

Issues engulfed Saudi Arabia construction workers

N H Al-Emad¹ and I A Rahman¹

¹Faculty of Civil and Environmental Engineering, Universiti Tun Hussein Onn Malaysia, Parit Raja, 86400 Batu Pahat, Johor Darul Takzim, Malaysia

E-mail: df080116@gmail.com

Abstract. This paper presents an exploratory study conducted in Makkah city to uncover issues faced by construction workers from the construction leaders' perspective. Eleven construction leaders/experts were interviewed to unleash their experiences on handling the foreign workers working in Makkah construction projects. Most of the experts are senior management staffs with more than 10 years' working experience in Saudi Arabia construction industry. The interviews were carried out in semi structured mode where all the information was captured manually and also electronically. The identified issues were sorted based on its commonality into 10 clusters. Hence in each cluster, the numbers of issue considered by the experts are reflecting the importance of that particular cluster. The result of the clusters according to the number of issues mentioned by the experts are safety issues, restricted government regulation, demotivated issues, lack of quality workers, poor living quality, communication barriers, adaption issues, poor attitudes, lack of logistical arrangements and lack of education. With these identified issues it will assist the construction players in the construction industry of Saudi Arabia in dealing with their workers.

1. Introduction

Saudi Arabia has the largest construction market in the Gulf Cooperation Council (GCC) [1, 2] because it considered the highest exporter of oil in the world. According to the Brochure in 2017 [3]; Saudi's construction industry has seen a massive transformation in the past decade contributing to almost 8% of the country's total gross domestic product (GDP) and making it the largest construction market in the region. However, recently Saudi's construction industry witnessed a noticeable regression due to several reasons; one of them is that increase of military expenditure. Based on the Saudi Arabia Infrastructure Report in 2017 [4]; Saudi Arabia's reliance on oil exports and its intervention in Yemen have exposed the country to growing risks, lowering scores in this section. In addition, the outlook for growth of construction industry over 2017 is poor and weak. Besides, the report indicated that Saudi Vision 2030 will be the key to opening up the construction industry market in all segments, with the potential of private investment in transport sectors to energise the industry. In Saudi Arabia's construction industry most of the construction workers are foreigners from several countries such as India, Pakistan, Bangladesh, Egypt, Yemen, Philippine, Sri Lanka, Nepal, Turkey and others. These foreign workers are facing issues not only regarding the construction demanding tasks but also facing social and climate adaptations. Therefore, this paper intends to explore the issues faced by construction workers from construction leaders' perspective in Makkah city.

2. Literature review

Construction industry is one of the industries that require labour intensive to carry out the works at sites. Workforce in construction industry is classified into three classes based on their skills and respective



academic standings. The lowest class is the unskilled workers, the middle is composed of semi-skilled workers and the highest class is the skilled workers [5, 6]. According to Jamil & Yusof [7]; construction industry faces severe labour shortages in both developed and developing countries. Additional to that, Abdelaal et al. [8] considered lack of labour experience is one of the factors that negatively influence labour productivity. Table 1 presents common issues related to construction workers which were identified by previous research studies.

Table 1. Common construction workers' issues from previous studies.

Workers' issues	Source
Shortage of skilled workers	[9,10,11,12,13,14,15]
Low productivity level	[15,16,17]
Lack of training sessions	[9,18,]
Lack of motivation factors	[9,12,18]
Long distance from family	[10,12]
Exposure to climate conditions	[14,19,20]
Long working hours for more than ten hours per day	[10,12,14,16,19]
Poor living conditions	[10,14,16,21]
Lack provision of proper transportation	[14,16]
Low wages	[10,14,16,21]
Delay in salary payment	[14,16]
Difficulty of transferring sponsorship	[14,16]
Slavery using sponsorship system	[16,17,21]

