Towards a Competence Theory of the Firm

Edited by
Nicolai J. Foss and
Christian Knudsen

TOWARDS A COMPETENCE THEORY OF THE FIRM

In recent years strategic management has been dominated by calls for a 'return to core business'. Long-term competitive advantage is now seen as the outcome of individual firms' ability to perform activities or solve problems more efficiently than their competitors. The most compelling ways of analysing firms now emphasize intangible knowledge- and skill-related aspects.

This book explores and develops this perspective further. Characterized by an emphasis on core competences, this new theory of the firm is the product of a rich exchange between management theory and economics. In the process economics is seen to provide a foundational element for strategy research whilst developing a more realistic theory of the firm with a greater emphasis on its internal features. However, the success of competence theories of the firm also reflects their ability to explain significant trends in the business world, notably the declining importance of conglomerates and critical features in the success of Asian, including Japanese, business.

As with all emerging bodies of theory, there is not yet consensus on many important issues. However, this book clarifies many key concepts and also includes some important applications of the theory to technology strategy and to international business.

Nicolai J. Foss is Assistant Professor at the Institute of Industrial Economics and Strategy, Copenhagen Business School. He has published in the fields of institutional economics, theories of the firm and strategic management and was joint editor (with Brian Loasby) of *Capabilities and Coordination: Essays in Honor of G. B. Richardson.*

Christian Knudsen is Associate Professor, Institute of Industrial Economics and Strategy, Copenhagen Business School. He has published widely on economic methodology and was co-editor (with Uskali Maki and Bo Gustafsson) of *Rationality, Institutions and Economic Methodology.*

ROUTLEDGE STUDIES IN BUSINESS ORGANIZATION AND NETWORKS

1 **Democracy and Efficiency in the Economic Enterprise**
Edited by Ugo Pagano and Robert Rowthorn

2 **Towards a Competence Theory of the Firm**
Edited by Nicolai J. Foss and Christian Knudsen

TOWARDS A COMPETENCE THEORY OF THE FIRM

Edited by Nicolai J. Foss and Christian Knudsen

London and New York

First Published 1996
by Routledge
2 Park Square, Milton Park, Abingdon, Oxon, OX14 4RN

Simultaneously published in the USA and Canada
by Routledge
270 Madison Ave, New York NY 10016

Transferred to Digital Printing 2006

© 1996 Nicolai J. Foss and Christian Knudsen

Typeset in Garamond by
Keystroke, Jacaranda Lodge, Wolverhampton

All rights reserved. No part of this book may be reprinted or reproduced or utilized in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system, without permission in writing from the publishers.

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

Library of Congress Cataloging in Publication Data

Towards a competence theory of the firm/edited by Nicolai J. Foss and Christian Knudsen.
p. cm. — (Routledge studies in business organization and networks ; 2)
Includes bibliographical references and index.
1. Industrial organization (Economic theory) 2. Competition.
I. Foss, Nicolai J., 1964– . II. Knudsen, Christian, 1951– .
III. Series.
HD2326.T69 1996
338.5—dc20 96–11896
CIP

ISBN10: 0-415-14472-8 (hbk)
ISBN10: 0-415-40702-8 (pbk)

ISBN13: 978-0-415-14472-8 (hbk)
ISBN13: 978-0-415-40702-1 (pbk)

CONTENTS

ILLUSTRATIONS

FIGURES

TABLES

CONTRIBUTORS

Raphael Amit holds a PhD from Northwestern University, Evanston, Ill. He is the Peter Wall Distinguished Professor of Entrepreneurship and the Director of the Entrepreneurship and Venture Capital Research Centre at University of British Columbia, Faculty of Commerce and Business Administration. His research interests include entrepreneurship and venture capital research, strategic management and strategic planning methods.

Jens Frøslev Christensen is Associate Professor, Department of Industrial Economics and Strategy, Copenhagen Business School. A specialist in the management of innovation, he is the author of *Produktinnovation* (Copenhagen: Copenhagen Business School Press, 1992). His work has appeared in journals such as *Research Policy.*

Bo Eriksen holds an MSc from Copenhagen Business School. He is currently enrolled as a PhD student at Odense University. His current research interests include business and corporate strategy, strategic planning methods and organization design. His doctoral dissertation centres on the relations between competitive advantage and organization structure.

