

Factors that trigger bullying amongst subcontractors toward intention to quit in the construction projects

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Abstract

Purpose – The purpose of this paper is to examine the relationships between three key factors that cause workplace bullying among subcontractor managers toward intention to quit the undertaken project within the context of Malaysia.

Design/methodology/approach – This study utilized the simple sampling method to select its study sample, while the questionnaire survey approach was implemented amidst 500 G6 and G7 contractor managers across Peninsular Malaysia. A total of 210 completed questionnaires were returned. Partial least square-structural equation modeling was administered to analyze the data via SmartPls 3.0 software.

Findings – This study discovered three significant factors (main contractor leadership, construction culture, work organization and job design) that displayed positive effect on workplace bullying among subcontractor managers toward intention to quit. The study outcomes can serve as a direction for policy makers to reduce bullying within the construction project environment.

Practical implications – This study serves as an instruction for main contractors to reinvent their style of management in overcoming bullying in construction projects. This paper guides that collaborative relationship among various parties in construction projects, including the representatives of main contractors and subcontractor managers, may assist in addressing the hostile environment of construction project, in order to create a constructive relationship between them that leads to overall project success.

Originality/value – Recognition of the three key factors that lead to workplace bullying among subcontractor managers in the construction industry, which are bound to enhance intention to quit based on the data set with strong statistical results, has made the research original.

Keywords Construction industry, Workplace bullying, Work organization, Construction culture, Intention to quit, Main contractor leadership

Paper type Research paper

1. Introduction

The construction arena is heavily based on projects composed of main contractors, subcontractors, suppliers, consultants and project owners (Khan and Burn, 2013), where each has a major determinant role in determining the success of a project (Salleh, 2009). A subcontractor refers to a manager and his crew hired by the main contractor to carry out part of the building work based on the subcontractor's skills in the respective area (Ulubeyli *et al.*, 2010). Therefore, a good relationship between main contractor representative in the project and subcontractor managers is essential to execute a project smoothly without

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raising any issue (Kale and Ardit, 2001). Nevertheless, ample of evidence seems to point toward subcontractor managers bullying in construction projects. For instance, Pitt (2014) claimed that 6.6 percent of subcontractor managers did have the intention to quit the construction projects due to workplace bullying. Regardless of such low percentage rate, it is essential to probe into the factors that cause bullying among subcontractor managers to quit construction project, in which no study has investigated this matter.

Bullying is defined as the repeated and permanent form of abuse at work, which has been reckoned as a significant threat to workplace health and security through its negative impacts on employees (Jaafar *et al.*, 2017). Einarsen *et al.* (2011) asserted that the bullying rate had increased to 10 percent among workers in Europe, while Georgakopoulos and Kelly (2017) revealed 14 percent of estimated bullying rate in the USA. Huang *et al.* (2007) mentioned that workplace bullying resulted in approximately 1 percent increment in the intention to quit. In the context of construction industry, Vilnius (2008) depicted that the construction industry is characterized by its constant increase of turnover rate due to bullying.

This research looked into the factors that cause workplace bullying among subcontractor managers in Malaysian construction projects. As a developing nation, Malaysia has recorded a substantial number of cases that involve workplace bullying, especially within the construction arena (Hidzir *et al.*, 2015). Although a report published by CIDB (2017) showed that 229.0bn of construction projects were awarded to main contractors in 2016, Hidzir *et al.* (2015) claimed that subcontractor managers had reported on unfair treatments from main contractors and conflicting clauses found in the contract typically associated to payment, indemnity, additional insurance, partial lien waiver, no damage for delay and termination clauses. Therefore, identifying the key factors that cause workplace bullying among subcontractor managers across construction projects with Malaysia as the research context offers rich information for various parties to overcome the issue at hand.

