

Developing an Accident Causation Model for Accident Prevention At Building Construction Sites

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Undoubtedly Malaysian construction industry contributes enormously towards Malaysia's nation economic growth. Despite the significant role of the construction industry plays in the country's development and its heavy contribution towards economic growth and employment, the statistics show a high prevalence of accidents and injuries in the industry, resulting in non-permanent or permanent disabilities, fatalities and damage or loss of property. Past research suggests that on-site construction accidents can be prevented by identifying the root causes, thereby making such predictions based on knowledge and resources on accident causation possible. The aim of this study is to develop an Accident Causation for Accident Prevention (ACfAP) model for key management parties at Malaysia building construction sites. At this stage, this paper will present the initial stage of study (the information gathering phase) by presents the significant groups of accident causations factors for accident prevention. In overall, this ongoing research will be divided into three phases; (i) the information gathering phase;; (ii) the model development phase; and (iii) the model analysis phase. First, previous studies on safety, accident causation and prevention of accidents at construction sites are briefly reviewed from books, theses and journal articles in order to provide a global perspective on the subject. Second, a comprehensive ACfAP will be developed based on the attributes of accident causation obtained from expert surveys. Third, the hypothesised relationships are tested using partial least squares (PLS) path modelling approach. Finally the ACfAP Model for key management at building construction sites will be developed.

construction; accident; causation; prevention; management