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Health and Safety in South African construction: Status Quo

Esti Jacobs jacobse1@ufs.ac.za

Department of Quantity Surveying and Construction Management, University of the Free State, PO Box 339, Bloemfontein, 9300 Tel: +27-51-401 9626 / Cell: 076 872 1022

ABSTRACT AND KEYWORDS

Purpose

The primary objective of this study is to determine the status quo of occupational health and safety in the construction industry in South Africa and to emphasise the importance of achieving high standards in occupational health and safety.

Design/methodology/approach

The study is based on a literature review investigating health and safety in the construction industry in South Africa. A questionnaire pertaining to health and safety was distributed amongst contractors, consultants and clients in the construction industry. The results were analysed and compared against the literature review.

Findings

The results of this survey may indicate that legislation is not the answer to improve the health and safety status of the construction industry and that built environment practitioners should concentrate on improving training and education. The Department of Labour should strive toward publishing accurate health and safety statistics on a regular basis and become more rigid in their approach to inspection and enforcement.

Value

The findings may assist all built environment practitioners to get a better understanding of the current status of Occupational Health and Safety on construction sites throughout South Africa, and may inspire them to help change attitudes toward a healthier and safer construction industry.

Keywords

Health and Safety; Construction; South Africa

1. INTRODUCTION

Over the past decades, attention to occupational health and safety in the construction industry has increased dramatically (Geminiani & Smallwood, 2008). In addition to this, the promulgation of the construction regulations in 2003 created a renewed general awareness of health and safety on construction sites (Markram, 2005:30)

The primary objective of this study is to determine the status quo of occupational health and safety in the construction industry in South Africa and to emphasise the importance of achieving high standards in occupational health and safety.

According to Hinze (cited in Geminiani & Smallwood, 2008), occupational health and safety is not a luxury, but a necessity and the time for increased awareness has arrived. Geminiani & Smallwood (2008) further state that occupational health and safety has reached a high priority level on the agendas of many organisations.

However, despite reports of improvement, research indicates that commitment to comply with basic requirements is limited, and the promotion of health and safety as a culture still has a long way to go (Agumba & Haupt, 2009).

Geminiani & Smallwood (2008) observe that the construction industry does not have a good occupational health and safety record. It is vital for occupational health and safety to be adopted as a moral and value, and not to regard it merely as an optional extra where and when time allows. A positive change in attitude among all players in the industry is crucial.

Smallwood & Haupt (2005) noted that the adoption of health and safety as a value, is likely to be influenced by the perceived importance of health and safety. As the priorities of the role players in the industry change, the adoption of health and safety as a value is important, and hence the importance of the current status (Status Quo) of health and safety.

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2. OCCUPATIONAL HEALTH AND SAFETY

2.1 Legislation

The Construction Industry Development Board (cidb) Report on Construction Health and Safety in South Africa: Status and Recommendations (2009) shows that, at a legislative level, South Africa is not lacking in terms of health and safety legislation. It concludes that while the 2003 construction regulations have had a positive impact on the industry, there is a need for amendments to promote optimum health and safety throughout all phases of a project, in particular during the concept, initiation and detailed design phases.

The cidb report (2009) further shows that in general, the manifestations of the impact of the construction regulations are wide spread and it can be inferred that the construction regulations have had a positive impact on reducing health and safety accidents. In particular, it can be concluded that there is an increased health and safety awareness and consideration for health and safety amongst project managers and general contractors. However, research results, done by Smallwood & Haupt (2006) also indicate that there has not been an increase in consideration for health and safety amongst designers and quantity surveyors and only a marginal increase amongst subcontractors.

Occupational health and safety however, should not be driven by a legal framework, but seen as a value (Agumba & Haupt, 2009:463). According to Fryer (1997), it will need more than legislation to make construction safer - attitudes toward safety have to change!

The intention of the construction regulations is good, despite various practical problems that have been pointed out. The regulations created renewed general awareness of the health and safety of all persons involved in construction work, and form a good basis for refining and developing health and safety requirements in the construction industry (Markram, 2005:31).

