

Independent study title	PERFORMANCE OF INDUSTRIAL ROBOT FOR MANUFACTURING FUNCTION AND ITS IMPLICATION ON THAI LABOR; A COST –BENEFIT ANALYSIS OF AN AUTOMATED MANUFACTURING SYSTEM
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## ABSTRACT

The subject of the study, Company A had recently applied an Industrial Robot adoption for palletizing function to reduce inconsistency from labor-based operation. This study examine the feasibility of the palletizing process of Company A, whether introducing Industrial Robot can be beneficial to the operation or not. We find that Industrial Robot adoption on this single manufacturing line will be feasible if entrepreneurs can expand the production volume at least 87.42% to 104.01%. The finding also indicate an increase in unemployment of one person for everyone 1 million units increase in production quantity per annum. The findings brought us to question the further implication of this small function of adoption may has in larger scale, given that production quantity must be severely increased while the labor employment is significantly decreased. Based on the palletizing function, we linearly extrapolate the same performance to all other production line in Company A to stipulate a case of fully automated manufacturing warehouse. We concludes that Industrial Robot adoption is feasible for manufacturing industry, and is disruptive to the manufacture industry and economy of Thailand.

Keywords: Industrial Robot, Automation, Labors, Wages