3. Saudi Arabia construction workers

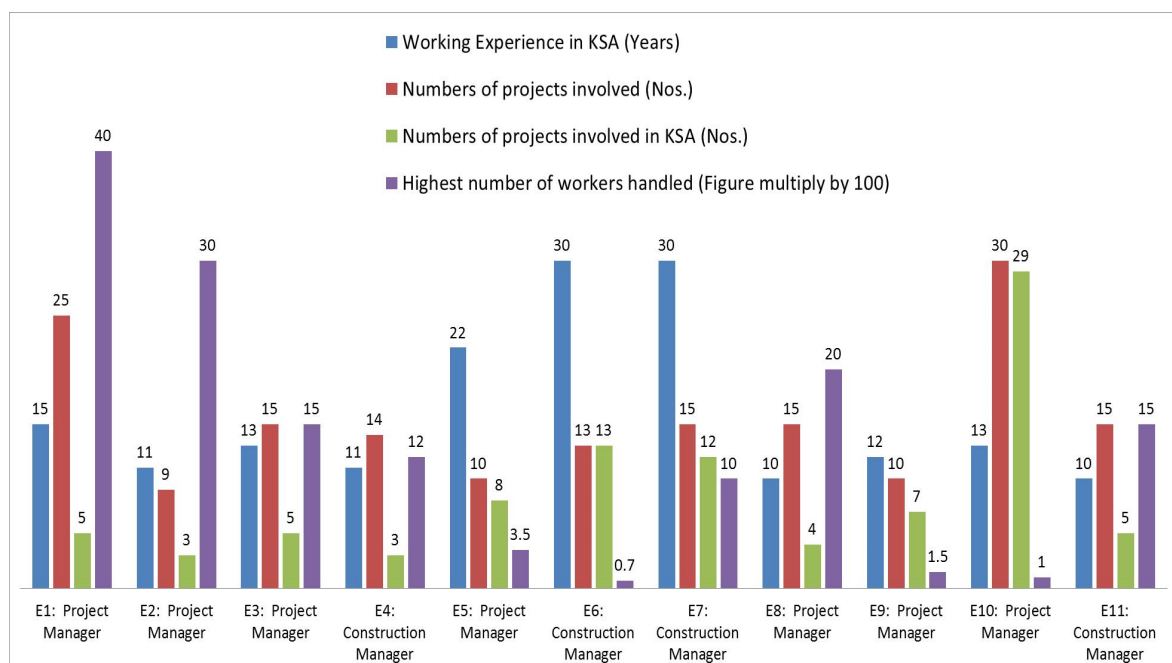
Workforce is a crucial component in construction industry and without the involvement of skilled, semi-skilled or unskilled workers; the construction work will not be able to be carried out. In Saudi Arabia construction industry, the construction workers are classified into two main groups which are foreign workers and immigrant born domestic workers. Most of foreign workers are from different countries such as Egypt, Yemen, Pakistan, Turkey, India, Bangladesh and others. In 2013, the kingdom of Saudi Arabia employed 9 million migrant workers of which the construction workers represent the largest component of this workforce [14]. According to the report in 2016 [22], the total number of foreign workers that are working in construction industry is around 4.4 million. These foreign workers prefer to work in Saudi Arabia to earn better salary which offers a better life to their relatives at home countries. However to work in Saudi Arabia, the workers need to pay large sums of money to recruitment agencies in their home countries and causing them debts before starts working. While working in Saudi Arabia, these workers face several challenges and issues in their daily life not only related to technical construction demanding tasks but also related to their social adaption lifestyle in the country. Hence this study explored the challenges and issues faced by construction workers by interviewing senior management staffs who are involved in mega construction projects in Makkah city.

4. Data collection

This is an exploratory study where the collected information/data was gathered through semi structured interview session with the selected construction experts on issues engulfed construction workers in Saudi Arabia. At the initial stage of the interview sessions, the experts were requested to describe their general backgrounds related to their involvement in construction industry. Subsequently, they shared their experiences related to issues faced by construction workers in Makkah construction industry. In

the qualitative approach, selection of experts is vital where the experts should have sound knowledge and vast experiences on the subject matter to ensure the reliability and validity of their opinions [23]. Moreover according to Fei & Khan [24], the attributes and tangible criteria of an expert are their age should be above 30 years old, having 10 years of working experience in construction industry and should be continuously work in a particular company for more than 10 years.

Based on these criteria, this study has identified 11 construction experts who are holding managerial positions in their respective company. The demography of the experts involved in this study is shown as figure 1. The interview sessions were conducted in face to face mode where the given information was captured manually and also electronically. Experts were given ample time to voice their 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 for analysing the frequency of the issues that highlighted by the experts.



#Note: E1: Turkish; E2: Tunisia; E3: Malaysian; E4: Philippines; E5: Indian; E6: Philippines; E7: Sudanese; E8: Indian; E9: Egyptian; E10: Jordanian; E11: Turkish.

Figure 1. Experts' demography.

Figure 1 shows the demographics of the experts participated in the interview sessions. All of the experts are holding high position in their companies, having working experiences for more than 10 years in the construction industry of Saudi Arabia, involved in mega construction projects and handling substantial number of workers, this shows that the experts are competent enough and capable to participate in the interview sessions.

5. Identification of construction workers' issues

Worker issues were extracted from the interview information given by the experts. These issues are based on the highlighted issues of construction workers by each of the individual experts. The extracted issues were mapped in a matrix form for similarity checking amongst the issues and are categorised into 10 clusters as presented in table 2.

