

**ABSTRACT**

Abstract of thesis submitted to the Graduate School of Maejo University in partial fulfillment of the requirements for the degree of Master of Business Administration in Business Administration

**FEASIBILITY OF INVESTMENT IN PLASTIC MOULD FACTORY  
IN KHON KAEN PROVINCE, THAILAND**

By

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**MAY 2000**

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The objective of this study was to find out the feasibility of investment in plastic mould factories in Khon Kaen Province by studying marketing, technical and financial aspects. The data was collected by means of questionnaire from manufacturers of plastic bottled drinking-water in the northeastern region, from reference documents, together with estimation and prediction by Regression analysis and from experts in metal work and Industrial Business Development officials of the Industrial Supporting Center, Region 5 Khon Kaen Province.

The results revealed that 1.5% of the people in the northeastern region consumed bottled drinking-water but as the population has increased each year more drinking-water is needed, resulting in greater demands for plastic bottles and moulds. The estimation of the quantity of the moulds needed in each year was the comparison between the manufacture capacity and overall needs.

It was estimated that, in the year 2001, 173 sets of blowing mould and 85 sets of injection mould will be needed. The market share of blowing mould factories will

be about 25% in the first year and 2% increase each year. Injection mould factories will have the market share of about 15% in the first year and 2% increase each year. The selling price of blowing moulds is 100,000 baht/set and that of injection moulds is 120,000 baht/set.

In terms of technical work, manufacturing and management aspects were studied. The manufacturing aspects included equipment, raw materials, production factors, factory locations and factory layout to ensure manufacturing suitability. The investment is 8,458,835 baht, and the factory is at 38/6 M.14, Mitraphab Rd., A. Muang, Khon Kaen Province, which is convenient in public facilities and communications.

For management, in the first year of operation there were 14 employees, and the factory manager supervised both the factory and the market. A production chief designed and supervised the manufacture, an accounting and financial officer supervised accounting and finance, including documentary work of the factory.

For the financial aspect, estimated expenditures, sources of funds, and profits and losses were studied. The duration for the financial return of investment was found to be 8 years 2 months and 12 days and the Net Present Value (NPV) was -3,667,975 bahts (minus). The Internal Rate of Return (IRR) was 4.94%, lower than the 16% IRR value previously determined. This showed that the feasibility of investment in this sort of industry in Khon Kaen Province is not satisfactory.

In addition, the sensitivity analysis showed the 10% and 20% decrease in the cost of production would result in 12.81% and 19.33% increase in IRR. The 10% and 20% increase in the cost of production would result in the loss through out the ten years of operation. The interest rates of 7%, 8%, 9% and 10% would result in 6.91%, 6.71%, 6.44% and 6.30% IRR respectively.