B737 AIRPLANE’S CONSUMABLE MATERIAL MANAGEMENT METHOD ANALYSIS BASED ON MATERIAL CLASSIFICATION
(Case Study: PT. GMF Aero Asia)

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ABSTRACT

PT. GMF AA specialized in Maintenance, Repair and overhaul. TMP Unit (Garuda Airline Material Service) responsible on maintaining available materials at warehouse, especially for Garuda’s airplane consumable material. Currently, there is a high level of inventory in the warehouse and if this situation keep happening, it could create overstock. On the other hand, there are some materials unavailable in the warehouse. Stock Out can delay maintenance activity. One of the factors that could cause those situations is lack of attention at material management.

Every material has different personal characteristic. From all the consumable material, there are 3 different critical groups. Parameters being used to classify it are annual dollar usage, price, and lead time. Afterwards, material control calculation is being applied. Currently, the company uses min-max level method, (s, Q) method, and (R, s, S) method. Material Requirement Planning (MRP) will be created from lot sizing calculation and those three methods. MRP’s outputs are the amount of material needed, lead time, total cost, and Inventory Turn Over (ITO). This research is intended to analyze suitable material management for every material class. Selecting lot sizing method based on probability of stockout, inventory turn over, and total cost.
Keywords: Material Classification, Inventory Control, min-max level, (s, Q) system, (R, s, S) system, Material Requirement Planning.