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# Mitigating the health and safety influence of subcontracting in construction: The approach of main contractors



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#### Abstract

Subcontracting is noted for its adverse health and safety (H&S) influence in construction. Using interviews with five of the top 20 UK contractors and one medium-sized contractor, this study explored how main contractors manage the H&S influence of subcontracting with a focus on their in-house measures. Some in-house measures found are: restricting the layers of subcontractors on projects; working with a regular chain of subcontractors; implementing a H&S reward scheme for subcontractors; and insisting on non-working subcontractor foremen who have direct responsibility for the safety of workers in their trade. These measures appear to be influenced by clients, industry peer groups, and the moral justification for occupational H&S, and they offer inter-organisational learning opportunities for contractors in devising measures to mitigate the H&S influence of subcontracting. These findings should also allay concerns that removing some of the legislative hurdles in connection with ongoing red tape debate will result in poorer H&S.

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#### 1. Introduction

Undoubtedly subcontracting has economic benefits for which reason it is practised in construction (Dainty et al., 2001). Despite its benefits, subcontracting also has an adverse influence on health and safety (H&S) which continues to persist in the construction industry (Loosemore and Andonakis, 2007; Mayhew and Quinlan, 1997; Yung, 2009). Given the increasing specialisation in the construction industry and consequent growth of subcontracting this adverse influence could worsen and this creates the need for measures which have far reaching mitigation effect on this adverse phenomenon. In the United Kingdom (UK), the most influential

driver of H&S improvement is the legal framework (Bomel Limited, 2007) within which specific regulations, particularly the Construction (Design and Management) Regulations 2007 (CDM 2007), offer some mitigation against the factors responsible for the H&S influence of subcontracting (Manu et al., 2009). Arguably, given the persistence of subcontracting related H&S challenges, in striving for H&S excellence as captured by headlines such as "One death is too many" (Donaghy, 2009), there is a responsibility on contractors to go beyond compliance with regulatory requirements to proactively develop and implement measures that will prevent adverse H&S outcomes that derive from subcontracting. Aside the regulatory requirements, there is however a dearth of insight as to the in-house measures/practices implemented by main contractors (i.e. the employers of subcontractors) to address this phenomenon. Seeking to shed light on this grey area, with the wider aim of providing inter-organisational learning opportunities for contractors, this research embarked on an inquiry into how main contractors manage the adverse H&S influence of subcontracting with a particular focus on their own in-house H&S

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practices. In the sections that follow, a review of literature on the H&S influence of subcontracting in construction is presented. The review highlights the growth in subcontracting together with its drivers, reports from several industries and countries which emphasise that subcontracting adversely affects H&S. and the factors responsible for the H&S influence of subcontracting. The review points to the persistence of the H&S influence of subcontracting in the UK construction industry despite the existence of regulations which have some potential to mitigate this phenomenon. With this background, a research question is posed initiating empirical investigation into the in-house practices/measures of main contractors implemented to address the H&S influence of subcontracting with the intention of gaining some perspective as to other mechanisms which could complement the mitigation offered by the regulations. The research methodology adopted for the investigation, in this case a qualitative inquiry, together with arguments in support of the methodology is presented. The findings emerging from the study are subsequently presented and discussed followed by possible implications of the findings and concluding remarks.

#### 2. Subcontracting and occupational H&S

In several countries including the UK, over the last three decades, there has been a significant growth in non-traditional modes of employment such as self employment, casual/temporary, part-time and contract/subcontract employment (ILO, 1997; LFS, 2004; Mayhew and Quinlan, 2001). The growth in these forms of employment has been driven by economic priorities, technological and regulatory shifts, and increased product market uncertainty (Bielenski, 1999; Chiang, 2009). Like other non-traditional modes of employment, subcontracting is practiced for several reasons amongst which are:

- the ability to fine-tune labour flexibility:
- the ability to rapidly meet changing product market demands;
- the ability to externalise less rewarding and dangerous activities;
- the ability to bargain down labour cost;
- to encourage quicker completion of tasks;
- the transference of financial risk; and
- the avoidance of workers' compensation cost.

(Chiang, 2009; ILO, 2001; Mayhew and Quinlan, 1997; Wong and So, 2002).

Mayhew et al. (1997) define subcontracting as "the process of subletting the performance of tasks which often affects the employment status of the workers doing the tasks as well as the manner in which those tasks are performed, the structure of control at the workplace and the patterns of regulation". In construction, subcontracting has for some time been an integral part of the industry (Eccles, 1981; Lai, 2000; Stinchcombe, 1959) where it typically involves the subletting of the execution of a section(s) of a project to a contractor(s) who in most cases is a specialist in that section(s) of work. In the UK over 90% of construction companies are micro to small organisations

and a majority of them obtain work as subcontractors, therefore forming an important group in the construction industry supply chain (Kheni et al., 2005; ONS, 2011). Earlier reports also estimate that 80% of construction work undertaken by UK main contractors is subcontracted (Saad and Jones (1998) cited in Thorpe et al. (2003) and Kheni et al. (2005)) and this further underscores the economic importance of subcontracting in construction. In spite of its economic benefits, subcontracting has negative consequences including weakening of bargaining power, non-payment of workers, under-development of human resource skills and loss of job security (Chiang, 2009; ILO, 2001). Subcontracting also has adverse effects on occupational health and safety (Chiang, 2009; ILO, 2001). Subcontracting is a payment-by-results system where payment is based on the amount of work done rather than the period of time spent on the worksite. Returns are therefore enhanced by the quick completion of task, resulting in subcontractors pushing themselves hard, working excessive hours, or side stepping safety where it impedes production (Mayhew et al., 1997).

Retrospective evidence from a range of several industries in several countries demonstrates that the adverse H&S influence of subcontracting is no recent phenomenon. Research by Harrison et al. (1989, 1993) in Australia linked subcontracting to high incidence of fatalities amongst workers in the transport, communication and agriculture industries. Subsequent reports by Toscon and Windau (1994) and United States Bureau of Labor Statistic (USBLS) (1995), both in the USA; Blank et al. (1995) in Sweden; and Mayhew et al. (1997) in Australia similarly associated subcontracting with adverse OHS outcomes in industries such as mining, agriculture and transportation. Relatively recent studies also indicate that this situation is not dissimilar to what pertains in the construction industry. In several countries such as Spain, Malaysia, Philippines, Poland, Hong Kong, and China, the adverse H&S influence of subcontracting has been noted in the construction industry (Byrne and van der Meer, 2001; Chiang, 2009; ILO, 2001; Wong and So, 2002; Yung, 2009). Similarly in the UK construction industry subcontracting has over the years been persistently found to have harmful H&S consequences (Ankrah, 2007; Brace et al., 2009; Donaghy, 2009; Hide et al., 2003; Horbury and Hope, 1999; HSE, 1978) clearly emphasising the need for concerted efforts to address this phenomenon. Clearly, any efforts aimed at achieving this would have to focus on addressing the factors responsible for this phenomenon and some of these have been reported in literature

- 1. Fragmentation of the construction organisation into 'islands' or self-centred decision-making units with conflicting interests (Hsieh, 1998).
- 2. Ambiguity about responsibilities and unclear work relationships resulting from subcontracting relationships (Hide et al., 2003; Horbury and Hope, 1999; Mayhew and Quinlan, 1997).
- 3. Inadequate communication and teamwork among contractors arising from workforce fragmentation (Hide et al., 2003; Horbury and Hope, 1999; Mayhew and Quinlan, 1997).

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