Non-Price Decisions

The Firm in a Modern Context

Koutsoyiannis

NON-PRICE DECISIONS

THE FIRM IN A MODERN CONTEXT

A. KOUTSOYIANNIS

Professor of Economics

University of Waterloo, Ontario, Canada

M

First published 1982 by
THE MACMILLAN PRESS LTD
London and Basingstoke
Companies and representatives
throughout the world

ISBN 0 333 26587 4 (hard cover)
ISBN 0 333 26588 2 (paper cover)

Typeset in 10/12pt Press Roman by
STYLESET LIMITED
Salisbury · Wiltshire

Printed in Hong Kong

Preface

This book is the sequel to *Modern Microeconomics*. It is designed for undergraduate microeconomic courses and theory of the firm courses, as *an extension* of the material covered in the traditional micro textbooks.

The last thirty years have seen major changes in the economic environment and the competitive behaviour of firms. (1) Oligopoly has become the main market structure in the industrialised Western countries. (2) Non-price competition (product style, and advertising–selling strategy) has become more important than price competition. (3) Growth has become the main goal of large corporations. Firms adopt complex growth strategies, including investment in the domestic market, conglomerate mergers and takeovers, and foreign direct investment, which gives them the status of a multinational. (4) Fast technological progress, the rising power of labour unions, increasing government regulation and socio-political developments have all increased business risk and uncertainty. (5) Monetary and financial developments as well as tax regulations have induced firms to adopt complex financing strategies to implement their operating and investment-growth plans.

These developments have demonstrated the obsolescence of the traditional microeconomic textbooks, in which most of the exposition is devoted to price competition in largely irrelevant market structures, oligopoly is treated as an appendage, non-price competition is rarely mentioned, and growth strategy is completely ignored.

The developments in microeconomic theory over the last three decades have been impressive. Economic theorists have developed new models and techniques in their attempt to provide an adequate explanation of the new conditions and the changed pattern of competition. However, most of these developments have not found their way into textbooks, or have been compartmentalised in different areas of economics, marketing, business, management science and accounting, with the result that students do not have a chance to become aware of the interrelationships of the production, selling, investment-growth and financing activities of the firm.

The price strategy, the product strategy and the advertising strategy are the main means for implementing the growth strategy of the firm. In turn, the operating and growth activities of the firm require funds. The financing decisions affect the cost of capital to the firm, which is a widely used criterion in investment-growth decisions. Thus the operating decisions (price, product, selling strategy), the investment-growth decisions and the financing decisions of the firm are closely interrelated. Yet no attempt has been made to present the various decisions of the firm in an integrated framework simultaneously.

This intermediate textbook is the first to focus on non-price competition and on the growth-investment strategy of firms as core topics. Furthermore, it is the first textbook which adopts an 'interdisciplinary' approach which stresses the interdependence of the various decisions of the firm.

Decisions of firms are grouped in three categories:

(1) *Operating decisions*: price–quantity; product style; advertising–selling tactics.
(2) *Growth decisions*: expansion and diversification by investment in the domestic market; mergers and takeovers; investment in foreign markets.
(3) *Financing decisions*: long-term financing with use of debt; retained earnings; issue of new stock.

Pricing decisions are analysed exhaustively in *Modern Microeconomics*. The other decisions are analysed in this volume. About half the book is devoted to the analysis of the growth-investment strategy of firms. A quarter is devoted to non-price competition (product style and advertising–selling strategy) and the remainder examines the financing decisions of the firm.

The book is divided into four parts. Part One includes an analysis of the non-price competition strategies of the firm. Part Two and Part Four examine in detail the investment-growth policy of the firm, while Part Three discusses the financing decisions of the firm.

In Part One (Chapters 1 and 2) we examine the two most important aspects of non-price competition. In Chapter 1 we analyse the product strategy of the firm. Several alternative hypotheses of 'optimal' product decision are presented in detail. Some applications of these models are also discussed. Finally, the effects of the product behaviour of firms are critically evaluated. In Chapter 2 we examine the selling strategy of the firm, with particular emphasis on the advertising decision. We begin with some models pertaining to explain the advertising decision of the firm. A large part of this chapter is devoted to the effects of advertising on the firm's profitability, on consumer demand and on resource allocation. A survey of the empirical work in this field shows that there is very little convincing evidence behind the impressive theoretical literature on the subject of advertising.

In Parts Two and Four we examine the investment-growth decision of the firm. These are probably the most important sections of the book, given the growth-seeking attitude of managers, the intense merger activity, the continuing takeover raids and the phenomenal expansion of multinationals over the last three decades.

In Part Two (Chapters 3–7) we discuss the various ways in which a firm can grow. In Chapter 3 we introduce some basic concepts of valuation theory which underlie the discussion of the remaining chapters. We also present (in an appendix) the elementary theory of portfolio selection under certainty. This explains the rationale of the substitution of the goal of owner-shareholder wealth maximisation for the traditional goal of profit maximisation in most of the literature on the investment decision. In Chapter 4 we examine the investment of firms under certainty. (The analysis of the investment decision under uncertainty is postponed until the last two chapters of the book, because it requires the knowledge of topics such as the optimal capital structure, the optimal dividend-retention policy and the cost of capital to the firm.) In Chapter 5 we develop alternative theories of mergers and takeovers. We also survey the extensive empirical work done on the causes and the effects of mergers and takeovers. In Chapter 6 we consider various issues arising from the decision of the firm to integrate vertically its operations. In this respect the most important decision relates to the determination of the transfer price: that is, the price that a producing division of the firm will charge to other (buying) divisions, so that the profit of the firm as a whole is maximised. Another crucial decision of a vertically integrated firm is the decision to close down a particular (producing or buying) division, if its operation does not contribute to the over-all profitability of the firm. This chapter concludes with a brief discussion of the effects of vertical integration on the degree of competition and on resource allocation. In Chapter 7 we examine the firm's decision to grow by investing directly in a foreign country, and what this means for competition. We first present several hypotheses about the motives of foreign direct investment. We next discuss the economic effects of foreign subsidiaries in host countries. A brief survey of the empirical work in this field reveals that more research is needed before a satisfactory theory of 'the decision to go abroad' is developed.