Kirsten Foss, PhD, is Assistant Professor, Department of Industrial Economics and Strategy, Copenhagen Business School. She has written mainly on the economics of the food sector, and has been associated with the Danish research programme on Market-Based Product and Process Innovations (MAPP). Her work has been published in *Research Policy.*

Nicolai J. Foss, PhD, is Assistant Professor, Department of Industrial Economics and Strategy, Copenhagen Business School. A recipient of the Tietgen and Zeuthen Prizes, Nicolai J. Foss has published in several journals (e.g. *Journal of Evolutionary Economics, Review of Political Economy, Scandinavian Journal of Management, Journal of Management Studies*) and has written *The Austrian School and Modern Economics* (Copenhagen: Copenhagen Business School Press, 1994). Together with Brian Loasby, Nicolai Foss is editor of *Capabilities and Coordination: Essays in Honor of G. B. Richardson* (forthcoming).

Hanne Harmsen, PhD, is Assistant Professor, Department of Marketing, Aarhus School of Business. Her research has mainly been on product innovation. She is associated with the MAPP research project, where she is a project coordinator.

Christian Knudsen, PhD, is Associate Professor, Department of Industrial Economics and Strategy, Copenhagen Business School. A specialist in the methodology of economics, Christian Knudsen's work has appeared in several Danish volumes. He edited (together with Uskali Mäki and Bo Gustafsson) *Rationality, Institutions and Economic Methodology* (Routledge, 1993), and has recently written *Economic Methodology* (two volumes, Routledge 1994).

Brian Loasby is Professor of Management Economics, University of Stirling. The author of numerous articles, Brian Loasby has written *Choice, Complexity and Ignorance* (Cambridge University Press, 1976), *The Mind and Methods of Economists* (Edward Elgar, 1989) and *Equilibrium and Evolution* (Manchester University Press, 1991). His research centres on the theory of the firm, doctrinal history and methodology.

Jesper Mikkelsen is an MSc in Business Administration and Business Law. He is an associate of A. T. Kearney.

Torben Pedersen, PhD, is Assistant Professor, Department of International Economics and Management, Copenhagen Business School. A recipient of the Tietgen Prize, Torben Pedersen has written *Danske virksomheders etableringer i udlandet* (with Poul Schultz and Harald Vestergaard, Copenhagen: Copenhagen Business School Press, 1992) and *Udenlandsk ejet industri i Danmark* (with Finn Valentin, Copenhagen: Ministry of Industry, 1994).

Paul Robertson is Senior Lecturer in the Department of Economics and Management at University College, University of New South Wales. He has previously taught at Boston University, the Johns Hopkins University and the University of Melbourne. In addition to many articles, he is co-author with Richard Langlois of *Firms, Markets and Economic Change: A Dynamic Theory of Business Institutions* (Routledge, 1995) and co-author with Sidney Pollard of *The British Shipbuilding Industry, 1870–1914* (Cambridge, Mass.: Harvard University Press, 1979).

Finn Valentin is Associate Professor, Department of Industrial Economics and Strategy, Copenhagen Business School. He specializes in the economics and sociology of technological change, and has directed research projects on industrial R&D and technology strategy and policy. In recent years, his focus has been on interorganizational issues relating to collaborative R&D and to the R&D function within multinational enterprises.

This page intentionally left blank

1

INTRODUCTION

The emerging competence perspective

Nicolai J. Foss

THE EMERGENCE OF A NEW PERSPECTIVE IN STRATEGY RESEARCH

This book contributes to the *competence perspective* on firms and firm strategies that has been emerging within the strategic management field over the last decade. Arguably, the competence perspective is – in its various guises – the dominant perspective on firm strategy today. Thus, strategic management scholars are very much agreed on ascribing primary importance to the resource and competence side of firms when accounting for the sources of long-lived competitive advantage, which is perhaps the central theme of strategic management research. This dominance can also be found in the thinking of managers and strategists; for example, the necessity of a 'return to the core business' is now almost universally emphasized by practitioners.

In this version, the competence perspective may perhaps be seen as a rediscovery of the proposition advanced by Adam Smith more than two hundred years ago, that specialization yields productivity advantages. But whereas Smith can be read as emphasizing specialization in terms of products, the modern competence perspective rather emphasizes specialization in terms of competence.

