

Dirk Morschett / Hanna Schramm-Klein / Joachim Zentes Strategie International Management Dirk Morschett Hanna Schramm-Klein Joachim Zentes Strategie International Management Text and Cases 2nd Edition • GABLER Bibliographie information published by the Deutsche Nationalbibliothek The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographie data are available in the Internet at <http://dnb.d-nb.de>. Dirk Morschett is Professor of International Management at the University of Fribourg, Switzerland. He holds the Liebherr/Riehemont Endowed Chair of International Management and is responsible for the Master of Arts in European Business. He is Director of the Centre for European Studies at the University of Fribourg and visiting lecturer in several Master and MBA programmes at universities in Switzerland and abroad. Hanna Schramm-Klein is Professor of Marketing at the University of Siegen, Germany. She holds a Chair in Business Administration, especially Marketing, and is visiting lecturer in several Master and MBA programmes at universities in Germany and abroad. Joachim Zentes is Professor of Management and Marketing at the Saarland University, Saarbrücken, Germany. He is Director of the H.I.MA. (Institute for Commerce & International Marketing) and Director of the Europa-Institut at the Saarland University. He holds a Chair in Business Administration, especially Foreign Trade and International Management, and is a member of various boards of directors and advisory boards in Germany and abroad. 1st Edition 2009 2nd Edition 2010 All rights reserved © Gabler Verlag | Springer Fachmedien Wiesbaden GmbH 2010 Editorial Office: Barbara Roscher | Renate Schilling Gabler Verlag is a brand of Springer Fachmedien. Springer Fachmedien is part of Springer Science-Business Media. www.gabler.de No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the copyright holder. Registered and/or industrial names, trade names, trade descriptions etc. cited in this publication are part of the law for trademark protection and may not be used free in any form or by any means even if this is not specifically marked. Cover design: Konkel Lopka Medienentwicklung, Heidelberg Printing and binding: Ten Brink, Meppel Printed on acid-free paper Printed in the Netherlands ISBN 978-3-8349-2535-0 | Preface The first edition of this book has been sold within less than one year so that a second edition became necessary. In this second edition, all chapters have been updated, all case studies revised and recent data were integrated. The concept, as it is described below and in the introductory chapter, remained unchanged. Over the last few decades, international activities of companies have gained dramatically in importance. Empirical evidence for this statement can be found, for instance, in the rapid growth of world trade and in foreign direct investment flows as well as in the high share of intra-company trade on total world trade, indicating the relevance of cross-border value creation processes. Courses on International Management have, thus, become an integral part of most management studies at universities today and dedicated Masters programmes on International Management have emerged in recent years. Concept and Overview of this Book This book intends to give a compact overview of the most relevant concepts and developments in International Management. The various strategy concepts of internationally active companies and their implementation in practice are the core of this book. It is not designed as a traditional textbook or a collection of case studies, but tries to combine both. The book introduces the complex and manifold questions of International Management in the form of 20 lessons that give a thematic overview of key issues and illustrates each topic by providing a comprehensive case study. The book is divided into six major parts. Part I ("Introduction to Strategie International Management") lays the foundation by explaining basic concepts of International Management. In Part II, the influence of the external environment on Multinational Corporations is described, looking into market barriers

and regional integration, the competitive advantage of nations and the influence of country culture. Part III focuses on the coordination of internationally dispersed activities in a Multinational Corporation. An overview of formal and informal instruments is given and some coordination instruments are discussed in more detail. Another core decision with regard to international activities, the foreign operation mode, is dealt with in Part IV. After an overview of the basic types of foreign operation modes, the three v Preface main options - market, cooperation and hierarchies - are explained in individual chapters. Part V is devoted to specific value chain activities, production & sourcing, R&D and marketing. Finally, human resource management and international control are discussed as highly relevant business functions in Part VI of the book. Teaching and Learning The book is primarily aimed at students at the beginning of their Masters studies who major in Business Administration, International Management, Strategic Management or related fields . In addition, practitioners who seek compact and practice-oriented information on international strategy concepts can benefit from the book. The case studies accompany each lesson in such a way that they provide additional content and a specific application of the individual lessons on the one hand. They are part of the explanation of the topic, but they also lead to suggested discussion subjects and questions in order to deepen the understanding of the topic. Instructors are provided with additional resources. A set of PowerPoint slides can be downloaded from the publisher's website (www.gabler.de). Furthermore, for each case study, a draft solution can be obtained.

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IX I introduction & Basic Definitions

Globalisation - the growing integration of economies around the world and the increasing international activities of companies - has been one of the most intensively discussed topics over recent decades. Cross-border activities of companies take various forms: International trade has been constantly and strongly rising over the last decades. What is even more important as an indicator for its relevance is that worldwide exports are consistently growing more strongly than worldwide gross domestic product (GDP). This indicates that the world GDP is increasingly produced and consumed in cross-border processes. For companies, as well as for countries, international trade can be exports, i.e., selling merchandise and services to customers in other countries, or imports, i.e., buying merchandise and services from suppliers in other countries. Secondly, companies have increasingly undertaken foreign direct investment (FDI) and, e.g., established production plants abroad. Over the past two decades, global FDI flows have increased twice as fast as global GDP. In a regional perspective, trade liberalisation has led to major shifts in trade and FDI flows. For example, since China joined the World Trade Organisation in 2001, it has almost quadrupled its exports. Similarly, India and Brazil have become major players in international trade. As a rather recent trend, companies from emerging markets are also active players in international mergers & acquisitions (M&As). More and more often, it is not only Multinational Corporations (MNCs) from developed countries buying companies in developing countries but vice versa, i.e., companies from countries like China, India or Brazil acquire companies in developed countries to enter these markets and to gain access to their know-how and brands. However, even though world trade and FDI have been drastically increasing on a global basis, trade flows within regions still account for a higher share of world trade than flows between regions. Regional integration has moved ahead and the countries of the most integrated trade block, the European Union, realise about two-thirds of their trade-transactions within the region. Linking FDI and international trade is the fact that about one-third of worldwide trade is undertaken as intra-company trade. This is clear evidence of the enormous relevance of cross-border value chains which are internalised in large MNCs. Companies disperse their activities and assets in complex international configurations and production processes are fragmented and located in different regions of the world.