According to Nortje (cited in Further, 2004), legislation is a handy guide in prescribing the minimum obligations, however, management skills are required to bring a healthy and safe workplace to realisation. Health and safety is not just a programme that calls for integration at various phases and stages of a project, but a process which requires continual improvement.

2.2 Statistics

Based on the Occupational Health and Safety statistics presented by Geminiani & Smallwood (2008), it was determined that the injury and fatality rate in the construction industry is very high in comparison to other sectors of industry in the majority of countries. It was also established that,

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in general, statistics in South Africa tend to be higher than those of other countries globally. This remains a concern for all industries, especially the construction industry, in South Africa.

Statistics for blitzes conducted by the South African Department of Labour Inspectorate (cited in cidb report, 2009) across the country in August 2007, further illustrates the state of construction health and safety in South Africa. From the reported findings it is clear that 52.5% of the construction employers were non-compliant with the Occupational Health and Safety Act and the Construction Regulations (cidb report, 2009:7).

According to Jackson (2007), reliable data and statistics, which are necessary to form the basis of any enforcement, monitoring, and intervention strategies applied by role players in occupational health and safety, are currently lacking in South Africa. The cidb report (2009) shows that a lack of available statistics, in particular that from the Compensation Commissioner, hampers a thorough understanding of construction Health and Safety.

The cidb report (2009) highlights the importance of understanding the status of construction health and safety in South Africa through timeous information and statistics. It further recommends that the Compensation Commission urgently attend to making statistics for the previous year available at the end of the first quarter of the following year.

Jackson (2007) notes that the following problems are currently experienced in South Africa:

- The lack of a national reporting system for occupational accidents and ill-health.
- Important information is neglected by Government statistics which could generate frequency, incidence, morbidity and mortality rates.
- An absence of information regarding the number of workers at risk in each sector and a lack of co-ordinated research within the country.

Jackson (2007) concludes that the assessment of the adequacy and effectiveness of current and future measures, the prioritising of interventions and the calculation of the burden placed on the country by occupational accidents are all influenced by this situation.

2.3 Education and Training

Turning specifically to health and safety training, it was determined through recent studies reported on in the cidb report, 2009, that 34% of top management and 18% of site supervisors had no health and safety training of any kind. It was also established that 33% of site workers had received no health and safety training at all (cidb report, 2009:22).

The level of non-compliance with the Occupational Health and Safety Act and the Construction Regulations in South Africa is very high. According to Cassiem (2009) it is clear that at the organisational and site level, this poor health and safety performance level is due to a lack of

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commitment from management, inadequate supervision as well as inadequate or non-existent health and safety training.

The cidb report (2009) shows that health and safety education and training (or lack thereof) at all levels, have a major influence on construction health and safety. According to Bomel (cited in Musonda, Haupt & Smallwood, 2009:70) health and safety risks increase with a low level of awareness and a lack of training. Geminiani & Smallwood (2008) state that occupational health and safety education and a lack of education have an influence on both culture and management systems and can have an effect on peoples' behaviour.

In order to achieve an improvement in construction health and safety, it is important that more attention is given to improve on-site supervision as well as education and training in health and safety (cidb report, 2009:37).

According to Benjamin & Thompson (1998), it is important for employers to provide information, instructions, training and supervision as may be necessary to ensure their employees' health and safety at work. It is also important that employees know how to utilise this knowledge while working. Hughes & Ferret (2005) state that all employees, irrespective of their level or the stage of their careers, should receive health and safety training. Training should be given on recruitment, at induction or on being exposed to new or increased risks on site. Fellows, Langford, Newcombe & Urry (2002) highlight that all employees should receive health and safety training, regardless of previous experience.

Turning to tertiary education, the cidb report (2009) shows that health and safety in construction is not adequately addressed in tertiary built environment education. The result of this is that built environment practitioners are not aware of their role in health and safety and are neither empowered to contribute thereto. Hinze & Gambatese (cited in Smallwood, 1995) recommend that built environment practitioners can become more responsive to health and safety in construction through education.

