INSTITUTIONAL AND ECONOMIC CHALLENGES TO HEALTH AND SAFETY MANAGEMENT WITHIN SMEs IN DEVELOPING COUNTRIES: A CASE STUDY OF GHANA

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ABSTRACT

The health and safety performance of the construction sector is an important issue in Ghana’s implementation of the Millennium Development Goals (MDGs). Much has to be achieved in this direction if Ghana is to attain the goal of a middle income country by 2015. This paper presents information on safety and health on construction sites obtained through interviews conducted with the aim of examining the institutional structure responsible for the implementation of safety and health standards on construction sites and the economic contexts within which construction SMEs manage health and safety. In Ghana, the institutions having a stake in safety and health at workplaces are comprised of government departments and agencies, consultants, employers’ organisations and the trade union. Eight exploratory interviews were conducted as part of a larger study involving key informants within these organisations. The findings of the paper highlight the significance of an enabling institutional structure and commitment of government in facilitating health and safety management. Based on the findings of the study, key barriers to safety and health management within construction SMEs are identified and recommendations for overcoming those barriers are made.

Keywords: construction safety and health; developing countries; SMEs.

1. INTRODUCTION

The construction sector in developing countries plays a significant role in physical development and employment of the otherwise largely unemployed labour force. There are however major challenges to increasing the productivity of the sector in developing countries including low levels of macroeconomic performance, limited resources, reliance on institutional structures and procedures largely inherited from developed
countries which once ruled them and poor infrastructural development (Coble and Haupt 1999; Gibb and Bust 2006; Ofori 1999). In the wake of these challenges, it is not surprising that construction in developing countries contributes a large quota to occupational accident statistics. In comparison with developed countries, construction sites in developing countries are ten times more dangerous than in developed countries (Hämäläinen et al. 2006). The construction industry of Ghana is the second most hazardous industry after manufacturing (Government of Ghana (GOG) 1987).

Small and medium-sized businesses dominate the construction industry in many developing countries. In Ghana, Addo-Abedi (1999) reported that virtually all domestic construction businesses operate as small scale contractors managed by owner/managers and their spouses and in some cases, their children. These SMEs are constrained by limited access to financial and information resources as well as regulations and procedures which make it difficult to effectively manage the safety and health aspects of their operations. The quality of working conditions within SMEs is therefore relatively unsatisfactory when compared with working conditions in large construction businesses within the country. Considering that a sizeable proportion of the labour force in construction is employed within construction SMEs, this raises the level of concern for safety, health and welfare within the SME sector in construction as many workers are exposed to hazards on site.

The government of Ghana in its development strategy (Government of Ghana (GOG) 2005) aims to move the country into a middle income country by the year 2015. This requires commitment by the government to improving productivity of all economic sectors of the country. For this to be achieved working conditions need to be improved, particularly for construction. Anam na and Osei-Amponsah (2007) have shown that Ghana’s construction industry has potential as a driver of economic growth, although government’s commitment to improving productivity of the sector is low. Improving the health and safety performance of the sector is one means of enhancing the productivity of the construction sector in Ghana.

**Definition of SMEs**

Domestic construction businesses in Ghana operate within the domestic construction market and are managed as family businesses, rarely employing up to 200 employees (Addo-Abedi 1999). They may be regarded as SMEs based on the similar characteristics they possess. This paper therefore defines SMEs as family run domestic contractors with the following thresholds relating to medium, small and micro construction businesses:

- an upper threshold of 199 employees and a lower threshold of 30 employees are adopted for medium-sized construction businesses;
- small businesses are ones which employ 10-29 persons; and
- micro businesses are construction businesses whose number of employees does not exceed 10.
2. BACKGROUND TO OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION IN DEVELOPING COUNTRIES

Occupational health and safety administration in many developing countries evolved from institutional and legal frameworks developed by colonial administration to manage the safety, health and welfare aspects of industrial settings at the time. In Ghana, a labour department, established in 1938, was responsible for implementing the Factories Ordinance passed in 1952 to provide a code of protection for factory workers (Visano and Bastine 2003). Presently, rates of industrialisation in developing countries require effective occupational health and safety administrative systems to control hazards and to provide decent working environments that meet international standards. Higher rates of occupational accidents, particularly in construction, means developing countries might be poor at managing the risks of hazards at workplaces. It is therefore against this background that this study was initiated.