Foreign Trade Foreign Direct Investment Intra-company Trade D. Morschett et al., Strategic International Management, DOI 10.1007/978-3-8349-6331-4_1, © Gabler Verlag | Springer Fachmedien Wiesbaden GmbH 2010

Definition Multinational Corporations

The MNCs are differentiated, integrated Network Introduction & Basic Definitions Eventually, it is the international dispersion of activities that characterises a Multinational Corporation (MNC). We understand the term MNC very broadly as referring to companies with routine cross-border activities. More particularly, following an old definition of the United Nations, we see a MNC as "an enterprise (a) comprising entities in two or more countries, regardless of the legal form and fields of activity of those entities, (b) which operates under a system of decision-making permitting coherent policies and a common strategy through one or more decision-making centers, (c) in which the entities are so linked, by ownership or otherwise, that one or more of them may be able to exercise a significant influence over the activities of the

others, and, in particular, to share knowledge, resources and responsibilities with others" (United Nations 1984, p.2). Thereby it is not relevant which legal form the entity has but only that "active, coordinated management of operations in different countries, as the key differentiating characteristic of a MNE" (Bartlett/Ghoshal/Beamish 2008, p. 3) is possible. And those entities are not necessarily production plants, they can be mere sales subsidiaries or other activities. While some authors demand certain quantitative thresholds for a "MNC", e.g. a certain number of foreign countries, a certain percentage of employees abroad, share of foreign sales or direct investment, we consider those thresholds to be arbitrary. As one option - and actually an increasingly popular option - international operations do not necessarily have to be internalised. Instead, contractual cooperations or joint ventures are viable alternatives to wholly-owned foreign subsidiaries. As a consequence, foreign subsidiaries are not necessarily wholly-owned. Instead, we understand a subsidiary to be "any operational unit controlled by the MNC and situated outside the home country" (Birkinshaw/Hood/Jonsson 1998, p. 224). With this book, our objective is to cover the most important aspects of International Management with a comprehensive, yet brief, and innovative approach. We discuss 20 different topics in Strategic International Management by first giving a thematic overview of the topic which covers the key issues and explains the most important concepts and then illustrating them with the help of extended case studies. For the case studies, internationally known companies were chosen that can be considered best practice cases in the respective strategy fields. In Part I, the concept of the MNC as a differentiated network is presented. The international dispersion confronts MNC management with the challenge of designing structures, processes and systems that allow flexible responses to the heterogeneous local conditions in the host countries and to simultaneously ensure the necessary coherence to act as one company. The conceptualisation of the MNC as a differentiated network (Ghoshal/Nohria 1989) in which different subsidiaries can have individual tasks to fulfil and 2 Introduction & Basic Definitions be assigned strategically important roles, is increasingly acknowledged to be an adequate design to exploit the capabilities of the different subsidiaries and the advantages of their locations. At the same time, however, the interdependence of worldwide units increases and the structure of an integrated network becomes necessary to coordinate the dispersed activities (Chapter 1). A core challenge of such a network is the tension between external forces towards adaptation to the local environment in the different host countries, on the one hand, and the forces towards global integration on the other hand. In the integration/responsiveness framework, these pressures are categorised and solutions offered (Chapter 2). Another consequence of a differentiated network is that subsidiaries are heterogeneous and take over specialised roles. To describe and analyse those roles, a number of role typologies has been developed in the literature. These are described in Chapter 3. While internationalisation is often considered to be mainly a sales-side phenomenon, many companies internationalise with very different motives, e.g. to gain access to natural resources in a foreign country. The potential motives for internationalisation which have major consequences for the internationalisation strategies are dealt with in Chapter 4. A major characteristic - an advantage and a challenge at the same time - of MNCs is that they are active in more than one country. Thus, different subsidiaries are embedded in different external conditions. In Part II, the most important aspects of the external environment are examined. First, it is shown that there are still many tariff and non-tariff barriers between different countries, influencing, for instance, the location choice of companies. But in the last few years, trade and investment barriers have been reduced. This has occurred in regional integration agreements, such as within the European Union or by the creation of the NAFTA, but simultaneously on a global basis, mainly driven by GATT and WTO (Chapter 5).

