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COST REDUCTION ANALYSIS IN A CAR MANUFACTURING PLANT APPLICATION OF SEALANTS AND ADHESIVES AS A DIRECT MATERIAL ON ASSEMBLING ' WHITE BODY ' FOR PROTON WIRA (MODEL M-41) - A CASE STUDY AT PERUSAHAAN OTOMOBIL NASIONAL BERHAD (*PROTON*)

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ABSTRACT

PROTON's commitment to producing quality cars at competitive prices has always been at the forefront activities. Towards this end, continuing efforts are made to "reduce cost" as well as to increase local content in the manufacturing of PROTON cars. Along with the objective of increasing local content, PROTON has developed and nurtured the growth of local vendors in the automotive parts and components industry.

Efforts to reduce production costs and enhance operation efficiency was intensified with the formation of the "Target Cost Achievement (TCA) Committee". The TCA committee focuses its attention on reducing component costs in respect to design review, product contents, design specification and manufacturing processes. The cooperation of the PROTON's vendors have been enlisted to support this effort.

This thesis provides a case study on direct material, sealants and adhesives that have been used to assemble a White Body for Proton Wira. According to the AOS diagram the cost of sealants and adhesives that should be used is RM41.88. However the actual usage of sealants and adhesives is not consistent, and it was found that the cost was only RM33.19.

Because of the inconsistency usage of the sealants and adhesives, the reference of reducing cost of the material is based on actual usage of RM33.19. The target of this case study is to reduce the cost up to 10% from the actual usage. During the cost reduction analysis, it is imperative to remember that the White Body cost reduced should be within the standard that has been set by Proton.

The approach used to the analysis of cost reduction is by using Man, Method, Material, Machine and Cost. Most of the cost reduction analysis is concentrated to the minimization of wastage of the materials. The minimum inventory system also contribute to the reduction of cost and towards the end the JIT system is suggested to be implemented at Proton.

The WIRA and other incoming new models and cosmetic changes are PROTON's significant achievements, on line with PROTON goal of being a fully integrated automotive manufacturer besides achieving the nation's objective of Vision 2020.

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