Past studies on health and safety management in construction in developing countries provide ample evidence of lapses in the management of safety and health at construction sites. These studies have identified key problems associated with safety and health at construction sites and are summarised in Table 1. Their findings reveal weaknesses in occupational safety and health administration, economic conditions, climatic conditions and the characteristics of the construction industry of developing countries influence safety and health at construction sites. Also, the effective implementation of safety and health programs is absent in most construction businesses in developing countries. The construction industry of Ghana shares in many of these features of safety and health management in the construction industry of developing countries.

<table>
<thead>
<tr>
<th>Author(s) and Year</th>
<th>Summary of research</th>
<th>Key constraints to effective safety and health management</th>
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</thead>
<tbody>
<tr>
<td>Suazo and Jaselskis (1993)</td>
<td>Compared the occupational safety and health administration system of a developing country (Honduras) and that of a developed country (US)</td>
<td>The study found that the occupational safety and health administration of the developing country Honduras was incomprehensive and limited in coverage</td>
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<tr>
<td>Koehn et al., (1995)</td>
<td>The study examined problems in health and safety management of construction projects in a developing</td>
<td>The study identified ignorance on the part of workers, bureaucracy and time pressures as factors militating against effective safety and health management in the construction sector.</td>
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<tr>
<td>Reference</td>
<td>Study Description</td>
<td>Findings</td>
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| Koehn and Reddy (1999)          | The study explored safety problems and labour requirements in the construction industry of India | The findings of the study indicated certain characteristics of construction in developing countries contributed to poor safety and health performance of the industry:  
  • availability of cheap labour means workers are compelled to take unacceptable risks because of fear of being dismissed;  
  • workers cannot afford the cost of proper nutrition because of low wages leading to fatigue and slow rate of work; and  
  • poor health and safety attitudes. |                                                                                                     |
| Haupt and Smallwood (1999)      | Study examined health and safety practices on community projects in South African Construction industry | The findings of the study indicate that health and safety practices are rarely adopted on community projects: typically, no inductions are conducted; workers are not consulted on health and safety issues; PPE is seldom provided; and policies, rules and health and safety programs are not implemented. |                                                                                                     |
| Peckitt et al., (2002)           | Compared health and safety risk management between a developed country (UK) and a developing countries (Caribbean countries) | The study found that:  
  • positive influences on the safety culture of the British construction industry include; relatively high levels of regulation, resources and formal health and safety management systems;  
  • positive influences on the safety culture of the construction industry of the Caribbean include: strong personal locus of control for safety, high risk perception and slow pace of work. |                                                                                                     |
| Smallwood (2002)                | Study examined the link between religious believe systems and safety and health       | The study’s findings showed that religion puts emphasis on the need for conservation of life and the environment |                                                                                                     |
| Peckitt et al., (2004)           | Examined the role of societal culture in influencing safety culture of the construction industries of UK and | The findings of the study demonstrate that societal cultural biases have an impact on safety culture. Societal orientations to power relationships, time, human relations, materialism and risk taking were found to be important factors influencing safety culture of |                                                                                                     |
the Caribbean | both countries
---|---
Mwombeki (2005) | Study investigated the implementation of health and safety on construction sites in Tanzania | The study found that a majority of Tanzanian contractors, small or large, appear to understand the importance of health and safety programs but did not implement such programs to improve the poor health and safety performance of the construction industry
Gibb and Bust (2006) | The study investigated the implications on safety and health of carrying out engineering and construction projects in developing countries | The study identified a number of factors having a negative impact on health and safety management in developing countries: poor infrastructure; problems in communication; unregulated practices; adherence to traditional methods of working; non availability of construction equipment; extreme weather conditions and corruption.

**Health and Safety Management within Ghanaian Construction SMEs**

The construction industry of Ghana, like many developing countries, is dominated by SMEs which operate within the domestic market (Addo-Abedi 1999). Constraints which construction SMEs face include:

- lack of access to financial resources (Eyiah and Cook 2003; UNCTAD 2001);
- delayed payments (European Commission 1994);
- lack of adequate resources to manage their own operations efficiently and effectively (European Commission 1994); and
- regulatory systems that hinder the establishment and growth of SMEs (Eyiah 2004).

In addition to the aforementioned constraints, construction SMEs in Ghana lack the necessary capacity to undertake large contracts because contracts are not packaged to suit small contractors. In the face of scarce resources and these constraints, many of them are unlikely to commit sufficient amounts of funds and the right types of resources in the management of health and safety. Responsibility for enforcing health and safety standards on construction sites lies with many government departments and agencies (refer to Table 2). Some owner/managers are genuinely confused about their responsibilities under the various health and safety legislation.