Heterogeneity between countries is rooted in many country characteristics. Based on Porter's diamond model, the competitive advantage of different nations and specific regional clusters can be examined. These concepts are described in Chapter 6. Finally, one underlying difference between different locations is caused by cultural differences. Different host countries and regions may have strongly diverging cultures. The challenges that are caused by this fact as well as approaches to measure and describe culture are presented in Chapter 7. As pointed out, MNCs are characterised by internationally dispersed activities. To integrate all these activities and organisational units of the MNC under a common strategy, coordination is necessary, which is the focus of Part III of the book. Coordination is a process that tries to achieve alignment between the activities that are dispersed and carried out by different units within the MNC in different countries. The different coordination mechanisms as well as different theories to explain the use of specific mechanisms are explained in Chapter 8. One important coordination mechanism is the formal design of the organisation's tasks, resources and responsibilities. Chapter 9 is devoted to this international organisation structure because different structures lead to different employee behaviour, different information flows and different subordination patterns, integrating certain tasks and differentiating others. However the complexity of modern MNC networks and the dynamic challenges are frequently not manageable by formal coordination mechanisms alone. In Chapter 10, the use of the corporate culture as a coordination mechanism is discussed. This is based on the idea that if managers of different subunits of the MNC around the world internalise the values and objectives of the company, orders and direct supervision may become obsolete and still, the decisions of the dispersed organisational units are aligned with the corporate objectives. As apart of the corporate culture, values are important because they provide the employees with a sense of deeper purpose of their activities and daily work. In recent years, more and more companies have adopted the concept of corporate social responsibility (CSR) which tries to define the company's place in society and argues that managers are responsible not only to their shareholders but to all stakeholders, including employees (in different parts of the world), the environment, etc. CSR as an emerging concept in International Management is discussed in Chapter 11. Part IV focuses on a major decision in International Management - the foreign operation mode, i.e., the institutional arrangement for organising and conducting international business transactions. In Chapter 12, the basic types of operation modes are introduced and the most important theories to explain the choice of operation mode are briefly explained. A key strategic decision is the choice between internalisation vs. externalisation with regard to all activities of the value chain. In the case of externalisation, the "market" is used as the governance mechanism. Outsourcing is one potential consequence of this strategy. The trend towards outsourcing in the last few decades has resulted in drastically changed value chain architectures. Examples are pyramidal structures, as in the automotive industry, but also the emergence of pure "coordinators". These companies - like Nike or Puma - are manufacturers without their own production and they focus their business processes on product development, marketing and the control of the supply chain. These new processes are discussed in Chapter 13. Another highly relevant arrangement in which value-added processes are realised in modern MNCs are cooperative operation modes. These come in various forms, like licensing or joint ventures (Chapter 14). Eventually, MNCs can use hierarchy as an operation mode. In this case, they establish wholly-owned foreign subsidiaries, which can happen either by acquisition or by greenfield investment. Both options are examined in Chapter 15. 4 Introduction & Basic Definitions While Parts I to IV consider the MNC in general, in Part V, some important value chain activities are looked into

specifically. Chapter 16 is devoted to international production & sourcing. Very different production processes are possible and, in particular, the geographic configuration of the different stages of such processes has to be determined. Furthermore, the benefits and caveats of own production or external sourcing have to be considered to decide on the optimal level of vertical integration. With regard to a more upstream value-added activity, research and development (R&D), MNCs have to take similar decisions (Chapter 17). In particular, a MNC has to decide on the configuration of its R&D, i.e., the optimal location(s) for this activity. Closely linked to this decision is the question whether to establish an R&D alliance or not. Alliances have some advantages, in particular access to the competences of a partner, but also some disadvantages, e.g. the risk of losing one's competitive advantage to a competitor. In each case, R&D has to be embedded in the structure and processes of the MNC and different organisational models are proposed for this. As a third value chain activity that we consider to be of high relevance, the MNC has to sell its products and services on international markets. The core challenge here is to find the right balance between standardisation of the international marketing mix and adaptation to each country market. This is dealt with in Chapter 18. Eventually, the core processes and activities of a MNC have to be overlooked by different management processes. Part VI examines two international business functions. First, human resources are among the most critical success factors of International Management. Human resource management (HRM) in a MNC faces challenges that are far beyond those of purely domestic operations. Therefore, Chapter 19 is devoted to international HRM. The complexity of international operations can only be managed, however, if the MNC's executives have adequate information to hand. Control is a fundamental task of management and its main purpose is to provide information to decision makers at different levels of the company. Control in MNCs faces particularities, both because it is influenced by international heterogeneity and because it usually takes place in a complex multi-level organisation. These challenges and some control instruments that help to overcome these problems are presented in Chapter 20. This short overview of different fields of Strategic International Management reveals that this issue is highly complex and challenging. In the following 20 Chapters, we cover the most important aspects and give the reader an insight into the main developments and concepts. Based on the case studies, the reader will also gain an understanding of how the concepts are implemented by successful companies around the world.

5 Value Chain Activities Selected Business Functions Part I Introduction to Strategic International Management

Chapter 1 Multinational Corporations as Networks

The complexity of Multinational Corporations (MNCs) regarding the multiple geographical markets
Source: www.siemens.com.

1.1 Siemens Origin in Berlin

1.2 Foreign Subsidiaries in the UK and Russia

1.3 Selected Characteristics of Siemens' Subsidiaries in Selected Countries

1.4 Many Large Foreign Subsidiaries with a Long History

As already mentioned, Siemens was founded in 1847 in Berlin. In 2007, Siemens had 74 major plants and 35 branch offices located in Germany, generating sales of 12.6 billion EUR and employing 126,000 people, of whom 11,700 were working in R&D. In 1850, Siemens established its first sales office in the UK and in 1858 its first manufacturing plant. The company is established at over 100 locations in the UK. In 2007, Siemens achieved sales of nearly 4 billion EUR and had about 20,000 employees in the UK, with about 5,000 employees working in the manufacturing sector. After delivering pointer telegraphs to Russia in 1851 and setting up a construction office in 1853, Siemens established its first manufacturing subsidiary outside Germany in 1855, in Saint Petersburg. In 2007, Siemens counted 22 offices and 3,000 employees in Russia, where its sales amounted to 946 million EUR.

1.5 Introduction to Strategic International Management

30 offices and 3,000 employees in Russia, where its sales amounted to 946 million EUR. Siemens' history in the USA reaches back to 1854 when the company was asked to provide the

country with a railway telegraph to Philadelphia. In 2007, Siemens was present at 795 locations in the USA, in 49 of the 50 states as well as in Puerto Rico. In 2007, the company reached sales of 14.8 billion EUR. Moreover, in 2007, Siemens had about 72,000 employees in the USA. In 2006 and 2007, the USA has been Siemens' largest market. Siemens entered the Chinese market in 1872 when providing the country with its first pointer telegraph. In 1904, the company built its first office in Shanghai and quickly expanded its activities to other Chinese cities. As at 2007, the company had set up over 70 operating companies as well as 60 regional offices in China. In 2007, Siemens achieved sales of 5.2 billion EUR and had 50,000 employees in China. Remarkably, all business sectors the company has around the globe are nowadays active in China, which makes China a very important location for Siemens. Siemens' first business contracts with India reach back to 1867. In 2007, Siemens had 17 production plants in India, generated sales of 1,700 million EUR, employed 16,800 people and was embedded in a large regional network of service and sales offices as well as distribution partners.