2.4 Department of Labour Inspectorate

Enforcement of the Occupational Health and Safety Act is the responsibility of the Occupational Health and Safety Inspectorate which is positioned within the Department of Labour. Currently the Department of Labour Inspectorate plays a reactive rather than a proactive role in the industry and the influence they have is primarily downstream. A recent study by Geminiani & Smallwood (2008) which investigated the effectiveness of the Department of Labour Inspectorate, highlighted that the Inspectorate is more ineffective than effective (cidb report, 2009:14).

According to Geminiani & Smallwood (2008) the significant proportion of fatal and major injuries throughout the industry is the result of various Occupational Health and Safety activities. However, the officials conducting inspections of these activities are not knowledgeable of the construction industry and its activities.

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Jackson (2007) states that effective enforcement of the Occupational Health and Safety Act is important, since legislation that is not enforced, seldom fulfils its social goals. In order to ensure the optimum regulatory strategy, the challenge is to implement different approaches of enforcing current legislation. The cidb report (2009) advises that in order to enhance the impact of the construction regulations, the Department of Labour Inspectorate will be required to undergo significant change with regards to monitoring, inspection and enforcement.

Geminiani & Smallwood (2008) concluded that there is a definite need for the South African Department of Labour Inspectorate to change their approach and methodology with regard to occupational health and safety in construction, since the South African Department of Labour Inspectorate is ineffective in doing their job.

3. RESEARCH

A selected group of 109 built environment practitioners in the Free State were requested to complete a structured questionnaire. This questionnaire was distributed by email and/or delivered by hand. 39 Responses were received from the selected group reflecting a 35.8% response rate.

Most of the respondents hold tertiary education qualifications in relevant fields of the building industry and the responses indicated an even spread of years experience by the various built environment practitioners.

The questionnaire included remarks on the importance of health and safety in general, health and safety legislation, training and education, statistics and the Department of Labour Inspectorate. Rating scales based on the five-point Likert scale were used for respondents to rate the level of importance of each remark. (Five = strongly agree and one = strongly disagree).

The responses received were analysed and compared against the literature review. This data was used to determine the degree of importance of each of the various remarks and to draw conclusions with regards to the respondents' opinions, attitudes and commitments toward occupational health and safety in the construction industry.

4. DISCUSSION

The following findings emanated from the analysis of the completed questionnaires.

Table 1 indicates the response in terms of the importance of health and safety on construction sites. It is determined that 66.7% strongly agrees and 28.2% agrees that health and safety on construction sites is very important. This shows that most built environment practitioners regard health and safety on construction sites as a high priority.

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| | | Neutral rating | | | | | |
|--------------------------|----------|----------------|-----|------------------|------|-------|--|
| Responses | 1=strong | y disagree | | 5=strongly agree | | Total | |
| | 1 | 2 | 3 | 4 | 5 | | |
| Number of respondents | 1 | 0 | 1 | 11 | 26 | 39 | |
| Percentage of total | 2.6 | 0 | 2.6 | 28.2 | 66.7 | 100 | |
| Average rating | | | 4.6 | | | | |

Table 1: Importance of health and safety

Table 2 shows that 71.8% of the respondents agreed and strongly agreed that health and safety on construction sites has improved since the promulgation of the construction regulations in 2003. This could be an indication that many built environment practitioners have a misconception of the true state of health and safety in construction, possibly due to a lack of proper statistics being publicly available.

| | Neutral rating | | | | | |
|--------------------------|----------------|------------|------|---------|-----------|-------|
| Responses | 1=strong | y disagree | - | 5=stron | gly agree | Total |
| | 1 | 2 | 3 | 4 | 5 | |
| Number of respondents | 0 | 5 | 6 | 21 | 7 | 39 |
| Percentage of total | 0 | 12.8 | 15.4 | 53.9 | 17.9 | 100 |
| Average rating | | | 3.8 | | | |

Table 2: Improvement of health and safety since 2003

Table 3 shows that 61.5% of respondents are neutral about amendments to the current construction regulations. This serves as confirmation of the various remarks in the literature review, stating that the answer to the health and safety problems in South Africa lies beyond legislation.