Employees of construction SMEs are exposed to hazards which cannot be ignored, as international funding bodies and some clients of the construction industry demand that SMEs demonstrate corporate social responsibility in respect of a decent working environment and the physical environment. These are issues which government needs to address to increase productivity of the construction sector in line with its Growth and
Poverty Reduction Strategy (Government of Ghana (GOG) 2005). This study therefore aims at assessing the institutional capacity for managing health and safety within construction SMEs which have a significant role to play, albeit with a strong institutional backing, in the country’s transformation into a middle income country. The preceding background introduction underscored the rationale of a study designed to explore how the institutional and socio-economic environments impact health and safety management within SMEs. The aims of the study were to:

- examine the key contextual influences on health and safety management practices within SMEs, not only in Ghana but also in other developing countries; and
- make recommendations based on the analysis of the contextual environment of Ghanaian construction SMEs, for improving health management within construction SMEs, not only in Ghana but also in other developing countries.

The current paper reports on the findings of exploratory interviews of health and safety institutional stakeholders conducted in the first phase of the research.

<table>
<thead>
<tr>
<th>Government department/agency</th>
<th>Health and safety law mandated to implement</th>
<th>Summary of applicability to construction sites</th>
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<tbody>
<tr>
<td>Factory Inspectorate</td>
<td>Factories, Offices and Shops Act 1970</td>
<td>Sections 57, 6-8, 10-12, 19, 20, 25-31, 33-40, 43-54 and 60-87 are applicable to building and civil engineering works</td>
</tr>
<tr>
<td>Labour Department</td>
<td>Labour Act 2003 Workmen’s Compensation Law 1987</td>
<td>Part XV of the Labour Act concerns health and safety and applies to workplaces including construction businesses Workmen’s Compensation Law 1987 is applicable to construction businesses</td>
</tr>
<tr>
<td>Environmental Protection Agency</td>
<td>Environmental Protection Agency Act (Act 490) Pesticides Control and Management Act (Act 528)</td>
<td>Both Acts are applicable to building and civil engineering works and therefore of relevance to construction businesses</td>
</tr>
<tr>
<td>Mines Department</td>
<td>Mining Regulations 1970</td>
<td>Building and civil engineering works carried out under the ambit of mining companies are affected by the regulations</td>
</tr>
<tr>
<td>Town and Country Department</td>
<td>Planning and Building Regulations</td>
<td>Applicable to all physical developments.</td>
</tr>
<tr>
<td>National Road Safety Commission</td>
<td>National Safety Commission Act (Act 567)</td>
<td>Applicable to road construction works</td>
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3. METHOD

Semi-structured interviews were conducted with key informants within institutions with related responsibilities for safety and health on construction sites. Key informants were persons within the participating institutions who had attained the status of director or deputy director or were head of a division. A total of 11 interviews were conducted (Table 3). The interview questions sought information on the following:

- characteristics of respondents’ organisations;
- involvement of respondents’ organisations in implementing safety and health standards within construction SMEs;
- relevant safety and health laws they seek or are mandated to implement;
- key barriers to effective implementation of health and safety standards within construction SMEs; and
- instance(s) of exemplary implementation of safety and health standards within SMEs.

Data from document sources were also analysed. The respondents came from three safety and health enforcing departments and agencies, two government departments responsible for regulating the activities of the construction industry of Ghana, two employers’ associations, one trades union representative and one private consulting organisation in the built environment.

<table>
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<tr>
<th>Table 3 Persons interviewed</th>
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<tr>
<td>Organisation/institution</td>
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<tr>
<td>Labour Department</td>
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<tr>
<td>Factory Inspectorate</td>
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<td>Environmental Protection</td>
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<td>Agency</td>
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<td>Ghana Highway</td>
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<tr>
<td>Public Works Department</td>
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<tr>
<td>Private consultants</td>
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<tr>
<td>Ghana Employers’</td>
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4. RESULTS OF THE STUDY

This section summarises the main results of the interviews. The empirical data are presented as narratives and quotations.