Table 2. Highlighted workers' issues.

No.	Cluster of issues	Numbers of highlighted issues
1	Safety issues	9
2	Restricted government regulation	8
3	Demotivated issues	8
4	Lack of quality workers	8
5	Poor living quality	6
6	Communication barriers	5
7	Adaption issues	4
8	Poor attitudes	3
9	Lack of logistical arrangements	3
10	Lack of education	2

Table 2 shows the identified issues faced by construction workers from the experts' perspective who are very experienced in handling construction projects in Saudi Arabia especially in Makkah city. These issues were categorised into 10 clusters where each cluster consists of several numbers of issues which being highlighted by the experts during the interview sessions. The first 4 clusters are having 9 and 8 numbers of issues respectively and these clusters should be given more concerned. The followings are the elaborations of the 4 clusters of issues mentioned by the experts during the interview sessions.

5.1. Safety issues

In safety issues, 9 out of 11 experts had highlighted these issues which engulfed construction workers in the Makkah construction industry. The first expert expressed the concern on the continuous safety violations of workers at site due to loose monitoring. While to the second expert concerned about very low awareness of safety regulations/rules by workers. According to the fourth expert, injuries and fatalities occurred mainly due to less knowledge and awareness of safety requirements at construction sites. The fifth expert mentioned about lack of safety awareness is serious issue among construction workers. The sixth and seventh experts have highlighted common issue related to safety which is congested accessible area to the project specifically around the Al-haram vicinity which is under the pressure and unsafe conditions. Whereas, the eighth expert mentioned that Makkah construction industry is suffering from lack of safety issues and not practiced in compliance of high standards. Furthermore, the ninth expert and tenth expert have pointed out that most of construction projects in Makkah are high rise projects where some companies didn't train the workers very well to follow strictly safety requirements to avoid injuries and fatalities at sites.

5.2. Restricted government regulation

Issues related to restricted government regulation to construction workers had been mentioned by 8 experts. According to the first expert, insufficient visa to hire more skilled workers and restrictions to skilled non-Muslim foreign workers are the forms of restriction on government regulation. This condition has constrained the supply of the workers in the industry. While the third expert pointed out that unfriendly authority's rules toward workers is a severe issue. Based on the forth expert view, another form of restricted government regulation is lengthy and dependency on Saudi officers to complete related procedures. Whereas the sixth expert stated that most common issue that Saudi construction workers faced is unfair termination of employees. Also, the eighth expert raised up one important issue which is restrictions to form union/associations to fight for their welfare. The ninth expert in agreement

with the first expert where he states that insufficient visa to hire more skilled workers and restrictions to skilled non-Muslim foreign workers are basic issues faced by construction workers around Makkah vicinity. Finally the tenth expert mentioned that restrictions to skilled non-Muslim foreign workers is general problem can be faced of companies in the Makkah city.

5.3. Demotivated issues

For demotivated issues, 8 experts had identified the workers' issues which related to demotivated cluster. The first expert mentioned about delay in wage payment which is a demotivated factor to all foreign workers who are urgently need to send the money to their homeland. Besides that, the second expert highlighted three serious issues that can be form of demotivated factors which are low wages, delay in wage payment and extreme hot weather. Whereas third expert stated that less effective working hours is due to lack of motivated factors. According to him, workers involved in construction projects around holy mosque works only 5.5 effective hours out of 8 hours due to congestion at construction area such as holy (Alharam) area and poor monitoring and supervision by site management. Furthermore, the fourth expert identified three issues including low wages, lack of motivation to earn overtime pay and delay in wages payments. Moreover, the fifth expert considered low wages, unfair wages distribution among different nationalities and delay in wage payment as demotivated factors that engulfed construction workers. The sixth expert is in agreement with the first expert where he articulated that excessive delay in wage payment to workers for more than six months could lead to tremendous disputes between workers and management and can lead to protests and strikes at construction site. This issue confirmed by the seventh expert where he expressed that delaying in wage payment definitely will cause strike at site by workers that leads to stop the work entirely. Likewise, he also addressed that low wages demotivated workers and also can cause low productivity. Finally, the eighth expert is completely agreed with the fifth expert where he had identified three significant issues engulfed construction workers that are low wages, unfair wages distribution among different nationalities and delay in wage payment.