Part Three (Chapters 8–10) of the book includes an analysis of the financing policy of the firm. We concentrate on the issues of the long-term financing of the operations of the firm. These relate to the securing of money capital for the firm's investment projects. As we mentioned earlier, there are three long-term sources of funds: issues of stocks, issues of bonds, and retained profits. The firm has to decide in what proportions to use these sources, so as to minimise its cost of capital or attain other goals. In Chapter 8 we first present several theories relating to the optimal capital structure of the firm as measured by its debt–equity ratio. We then examine how a firm in practice can determine a capital structure suitable for its particular purposes. In Chapter 9 we examine alternative theories of the optimal dividend-retention policy of the firm, as well as how firms take dividend decisions in practice. Both chapters include a survey of the most important empirical studies in this area, so that the student gets some idea of what evidence we have about the competing hypotheses regarding the financing decisions. In Chapter 10 we discuss the cost of capital to the firm and we use it to derive the supply-of-funds schedule of the firm (which is essential in investment decisions). Numerical examples are used to illustrate the estimation of the cost of capital and the derivation of the supply-of-funds schedule in practice.

In Part Four (Chapters 11 and 12) we examine how decisions are taken under risk and uncertainty. Although we focus on the investment decision, the criteria and principles developed can be extended to other decisions of the firm under risk and uncertainty. This is probably the most challenging part of the book: the firm, in formulating (planning) its investment-growth strategy, must take into account uncertainty. The techniques that have been developed for dealing with uncertainty are often presented in mathematical form, which makes them appear more difficult than they really are. In order to keep the analysis at a level which is accessible to the non-mathematically inclined student, we have proceeded gradually. In Chapter 11 we use mainly a diagrammatic approach to present the most important traditional methods of evaluating investment proposals, such as the method of risk-adjusted discount rates, the 'certainty-equivalents' model, and the 'weighted average cost of capital' approach. The chapter concludes with a brief discussion of various criteria which are used commonly in various areas of economics (such as cost–benefit analysis, public finance and welfare economics) for the evaluation of investment projects under uncertainty. In Chapter 12 we present some modern sophisticated techniques which involve the analysis of the investment decision within a portfolio framework. Particular attention is given to the 'mean–variance' model and to the 'capital asset pricing model' (CAPM), which are considered as 'the theoretically most appropriate approaches' to the investment decision. These modern techniques are gaining wide support by theorists, and are increasingly being used in practice by the large corporations, which are aware that growth is the most important way for increasing their competitive power.

The book is written at an *intermediate level.* We have adopted the verbal method of presenting the material, with extensive use of diagrams to illustrate the verbal exposition. Mathematical proofs and derivations are presented in a smaller size of type so as not to interrupt the main theme.

One of the unique features of the book is that each theoretical topic is followed by a survey of the main empirical studies in the field. Thus the student is not simply exposed to alternative theoretical structures, but rather he is also given the opportunity to judge how far each of these structures (hypotheses) is substantiated by empirical evidence. The more technical discussion of these sections, however, can be skipped by the non-interested reader without loss of continuity.

The book is designed for undergraduate *general micro-theory courses*, as a *continuation* of the material covered in the traditional textbooks. The book can also be used as the basic text in undergraduate or postgraduate *specialised courses* dealing with the theory of the firm or the theory of managerial finance. In addition, the book can be particularly useful to students of Business Schools and Management Science Departments, because of its viewing of the firm in a wider context, and because of the empirical evidence included in most chapters which indicates 'empty boxes' and areas for further applied research.

The contents of this book provide the material for professional academics to expand and modernise the structure of courses on microeconomic theory and on the theory of the firm. This will spare students boring repetition of the same material in various years of their studies and equip them with better tools and models for analysing the real industrial world. The orientation of the book is towards understanding the behaviour of growth-seeking managers, and the intense merger activity, the aggressive takeover movement and the phenomenal expansion of multinationals in recent years.

It is hoped that the book will help the dissemination of the impressive developments of microeconomic theory over the last three decades, and enable students to analyse and understand better the changed pattern of competition and the new economic conditions of the modern industrial world.

I would like to express my thanks to Robert Kerton, who was very helpful and contributed many insights and ideas to various parts of the book. I am greatly indebted to Eric Kirzner, whose clear and incisive criticisms and suggestions have improved the presentation of Chapters 8–12 considerably. Lionel Needleman, Wayne Thirsk and Stanley Kardasz also made many helpful suggestions on particular sections of the book.

I am greatly indebted to Ann Wendt for skilful typing of a complex manuscript.

I dedicate this book to my father in grateful appreciation of his kindness, understanding and moral support when I most needed it.

Waterloo, Ontario
October 1980

A. KOUTSOYIANNIS

Contents

PART TWO

THE GROWTH DECISION OF THE FIRM