There is no exact one definition of workplace bullying that fits all scenarios and many researchers have pointed out that the negative nature of the acts must be proven in defining workplace bullying (Einarsen *et al.*, 2011; Salin, 2003). Einarsen and Hoel (2001) grouped negative acts into three categories: negative act that influences the quality of work, negative act that is aimed directly to the person including behavior of humiliating and negative act of intimidating culture, such as threat of violence and shouting. As for this study, the categories developed by Einarsen and Hoel (2001) had been employed as the guideline of negative acts to determine workplace bullying among subcontractor managers. Based on the above mentioned categories, Salin (2003) listed three factors that cause workplace bullying, namely, work organization and job design, leadership, as well as social climate and culture. Examples of bad work organization and job design can be in terms of lack of clear goals concerning the work and bad flow of information in workplace (Huang *et al.*, 2007). As for main contractor leadership, numerous studies have proven the unjust treatment toward subcontractor managers. Hinze and Tracey (1994) investigated 28 subcontractor managers, who claimed that they were treated unfairly as they had to accept risks and take responsibility for all unpleasant events that took place during the construction. Organizational culture refers to established beliefs or values that affect the attitude and behavior of an employee (Tsai, 2011), while negative culture in workplace leads to workplace bullying (Agervold, 2009). Dainty *et al.* (2000) stated that all construction team members, including subcontractor managers, often find themselves in an extremely hostile environment, hence leading to workplace bullying.

The relationships between other job stressors and intention to quit have been examined in prior studies pertaining to construction industry (Huang *et al.*, 2007; Sun, 2011). However, the effect of bullying factors on subcontractor managers that leads to intention to quit construction project is examined for the first time in this study. This study is unique within

the context of Malaysia, since the existing studies carried out by local researchers appear to be more fixated on discovering the prevalence of workplace bullying in other industries, such as healthcare (Yuzana *et al.*, 2014) and banking (Thamarakshan, 2015). Extensive literature review and the rationale for the suggested hypotheses are presented in the following paragraphs.

2. Bullying triggers and workplace bullying among subcontractor managers

Three hypotheses related to factors of occurrence and workplace bullying are highlighted in this study. Leadership is defined as the connection in which one guides, manages and supervises others in order to implement reciprocal activity (Saqib *et al.*, 2015). The autocratic style of leadership is said to make the workplace prone to bullying. This is due to the imbalance of power between leader and workers (Hoel and Cooper, 2000). This can be explained in the case that targets are bullied by their supervisors or their upper management leader (Hoel and Cooper, 2000). In a construction site, the main contractor is the leader of the site and is responsible for leading and supervising all related activities (Tan *et al.*, 2017). The management team in a construction site is usually the project manager or superintendent who works on behalf of the main contractor. Generally, a project manager deals with the client, other project-related consultants and subcontractor managers. Jung and Mills (2012) indicated that it is common for the main contractor's project managers to use autocratic leadership styles against subcontractor managers. This style of leadership is mainly employed in construction projects and is due, in particular, to the hierarchical structure of such projects (Hagberg, 2006). According to Lynch (2011), there is an imbalance of power between main contractor project managers and subcontractor managers. On the contrary, Tsuno *et al.* (2015) argued that minimal intervention or laissez-faire leadership also can promote bullying as a culture. A cross-sectional study by the Norwegian workforce disclosed the laissez-faire leadership as one of the strongest predictors of bullying (Huang *et al.*, 2007). Normal communication between main contractor's project manager and subcontractor managers – either face-to-face, or by phone, fax or mail – will help prevent interface problems between them (Al-Hammad, 2000). Built upon this, the following hypothesis is proposed:

H1. There is a positive relationship between main contractor leadership and workplace bullying.

Salin (2003) listed work organization and job design as factors that contribute to the occurrence of workplace bullying. Tsuno and Kawakami (2015) asserted that bad work organization and job design promote roles of ambiguity and conflict, thus resulting in bullying. Instances of bad work organization and job design are absence of clear work goals, poor information flow, unclear drawings provided by main contractors, lack of mutual conversations about tasks, organizational constraints and lack of control over one's own job (Huang *et al.*, 2007). The nature of construction projects is "always active." In every stage of construction, there are often many changes in client requirements and the overall design of the building (Alinaitwe *et al.*, 2007). As a result, construction projects are often rife with uncertainties. This job ambiguity causes subcontractor owners to feel burdened and vulnerable. It may also facilitate the occurrence of bullying (Huang *et al.*, 2008). As such, the following hypothesis is developed:

H2. There is a positive relationship between work organization and job design and workplace bullying.