Relatively Young and Small Foreign Subsidiaries In contrast to the abovementioned countries in which Siemens has been present for more than 100 years, and in which the subsidiaries consequently have very long experience and local knowledge, and often considerable size and own resources, there are also countries where Siemens is not been present for long and where it only has small subsidiaries. For example, Siemens has a relatively young presence in the Lower Gulf region, comprising the United Arab Emirates, Bahrain, Qatar, Oman and Yemen. Siemens set up its first representative office in the Emirates in 1973. Then, in 1999, Siemens LLC was founded as a regional headquarters which is responsible for Siemens' activities in the five countries mentioned above. A heterogeneous picture is given when considering some of the former Eastern Bloc countries: Whereas Siemens has been present in Hungary since 1890 with its first subsidiary, the company started its operations in Poland only in 1991 and in Kazakhstan in 1994. Moreover, in the Ukraine, Siemens has been active since the 1850s, but opened its first representative office only in 1992. However, whereas Siemens has a long history in Hungary, in 2007, the company counted the same number of employees in Hungary and Poland (each 23 Part I USA: Siemens' Largest Market Siemens' Network in China and India Young History in Lower Gulf Region History in Former Eastern Bloc Countries | 1 Headquarters in Germany Multinational Corporations as Networks about 2,000 employees) and generated higher sales in Poland (453 million EUR) than in Hungary (259 million EUR). Moreover, in 2007, Siemens had 300 employees in the Ukraine, where it achieved sales of 163 million EUR, and 140 employees, and sales of 68 million EUR in Kazakhstan. Local, Regional or Global Responsibility of Subsidiaries Selected Global and Regional Business Centres and Offices Most of Siemens' business activities are coordinated from the company's home country, Germany. The respective CEO and CFO of Siemens' business sectors Industry and Energy are located in Erlangen (Germany). However, as a first indicator for decentralised decision making, the coordination of the business sector Healthcare is carried out from Malvern, Pennsylvania (USA). Each CEO of the three business sectors is also a member of the managing board. The 15 business divisions, being rather autonomous, have their own CEO and CFO and are again divided into different national and regional units. The divisions as well as its national and regional units receive mainly strategic directives from the top of their business sector. Siemens' office in Berlin, where the company was founded and still has one of its two corporate headquarters, plays an important role for the company's activities located around Berlin, in Germany and all over the world. Berlin is one of the biggest manufacturing locations and many of the Group's activities are concentrated in the German capital. Siemens exports 90 % of all products it manufactures in the Berlin area. In 2004, Siemens decided to concentrate its formerly dispersed service and sales operations concerning Germany as a whole in Berlin. Moreover,

Siemens not only coordinates from Berlin the company's activities across Germany, but also coordinates some of its worldwide subsidiaries. Siemens' office in Munich was established in 1890 as a technical office and was at that time the company's first company-owned sales office outside Berlin. Besides Berlin, Munich is the second location for the company's corporate headquarters. Whereas Siemens' office in Berlin is, among other things, the distribution and service centre for the Berlin region and its adjacencies, Munich is the centre for distribution, solutions and services for the regions of Upper and Lower Bavaria. Moreover, the headquarters of Siemens' industry division, Osram, is located in Munich. In Nuremberg-Erlangen (Germany) there is another important office which has global responsibility for most of Siemens' business divisions, e.g., Siemens Industrial Solutions and Services, Power Generation, Power Transmission and 24 Introduction to Strategie International Management Power Distribution. In total, one-third of Siemens' worldwide revenues is coordinated from here. Although most of the head offices of Siemens' business divisions are located in Germany, the company also coordinates some divisions from other locations outside its home country of Germany: For example, Siemens' Oil and Gas division has its headquarters in Oslo (Norway) and the healthcare division Diagnostics is headquartered in Deerfield, Illinois (USA). Moreover, Siemens Building Technologies, established in 1998 in Zurich (Switzerland) by acquisition of the industrial sector of Electrowatt Ltd., employs about 29,000 people in 51 countries. Siemens Building Technologies "is part of Siemens Switzerland Ltd, Zurich (Switzerland) and consists further of Siemens Building Technologies GmbH & Co. oHG, Erlangen (Germany), Siemens Building Technologies Inc., Buffalo Grove, IL (USA), their subsidiaries and affiliates" (Siemens 2008g). Today, the global head office of the Siemens Building Technologies Group is located in Zug (Switzerland). These examples indicate the application of a type of "decentralised centralisation", whereby decisions - in this case for business divisions - are taken in a rather centralised manner but the locus of decision making is not in the home country of the MNC. Besides business divisions, Siemens is also involved in two strategic equity investments in the form of 50-50 joint ventures - Bosch und Siemens Hausgeräte and Nokia Siemens Networks - where control is shared with the business partner. While Bosch und Siemens Hausgeräte, established in 1967 between Robert Bosch GmbH (Stuttgart, Germany) and Siemens AG (Munich), is globally controlled from Munich, Nokia Siemens Networks, established in 2007 between Nokia Corp. (Espoo, Finland) and Siemens AG is controlled from Espoo. Similarly, Fujitsu Siemens Computers, a joint venture between Fujitsu Limited (Tokyo) and Siemens AG launched in 1999 was dissolved as of 1 April 2009, and Siemens' share was sold to the former partner, Fujitsu. A 49% stake in Enterprise Networks B.v., with its headquarters in Amsterdam, is also part of Siemens' Strategic Equity Investments. These strategic investments are granted great autonomy in their decisions, being strongly influenced by the business partner. In 2007, Siemens established a Regional Business Centre for Oil and Gas for the countries of the Gulf Cooperation Council and Iran, which has its regional headquarters in Abu Dhabi in the United Arab Emirates. Furthermore, some divisions of Siemens, among them Osram and Siemens Home and Office Communication Devices, have established regional bases in the United Arab Emirates. 25 Part I Division Head Offices Abroad Head Offices 0/ Siemens' Joint Ventures Regional Business Centres in the UAE I 1 Multinational Corporations as Networks Regional Offices in China Importance 0/ Siemens R&D Activities in China Selected Local R&D Centres in China On the subnational level, Siemens has 60 offices in China which are responsible for coordinating the company's activities in specific regions within China. Furthermore, having regional offices in China allows the company to pursue a local marketing strategy and to react to changes in the Chinese market (e.g. changes in consumer needs) without long delays. Siemens' R&D Activities in China "China already is an important research