By 'competence', we understand a typically idiosyncratic knowledge capital that allows its holder to perform activities – in particular, to solve problems – in certain ways, and typically do this more efficiently than others. Because of its skill-like character, competence has a large tacit component, and is asymmetrically distributed. It may reside in individuals, but is in the context of the theory of the firm and strategic management perhaps best seen as a property of organizations rather than of individuals (it is therefore hard to imitate and transfer). At least, that is how the concept is used in this book.

By 'a competence perspective on firms and firm strategies', then, is meant, first, a consistent conceptualization of firms in terms of competence: firms are seen *essentially* as repositories of competence. And, second, it is firms' ability to accumulate, protect and eventually to deploy competences to product markets that is seen as determinative of their long-run competitive advantages. Moreover, firms' competence endowments co-determine their boundaries, notably their degree of diversification.

This view of the firm is not only to be found within the strategic management field; it is also emerging within economics, particularly in the evolutionary theory of the firm, as propounded by Richard Nelson and Sidney Winter in their 1982 book, *An Evolutionary Theory of Economic Change*. Here, too, firms are seen as essentially heterogeneous entities, characterized by their unique and path-dependent knowledge-bases (rather than simply by scale).

The same year, 1982, that saw the publication of Nelson and Winter's book also witnessed the publication of a seminal article by Stephen Lippman and Richard Rumelt, 'Uncertain Imitability: An Analysis of Interfirm Differences in Efficiency under Competition'. They demonstrated that, if one assumed that firms had difficulties imitating the firm-specific sources of superior performance, an equilibrium with firm of diverging efficiencies could be sustained. This opened the door for a rigorous economic approach to the analysis of firm strategies as a matter of the accumulation and protection of resources that yield Ricardian rents because of their superior inherent efficiencies.

Two years later, Birger Wernerfelt, building on Edith Penrose's *The Theory of the Growth of the Firm* (1959) and on Lippman and Rumelt's article, published his 'A Resource-based View of the Firm', probably the most influential academic article on firm resources. Since then, the more academic and largely US-based part of the competence perspective has normally been referred to as 'the resource-based view'. Important contributors to this strand within the competence perspective include, in addition to Wernerfelt and Rumelt, Jay Barney, Cynthia Montgomery, Ingemar Dierickx and Karel Cool.

Closely related to the resource-based view, but with a somewhat more practical orientation, is a string of contributions beginning with C. K. Prahalad and Gary Hamel's enormously successful 1990 article in the *Harvard Business Review*, 'The Core Competence of the Corporation'. Work that is closely related to the resource-based or core competence work is 'the capabilities approach' (Langlois 1992), 'the competence perspective' (Foss 1993), and 'the dynamic capabilities approach' (Teece, Pisano and Shuen 1990). Recent European-based work on 'competence-based competition' (Hamel and Heene 1994) also falls within this group.[1]

In this book, we use the term '*the competence-based perspective*' or, even simpler, 'the competence perspective' as the common denominator for these different, though closely related, influences. This is because all the above theories are agreed on ascribing primary strategic importance to those firm-specific assets that are knowledge-related and intangible, often tacit, hard to trade and shared among the agents of the firm. The assets that conform to these characteristics are what we understand as 'competences'.

Although it may seem so, the interest in conceptualizing the firm in terms of its competences is no new phenomenon *per se*. As Christian Knudsen argues in chapter 2 and Brian Loasby in chapter 3, it is in a sense a *renewed* interest, since a knowledge-based conceptualization of the firm was present in the important British economist, Alfred Marshall's (1925) work, and blossomed in the classic work of Edith Penrose (1959) on *The Theory of the Growth of the Firm.* Penrose's work in particular has provided much inspiration for resource-based scholars (Wernerfelt 1984), and also for evolutionary theorists such as Richard Nelson and Sidney Winter (1982). In fact, it may with much justice be said that what Ronald Coase is to the contractual approach, Penrose is to the competence perspective.