Alterman *et al.* (2013) stated that construction industry is associated with macho culture, where aggressiveness is accepted as the norm. Al-Hammad (1993) argued that for many reasons, there should be disputes among the parties involved in the construction project,

such as between main contractor project manager and subcontractor managers, or among the subcontractor managers. Such a dispute may affect work performance and thus, creates conflict between them (Al-Hammad, 1993). Diekmann *et al.* (1994) argued that hostile language among subcontractor managers and the representative of main contractor is inevitable since many parties are involved in one project with different ideas. In addition, Gunning and Cooke (1996) found that subcontractor managers often have to work with impossible deadlines, meet unrealistic demands from main contractor's project manager and suffer from lack of staff. All these factors cause subcontractor managers to suffer undue stress and stress may induce a bullying act to occur. The hypothesis built upon this is given as follows:

H3. There is a positive relationship between construction culture and workplace bullying.

3. Subcontractor managers bullying and intention to quit

Leymann (1996) asserted that there is no bullying if there is no negative outcome to the target. Hoel and Cooper (2000) stated that one of the negative outcomes of work-based bullying is intention to quit. Kim *et al.* (1996) defined intention to quit as the level to which an individual considers leaving the relationship with the community. This definition is applied in this study as it highlights the relationship between subcontractor managers and current project. A past research found positive relationship between workplace bullying and intention to quit (Djurkovic *et al.*, 2003). Sun (2011) argued that job dissatisfaction, as a result of workplace bullying, can influence the intention to quit. Du *et al.* (2006), in their empirical study carried out in China, revealed that dissatisfaction toward supervisor may push managers to quit the project. Huang *et al.* (2007) reported that subcontractor managers are more likely to have lower job satisfaction due to aggressive and stressful job environment. Vartia (2001) mentioned that the construction project overtly adopts hostile language and behavior, which can lead to a higher ratio of absenteeism. This research believes that bullying against subcontractor managers is a likely reason for why they often seek new construction project. Thus, this study proposes the following hypothesis:

H4. There is a positive relationship between workplace bullying and intention to quit the project among subcontractor managers.

The conceptual framework for this study, as illustrated in Figure 1, has been conceptualized based on the aforementioned research hypotheses pertaining to the bullying triggers that may affect subcontractor workplace bullying, as well as the correlations between these perceptions and the intention to quit.

4. Research design

The research design is comprised of pilot test, main survey, data collection and data analyses. A pilot test was performed by reporting a draft of the questionnaire to a number of professionals in the field to detect any possible emerging issue. This approach was applied to remove any uncertainty or unclear wording from the questionnaire. This method assisted in determining the validity and reliability aspects of the questionnaire. Originally, the target population was focused on G1 and G2 contractor managers. The outcomes of this pilot study were insignificant as all the respondents showed no bullying activity in their field of work and they believe that is likely to happen due to the nature of construction project. Thus, 40 respondents from G7 contractors were chosen for the pilot study and the constructs were analyzed using Cronbach's α . The result of Cronbach's α was 0.679, which supported the acceptance limit (Hair *et al.*, 2010).