5.4. Lack of quality workers

Lack of quality workers is considered as pertinent issue to construction industry in Saudi Arabia which was expressed by 8 experts. According to the first expert, unskilled workers brought under name of skilled is common issue faced by construction companies in Saudi Arabia and Makkah city no exception where these workers can execute and accomplish poor quality works. While the second expert concerned about the works quality being executed by workers as vital issue pertinent to construction workers in the Makkah construction industry. Furthermore, the forth expert considered bringing non-skilled workers under the name of skilled and quality issues are problems related to construction workers which are affecting the required quality of workers. Besides, the fifth expert had mentioned that another issue affecting work progress and work quality which is unskilled workforce. While the seventh expert is in agreement with the forth expert where he had expressed the issue of bringing non-skilled workers but claiming of skilled has compromised the quality issues. Furthermore, the ninth expert raised up very important issue engulfed construction workforce which is lack of experience. To a certain extent, the tenth expert had stated lack of training sessions provided to workers is another issue surrounded construction workers and finally, eleventh expert mentioned that lack of quality workers is popular issue among construction organizations in Saudi Arabia.

6. Conclusion

Construction workers face many issues in their daily life not only related to technical construction demanding tasks but also related to their social adaption lifestyle in the country. This paper had presented the identified issues surrounded construction workers in Makkah city from the senior management staffs perspectives that have been working for more than 10 years in Saudi Arabia. The identified issues faced by the Saudi construction workers are categorized in 10 clusters which are safety issues, restricted government regulation, demotivated issues, lack of quality workers, poor living quality, communication barriers, adaption issues, poor attitudes, lack of logistical arrangements and lack of

education. The experts have highlighted several recommendations to the Saudi Arabia construction practitioners in dealing with their workers' issues for ensuring success construction projects as summarized as following:

1. Construction managers should ensure the importance of safety rules and requirements to be followed strictly at site.
2. Construction leaders should carry out several safety inductions, safety toolbox talks until they find improvements of safety issues at site.
3. Supervision team should ensure high work productivity with free injuries and fatalities.
4. Construction companies should educate workers well about general hazards at construction site to avoid injuries and fatalities.
5. Project managers should request the authority for more visa quota and also invite several sub-contractors in order to overcome any shortage of manpower at construction site.
6. Project managers should assure regular salary payment on time to the workers even during negative cash flow period.
7. Project managers must secure sufficient cash flow throughout project lifecycle by saving either part of the advance payment or make an agreement with a bank for loan from the beginning of the project. Also, explain to the client about financial difficulty and request to get some loans which can be deducted from future progress payments. Likewise, they should look for other financial sources from other projects which are well financed.
8. Construction leaders should distribute wages fairly based on skills and experience of the workers not based on nationality.
9. Project managers should resolve low wage issue by giving some incentives or bonus to workers, and also to allow overtime motivation to improve their financial status.
10. In regards of excessive delay wage payment, project managers should have sufficient petty cash in order to secure at least the basic daily needs/requirements for the workers and their families.
11. Also, project managers should resolve delay in wage payment issue by controlling efficiently the project resources and must secure regular monthly salaries to workers.
12. Hot weather will affect worker's health and definitely will decrease worker's productivity. Therefore, project managers should re-schedule working hours to be from 6am to 11am and from 3pm to 6pm instead of 6:30am to 5:30pm. Moreover, project managers should allocate sufficient cold water containers on different parts of the project which may lessen the pain caused by extreme hot weather.
13. To maintain high quality of work, construction companies should conduct regular audit on supervision team include Forman and site engineers as well as construction managers. Also project managers should increase supervision and quality assurance and quality control (QA/QC) team in order to avoid repetition of poor quality works. Besides, construction companies should train well the available non-skilled or semi-skilled workers in order to lessen construction mistakes, defective and poor executed works.
14. It is highly recommended for construction companies to test/assess new workers properly before they come to work place.
15. Construction companies should provide healthy food to workers to be fit for construction tasks, accommodation and transportation also should be proper. Also, the shower unit and other welfares must be provided to workers in good conditions.
16. Construction leaders should be able to communicate effectively with workers either by using proper translator or using common language which is well understood by all to overcome communication barriers at site.
17. The construction leaders should establish good relations with their workers in order to reduce homesick issue. Most important compensation for being away from home is the sincere relations of workers with their managers; top managements should act like father while the Forman should

be their big brother and workers should treat each other as close friends and thus, lessen the psychological pain that they may suffer.

18. Construction companies must arrange orientation programs to workers and must highlight all unique issues related to Saudi Arabia environment to assist workers to be familiarized to the Saudi culture.
19. Construction companies should improve its logistical requirements and arrangements.
20. Finally, construction managers should train new and un-educated workers and ensure they are well qualified for construction operations.