However, in spite of its many precursors, the competence perspective did not really blossom until the end of the 1980s. Since that time, however, it has virtually dominated strategy content research; the percentage of articles written from a competence perspective in such journals as *Strategic Management Journal, Journal of Management,* and also more popular journals such as *California Management Review* or *Harvard Business Review,* is now quite high. Even the weekly, *The Economist,* well known for its harsh comments on management thinking, now routinely employ concepts such as 'core competences' in its business section. Given this quite widespread acceptance, why did it take so long before the competence perspective became influential?

There are several causal factors behind the emergence of the competence perspective, some of which are external and some of which are internal to the strategy field. They include:

- The death of the conglomerate: the need for a return to core business becomes conventional wisdom.
- The empirical importance of internal factors for understanding competitive advantage, exemplified by the superior efficiencies ascribed to Japanese production methods.
- Advances in economic theory, particularly with respect to the treatment of contracts, incentives, information and strategic interdependence.
- An increasing interest in firm heterogeneity within economics.
- A related and also increasing interest in emphasizing the knowledge dimensions of the firm within economics and strategic management.

The first two reasons on this list are clearly external, empirically based reasons. They both refer to the changes in organizational forms and in dimensions of competition that have accompanied the increasing internationalization and the more fervent technological change that have characterized many industries.

Let us consider the case of ITT (*The Economist* 1995). On 13 June 1995 Rand Araskog, president of the American conglomerate, ITT, announced that ITT was soon to be broken up into three free-standing firms, concentrating on insurance, hotels and manufacturing, respectively. The news made ITT rise on the New York Stock Exchange. In fact, stocks had been rising for some time in the expectation that ITT's divestment plans were soon to be announced. This suggests that investors are no longer particularly fond of conglomerate organization.

Perhaps more than any other firm, ITT was instrumental in defining the conglomerate as a viable organizational form in the 1960s. Under the remarkable Harold Geneen, ITT expanded strongly, primarily by merging with other firms, and consisted by 1970 of more than 400 businesses, operating in more than 70 countries all over the world. Under Rand Araskog, ITT has divested itself of more than 200 businesses, but still covers areas ranging from casinos to phone directories. In fact, Araskog has had difficulties determining precisely where ITT's core business lies.

Dozens of similar stories can be found. They all serve to illustrate the increasing emphasis in managerial practice on concentrating on core strengths. These are seen as the more permanent features of the firm, while products and strategic business units are seen as much more transitory. This is a view of the corporation that harmonizes with an increasingly internationalized world with shortening product life-cycles. In such a world, competitive success cannot rest on anything as fleeting as products or strategic business units; rather, it must be founded on something deeper – namely the knowledge capital in the form of competences that allow a firm to spawn new unanticipated products. The cultivation and management of synergistic learning processes in the firm therefore become key in this process. Strategy is about stretching knowledge assets and applying these to new areas.

According to some writers, notably Prahalad and Hamel, the above competence view on the corporation and on strategy has been near-standard fare in Japanese and other East Asian management practice for years and to a large extent accounts for the competitive successes of Asian firms in many industries. However, it has only recently been reflected in strategic thinking, and it has yet to make a substantial impact on Western management and strategy practice.

In addition to these external, more empirical reasons for the recent change in strategy thinking, there are some more internal developments. These may be summarized as having to do with a more intimate liaison between economics and strategy, a liaison that has become stimulated by a more realistic treatment of the firm within economics.

ECONOMICS AND MANAGEMENT STUDIES

It has gradually become an increasingly prevalent recognition that economic theory may be important to management studies, and perhaps particularly to the strategy discipline.[2] This has not always been so. Consider the verdict issued by the prominent British economist, Arthur Pigou:

> it is not the business of economists to teach woollen manufacturers to make and sell wool, or brewers how to make and sell beer, or any other business men how to do their job. If that was what we were out for, we should, I imagine, immediately quit our desks and get somebody –

> doubtless at a heavy premium, for we should be thoroughly inefficient – to take us into his woollen mill or his brewery.
>
> (Pigou 1922: 463)

Now, business firms still employ relatively few microeconomists, and the influence of economics on management may arguably primarily manifest itself through the curricula of business schools. Through this route, however, economics is bound to have an influence on the practical execution of firms' strategies. As some prominent proponents of the economic turn in strategy thinking have recently emphasized, this is not the same as saying, in an 'imperialist' manner, that strategy thinking should be *only* applied to microeconomics (Rumelt, Schendel and Teece 1994: 547–9). Instead, economics is thought of as being able to *further* 'conversation' within the strategy discipline and management studies in general, rather than to block it.