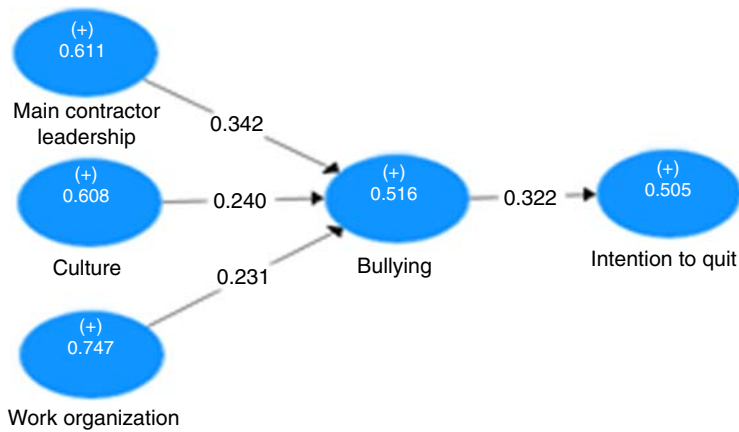


Figure 1.
Conceptual framework

The questionnaire had closed-ended questions using the five-point Likert Scale with 1 representing “Strongly Disagree” and 5 as “Strongly Agree.” The items used were adopted from previous studies that consisted of 16 items to measure workplace bullying among subcontractors (Einarsen and Hoel, 2001), 16 items for main contractor leadership style (Thomas, 2014; Bagilhole *et al.*, 2000; Duy Nguyen *et al.*, 2004), 4 items for work organization and job design (Alinaitwe *et al.*, 2007; Duy Nguyen *et al.*, 2004), 4 items for construction culture (Bagilhole *et al.*, 2000) and 4 items for intention to quit (Mobley *et al.*, 1978). In order to meet the welfare of the respondents, the questionnaire was prepared in English and Bahasa Melayu. The original version of the questionnaire was prepared in English and was translated into Bahasa Melayu by a panel of experts who were familiar with these two languages.

The study data were collected from the higher management levels (either the owner or the manager) of G6 and G7 contractors who had carried out subcontracting work in Peninsular Malaysia. According to CIDB (2017), 7,525 active contractors of Grades 6 and 7 in Peninsular Malaysia represented the study population, while unit of analysis refers to the higher manager of contractor companies. In this research, the respondents were selected by using the simple random sampling method. A total of 500 sets of questionnaires were distributed in two stages: via mail (e.g. by post or e-mail) and delivery-and-collection method (e.g. conferences and seminars). A total of 210 questionnaires were returned with complete responses. This means the response rate of this research was 42 percent. Low response rates are normal in the workplace bullying field of study due to the sensitive nature of the topic (Carter *et al.*, 2013).

The researchers applied matrix of sample size for continuous data based on population size, margin of error and α value, as suggested by Bartlett *et al.* (2001). According to the matrix of sample size and the population, the researchers need a sample size of 209 for model testing. Hence, 210 returned questionnaires had been adequate for partial least square-structural equation modeling (PLS-SEM) analysis, with previous studies reporting a sample size threshold of 100 (Akter *et al.*, 2010). A rule of thumb for PLS-SEM is the “ten times rule” (Hair *et al.*, 2011), according to which the minimum sample size must be ten times the largest number of paths in the structural or measurement model.

As for data analysis, two main stages were embedded. In the first stage, the collected data were analyzed by using IBM SPSS version 24 to calculate Harman’s single factor test (Podsakoff and Organ, 1986) to determine if the majority of the variance can be explained by a single factor and to detect the issue of common method variance. As for the second stage,

SEM-PLS technique was applied to evaluate the measurement model, including the validity and reliability aspects of the relationship between the construct and the associated observable measurement items, apart from assessing the structural model that concerns the relationships between the constructs (Hair *et al.*, 2011). SEM-PLS was used because it is suitable for prediction in exploratory analysis, which can be used in complicated structural equation model (Hair *et al.*, 2010).

5. Data analyses and results

Data were analyzed with regard to respondents' background, measurement model and structural model.

5.1 Background of respondents

A total of 210 valid responses were received across the two respondent groups, as presented in Table I. The largest group of respondents was the G7 (60 percent) and followed by the G6 (40 percent). In terms of education background, the largest categories of respondents were bachelor graduates (77.6 percent) or diploma holders (21.4 percent). In terms of experience, the largest categories of respondents had 11–16 years of experience (35.7 percent). In addition, the largest group of the respondents was from building contractors (48.6 percent). In terms of age, the respondents were largely from 41 to 50 age range (35.2 percent).

