THIS BOOK IS OF POOR LEGIBILITY DUE TO LIGHT PRINTING THROUGH OUT IT'S ENTIRETY.

THIS IS AS RECEIVED FROM THE CUSTOMER.

POLICY FORMULATION FOR A CIGARETTE MANUFACTURING COMPANY: A DYNAMIC SYSTEM SIMULATION

by

GEORGE MANUEL MACROPULOS

B. S., University of the Witwatersrand,
Republic of South Africa, 1972

A MASTER'S THESIS

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Industrial Engineering

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1974

Approved by:

L. E. Grosh

Major Professor

TABLE OF CONTENTS

FOREWORD

I would first like to thank my major professor, Dr L. E. Grosh, for his constant support and very helpful comments throughout the preparation of this thesis. I am also thankful to the other members of my committee, Dr Lynn E. Bussey and Dr N. Dean Eckhoff, for their participation in this study.

I am very grateful to George T. Tsihlakis and W. D. Babb, for answering my inquiries about the company's operations and policies so promptly and thoroughly.

A very special thanks to Marty Sakumura for her 'excellent' work in typing this thesis.

George M. Macropulos

Manhattan, Kansas
June, 1974

CHAPTER I

INTRODUCTION

Policy formulation for profitable growth is a major concern of most businesses. The size and intricacy of management systems, the multiple conflicting goals within the organization, and the interface between the firm and its market all contribute to make successful policy design difficult. The company's own strategies for controlling resources, marketing, and trading off immediate expense for long-term results can have more impact on its growth than potential market demand. The purpose of this study is to investigate how present strategies in a cigarette manufacturing company are affecting growth, and to suggest policy changes that will yield a rapid profitable growth.

The management of the cigarette company is interested in uncovering strategies to improve growth. Recently, large capital outlays for marketing and capacity expansion have been made in an attempt to enhance sales, profits and market penetration. The results of these expenses, however, have not entirely met the company's expectations. Although the company has captured a substantial share of the industry's sales growth has by no means been profitable. Through the use of a computer simulation model, system behavior is observed, and alternative policies in the areas of promotional expenditures and capacity expansion are investigated.