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| Responses | 1=strong | y disagree | | 5=stron | Total | |
|--------------------------|----------|------------|------|---------|-------|-----|
| | 1 | 2 | 3 | 4 | 5 | |
| Number of respondents | 1 | 4 | 24 | 7 | 3 | 39 |
| Percentage of total | 2.6 | 10.3 | 61.5 | 17.9 | 7.7 | 100 |
| Average rating | | | 3.2 | | | |

Table 3: Amendment of current construction regulations

Table 4 indicates that 35.9% of respondents agreed that more legislation is required to improve health and safety on construction sites and 35.9% disagreed that more legislation is required to improve the current status of health and safety. 28.2% remained neutral with regards to additional legislation being promulgated. The finding being that on average, built environment practitioners do not regard changes in legislation as a solution to health and safety problems.

Table 4: Health and safety on construction sites if more legislation is promulgated

| | | Neutral rating | | | | | |
|--------------------------|----------|----------------|------|------------------|-----|-------|--|
| Responses | 1=strong | y disagree | | 5=strongly agree | | Total | |
| | 1 | 2 | 3 | 4 | 5 | | |
| Number of respondents | 2 | 12 | 11 | 12 | 2 | 39 | |
| Percentage of total | 5.1 | 30.8 | 28.2 | 30.8 | 5.1 | 100 | |
| Average rating | | | 3 | | | | |

Table 5 indicates that 74.3% of respondents feel that health and safety statistics should be made available more frequently. This indicates that built environment practitioners have the need to learn more of the status of health and safety in construction and that the Department of Labour is seriously lacking in distributing accurate statistics on a regular basis.

Table 5: Regular publishing of health and safety statistics

| | | Neutral rating | | | | | |
|--------------------------|----------|----------------|------|---------|------------|-------|--|
| Responses | 1=strong | ly disagree | | 5=stron | igly agree | Total | |
| - | 1 | 2 | 3 | 4 | 5 | | |
| Number of respondents | 0 | 0 | 10 | 21 | 8 | 39 | |
| Percentage of total | 0 | 0 | 25.6 | 53.8 | 20.5 | 100 | |
| Average rating | | | 4 | | | | |

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Table 6 is an indication that the majority (61.5%) of practitioners in the construction industry feels neutral about construction health and safety statistics. The conclusion could be drawn that the respondents do not know whether recent health and safety statistics are representative of the current status on construction sites, since the Department of Labour has not published any statistics for a number of years.

| | | | Neutral rating | | | |
|--------------------------|-----------|------------|----------------|------------------|-----|-------|
| Responses | 1=strongl | y disagree | | 5=strongly agree | | Total |
| | 1 | 2 | 3 | 4 | 5 | |
| Number of respondents | 0 | 7 | 24 | 6 | 2 | 39 |
| Percentage of total | 0 | 17.9 | 61.5 | 15.4 | 5.1 | 100 |
| Average rating | | | 3.1 | | | |

Table 6: Recent health and safety statistics

Table 7 shows that 41% of the respondents disagreed and strongly disagreed that Health and Safety is adequately inspected and enforced by the Department of Labour. 28.2% felt neutral about the remark and 30.8% agreed and strongly agreed. It could be argued that according to the respondents, there is room for improvement when it comes to the inspection and enforcement of health and safety by the Department of Labour.

 Table 7: Inspection and enforcement of health and safety by the Department of Labour

| | | Neutral rating | | | | | |
|--------------------------|----------|---------------------|------|------|------------------|-----|--|
| Responses | 1=strong | 1=strongly disagree | | | 5=strongly agree | | |
| | 1 | 2 | 3 | 4 | 5 | | |
| Number of respondents | 3 | 13 | 11 | 11 | 1 | 39 | |
| Percentage of total | 7.7 | 33.3 | 28.2 | 28.2 | 2.6 | 100 | |
| Average rating | | | 2.8 | | | | |

Table 8 shows that 41% of the respondents felt neutral about the level of health and safety training and risk assessment on construction sites. This could be an indication that built environment practitioners do not really know whether training and risk assessment on construction sites are adequate, since there are no statistics to emphasise the problem.