| Demographics | Frequency | Percentage |
|---------------------------------------------------|-----------|------------|
| <i>Age</i> | | |
| 20–30 years old | 31 | 14.8 |
| 31–40 years old | 66 | 31.4 |
| 41–50 years old | 74 | 35.2 |
| More than 51 years old | 39 | 18.6 |
| <i>Academic background</i> | | |
| Diploma | 45 | 21.4 |
| Bachelor degree | 163 | 77.6 |
| Master/PhD | 2 | 1.0 |
| <i>Years of experience</i> | | |
| 1–4 years | 24 | 11.4 |
| 5–10 years | 47 | 22.4 |
| 11–16 years | 75 | 35.7 |
| 17–22 years | 55 | 26.2 |
| More than 23 years | 9 | 4.3 |
| <i>Grade or class of registration</i> | | |
| Grade 6 | 84 | 40.0 |
| Grade 7 | 126 | 60.0 |
| <i>Age of the firm</i> | | |
| 1–4 years | 16 | 7.6 |
| 5–10 years | 54 | 25.7 |
| 11–16 years | 80 | 38.1 |
| 17–22 years | 56 | 26.7 |
| More than 23 years | 4 | 1.9 |
| <i>Category or nature of construction project</i> | | |
| Mechanical and electrical | 59 | 28.1 |
| Civil engineering | 48 | 22.9 |
| Building construction | 102 | 48.6 |
| Trade | 1 | 0.5 |

Table I.
Profile of the respondent

5.2 Assessment of the measurement model

In the framework applied in this study, a number of reflective latent variables (LV) were considered, including main contractor leadership, work organization and job design, culture, workplace bullying and intention to quit. In order to evaluate the condition of reflective constructs, convergent validity and construct reliability (i.e. internal consistency) should be evaluated. Chin (2010) stated that composite reliability (CR) and average variance extracted (AVE) are utilized to perform such assessments. In order to evaluate the reliability of the reflective measurement model for SEM, both indicators of reliability and construct reliability must be determined. In order to assess convergent validity, the loading of each indicator on its connected construct should exceed 0.7 to achieve acceptable indicator reliability (Hair *et al.*, 2011). Chin (2010) added that indicators with a loading between 0.4 and 0.7 should be evaluated for removal if their elimination increases CR and AVE values, while items with loading less than 0.4 should be deleted. Construct reliability was also evaluated by using the CR coefficient (Chin, 2010). As illustrated in Table II, each indicator connected with four reflective constructs in this research had loading greater than 0.6, while CR for the LV exceeded 0.8; thus, meeting an acceptable threshold. For convergent validity to be assessed and acceptable, the AVE of the construct should be higher than the recommended threshold (Chin, 2010; Hair *et al.*, 2011) of 0.5. Table II presents that the AVE of the constructs exceeded 0.5; thus the convergent validity of the measurement model is acceptable.

Discriminant validity is the extent to which each construct differs from other LV in the model. According to Chin (2010), the square root of the AVE for each construct should be higher than the maximum correlation between the construct and other LV in the framework in order to conduct discriminant validity. Table III presents the inter-construct correlations (below the diagonal) and the square roots of AVE (on the diagonal) of the first-order constructs. This table shows that the square root of the AVE for all first-order factors was higher than their shared variances. This finding reaffirmed the discriminant validity of the model constructs.

5.3 Assessment of the structural model

In order to evaluate the structural model, two initial criteria should be assessed and disclosed: the importance of the path coefficients and the value of R^2 coefficients for

| Construct | Item | Factor loading | CR | AVE |
|---------------------------------------|------|----------------|-------|-------|
| Main contractor leadership (ML) | A1 | 0.706 | 0.861 | 0.611 |
| | A2 | 0.653 | | |
| | A3 | 0.874 | | |
| | A4 | 0.868 | | |
| Work organization and job design (WJ) | A5 | 0.835 | 0.855 | 0.747 |
| | A6 | 0.892 | | |
| | A7 | 0.903 | | |
| Construction culture (CC) | A8 | 0.908 | 0.901 | 0.820 |
| | A9 | 0.650 | | |
| Workplace bullying (WB) | A10 | 0.758 | 0.864 | 0.516 |
| | A11 | 0.718 | | |
| | A12 | 0.655 | | |
| | A13 | 0.826 | | |
| | A14 | 0.686 | | |
| | A15 | 0.610 | | |
| Intention to quit (IQ) | A16 | 0.701 | 0.801 | 0.505 |
| | A17 | 0.845 | | |
| | A18 | 0.667 | | |
| | | | | |