and development base for Siemens, and will be further extended. Emphasis is on locally designing and developing the right products for the Chinese market to meet local customer needs, and also using the advantages China offers to develop technologies in China for global application" (Siemens 2008e). Thus, the Chinese R&D organisation has mainly local tasks, but also some global responsibility. Since the end of the 1990s, Siemens has established a couple of R&D centres in China focusing on different R&D activities in the company's different business areas. Establishing local R&D centres in China allows Siemens to localise and to customise its products and solutions to the Chinese market. However, products and solutions developed in China are not only intended to be sold in the Chinese market, but may also be exported around the world. Local R&D centres may also provide their capabilities and know-how to other Siemens companies around the world specialising in the same business divisions. Moreover, some R&D centres located in China combine their activities with other R&D centres in other countries. For instance, the R&D centre of Siemens' Osram division works closely together "with other Osram Component Groups in Germany, Italy and the USA" (Siemens 2008e). Some of the company's R&D centres in China, e.g., in the area of medical technology, are the only R&D centres in specific business areas located outside Germany. Furthermore, some bases carrying out R&D also carry out manufacturing activities, such as Bosch Siemens Household Appliances, located in Beijing. In addition, the "Asia Centre of Excellence in Shanghai, which will focus on R&D, manufacturing, service and marketing for Siemens medical products [...] will become the focal point of all Siemens medical activities in China" (Siemens 2008e). Besides Shanghai, Beijing and Nanjing are also important R&D locations for the company in China. Furthermore, R&D centres in China also cooperate with other business divisions in other locations in China. Finally, Siemens has also entered some R&D joint ventures in China.

26 Introduction to Strategic International Management

Local Embeddedness of Subsidiaries

In many countries, Siemens works closely with regional suppliers. For instance, in China, where the company has strengthened its local procurement activities since 1999. According to Siemens (2003)/ the company "works closely with local suppliers to prepare them to meet the company's high standards for quality and reliability, thereby transferring modern management knowhow to its partner companies. [...] Thanks to its substantial efforts in developing local procurement, localisation rates in some of Siemens' business areas in China already reach up to 75 %." Moreover, Siemens participates in diverse projects with different research institutions in different countries, including Germany, Brazil, Poland and China. For instance, in China, Siemens works closely together with local universities and has in total 16 cooperations with high-ranked Chinese universities aiming, among other things, at fostering R&D and sharing knowledge. In addition to Siemens' cooperation with regional suppliers and educational and research institutions, the company also participates in several cultural and social programmes.

Summary and Outlook

Starting as a ten-man operation in 1847 in Berlin, Siemens grew over time into one of the largest MNCs in its field which is nowadays spread over 190 countries worldwide. Siemens' international network of subsidiaries shows strong heterogeneity concerning different characteristics of the foreign units, e.g., with regard to size, age and autonomy as well as geographical responsibility.

Questions

1. Modern models of the MNC characterise it as a "differentiated network". Using the example of Siemens, explain this perspective of the MNC.
2. MNCs are characterised - among other things - by complex interdependencies within their internal and external networks. Take the example of Siemens R&D activities in China and try to depict the complex internal (and external) interdependencies of Siemens' international network. Then, investigate whether Siemens' R&D activities around the world are coordinated centrally from one (or a few) locations or whether Siemens gives autonomy to its subsidiaries to decide (largely)

independently on their R&D activities in their respective countries. 27 Part I Cooperation with Regional Suppliers Cooperation with Research Institutions I 1 Multinational Corporations as Networks

3. Siemens is a German MNC. Illustrate and discuss the relevance of Siemens' home country for the company's international network today. Hints 1. See, e.g., www.siemens.com for an overview on Siemens' R&D activities in China. 2. For your answer, take into consideration - among other things - the role of specific German locations for the coordination of Siemens' international network as well as the importance of Germany in the field of R&D. 28 I Chapter 2 The Integration/Responsiveness-Framework MNCs are exposed to two sets of strategic forces to which they must respond, but which are at least partly conflicting, namely forces for global integration and forces for local responsiveness. In the Integration/Responsiveness-framework (I/R-framework), a four-fold typology of MNCs has been proposed based on the differing strength of the two forces. This framework is described in detail in this Chapter. Forces for Global Integration and Forces for Local Responsiveness One of the most influential typologies of MNCs results from the studies by Doz, Prahalad, Bartlett and Ghoshal in the 1970s and 1980s. The tension between external forces towards adaptation to the local environment in the different host countries ("local responsiveness") and the forces towards a standardised approach, leading to global efficiency by a worldwide integrated behaviour ("global integration") are the basis of this typology (Doz 1980; Prahalad/Doz 1987; Bartlett/Ghoshal/Beamish 2008):

- Global integration means interconnecting the international activities of the MNC across all countries, looking for the strengths of the large company, and trying to achieve synergy effects. Thus, the different countries in which a MNC operates can be linked to each other. This could be, e.g., because economies of scale are particularly high in a specific industry, leading to the necessity of internationally standardised products. Alternatively, it could result from comparative cost advantages of a country that offer an incentive to specialise the activities of certain foreign subsidiaries, leading to interdependence between the worldwide activities. Necessity for worldwide learning, in order to exploit knowledge companywide that has been created in a particular country, or the situation in which relevant actors around the MNC (e.g. customers, competitors, suppliers) are the same in different foreign markets, enhance the requirement and the potential to coordinate closely the different international activities. These interdependencies between countries are called "forces for global integration".
- At the same time, a MNC operates under heterogeneous conditions in many different host countries. In each country the local unit is con-

