



Cambridge
Elements

Business Strategy

Dynamic Capabilities

Bart Nooteboom

Cambridge Elements

Elements in Business Strategy

edited by

J.-C. Spender

Rutgers Business School

DYNAMIC CAPABILITIES

History and an Extension

Bart Nooteboom

Tilburg University



CAMBRIDGE
UNIVERSITY PRESS

CAMBRIDGE
UNIVERSITY PRESS

University Printing House, Cambridge CB2 8BS, United Kingdom

One Liberty Plaza, 20th Floor, New York, NY 10006, USA

477 Williamstown Road, Port Melbourne, VIC 3207, Australia

314–321, 3rd Floor, Plot 3, Splendor Forum, Jasola District Centre,
New Delhi – 110025, India

103 Penang Road, #05–06/07, Visioncrest Commercial, Singapore 238467

Cambridge University Press is part of the University of Cambridge.

It furthers the University's mission by disseminating knowledge in the pursuit of education, learning, and research at the highest international levels of excellence.

www.cambridge.org

Information on this title: www.cambridge.org/9781009014182

DOI: [10.1017/9781009029025](https://doi.org/10.1017/9781009029025)

© Bart Nooteboom 2022

This publication is in copyright. Subject to statutory exception
and to the provisions of relevant collective licensing agreements,
no reproduction of any part may take place without the written
permission of Cambridge University Press.

First published 2022

A catalogue record for this publication is available from the British Library.

ISBN 978-1-009-01418-2 Paperback

ISSN 2515-0693 (online)

ISSN 2515-0685 (print)

Cambridge University Press has no responsibility for the persistence or accuracy of
URLs for external or third-party internet websites referred to in this publication
and does not guarantee that any content on such websites is, or will remain,
accurate or appropriate.

Dynamic Capabilities

History and an Extension

Elements in Business Strategy

DOI: 10.1017/9781009029025
First published online: July 2022

Bart Nootboom
Tilburg University

Author for correspondence: *Bart Nootboom*, Bart.nootboom@gmail.com

Abstract: The development of salient ideas and publications on dynamic capabilities is given in this Element, extended by ideas outside the literature of strategic management. Dynamic capability is presented as an interdisciplinary subject to which knowledge is central. Diversity of knowledge is treated in terms of cognitive distance, limited through organisational focus. To deal with diversity, development and uncertainty, evolutionary theory and the notion of entropy are used. The relation between individual and organisational knowledge is modelled with the notion of a script and linguistic ideas. The governance of collaborative relations for innovation is discussed, including trust, as these are also dynamic capabilities.

Keywords: dynamic capabilities, innovation, strategic management, learning

© Bart Nootboom 2022

ISBNs: 9781009014182 (PB), 9781009029025 (OC)
ISSNs: 2515-0693 (online), 2515-0685 (print)

Contents

1	Dynamic Capabilities	1
2	Knowledge and Learning	4
3	Organisation as an Entity	17
4	Organisation as a Process	27
5	Conclusions	46
	Glossary	49
	List of Abbreviations	51
	References	52

1 Dynamic Capabilities

1.1 Concepts and Findings

Dynamic capabilities (DCs) are an aspect of strategic management (SM). Strategy entails that in decision-making one anticipates an intelligent opponent's actions and reactions. Interaction with others is therefore a key feature of strategy. In economics, strategic thinking spawned game theory. The term 'strategy' often falls into hyperbole. I once heard someone say that they were going to figure out their strategy for travelling to Amsterdam. With the railway service hardly being an intelligent opponent, they were of course just mapping their journey.

Strategic management is strategy in organisational policy. First, it was based on the structure-conduct-performance (SCP) paradigm from industrial economics (IE). Industrial economics is meso-economics, between micro and macro: the economics of industries, markets and institutions. Strategic management was therefore seen as external in positioning the firm in its competitive environment. The SCP paradigm is compactly presented by [Michael Porter's \(1980\)](#) 'five forces model', with internal rivalry in the industry, vertical rivalry with suppliers and customers and horizontal rivalry with institutions and competing industries. It states that in their positioning, firms should adjust to changes in their environment, but it is static in that it does not include entrepreneurship and innovation, and there is no attention to what happens inside the firm or to differences between firms in an industry. However, the issue of positioning in the competitive environment remains relevant.

Subsequently, SM turned to firms' internal resources with resource-based theory (RBT) ([Wernerfelt, 1995](#); [Barney, 2001](#); [Kraaijenbrink *et al.*, 2010](#)). That was still static, and entrepreneurship and innovation were still separate fields. [Penrose \(1959\)](#), however, held that it is not the resources that matter but their arrangement and exploitation. Separate resources are often imitable, but their composition is distinctive, yielding competitive advantage. This represented a shift in attention to diversity: organisations and people in them differ. The old economic notions of 'the representative firm' in an industry and a homogeneous labour force as a factor of production were left behind. This led to the competence-based view, which in turn spawned the dynamic capabilities view. Dynamic capabilities are, simply, the capabilities of successfully performing entrepreneurial innovation to achieve competitive advantage.

In its attention to entrepreneurship, the literature on DC is related to Austrian economics (e.g. [Hayek, 1945](#)), with its attention to action, praxeology ([Lachmann, 1978](#)) and entrepreneurship ([Kirzner, 1973](#)). That has its basis in methodological individualism, with the assumption of full rationality and