شبكة المعلومات الجامعية

التوثيق الإلكتروني والميكروفيلم

بسم الله الرحمن الرحيم

HANAA ALY

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جامعة عين شمس

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قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات

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A framework to activate the health and safety regulations in the construction industry in Egypt

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Abstract

The construction industry is considered one of the most hazardous industries in the world. Reasons are attributed to many factors. First: its unique and hazardous characteristics which is discussed extensively in the literature review in this thesis. Second, it is due to the fact that most of site accidents are fall accidents which most of the time causes death. Accidents in the construction industry have tremendous effect on society and economy. Accidents causes injury and death, loss of quality of life, family depression, workers depression. On the other hand, accidents cause loss of productivity, disruption of current work, damage to facility, loss of client satisfaction, and much more.

Literature review covered wide range of topics. Causes of accidents were studied in detail in this thesis. Analyzing large number of publications in major databases, 16 causes of site accidents were identified and presented. A huge matrix was developed linking the 16 identified causes to evidences (publications) found. In addition, difference systems of safety management were explored, and safety performance measurements were studied. There are two types of safety performance measurements: lagging indicators which measures and records the past accidents, and leading indicators which measure safety performance through safety practices to be implemented in the future. On the other hand, motives of complying with safety regulations were also explored.

Occupational safety in Egypt is regulated with mainly four laws: unified Egyptian law 12 for year 2003, Ministerial Decree No. 211 for year 2003, Ministerial Decree No. 134 for year 2003, and Ministerial Decree No. 136 for year 2003. Although these regulations exist even from 2003, safety performance in the construction industry is very poor. As a result, this research aims to study the activation of health and safety regulations in the construction industry in Egypt.

A pilot study was conducted to investigate contractor's perception on the 16 extracted causes of accidents in the construction industry in Egypt, as well as, to investigate contractors' motives towards the implementation of safety regulations. On the other hand, contractors' perception of the safety management system in their companies were also investigated. The pilot study consisted of a questionnaire which was distributed to medium and large contractors for complete building works (from 1st to 5th class). Out of 309 questionnaires distributed through convenience and persuasive sampling, 200 complete samples were collected. Data was analyzed using different techniques like dispersion, central tendency, spearman analysis on SPSS.

Results showed that lack of housekeeping ranked the first among the sixteen causes. It causes missy and untidy site which creates unsafe condition for working. Followed by causes related to the government like: lack of governmental inspections, and rigorous enforcement of safety regulations respectively. Both of them were correlated from Spearman correlation test. The fourth was the low level of worker's knowledge and education related to safety, and he the fifth was excessive working hours.

The thesis in its final chapter propose a conceptual framework which aims to activate health and safety regulations in the construction industry in Egypt. This framework concept was built by combining two phases. First is analyzing strategies adopted in different countries to improve the safety performance and enforce safety regulations in addition to analyzing safety roles of different stakeholders on three level: first: high authoritative level which represent high bodies from government, second: district (local) level which represent municipalities and other less authoritative bodies, third: enterprise level which represent designer, owner, and contractor. Second is creating the framework by combining both first phase and the causes of accidents resulted from the questionnaire combined into five groups.

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