R.esponsiveness D. Morschett et al., Strategic International Management, DOI 10.1007/978-3-8349-6331-4_3, © Gabler Verlag | Springer Fachmedien Wiesbaden GmbH 2010 I 2 Global Integration Market Drivers Cost Drivers The Integration/Responsiveness-Framework confronted with different local customers and host governments, different market and distribution structures, different competitors and substitution products. Multinational flexibility, i.e., the ability of a company to exploit the opportunities that arise from this heterogeneity, is necessary. This contingency condition for MNC is called "forces for local responsiveness" and the pressure to adapt varies by industry. Forces for Global Integration In a global industry, a firm's competitive position in one country is strongly affected by its position in other countries. The forces for global integration, also called industry globalisation drivers, can be divided into four categories (Yip 1989; Bartlett/Ghoshal/Beamish 2008, pp. 88-91):

- market drivers
- cost drivers
- governmental drivers
- competitive drivers.

First of all, homogenous customer needs in the different markets may create opportunities to sell standardised products. With common customer needs, marketing becomes transferable across countries and the culture convergence thesis by Levitt (1983) suggested that different cultures become more similar, and lifestyles and tastes are converging worldwide. However, this thesis is discussed very critically.

Meanwhile, more and more often, in particular in B2B markets, companies also meet global customers, i.e., companies (or sometimes private consumers) who are their customers in different country markets, e.g. different subsidiaries of the same MNC. Similarly, global channels emerge in certain industries, like large international retailers as Wal-Mart, Tesco or Media-Markt, or global e-commerce channels like Amazon. All these aspects enhance the need for globalisation in an industry. From a cost perspective, different industries have different incentives to standardise. For example, economies of scale at a particular production plant can be increased with standardised products that are exported to different country markets. Economies of scale and scope as well as experience curves differ from industry to industry, however. This can be caused by different production technologies. The greater the potential economies of scale and the steeper the experience curve, the more likely an industry is to turn global. Furthermore, industries where product development is expensive and at the same time product lifecycles are short or technology is fast-changing usually try to use global scale effects. Global sourcing efficiencies might be given in an industry, leading to concentration in supply and manufacturing, and 30 Introduction to Strategic International Management intercountry differences in labour costs and factor endowments might make concentration of production useful. Over the last few decades, logistics costs have generally been going down, making globalisation easier to realise. However, energy prices, climate change but also technological innovations, will influence logistics and, consequently, location strategies remain to be seen. Many governmental drivers also have an influence on the need for globalisation in an industry. For example, compatible technical standards are necessary for product standardisation, liberal trading regulations with low tariff and non-tariff barriers to trade and common market regulations are drivers for globalisation, making cross-border trade easier. Inversely, high trade barriers are obviously reducing the forces towards globalisation, protecting local particularities. Deregulation of formerly protected industries (like energy, telecommunications, transport) also pushes industries towards globalisation, in combination with the privatisation of formerly state-owned companies. As the most important competitive driver, the presence of global competitors enhances the need for globalisation. Only companies that manage their worldwide operations as interdependent units can implement a coordinated strategy and use a competitive strategy that is sometimes called "global chess" (Bartlett/Ghoshal/Beamish 2008, p. 90), that is, responding to threats in one market by reactions in other markets. In addition, large multinational companies offering the same products and brands around the world also promote the convergence of tastes and customer demand. With the presence of many MNCs, international networks appear, e.g. in production, that also enhance the interdependence of countries and markets. The overall level of globalisation of an industry can be measured, for example, by the ratio of cross-border trade to total worldwide production, by the ratio of cross-border investment to total capital investment, by the percentage of sales of worldwide standardised products or by the proportion of industry revenue generated by large MNCs. Forces for Local Responsiveness On the other hand, and depending on the industry, companies are facing another set of influence factors, which make local responsiveness necessary (see, e.g., Hollensen 2007, p. 19). The dominant reason for a need for local responsiveness is a strong difference in customer demand. This might be caused by profound cultural differences in tastes, by different environmental conditions (climate, topography, etc.), by different income levels and income distribution, or many other factors. A different structure of the distributive sector might make adaptations of the distribution strategy necessary. A different competitive situation in dif-

31 Part I
 Governmental Drivers Competitive Drivers Differences in Demand I 2 Differences in Country Conditions The Integration/Responsiveness-Framework

ferent markets might also force a company

to change its strategy and adapt it to the local market conditions. Similarly, protectionism by governments often leads to the need to produce locally and/or to adapt products to specific markets. While the need for adaptation occurred on the country level in the past, it now occurs more and more often on the level of regional integration areas such as the EU (see Chapter 5). Local responsiveness can also become necessary or beneficial due to different labour conditions, e.g. labour cost or skill level, that require adaptation of production processes to optimise efficiency, or due to the availability or non-availability of good suppliers. A low number of potential suppliers might make a higher level of vertical integration of production steps more or less efficient due to a lack of alternatives. Different work attitudes that may be rooted in different cultures (see Chapter 7) might make different leadership styles more or less effective in different countries. The I/R-Framework as Matrix While both forces are interconnected, they are not seen as opposing extremes of a continuum of possible situations but as two separate dimensions. Figure 2.1 The Integration/Responsiveness-Framework

Global Transnational Organisation Organisation International Multinational Organisation Organisation

low Forces for Local Responsiveness Source: Adapted from Bartlett/Ghoshal 1989, p. 438.

high While the full independence of both dimensions is sometimes doubted in the literature (see, e.g., Engelhardt/Dähn 2002; Morschett 2007), the assumption has the advantage that one can try to distinguish between both sets of forces