This is because economics provides a relatively clear and unambiguous 'language' in which many – if not all – strategy issues may be precisely represented. Furthermore, many would agree that the basic insights of economics[3] have a high degree of validity – which means that economics may supply a body of well-corroborated knowledge that may serve as a foundational element for strategy research. For example, economics helps better understanding and answering questions such as the following. What are the sources of competitive advantage? How can competitive advantage be sustained? How sensitive is competitive advantage to environmental changes?

Such questions are quite simply hard to understand and answer without understanding the nature of basic competitive forces. Sociology and psychology do not tell us much directly about what is perhaps the key question of strategy research: which factors may make a competitive advantage sustainable? In order to pose and answer this question meaningfully, knowledge of the mechanisms that may off-set the equalization of returns over firms is necessary. For example, economics may supply the answer that a competitive advantage can be made sustainable to the extent that the relevant rent-yielding competences can be made costly to imitate.

What makes it more plausible that economic modes of thought may help us address and understand such questions is also the fact that economics has become, in many ways, much more 'realistic'. There is now a much more sophisticated treatment of information, incentives, coordination and strategic interaction than was the case, say, two decades ago. It is not that all of these developments are equally obviously helpful; but some of them clearly are helpful. This is perhaps particularly obvious in the domain of the theory of the firm.

Early importers of economics to the strategy discipline were for a long time inspired by a kind of economics that did not leave much room for resources and competences, and, in effect, had little to say about the firm. To strategy scholars such as Richard Caves and Michael Porter, economics meant the Bain–Mason structuralist approach in industrial organization (IO) economics. To them, basic

IO concepts such as entry barriers and collusion behind such barriers offered an explanation of, for example, the observed persistence of above-normal profit.

However, would-be importers of IO to the strategy field confronted a number of translation problems. For example, the unit of analysis in IO was the industry, whereas the strategy scholars took the firm as the unit of analysis. Although the most prominent importer of IO to the strategy field, Michael Porter, was well aware of the problems these differences raised (Porter 1981), many of the unfortunate characteristics of IO did in fact carry over to his own industry analysis approach (Porter 1980). An example is the black-box conceptualization of the firm that is characteristic of older IO. It is present in *Competitive Strategy* (Porter 1980), as demonstrated by the complete *absence* of any comprehensive discussion in that book of the internal aspects of firms.

It is by no means illegitimate to black-box the firm – *if* one's primary interest is in short-run business strategy. But strategy is about much more than this. Almost any strategy textbook will conceptualize strategy as a matter of achieving fit between the strengths of the firm and the opportunities of the environment, while simultaneously safeguarding the weaknesses of the firm from threats of the same environment.

Notice that this basic SWOT conceptualization inherently involves the resource and competence side of firms by referring to strengths and weaknesses.[4] More specifically, strategy is also about the direction of firms' diversification activities (Montgomery and Wernerfelt 1988), the firm-specific (imitation) barriers that block the equalization of rents over firms (Rumelt 1984, Wernerfelt 1984), and the growth strategies of firms (Penrose 1959). What is important about these issues in the present context is that they necessitate theorizing the resource and competence side of firms at some level of detail. Recent developments in the theory of the firm have at least begun to take more seriously the internal aspects of firms.

THE CONTEMPORARY THEORY OF THE FIRM

During the last two decades, the theory of the firm, broadly conceived, has made considerable progress, as marked, for example, by the conferment of the Nobel Prize in economics to Ronald Coase in 1991. However, recent developments have been far from homogeneous, have not been constructed from a common set of assumptions, have been based on different research traditions, and have addressed widely different phenomena. Thus, we have theories – different theories – for understanding such aspects of the firm as its contractual character, its boundaries relative to the market (other firms), and its role as a repository for productive knowledge and a learning device. In other words, the current theoretical situation may be described as one of creative turmoil.

One way to put all this in perspective is to say that contemporary developments break in almost all relevant dimensions with the theory of the firm of neoclassical price theory (what is often referred to as 'the production function approach'). They break up the 'black box' and address the inner workings of the business firm; raise the question of the existence of firms and other types of economic organization; reject the uniformity postulate and try to describe firms as essentially heterogeneous entities; break with the given knowledge assumption and attempt to account for the firm as a learning entity; and so on.