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| | | Neutral rating | | | | | |
|--------------------------|----------|----------------|------|---------|-----------|-------|--|
| Responses | 1=strong | y disagree | | 5=stron | gly agree | Total | |
| | 1 | 2 | 3 | 4 | 5 | | |
| Number of respondents | 2 | 9 | 16 | 9 | 3 | 39 | |
| Percentage of total | 5.1 | 23.1 | 41.0 | 23.1 | 7.7 | 100 | |
| Average rating | | | 3.1 | | | | |

Table 8: Health and safety training and risk assessment on construction sites

Table 9 indicates that the majority (76.9%) of respondents agreed that home language training for the work force will improve the current status of health and safety on construction sites. This shows that built environment professionals recognise the need for training and education in the construction industry.

| Responses | 1=strong | y disagree | | 5=stron | gly agree | Total |
|--------------------------|----------|------------|------|---------|-----------|-------|
| | 1 | 2 | 3 | 4 | 5 | |
| Number of respondents | 0 | 2 | 7 | 24 | 6 | 39 |
| Percentage of total | 0 | 5.1 | 17.9 | 61.5 | 15.4 | 100 |
| Average rating | | | 3.9 | | | |

Table 9: Home language training for the work force

Table 10 shows that a large percentage (89.7%) of respondents confirms that health and safety education on a tertiary level will have a positive impact on the health and safety status on construction sites. This is again an indication that practitioners in the industry recognise the need for health and safety education at all levels.

| Table 10: | Health and | safety | education | on a | tertiary | level |
|-----------|------------|--------|-----------|------|----------|-------|
|-----------|------------|--------|-----------|------|----------|-------|

| Responses | 1=strong | 1=strongly disagree | | | 5=strongly agree | | |
|--------------------------|----------|---------------------|-----|------|------------------|-----|--|
| | 1 | 2 | 3 | 4 | 5 | | |
| Number of respondents | 2 | 0 | 2 | 25 | 10 | 39 | |
| Percentage of total | 5.1 | 0 | 5.1 | 64.1 | 25.6 | 100 | |
| Average rating | | | 4.1 | | | | |

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5. CONCLUSION

In general, health and safety on South African construction sites is regarded as a high priority and built environment practitioners are of the opinion that health and safety has improved since the promulgation of the construction regulations in 2003.

It is clear that additional legislation and amendments to the current legislation is not the solution to the current health and safety problems, but that a positive health and safety culture needs to be developed throughout all levels of organisations in the industry.

There is a need to learn more about the status of health and safety in construction, and the Department of Labour is seriously lacking in distributing accurate statistics on a regular basis. It was also clearly indicated that there is room for improvement when it comes to the inspection and enforcement of health and safety by the Department of Labour.

It was determined that there is a need for health and safety training and education in the construction industry at all levels. Home language training for the work force will improve the current status of health and safety on construction sites and health and safety education on a tertiary level will also have a positive impact on the health and safety status on construction sites.

6. **RECOMMENDATIONS**

Occupational health and safety on construction sites should be foremost in the minds of all construction related personnel, beginning at top management and proceeding all the way to worker level (Hinze cited in Geminiani & Smallwood, 2008:10).

Building a health and safety culture is important in order to reach a high level of compliance amongst construction practitioners and personnel. More and revised legislation is not necessarily the answer to an improved health and safety environment on construction sites.

It is recommended that the Department of Labour should get their act together and adopt a more innovative approach towards enforcement, inspections and penalties. It is also important to get statistics published on a regular basis which are representative of the current status of occupational health and safety on construction sites.

Training and education are crucial in developing a safer and healthier environment on construction sites. This should start at management level and continue through to all workers on site. Home language training could be an important tool toward making health and safety a priority for workers on construction sites.

It is also recommended that health and safety education should start at a tertiary education level to ensure that young built environment

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professionals understand the responsibility they will have to carry throughout their professional careers.

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