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Identification of safety culture dimensions based on the implementation of OSH management system in construction company

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Abstract

The factor of safety culture in construction industry gives a profound influence to the economic and social condition of a nation by which that affects its competitiveness. The data in the field, in fact, shows that the level of accidents on construction projects in Indonesia is notably poor. On the other hand, facing the era of ASEAN Economic Community (AEC) Indonesian contractors are demanded to increase their competitiveness in which one of their projects runs with zero accidents. This study was conducted in the objectives of (i) evaluating the OSH standard implementation in the construction companies in Indonesia. (ii) Identifying the safety culture dimensions at the construction industry in Indonesia. The research result presented that OSH standard implementation based on both areas and company qualifications was still in the unsafe condition with the score under 50%. That identifies safety culture dimensions which are necessarily built in the level of both corporation and project such as managerial leadership, contract system, policy, strategy, process, cost, people, value and behavior

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Keywords: Safety culture, construction accident, OSH management system, construction project

1. Introduction

In developing countries, the rate of accident in construction sectors is three times worse than that of developed countries [1]. A safety culture concept is relatively new in construction industries. However, it can be popular

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because of its capability to wrap all the factors including perception, psychology, attitude, and managerial [2]. It constitutes one of the important components of organization culture which discusses individual safety, performance safety, and several things which are prioritized by safety organization. Safety culture, according to [2], is the combination of values and beliefs which interact to the organization structure and the adjudication system which form attitude norms [4]. On the other hand, [5] argues that safety culture is a group of belief, norm, attitude, rule, and social practices as well as a technique which is directed to decline a condition which can endanger workers, managers, customers, and society.

The poor safety culture is one of the main attributes which causes injuries and deaths in the construction industries around the world [2]. Lately, there was a movement of the way to measure safety and working safety, started from a measurement which only considered on quantity or the level of working safety to a measurement which concerned on working safety culture (climate) [4]. This consideration is supported by an awareness that the primary cause of working accidents is from organization and management factors [6]. Therefore, an effort to measure working safety culture is exceedingly important in order to create a working condition which is safe and finally to reduce working accidents in construction. Research about working safety culture is started to undertake in manufacture industries [7], yet that rarely happens in construction industries. [8] attempts to comprehend a relation among cultures.

The impact caused from working accidents is relatively significant, besides deaths and workers' life quality decline, working accidents in construction projects causes project delays, increasing product cost, medical burden, and other negative consequences [9]. The results of *International Labour Organization* (2003) research states that working accident levels of a nation depends on the level of competitiveness (*competitiveness index*) of that nation. This research concludes that the trend which illustrates how high the level of working accidents is inversely proportional to the competitiveness index of the nation.

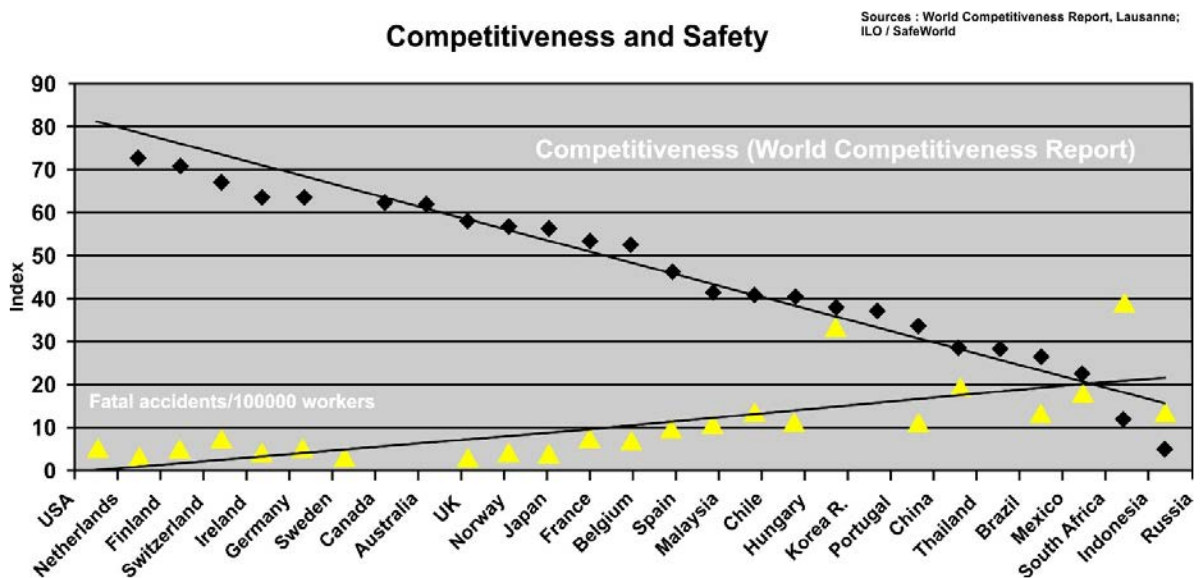


Fig. 1. Relation between competitiveness index and the level of working accidents (Source: *The Global Competitiveness Index*, 2011)

The data gained that Indonesian competitiveness index positions in the second top from the lowest level with fatal working accident index of 40 per 100.000 workers (*The Global Competitiveness Index*, 2011). In Indonesia, working safety and health have not got attention from any parties. Working safety standard in Indonesia is the worst compared to other South East countries and is marked by the number of accidents which is written no more than a half from the real number of the accidents as several parties in Department of Labour admit [10,11].

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