References

- [1] Al-Emad N, Rahman I A, Nagapan S, and Gamil Y 2017 Ranking of Delay Factors for Makkah's Construction Industry. *In MATEC Web of Conferences* **103** 03001
- [2] Rahman I A, Al-Emad N, and Nagapan S 2016 Categorization of Saudi Arabia's Construction Delay Factors Using Factor Analysis Technique. *Proc. of The 3rd Int. Conf. on Civil, Offshore & Environmental Eng. ICCOEE 2016(Kuala Lumpur)* (Netherland: CRC Press) pp 177
- [3] Saudi Build Brochure En.indd 2017 retrieve from <http://saudibuild-expo.com/library/files/brochure-e.pdf>
- [4] Saudi Arabia Infrastructure Report Q1 2017 retrieve from <http://www.prnewswire.com/news-releases/saudi-arabia-infrastructure-report-q1-2017-300380631.html>
- [5] Wells J and International Labour Organisation. Sectoral Activities Programme (ILO) 2001 *The construction industry in the twenty-first century: its image, employment prospects and skill requirements: report for discussion at the Tripartite Meeting on the Construction Industry in the Twenty-first Century: Its Image, Employment Prospects and Skill Requirements* (Geneva, Switzerland: International Labour Office)
- [6] Hamid A R A, Singh B, Yusof A M and Abdullah N A M 2011 The employment of foreign workers at construction sites. *2011 2nd Int. Conf. on Construction and Project Management (Singapore)* vol. **15** (Singapore: IACSIT Press) pp 126
- [7] Jamil J and Yusof Z 2011 Human Resources in Malaysian Construction Industry. *Proc. of 2nd Int. Conf. on Business and Economic research (2nd ICBER 2011)(Langkawi)* (St. Louis: IDEAS)
- [8] Abdelaal M, Farrell P and Emam H 2014 Factors Affecting Productivity in GCC Construction Projects. *Proc. of 1st Int. Conf. of CIB Middle East & North Africa Research Network (Abu Dhabi)* (Abu Dhabi: CIB-MENA) pp 557
- [9] Yankov L and Kleiner B H 2001 Human resources issues in the construction industry *Management Research News* **24**(3/4) 101
- [10] Le-Hoai L, Dai Lee Y and Lee J Y 2008 Delay and cost overruns in Vietnam large construction projects: A comparison with other selected countries *KSCE Journal of Civil Engineering* **12**(6) 367
- [11] Ghoddousi P, and Hosseini M R 2012 A survey of the factors affecting the productivity of construction projects in Iran *Technological and Economic Development of Economy* **18**(1) 99
- [12] Sangole A and Ranit A 2013 Identifying Factors Affecting Construction Labour Productivity in Amravati *International Journal of Science and Research (IJSR)* **4**(5) 2013
- [13] Pramanik S and Chackrabarti S N 2013 A study on problems of construction workers in West Bengal based on neutrosophic cognitive maps *International Journal of Innovative Research in Science, Engineering and Technology* **2**(11) 6387
- [14] Andrieu J B, UCLA A and Lee M 2016 Addressing Workers' Rights in the Engineering and Construction Sector – Opportunities for Collaboration (San Francisco: BSR)
- [15] Aziz R F and Abdel-Hakam A A 2016 Exploring delay causes of road construction projects in Egypt *Alexandria Engineering Journal* **55**(2) 1515
- [16] 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 (Hague, Netherlands: International Institute of Social Studies)

- [17] Marzouk M M and El-Rasas T I 2014 Analyzing delay causes in Egyptian construction projects *Journal of advanced research* **5**(1) 49
- [18] Tabassi A A and Bakar A A 2009 Training, motivation, and performance: The case of human resource management in construction projects in Mashhad, Iran *International journal of project management* **27**(5) 471
- [19] Hallowell M R 2010 Worker fatigue *Professional safety* **55**(12) 18
- [20] Hallowell M R and Yugar-Arias I F 2016 Exploring fundamental causes of safety challenges faced by Hispanic construction workers in the US using photovoice *Safety science* **82** 199
- [21] Ghaemi H 2006 *Building towers, cheating workers: Exploitation of migrant construction workers in the United Arab Emirates* (UAE: Human Rights Watch) vol. **18**(8)
- [22] Saudi Arabia –Manpower & Employment, Talent Management, and Compensation 2016 retrieve from <http://www.jeg.org.sa/data/modules/contents/uploads/infopdf/2872.pdf>
- [23] Nasaruddin N A N and Rahman I A 2017 Exploratory Study on Malaysia Construction Leadership *MATEC Web of Conferences* **103** 03005
- [24] Fei X and Khan T H 2015 Identifying attributes for expert construction project managers in the context of China *International Journal of Asian Social Science (IJASS)* **5**(6) 407