This should of course not be taken to mean that it is analytically wrong to represent the firm as merely a production function: it depends on what analytical purpose this conceptualization is applied to (Machlup 1967). For simple price-theoretic analysis, it may not be wrong; if all we are interested in is addressing questions such as how much industry supply changes given a certain increase in sales taxes, we can make do with a very stylized picture of the firm, since what we are after is not really firm behaviour, but industry behaviour. However, for other purposes – such as those that interest us in this book – the conventional neoclassical conceptualization of the firm represents a serious affront to realism. It does not help us understand internal organization, the whole issue of firms' boundaries and contractual relations in general, it is a poor guide to understanding firm strategy, and it will not assist understanding how firm performance and national economic performance are connected.

To some extent it is because these 'other purposes' have become more pressing to the economics profession that we have during the last two decades seen a flurry of work on the theory of the firm. Reinforcing this tendency have been the more refined tools that are now available to economists, and a cumulative and relevant theoretical development within such areas as the economics of information and uncertainty, law and economics and industrial organization. Many branches of the modern theory of the firm have drawn extensively on these areas. For example, Armen Alchian and Harold Demsetz's (1972) classic work on the theory of the firm was a rather natural outgrowth of their own previous work within property rights economics, and of Ronald Coase's (1960) work on property rights, transaction costs and externalities. And Sanford Grossman and Oliver Hart (1986) draw extensively on game theory in developing their incomplete contract approach to the firm.

Building on foundations laid by Ronald Coase (1937, 1960), these writers and others, such as the extremely influential Oliver Williamson, have detailed the economic organization of the firm, and of many other types of economic organization. In fact, research in this area has been so broad and intensive that it may well be the most rapidly expanding research area in modern economics. Its impact on management research has been quite impressive, too; for example, Milgrom and Roberts's (1992) textbook on contractual economics is entitled *Economics, Organization, and Management*,[5] and Paul Rubin (1990) undertook a project to make transaction cost theory accessible to managers. In the present book, the fruitfulness of a rather orthodox contractual approach in the context of the competence perspective is demonstrated by Raphael Amit and Bo Eriksen's chapter (6) on business process engineering.

Briefly, within the contractual approach the firm is seen as an efficient contractual entity, in the sense of aligning the incentives of the various input-owners that enter into contractual relations with the legal entity known as 'the firm'. Although the contractual approaches are far from homogeneous, they are all agreed on giving the exchange aspects of the firm primary emphasis, to the relative neglect of the production side. That is to say, what they view as interesting about firms is not their role as repositories of productive knowledge *per se*, but rather their role as contractual entities, in other words, their particular way of structuring deals between input-owners. There is thus a separation between 'production' and 'governance', with maximum attention being paid to governance rather than production.

Again, it is important to emphasize that this may be a completely defensible procedure, depending on the purpose at hand. However, it has clear limits.[6] Among the more serious is that by suppressing interest in the production side of firms, the make-or-buy decision (and other aspects of economic organization) is not allowed to turn on differences in production costs: only transaction costs matter (see Demsetz 1993, Foss 1993). In fact, Paul Robertson, building on Richard Langlois's and his (1995) joint work, in chapter 5 makes a number of related points and argues that a distinct perspective on economic organization can be distilled from the competence perspective.

Furthermore, because of their lack of interest in the production side, contractual theories have difficulties addressing a number of important real-world phenomena. One example may be found in the much-debated outsourcing question. In terms of contractual economics, this may simply be seen as a matter of choosing the optimal boundaries of the firm: which activities should be left to the market (be outsourced) and which should be undertaken internally?

However, as Bettis, Bradley and Hamel (1992) argue, outsourcing may influence the firm's accumulation of productive knowledge and therefore its future competitive position. For example, careless use of outsourcing may imply the transfer of valuable knowledge to suppliers who later emerge as strong competitors, or it may imply that it becomes harder for the firm to produce new valuable knowledge, for example, if its development efforts require direct access to functions that have been outsourced.