32 Introduction to Strategic International Management

more clearly and that the potential external situations that a MNC faces can be illustrated in a matrix. The typology of Bartlett/Ghoshal (1989) that builds on this two-dimensional framework is the most commonly used. In their model, MNCs are grouped regarding their strategic orientation. The framework has been very influential in IB literature, in particular regarding the transnational MNC. In the following part of the text, the four strategy types are described in more detail (see, among many other authors, Harzing 2000, and Bartlett/Ghoshal/Beamish 2008, for a more comprehensive description). International Organisations MNCs with an "international" strategic orientation tend to think of their foreign activities as remote outposts whose main role is to support the parent company by contributing incremental sales. This strategy type can be linked to the international life-cycle model by Vernon (1966), since the focus is on exploiting knowledge, new products or processes of the parent company by transferring them to foreign markets. These are rather seen as a source of short-term and incremental profits. Accordingly, the company does not adapt to the specific host country and the foreign activities are also not systematically integrated in the MNC. This strategy type is ethnocentric since the foreign activities only secure the home-country company. A strong dependence of the foreign subsidiary on the resources of the home country is a consequence. Global Organisations Companies with a "global" strategic orientation focus their organisation on achieving economies of scale. They are usually to be found in industries where forces for global integration are strong and forces for local responsiveness rather low. Price competition in global industries is high, thus, the dominant strategic need is global efficiency. The most relevant resources are concentrated in the headquarters and decisions are highly centralised. The MNCs attempt to rationalise their production by producing standardised products in concentrated production plants that fulfil a worldwide demand volume. Usually these production plants are located in the home country, and the most relevant task of the foreign subsidiary is to act as a "pipeline" for the parent company, selling products in its local market. R&D and innovation is also concentrated in the home country. Information flows and product flows are unidirectional, the MNC follows a centralised hub model (see Chapter 1).

33 Part I Focus on Economies of Scale | 2 Focus on National Differences

The Integration/Responsiveness-Framework Multinational Organisations The multinational organisation, being in the lower right corner of the matrix in Figure 2.1, focuses primarily on national differences

to achieve its strategic objectives. In many characteristics, it is the reverse of the global organisation. Products, processes, strategies, even management systems, might be flexibly modified to each country to adapt to local needs and sometimes to local governmental regulations. This adaptation to the local markets is facilitated by local production and local R&D. The main task of subsidiaries is to identify and fulfil local needs and the foreign subsidiary is also provided with the necessary local resources to respond to the local needs. The subsidiaries are independent of the headquarters and they are also not linked to peer subsidiaries in other countries. The organisation takes the form of a decentralised federation. Transnational Organisations Responsive AND Integrated Ideal Type in Specific Situations While global organisations and multinational organisations emphasise either global efficiency and integration or multinational flexibility and local responsiveness, the transnational organisation tries to respond simultaneously to both strategic needs. Thus, in particular in industries where both forces are equally strong, transnational organisations reach for the benefits of combining characteristics of both global and multinational companies. Accordingly, a transnational strategy refers to becoming strongly responsive to local needs while still achieving the benefits of global integration. As has been described in Chapter I, the underlying model is the integrated network, where key activities and resources are neither centralised in the headquarters nor fully decentralised into each country. Instead, resources and activities are geographically dispersed but specialised, leading to scale economies and flexibility. A certain level of product adaptation to local needs is combined with cross-border production processes that still concentrate production, such as for specific common components, in single locations. This leads to reciprocal and horizontal product flows. Large flows of products, people, capital, and knowledge between subsidiaries are characteristic of transnational organisations. Innovation occurs in different locations and is subsequently diffused worldwide, foreign subsidiaries can serve in strategic roles, such as for producing specific products, or as centres of excellence. While this strategy type is often seen as an ideal-type in literature, it is highly complex, costly and difficult to implement and very ambitious. Empirical studies often show that few MNCs actually represent this type, and while many recent textbooks and management consultants promote the transnational organisation as the "best" MNC type, without differentiation, it should be analysed carefully. The original authors recommend the complex transnational organisation only for MNCs that are confronted with a complex environment with simultaneously high forces for integration and responsiveness. "Organisational complexity is costly and difficult to manage, and simplicity, wherever possible, is a virtue" (Ghoshal/Nohria 1993, p. 24). On the other hand, more and more industries are currently developing into this situation of complexity. Comparison of the Four MNC Types Table 2.1 summarises and compares a number of different characteristics for the four MNC types. Selected Characteristics of the Four MNC Types

	Global	Multinational	Transnational	Role of Subsidiary
Identification	low	low	high	differentiated
HQ products	high	high	low	of HQ strategies
exploitation	low	low	high	contribution to the of local worldwide opportunities
competitive advantages of the MNC	low	low	high	Decentralised Federation
Centralised Hub	high	high	low	low
Integrated Network	low	low	high	Vertical Product Flows
high, sequential	high	high	low	low
bidirectional	low	low	high	Inter-subsidary Product Flows
low	low	low	high	Centralisation of Decisions
high	high	low	medium	(decentralised centralisation)
Management Transfers, Visits	low	high	low	high
Joint Working Teams	low	low	low	high
Centres of Excellence	low	low	low	high
Product Modification	low	low	high	high
Local Production	low	low	high	medium
Dependency	strong	strong	in-	interdependence
dependence	dependence	dependence	dependence	dependence

