

## Studies on Lucrative Process Layout for Medium Scale Industries

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**Abstract :** In this paper a comprehensive review on various factory layouts has been carried out for designing a lucrative process layout for medium scale industries. Industry data base reveals that the end product rejection rate is on the order of 10% amounting large profit loss. In order to avoid these rejection rates and to increase the quality product production an intermediate non-destructive testing facility (INDTF) has been recommended for increasing the overall profit. We observed through detailed case studies that while introducing INDTF to medium scale industries the expensive production process can be avoided to the defective products well before its final shape. Additionally, the defective products identified during the intermediate stage can be effectively utilized for other applications or recycling; thereby the overall wastage of the raw materials can be reduced and profit can be increased. We concluded that the prudent design of a factory layout through critical path method facilitating with INDTF will warrant profitable outcome.

**Keywords :** intermediate non-destructive testing, medium scale industries, process layout design

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