Such dynamic aspects of the outsourcing decision cannot be accounted for in terms of contractual theories of the firm. In order to address, for example, the outsourcing problem in its complex entirety, something more is needed: specifically, a notion of firms as repositories of productive knowledge. This notion is supplied by the competence perspective. It is much less adequately treated by neoclassical theories of the firm, although here too, some advances have been made with respect to treating firms as knowledge-bearing entities (e.g. Prescott and Visscher 1980). The deep problem is that the rationality assumptions of orthodox economics seem to hinder an adequate treatment of competence, understood as idiosyncratic problem-solving knowledge capital: whereas orthodox theory in principle assumes that competence is unbounded, the competence perspective breaks with this assumption.

COMMON THEMES

In spite of what has been said, the competence perspective is far from homogeneous, as argued by Christian Knudsen in chapter 2 and myself in the final chapter of this book. It is certainly not possible to speak of a 'research tradition' yet, and even less of a 'research programme'. This is so because, although there seems to be substantial agreement on which problems the competence perspective should address, there is little agreement on which means should be used to accomplish this problem-solving.

In spite of the relatively large bulk of recent work on the competence perspective, it is probably fair to say that it is considerably less homogeneous and more fragmented and implies much more conceptual ambiguity than, say, the contractual perspective on the firm. In short, when contractual theorists talk about 'contracts', 'incentives', 'team-production', 'residual rights', and so on, they know what they are talking about, and know that other scholars within their field to a large extent agree with their interpretation of such concepts. There is much shared knowledge within this field of research.

In contrast, it is unlikely that two competence-based scholars will be in agreement on the precise details of, most significantly, the meaning of the word 'competence', not to speak of 'core competence'.[7] As a reflection of the much more 'mature' state of contractual research, recent work within this area is stark, highly abstract and very formalized, whereas work within the competence perspective is loose, purely verbal and often quite ambiguous.

A number of circumstances are responsible for this state of affairs. For example, most research within the contractual perspective draws on relatively standard economics, whereas the competence perspective draws on a multitude of theoretical traditions. Exemplifying this is that the contractual perspective is overwhelmingly in debt to the work of a single man, namely Ronald Coase. In contrast, there is no Coase of the competence perspective (although Edith Penrose and perhaps Harold Demsetz are strong candidates here). Furthermore, the competence perspective has entertained a strong practice-orientation, much in contrast to the contractual perspective, which has implied the use of a looser terminology, more willingness to bend concepts, employing new ones where necessary, and so on.

Thus, while competence insights clearly appeal to managers, while there is some empirical support for the approach, and while the approach does not reduce management research to a minor branch of economics, the approach certainly still lacks both a *strong* empirical base and extensive theoretical elaboration (cf. Doz 1994). Moreover, the domains of application of the perspective needs to be clarified.

This book is an attempt to reduce conceptual confusion. For example, we have rather consistently used the 'competence' terminology. And it is also an attempt to clarify the domains of application of the perspective. For example, innovative discussions apply the competence perspective to technology strategy (chapters 7 and 8) and to the international setting (chapter 9). Moreover, the various contributions to this book begin from a set of related themes: more specifically, from central propositions characterizing the competence perspective and constituting a sort of 'minimum programme'.

My proposal for a list of common themes includes the following points:

- *Proposition 1*: The competence perspective is a strategic perspective, in the sense that it tries to uncover the sources of competitive advantages and account for the boundaries of firms in terms of the properties of competences.
- *Proposition 2*: Competencies are the key assets of firms; they are tacit and social knowledge-capital that tells its holders how to go on with problem-solving.
- *Proposition 3*: Firms are the basic units of analysis; they should be conceptualized in terms of the endowments of essentially heterogeneous but productive stocks of knowledge capital – competences – that are associated with differential levels of efficiency.
- *Proposition 4*: Efficiency differences yield rents. A primary research task is to account for the mechanisms producing long-lived rents, that is to say, long-lived competitive advantage. This will include going into the cognitive dimensions of competence and also investigating processes of emergence of competence.
- *Proposition 5*: The boundaries of the firm – that is to say, the firm's degree of vertical and horizontal diversification – should be explained using competences as part of the explanatory apparatus. For example, the nature of a firm's competences put restrictions on the sort of activities it can undertake and internalize.
- *Proposition 6*: The competence ultimately is a dynamic theory; that is to say, it is concerned with the creation, maintenance and creative destruction of competitive advantages in terms that refer to the creation, the protection and the obsolescence of competence. Learning processes must ultimately loom large in the competence perspective.

