the food provided should preferably comply with the workers' taste and healthy to ensure they are fit to work and the transportations to construction site should be proper.

5. Challenges in handling workforce

Upon joining the company, welcome meeting for all new workforces should be conducted with the presence of all top site management. Workers are presented and explained about site's general rules in a friendly atmosphere. Subsequently, safety orientation should be conducted by explaining all safety rules that must be strictly followed during carrying out construction tasks. Once the workforce has been structured for the construction site, then the managers' role is to ensure maximum progress with these workforces in-order to deliver construction project on time with stipulated budget and accident free. While handling this workforce at site, there are two levels of managements involved which are top level management including project director, project manager and construction manager and middle level management which also known as first manager's level in Saudi Arabia construction industry. The challenges related to each level of these two managements are elaborated in more details as in the following subsections.

5.1. Top management challenges

Under normal circumstantial, the contract duration between company and foreign worker is valid between one to two years. Workers from Turkey and Egypt are usually given one year contract while from India and Pakistan normally given two years contract. This is considered long duration in human

life and have tremendous impacts in their social life. Being away from families may affect their behaviours and consequently their working productivity. Hence, the construction professionals should establish good relations with their workers. Based on the expert experiences, the most important compensation for being away from home is the sincere relations of the workers with their managers. If a resemblance is required, top managements should act like father while the Foreman should be their big brother. Also professional should encourage workers to treat each other as close friends and thus, lessen the psychological pain that they may suffer. A good professional should make continuous empathy with the workers and treat them as human being regardless of their country or position. Careful considerations and respect should be shown by construction professionals towards workers which make them less stressful. The workers will feel themselves in more friendly and less threatening environment. Once this is established and maintained, the trust to management will increase and resulted to high productivity. Hence, Trust, Sincerity and Reliability are important characteristics which should be possessed by top management.

5.2. Middle management challenges

Officer of middle management is called first manager, they are either foreman or site engineer. The expert mentioned that the first managers should be close to the workers as they are in a direct contact on daily basis. Construction tasks carried out by workers need to be checked and supervised well by first managers. Hence, the first manager plays important roles to harmonise member of the worker team. The first managers should know the individual characters of each team member and harmonize the team members for the targets and success of the construction project. Based on the expert, harmonization should be accompanied by continuous training during execution at construction site. Unskilled workers should work closely with skilled workers and their mistakes are to be correctly routed to better results. The expert has pointed out that organizing good construction works is really difficult and largely depends on the managerial and leadership skills of the first manager. The first managers should possess almost all the main skills of top management but in a smaller scale such as good communication, empathy, trust, sincerity and reliability. First manager should evaluate the workers' performance continuously and report to top management accordingly. Also first manager should ensure the importance of safety rules to be followed strictly at site. Additionally, first managers should use medium language which is widely used by most workers and also a translator for special circumstances. This will lessen miscommunication between workers and their managers. Besides that, first manager should immediately try to solve small problems by himself without any delay as to avoid the problems getting bigger. Any problem that cannot be resolved should be brought up to higher management's attention immediately for immediate actions.

6. Conclusion

Success of construction project largely depends on management of human resources. Interactions between top management with first managers and also workers are crucial to ensure that the project can be carried out in harmonise manner and then the success of the project will be unavoidable. This paper has demonstrated an initial investigation to uncover the challenges faced by construction professionals in handling construction workforces. The findings of this study mainly based on interview session with very well experienced expert who has more than 15 years of working experiences in the construction industry of Saudi Arabia. Based on the expert's experiences, among important issues related to construction workers in Makkah construction industry are restrictions to non-Muslim skilled workers, limited visa quota, being away from family, delay salary payment, cheating of workers skill's status, safety issues, communication barriers and living conditions. However, these issues need quality leadership attributes such as continuous empathy with workers, respectful, trustful, sincere, reliable, good communication skills and problem solving skills. By identifying these challenges and issues, it will be helpful to the related construction parties around Makkah city and also whole Saudi Arabia in dealing with their workforces.

7. References

- [1] Alrashed A, Taj S, Phillips M and Kantamaneni K 2014 Risk assessment for construction projects in Saudi Arabia, *Research J. of Management Sciences*. **3** 1-6
- [2] Rahman I A, Al-Emad N and Nagapan S 2016 Projects delay factors of Saudi Arabia construction industry using PLS-SEM path modelling approach. *MATEC Web of Conf.* vol 81 (Paris: EDP Sciences) 07001
- [3] Rahman I A, Al-Emad N and Nagapan S 2016 Categorization of Saudi Arabia's construction delay factors using factor analysis technique *Engineering Challenges for Sustainable Future: Proc. of the 3rd Int. Conf. on Civil, Offshore and Environmental Engineering (Kuala Lumpur, Malaysia)*, vol 138 (London: CRC Press Taylor & Francis Group) pp 177-181
- [4] Al-Emad N H and Nagapan S 2015 Identification of delay factors from Mecca's construction experts perspective, *Int. J. of Sustainable Construction Engineering and Technology* **6** 16-25
- [5] Al-Emad N, Rahman I A, Nagapan S and Gamil Y 2017 Ranking of delay factors for Makkah's construction industry *MATEC Web of Conf.* vol 103 (Paris: EDP Sciences) 03001
- [6] Jeddah Chamber 2016 *Saudi Arabia –Manpower & Employment, Talent Management, and Compensation* Retrieved on July 2017 from <http://docplayer.net/36358782-Saudi-arabia-manpower-employment-talent-management-and-compensation-may-2016.html>
- [7] Loosemore M, Dainty A and Lingard H 2003 *Human Resource Management in Construction Projects: Strategic and Operational Approaches* (London: Spon Press Taylor & Francis Group) pp 50-90
- [8] Dutta A B 2014 Study of labour factor in construction: A review, *Int. J. of Management and Social Sciences* **3** 147-52
- [9] Ngwenya L and Aigbavboa C 2017 Improvement of productivity and employee performance through an efficient human resource management practices, *In Advances in Human Factors, Business Management, Training and Education* vol 498 (Switzerland: Springer International Publishing) pp 727-737
- [10] Yankov L and Kleiner B H 2001 Human resources issues in the construction industry, *Management Research News* **24** 101-105
- [11] Memon A H, Rahman I A, Abdullah M R and Azis A A 2011 Factors affecting construction cost in Mara large construction project: Perspective of project management consultant, *Int. J. of Sustainable Construction Engineering and Technology* **1** 41-54
- [12] Almannae, R 2014 *Migrant workers in the construction industry in United Arab Emirates (UAE): The role of the Ministries of Labour and Foreign Affairs in enforcing fair payments and minimum wages* M.Sc. Thesis (The Hague: Int. Institute of Social Studies) pp 11-64
- [13] Pramanik S and Chackrabarti S N 2013 A study on problems of construction workers in West Bengal based on neutrosophic cognitive maps, *Int. J. of Innovative Research in Science, Engineering and Technology*. **2** 6387-6394
- [14] Andrieu J B, Ucla A and Lee M 2016 *Addressing workers' rights in the engineering and construction sector – Opportunities for collaboration* BSR Working Paper (San Francisco: Humanity United) pp 12-38

Acknowledgments

Authors wishing to acknowledge Universiti Tun Hussein Onn Malaysia for the financial support, also authors would like to thank the construction expert for his significant inputs for this research.