GROUPING OF INDUSTRIES FOR INVESTMENT PROMOTION USING CLUSTER ANALYSIS

The author wishes to express his debyest gratitude and sincerest appreciation to his advisor, Asso. Prof. Dr. John C.S. Tang, for his valuable advice, supervision and continuous

members of the Examination Comb. Sara Suthasut

extended to Prof. M.T. Tabucanon and Dr. Paul for the valuable comments and suggestions as

A thesis submitted in a partial fulfillment of the requirement for the degree of Master of Engineering

Order Key 20440 BIB Key 161245 างหม<u>่ HCAA5.82 327 1994</u> เลขทะเบียน = 9, N.A. 2542

Examination Committee

Dr. John C. S. Tang (Chairman)

Prof. Mario T. Tabucanon

Dr. H. Paul

Sara Suthasut

Nationality

Thai

Previous Degree

B. Eng (Mechanical Engineering)

Kasetsart University

Thailand

Scholarship

AIT

Asian Institute of Technology Bangkok, Thailand December, 1994

JE 40

ABSTRACT

The purpose of the study is to develop a model for grouping of Thailand's industries that contributed to economic and industrial development together in comparison with past BOI practices and then forecast the trend of development to be an aid tool for government and investors to promote or invest in suitable industries. The proposed model is developed by using Cluster Analysis.

Some criteria of industrial promotion have been identified in the study. A survey through questionnaire on the ranking of criteria has been conducted to provide qualitative data for the calculation of relative importance. Quantitative data on the performance of alternative industries under criteria were collected from available sources.

From the results of cluster analysis we can draw the following conclusion:

- The past industrial development of Thailand was mainly based on agricultural based industries and import-substituting industries. Because of this, the government has been actively promoting these industries. Results from cluster analysis also indicate that Group 1(Food, Beverage, Wearing Apparel, Leather&Footwear, Non-Metallic, Fabricated Industries, Machinery&Parts and Transport Equipment) which is agro-based; and Group 4 (Rubber&Plastic, Chemical Products, Electrical Machinery) which is mostly import - substitution oriented, consist of industries that have been promoted - this validates the multi-criteria model in grouping industries.

- In the future, the government has embalmed on promoting export-oriented industries. These industries can be mainly found in Group 2 (Tobacco, Wood&Cork, Furniture&Fixture, Paper&Paper Products and Printing Publishing) and Group 3 (Textile). Thus, industries in Group 2 and Group 3 are potential targets for promotion.

MODEL DEVELOPMENT

4.1 Classification of Industries

4.2 Criteria for Evaluation of Industries

4.3 Development of Figeedure for Study