

An Empirical Analysis of the Impact of Aircraft Maintenance Technical Training on Risk Mitigation in the Sri Lankan Aviation Industry

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The operational efficiency of aircraft maintenance activities is pivoted on the equilibrium between safety and productivity. Against this backdrop, aviation safety management systems play a vital role in ensuring safe operations while enhancing operational efficiency. Out of the main four pillars of safety management systems, safety promotion and to be specific technical training and its impact on risk mitigation are analysed in this paper through an empirical study. A conceptual framework with the independent variables covering initial training, continuous training, and the availability of training infrastructure is evaluated against the impact on risk mitigation. This addresses a very specific research gap, especially in the context of the Sri Lankan commercial aviation sector where the relationship between technical training and aviation safety is very rarely researched. The research is conducted in the form of a hypothetic deductive study based on the empirical responses of aircraft maintenance field stakeholders evaluated through statistical analysis. The outcome of the research reveals some important points as all three hypotheses are positively supported and highlight the importance of qualitative improvement of initial training and continuous training. Meanwhile, it also highlights the importance of expanding the training infrastructure to cater to the increasing technical manpower demand.

Keywords: *aviation safety management system, safety promotion, technical training*