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ANAN WATCHARANUTAT : A MANUFACTURING COST COMPARISON BETWEEN MANUAL AND SEMI-AUTOMATION OPERATIONS FOR READ-AND WRITE HEADS IN HARD DISK DRIVE INDUSTRY. THESIS ADVISOR: ASSO.PROF. SUTHAS RATANAKUAKANGWAN, 251 pp. ISBN 974-636-440-5.

This research reports comparative study of manufacturing cost, production rate and scrap rate between manual and semi-automation operations for read-and write heads in hard disk drive industry.

Cost per unit is used as the comparative index in the study of manufacturing cost. It is found that the cost per unit of the semi-automation process is 17.61 bath lower than that of the manual process. The cost per unit of the two process are 140.28 bath and 157.89 bath, respectively.

In the scrap rate reserach, it is found that semi-automation process yield 8.04 % lower scrap than the manual process. The scrap rate of the two process are 14.49 % and 22.53 %, respectively.

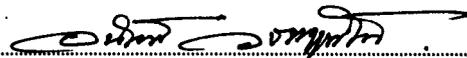
The production rate of a product is defined as the amount of time spent to build a complete read-and write heads, hour-per-unit (HPU). It is found that the HPU of the semi-automation process is lower than that of manual process by 0.6721. The HPU of the two process are 0.0634 and 0.1355, respectively.

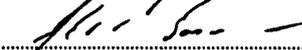
Finally, analysis of future trends of read-and write head technology has shown no impact of the technology on the semi-automation process.

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