Table II.
Results of the
measurement model

endogenous constructs. Each hypothesis is related with a causal connection in the structural model, which illustrates the relationships between the different constructs. Path coefficients were computed for each connection in the model, in addition to their corresponding *t*-values. While the path coefficients must be significant, the value of R^2 coefficients is mainly relevant to the research area. Cohen *et al.* (2003) suggested that R^2 is considered small but acceptable if R^2 ranges between 0.02 and 0.12; medium 0.13 and 0.25 and large 0.26 and above. In the current study, the R^2 coefficients for workplace bullying and intention to quit were 0.341 and 0.101. This means that the R^2 values in this study indicate that while 34.1 percent of variance in workplace bullying was explained by main contractor leadership, work organization and construction culture, only 10.1 percent of variance in intention to quit was explained by workplace bullying.

Table IV illustrates the results of hypotheses testing and the evaluation of path coefficients. The results displayed the significant effect of main contractor leadership on work-based bullying (*H1*), the significant effect of work organization and job design on workplace bullying (*H2*), as well as the positive effect of construction culture on workplace bullying (*H3*). Additionally, this study revealed that workplace bullying has a significantly positive impact on intention to quit (*H4*). The associated *t*-values for *H1–H4* are in the acceptable range (≥ 2).

6. Findings and discussion

The findings of this present study are discussed in light of three factors that trigger bullying among subcontractor managers toward intention to quit the project.

6.1 Relating factors that trigger bullying toward workplace bullying

Factor 1: “main contractor leadership”. Hoel *et al.* (2010) found that the strongest predictor of workplace bullying was autocratic leadership. Autocratic leadership is where the manager rarely allows subordinates to participate in the decision-making process. This type of style is commonly noted in the hierarchal structure of management. A similar pattern was also found in the construction project where the style of leadership is hierarchical. Rowlinson *et al.* (1993) argued that a supportive leadership style is usually used in the pre-contract stage and will transform to autocratic leadership style when the construction starts. In the post-contract stage, the main contractor representative will abuse his power toward the

| Constructs | CC | IQ | ML | WJ | WB |
|------------|--------------|--------------|--------------|--------------|--------------|
| CC | <i>0.906</i> | | | | |
| IQ | 0.048 | <i>0.711</i> | | | |
| ML | 0.088 | 0.253 | <i>0.781</i> | | |
| WJ | 0.210 | 0.260 | 0.344 | <i>0.864</i> | |
| WB | 0.339 | 0.323 | 0.457 | 0.400 | <i>0.718</i> |

Table III.
Discriminant validity

Note: The square root of AVEs is shown diagonally in italics

| | Hypothesis | Path coefficient | <i>t</i> -value | Supported |
|-----------|------------|------------------|-----------------|-----------|
| <i>H1</i> | ML → WB | 0.358 | 5.684 | Yes |
| <i>H2</i> | WJ → WB | 0.222 | 2.579 | Yes |
| <i>H3</i> | CC → WB | 0.261 | 3.075 | Yes |
| <i>H4</i> | WB → IQ | 0.323 | 3.634 | Yes |

Table IV.
Result of hypothesis testing

subcontractor managers. This act creates an imbalance of power between two parties, which will then induce the occurrence of workplace bullying.

Factor 2: "work organization and job design". Einarsen (1999) stated that workplace bullying is likely to occur in an environment that lacks control over work tasks, role conflict and lack of work design. Vartia (2001) illustrated that poor information flow, lack of mutual conversations on tasks and goals of work unit and insufficient possibilities do influence matters concerning the individual. Similar results were found in the construction organization setting, where matters are always aggravated by job or task ambiguities, unclear job scopes for subcontractors and vague clauses in contractual agreements. Alinaitwe *et al.* (2007) suggested that most construction projects are interrupted by incomplete specifications of the drawing. Unclear drawings provided by the main contractor may also contribute to arguments or problems between the subcontractor managers and the main contractor representative on site (Huang *et al.*, 2008).