Influences of Government Institutions on Health and Safety Management within SMEs

The influence of government institutions with responsibility for implementing health and safety standards is minimal. The Factory Inspectorate Department which is responsible for enforcing health and safety legislation in most of the countries economic sectors including construction rarely carry out inspections of construction sites. Although it is a requirement for contractors to register their sites with the department, it is mainly large international construction businesses operating in the country that comply with the requirement. The response of one interviewee of the department indicates construction SMEs’ compliance with the Factories, Offices and Shops Act is less than desirable:

“I must say that the most serious abuse of the Factories, Offices and Shops Act occur in the informal sector which includes small domestic contractors in the country. Many of the owner/managers of small construction businesses are ignorant of their responsibilities under the health and safety law affecting the construction sector. The Department has embarked on educational campaigns to help raise the level of health and safety awareness within the construction sector” (view expressed by personnel of Factory Inspectorate Department during interviews).

Views of other departments with responsibility for implementing safety and health standards within construction SMEs portray the sector as one which pays little regard for the safety and health of its employees. Hazards associated with construction activities are often overlooked, resulting in serious accidents. One respondent of the Labour Department said:

“Small-scale contractors want to make the maximum profits and would not provide the necessary personal protective equipment for their workers. They do not evaluate the risk involved in carrying out construction work and as such do not take steps to minimise or eliminate hazards. Some of their workers are employed without
completing their apprenticeship training; while some may not be trained. They may not be sensitised for their safety. Most of their workers are from the informal sector where they may not go under any regulation or union. They would not want to spend their time, money and other resources to train their workers up to a certain standard of safety and health”. (Personnel of Labour Department).

Consultants’ involvement in safety and health management within SMEs often follows the dictates of clients and funding bodies. Consultants’ involvement in health and safety issues is far better on projects funded by international donor agencies and clients who aspire to implement health and safety standards that meet ILO guidelines on construction health and safety. One interviewee commented upon the attitudes of consultants as follows:

“The moral commitment to ensure safe and healthy sites is very low amongst consultants in this country. We do not set a good example and that is the problem. If for instance, I go to a construction site today and I put on the necessary helmet, boots and the necessary personal protective equipment then I will be doing a lot of service to improving construction site health and safety. Professionals are not committed to improving health and safety at construction sites; we talk of ensuring safer construction sites but we are not serious” (Personnel of Architectural and Engineering Services Limited).

The involvement of employers’ associations in health and safety management within construction SMEs is limited to instances of strained industrial relations between employers and their employees where the issue(s) of contention relates to safety and health conditions at the workplace. Many construction SMEs are not registered with the Ghana Employers’ Association and this limits the extent to which the association can protect their interest. The position of the Association regarding safety and health within construction SMEs is summarised by one interviewee as follows:

“The health and safety standard of SMEs has not been very encouraging and that is why employers must have the benefit of coming to join us so that we may take the advantage to educate them about safety laws and health and safety standards to be maintained at the workplace. The only way we can reach SMEs is for them to come to the health and safety forums that we organise” (Personnel of training division of Ghana Employers’ Association).

Many Employees of construction SMEs are temporal and do not belong to the Construction and Building Materials Workers Union (CBMWU) making it difficult to bring pressure to bear on owner/managers to improve safety and health at construction sites. This can be inferred from the low number of collective bargaining certificates concluded by the Labour Department. In 2003, 8 collective bargaining certificates were issued to CBMWU and 2004, 9 were issued (Department of Labour-Ghana 2004).

The interviewees indicated that government departments faced a number of constraints in implementing health and safety standards within construction SMEs. Lack of resources
was seen as a major obstacle to the departments in performing their functions in an efficient manner. One interviewee put it this way:

“Like many government departments, the labour department suffers from high labour turnover and perennial budget cuts. Approved estimates of items relating to staff T & T, utilities, office consumables, office accommodation, and other expenditure are partially released, making the expected outputs of the department difficult to achieve” (Personnel of Labour Department).

Coordinating the activities of the many departments responsible for implementing health and safety standards was also seen by some of the interviewees as a major obstacle to improving the health and safety performance of the informal sector including construction SMEs. Analysis of the content of various health and safety legislations revealed many areas of jurisdiction where government departments and agencies overlap.

**Safety and Health Legislation Applicable to Construction**

The three government departments interviewed indicated the health and safety legislation they are responsible for implementing was applicable to construction and therefore relevant to construction SMEs. Ghana’s main health and safety law is the Factories, Offices and Shops Act. The safety and health concerns of building works and civil engineering construction are covered under the act. Laws such as the Labour Act, the Environmental Protection Agency Act, and the Workmen’s Compensation Law have specific provisions for safety and health which are applicable to construction. Other laws that also have provisions related to the health and safety on construction sites, include the Mines Regulations and the Road Safety Commission Act. Much safety and health legislation in Ghana has not been regularly revised to bring it up to date with prevailing socio-economic conditions in the country. For instance, fines for abusing health and safety legislations are very low.