All of the chapters in this book represent first stabs at advancing the competence perspective based on the acceptance of the above points as unifying common themes.

NOTES

1 In the final chapter of this book, I undertake an analysis of the differences between the various perspectives within the overall competence-based approach.

2 There is currently a rather heated debate on how much economics should be allowed to influence management studies. See Camerer (1985) and Hirsch, Friedman and Koza (1990) for the extreme positions. Foss (1996) is an attempt to construct a middle position.

3 Such as the propositions that agents react predictably to changing incentives, that firms change input demands as relative prices change, that demand curves slope downwards, and so on.

4 As early contributors to the stategy field were well aware of; for example, Kenneth Andrews's classic *The Concept of Corporate Strategy* repeatedly makes the point.

5 See, however, the critical review by Brian Loasby (1995) that makes the point that while the book has much to say about economics and organization, it actually has very little to say about management proper.

6 Milgrom and Roberts (1992: 33–4) highlight some of the theoretical and conceptual problems involved in trying to separate production and governance, and the corresponding costs of these activities.

7 Those who doubt this can try to find out how many different definitions of 'core competence' they can distil from Prahalad and Hamel's 'The Core Competence of the Corporation'. Judging from my own experiments with students, ten different definitions seems to be the median response.

REFERENCES

Alchian, A. A. and Demsetz, H. (1972) 'Production, Information Costs, and Economic Organization', in A. A. Alchian (1977) *Economic Forces at Work*, Indianapolis: Liberty Press.

Andrews, K. (1993) *The Concept of Corporate Strategy*, 3rd edn, Homewood, Ill.: Dow Jones-Irwin.

Bettis, R. A., Bradley, S. P. and Hamel, G. (1992) 'Outsourcing and Industrial Decline', *Academy of Management Executive* 6: 7–22.

Camerer, C. (1985) 'Redirecting Research in Business Policy and Strategy', *Strategic Management Journal* 6: 1–15.

Coase, R. H. (1937) 'The Nature of the Firm', *Economica* 4: 386–405.

Coase, R. H. (1960) 'The Problem of Social Cost', *Journal of Law and Economics* 3: 1–44.

Demsetz, H. (1993) 'The Nature of the Firm Revisited', in O. E. Williamson and S. G. Winter, *The Nature of the Firm*, Oxford: Oxford University Press.

Doz, Y. (1994) 'Managing Core Competence for Corporate Renewal: Towards a Managerial Theory of Core Competencies', *INSEAD Working Paper*, Corporate Renewal Initiative, Paris.

The Economist (1995) 'ITT: The Death of the Geneen Machine', 17 June, pp. 74–6.

Foss, N. J. (1993) 'The Theory of the Firm: Contractual and Competence Perspectives', *Journal of Evolutionary Economics* 3: 127–44.

Foss, N. J. (1996) 'Research in Strategy, Economics, and Michael Porter', forthcoming in *Journal of Management Studies.*

Grossman, S. and Hart, O. (1986) 'The Costs and Benefits of Ownership: A Theory of Lateral and Vertical Integration', *Journal of Political Economy* 94: 691–719.

Hamel, G. and Heene, A. (eds) (1994) *Competence-based Competition*, New York: John Wiley.

Hirsch, P. M., Friedman, R. and Koza, M. P. (1990) 'Collaboration or Paradigm Shift? Caveat Emptor and the Risk of Romance with Economic Models for Strategy and Policy Research', *Organization Science* 1: 87–97.

Langlois, R. N. (1992) 'Transaction Cost Economics in Real Time', *Industrial and Corporate Change*, 1: 99–127.

Langlois, R. N. and Robertson, P. (1995) *Firms, Markets and Economic Change*, London: Routledge.

Lippman, S. and Rumelt, R. P. (1982) 'Uncertain Imitability: An Analysis of Interfirm Differences in Efficiency under Competition', *Bell Journal of Economics* 13: 418–38.

Loasby, B. J. (1995) 'Running a Business: An Appraisal of Economics, Organization and