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A COMPARATIVE STUDY OF RISK MANAGEMENT MODELS IN DIFFERENT ECONOMIC SECTORS

Carlos Igreja[1], Francisco Alves Pinheiro[1], Rui Manuel Cruz[1], Miguel Tato Diogo[2(*)]
[1]CIGAR, Faculdade de Engenharia da University do Porto, Portugal
[2]PROA/CIGAR/Faculdade de Engenharia, Universidade do Porto, Portugal
[(*)]*Email:* tatodiogo@fe.up.pt

ABSTRACT

Risk management models provide decision makers, facing legal liabilities, social responsibility, technical performance and economic sustainability with an effective decision making support tool. This study presents a comparative study of risk management models in diverse corporate environments such as construction sites; age-friendly cities and communities and emergency response and preparedness systems.

Keywords: risk management, construction sites, age-friendly cities, emergency scenarios.

INTRODUCTION

The construction sector, in spite of its dimension and social-economic impact, presents a rather poor performance regarding occupational health and safety, especially when compared to other economic sectors. According to the European Agency for Safety and Health at Work, in the Construction Sector, approximately 1300 workers suffer fatal injuries every year, corresponding to a ratio of 13 workers out of 10000, i.e. more than twice the average in other economic sectors in Europe. [http://osha.europa.eu/pt/statistics]

Cities are political, social and cultural activities centres, and in order to be sustainable, must provide services and infrastructures that account for the well-being and productivity of the inhabitants. Considering the senior residents, there is the need to enable the surrounding environment to offer support and qualification, as to compensate the social, psychological and physical changes related to ageing. From this initiative WHO-World Health Organization presented a Guide for "Global Age-friendly Cities and Communities" and launched the "Global Network of Age-friendly Cities" as an incentive to continuous improvement of aged-friendly policies and based in the PDCA cycle as a decision making support management model to age-friendly cities.

Emergency preparedness, within modelling approach, refers to a political jurisdiction awareness to react to environmental threats allowing for minimization of negative consequences related to individual health and safety wellbeing and physical structures integrity and operationality (Perry & Lindell, 2003). Emergency management refers to all planning aspects and disaster response comprehending six stages: prevention, mitigation, preparedness, response, rehabilitation and reconstruction (Shaluf & Ahamadun, 2006). Thus, considering the emergency management cycle, it is relevant to identify an integrated solution to serious and imminent danger scenarios.

RESULTS AND CONCLUSIONS

Regarding technological models, using all the design stage construction project inherent variables, construction process risk assessment methodologies may be developed. Thus, risk mitigation and hazard elimination procedures and actions may be presented within the project management, i.e. the pre-construction stage.

From the social point of view, it is clear the importance of the "Age-Friendly Cities Performance Index" as a management tool helping public managers in the decision making process regarding the design of urban environments capable of optimizing the participation, health and safety opportunities, thus improving the quality of life of people as they grow older.

The organizational approach, to emergency management solutions should support an open-structure modelling. The introduction of new approaches and methods must induce process optimization, thus promoting in sustainable manner prevention and establishing scenarios to minimize the effects from exposure to serious and imminent danger.

Results for risk assessment: i) in the construction sector, in the design stage analyzing in-project preventive procedures related to dangerous components; ii) related to WHO-Global Network of Age-friendly Cities and Communities project, making cities and communities age-friendly as one of the most effective policy approaches for responding to demographic ageing and iii) in emergency scenarios, when reflecting a serious and imminent danger situation, to minimize major consequences, all comprise challenging management decisions and reflect prevention principles in an organizational culture sustained in risk management models solutions.

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