5. **DISCUSSION OF RESULTS**

The administration of health and safety requires an efficient and adequately resourced institutional structure to implement health and safety standards nationally. However, this is not the case in Ghana where there are many departments and agencies with overlapping responsibilities for enforcing occupational safety and health standards. The number of departments and agencies responsible for health and safety results in time consuming bureaucratic processes and spurs corruption in the construction industry (Kenny 2007). The institutional structure for implementing health and safety standards on construction sites managed by SMEs in this sense, does not facilitate ease of compliance with health and safety laws because of the many procedures required under the slightly different health and safety regulations which different departments and agencies seek to implement. Indeed, many owner/managers are simply ignorant and confused as to which organisations to report accidents to and their responsibilities relating to safety, health and welfare laws. Tetteh (2003) has pointed to areas of jurisdiction as the ‘bone of
contention’ between departments responsible for occupational health safety and dissatisfaction amongst employers in Ghana.

Coordinating the activities of the ministries, departments and agencies responsible for occupational health and safety is far from achievable as there is no law mandating any of the institutions with the responsibility to coordinate the activities of the rest. There is no national policy on occupational safety and health and this adds to the problem of occupational safety and health management within the construction SME sector in the country. All the institutions lack adequate resources to effectively carry out their functions with the most severely constrained being the Factory Inspectorate Department with neither funding mechanisms nor adequate logistical support.

Inspection of construction sites is rarely carried out and flagrant abusers of occupational safety and health law are not penalised. The absence of pressure which can be brought to bear on owner/managers of construction SMEs means some less scrupulous owner/managers can take advantage of the lack of punitive deterrent measures to place economic gain above other business objectives including health and safety. It is therefore not uncommon to find some owner/managers who would manage their businesses without bothering the least about health and safety issues. This unfortunate situation does not encourage owner/managers to manage the health and safety aspects of construction sites. On the other hand, where there is strict implementation of inspections and fines that are high enough to deter potential abusers of health and safety law, owner/managers will be compelled to manage the health and safety aspects of their operations more effectively. Research provides evidence to support this view that fines and other punitive measures for breaking health and safety laws compels employers to proactively manage health and safety because of fear of being penalised or exposed (Wright 1998).

In light of this discussion, it is apparent that reducing the number of departments and agencies responsible for construction sites to one institution would help enforce health and safety legislation. Laws defining funding mechanisms of such a single department would also need to be implemented and enforced. This will help to overcome the current practice whereby departments and agencies depend solely on government subsidies which are often woefully inadequate. Specific construction health and safety laws are necessary to ensure that responsibility for construction site safety is equitably shared among project participants. Government, being the major client, needs to demonstrate commitment to health and safety. This is unfortunately not what appears to happen on public projects. A scheme similar to the Hong Kong ‘Pay For Safety Scheme’ (PFSS) (Hong Kong Government 1996) is recommended whereby a specified percentage of the contract sum for every public project is set aside to meet the cost of implementing specific elements of safety and health programs.
6. CONCLUSIONS

This paper has considered the role of the institutional structure and economic context for safety and health management within construction SMEs in a developing country such as Ghana. The key constraints to effective implementation of safety and health standards were identified. Based on the constraints identified, recommendations were made for improving the safety and health performance of construction SMEs in Ghana and developing countries.

The findings of the study reveal shortcomings not only in government arrangements for implementing health and safety on construction sites, but also the involvement of stakeholders in the implementation of safety and health standards on construction sites managed by SMEs. Remedying the shortcomings of the institutions responsible for safety and health in construction is key to the success of any construction project. This study has implications for policy making regarding the deficiencies in the present system of implementing safety and health standards on Ghanaian construction sites, and suggests solutions that if adopted, could bring about improved safety and health performance of construction SMEs.

The national culture of Ghana has influence on workers’ attitudes and behavior at workplaces. Awareness of cultural influences and owners’ perceptions on safety and health are necessary for a complete understanding of health and safety management within SMEs. The study recommends further research on the impact culture has on health and safety management within SMEs and on the implications this could have on the design of health and safety interventions.

7. REFERENCES


Smallwood, J. "Health and safety (H&S) and religion: Is there a link? ." Proceedings of the Triennial Conference CIB W099 Implementation of Safety and Health on Construction Sites, Hong Kong.