Factor 3: "construction culture". Construction industry differs from any standard organizational companies with permanent and stable working conditions. Subcontractor managers are exposed to work with impossible deadlines, unrealistic demands from clients, lack of staff, tasks of multiple projects and face conflicts within the organization; thus, suffering undue stress (Gunning and Cooke, 1996). The construction industry is linked with macho culture characterized by arguments, conflicts and crises, which make the working environment prone to bullying (Bagilhole *et al.*, 2000). The result of this study is consistent with that reported by Dainty *et al.* (2000), who argued that all construction team members, including managers and subcontractor owners, often find themselves in an extremely hostile environment that leads to workplace bullying.

6.2 Relating workplace bullying to intention to quit

The positive relationship between workplace bullying and intention to quit is consistent with the outputs of previous research (Djurkovic *et al.*, 2003). Intention to quit is a common thought and action among dissatisfied employees. Based on the Industrial Relation Act (1967), subcontractor managers may end their services in a project if they are subjected to workplace bullying. Accordingly, this may lead to subcontractor managers knowing their right being abused if they are bullied. Most respondents in this research are educated that such rights under the law have been taught and briefed. Du *et al.* (2006) contended that the main reason for managers to leave the job was dissatisfaction with employers. Lingard *et al.* (2010) revealed that there is a high correlation between the hours of work and construction managers' dissatisfaction of work. Intention to quit a job is a common action among dissatisfied workers and the overall cost resulting from subcontractor manager turnover is very high, hence emphasizing that construction companies should take precautions to avoid this problem.

7. Conclusion and implications of findings

Examining the relationship between workplace bullying and its negative consequences cannot be considered as comprehensive from the stance of construction project stakeholders. Thus, it is essential to determine the antecedents of workplace bullying in terms of how managing these bullying triggers may offer long-term community benefits and better performance that have been thoroughly discussed. Based on the outputs of statistical software, the three essential bullying triggers that exhibited positive relationships with workplace bullying are main contractor leadership, work organization and job design and construction culture. Besides, it was found that workplace bullying is a consequence of these bullying triggers that lead to intention to quit.

This research contributes to the body of knowledge by developing an exhaustive model to illustrate the significance of main contractor leadership on site, good work

organization and job design and positive construction culture for a successful environment during the construction project. Upon comprehending these three bullying triggers attributed to workplace bullying, the construction organization company (i.e. the contractor's firm or on behalf of the client) may contribute and create awareness of anti-bullying in construction projects. The main contractor representatives in the project might do well by placing better policies or by reinventing their leadership or style of management so that bullying can be addressed, thus reducing the burden on subcontractor managers in relation to their project environment. Provision of such criteria may result in better integration in the decision-making process, apart from driving long-term success of construction projects.

Practically, the present research guides all parties involved in construction projects, particularly the main contractor representatives in the site, to address issues related to projects within the Malaysian construction industry. Aside from adding new knowledge to the literature of workplace bullying, the findings may assist main contractor representatives as the leader on construction site in effectively dealing workplace bullying. The collaborative relationship among various parties, including the representative of main contractor and subcontractor managers, can reduce the hostile environment in construction projects, creating instead constructive relationship between them. Workplace bullying is a widespread problem that is costly to construction projects, and can negatively affect personal well-being. Hence, understanding the factors of workplace bullying is vital for the success of construction projects.

8. Study limitations and recommendations

Despite the rigorous research procedures employed in this study, several limitations have been noted. First, although Malaysia may share similar cultures and practices with other Asian countries, generalizability is one aspect that cannot be reached in this study due to possibly the varying systems and work cultures practiced in other nations. Hence, replication may be a sound idea for various geographic regions worldwide, in which different predictors of workplace bullying may be revealed. Second, gender and racial factors have been omitted from this study, despite their significant role in workplace bullying within construction projects (Loosemore and Chau, 2002). Thus, the diversity of ethnic and gender could be important constructs to be assessed in future studies within the Malaysian context in light of subcontractor bullying.

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