Source: Summarised and adapted from Macharzina 1993, pp. 83, 102; Harzing 2000, p. 113; Bartlett/Ghoshal/Beamish 2008, pp. 202-206. Perlmutter's EPRG Concept A

similar typology of MNCs which is also prominent in International Business research has been proposed by Perlmutter (Perlmutter 1969; Wind/ Douglas/Perlmutter 1973). Perlmutter developed the EPRG scheme, distinguishing between ethnocentric, polycentric, regiocentric and geocentric 35 Part I Table 2.1 I 2 Ethnocentric The Integration/Responsiveness-Framework attitudes. In this scheme, he recognises that managers of MNCs have different strategic orientations or a different "state of mind", i.e., assumptions upon which key decisions in the MNC are made. In the ethnocentric state of mind, the home country is implicitly considered to be superior. Key positions in foreign subsidiaries are staffed with expatriates from the home country and decisions are taken in the headquarters. Foreign activities are seen as less relevant than home-country activities and exports are the main entry mode. The subsidiary is highly dependent on headquarters. Polycentric Geocentric Regiocentric Differences and Similarities to the I/R framework Polycentric firms start with the assumption that host-country cultures are strongly different and adaptation is necessary. They acknowledge that local employees are more effective for this task and that decentralised decisions help to exploit local differences effectively. While the polycentric attitude strives for optimal local solutions, this might be sub-optimal for the total organisation. As a further development, the geocentric attitude emphasises interdependencies and aims for a collaborative approach between headquarters and subsidiaries as well as among subsidiaries. An optimal allocation of resources and synergy effects is aimed for. The regiocentric approach is a mix between the polycentric and the geocentric approach. Strategies, products, processes, etc. are closely coordinated within different regions (e.g. Europe, North America) while the regions operate relatively independently from each other. While the similarity to the I/R-framework is obvious, and both approaches can be linked via the three network models, with the centralised hub model being ethnocentric, a decentralised federation model being polycentric and the integrated network being the organisational response in the case of a geocentric state of mind, there are two major differences: While the I/R framework offers contingency conditions under which external industry forces influence a MNC strategy in a particular way, Perlmutter offers a more qualitative explanation which is based on the management style or on the state of mind. Second, Perlmutter's EPRG scheme is not systematically based on describing characteristics. The "regiocentric" approach, however, which is very common in modern MNCs and is also very prominent in recent literature (see, e.g. Rugman/Verbeke 2004), was identified by Perlmutter but is not considered in the I/R-framework.

Different Levels of Integration and Responsiveness The I/R-framework is a contingency framework that derives MNC strategies from a given external context. The main assumption is that a MNC in a certain industry which is exposed to a certain configuration of forces for global integration and forces for local responsiveness needs to develop a strategy in accordance with the external context. However, while the original framework clearly emphasises that MNCs have complex sets of options and that not only industry characteristics determine company strategies, management literature has often applied the framework in a deterministic manner, implying that MNCs in a certain cell of the matrix have to use a specific strategy. From a categorisation of industries, consequences were immediately drawn on the company level: "the primary use of the 'I-R grid' was to map industries, and therefore to indicate what strategy a firm should pursue" (Westney/Zaheer 2001, pp. 356-357). Three Levels of the IIR-Framework _____, ~ _____, -Slra ==: 7 left "Y. r t/t/ ~Low I high t/1 V low I I I LOCI3I Reapanalwn... low high Fore..for Local Re8ponsiveness Source: Morschett 2007, p. 396; Zentes/Morschett/Schramm-Klein 2008, p. 201.

For a more detailed analysis of integration and responsiveness, Figure 2.2. shows an extended model, consisting of three levels: • the external environment, where the forces for global integration and the

forces for local responsiveness reach different levels, depending on the industry 37 Part I Figure 2.2 I

2 Externally Determined Strategy The Integration/Responsiveness-Framework

- the MNC's strategic orientation, where some MNCs prefer to use a global strategy, and others a more multinational approach, i.e., to display different levels of global integration and local responsiveness
- the strategy of the subsidiary, which can differ and be more or less integrated in the MNC and which can be more or less adaptable in its behaviour to the local market, as becomes evident in the role typologies (Chapter 3).

Industry Forces as External Environment In the original concept, the I/R-framework was used "to classify MNC environments in terms of the twin demands of global integration and national responsiveness" (Ghoshal/Nohria 1993, p.25). With the dimensions "forces for global integration" and "forces for local responsiveness", a matrix can be constructed with four different context situations, a "multinational environment", an "international environment", a "global environment" and a "transnational environment" (Ghoshal/Nohria 1993, p.27). Which industry characteristics exert a certain force has been discussed above.

Strategic Orientation of the MNC as Internal Context Many authors use the I/R-framework to describe not the external environment but different MNC strategies ("internationalisation strategies") or organisational types ("MNC organisations"). Kutschker (1999, p. 110) labels the four I/R-strategies "archetypes of international companies". Here, instead of forces, the degree of integration and the degree of localisation of the MNC are used. In this case, as has been described above, the four strategy alternatives are seen as typical bundles of strategy elements, consisting of specific coordination mechanisms, product flows, product modifications, etc. This perspective on the strategic orientation characterises it as the vision, philosophy and value system of the management which characterises a specific position of the MNC (Devinney/Midgley/Nenka 2000, pp. 675-678). In a normative or at least contingency-oriented perspective, these strategies are often derived from the context but most authors do not explicitly mention the distinction between context and strategy. Instead, the model is based on the assumption of environmental contingencies and that a certain match between the external forces and the company strategy is more efficient than a mismatch (De la Torre/Esperanza/Martinez 2003, pp. 67-69). Yip (1989) pointed out that, to reach balanced global and national competitive advantages, the globalisation of the strategy has to be aligned with the globalisation potential of the industry.

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On the other hand, companies have a certain level of freedom in the development of a strategy, which is called strategic choice (Child 1972). The terminology of "state of mind" or "strategic orientation" of the management clearly indicates that the industry characteristics are important, but MNCs can choose alternative strategies, based on their internal resources, strategic priorities, and other considerations. Clearly, external characteristics are only one part of the influencing factors on the company strategy and internal influences also play an important role in the determination of the strategy.

Strategy of a Specific Subsidiary Similarly, it has to be recognised that a MNC strategy does not necessarily lead to uniformity on the level of the subsidiaries. The fact that the MNC follows a global strategy or a multinational strategy alone does not fully determine the subsidiary level (Jarillo/Martinez 1990; Birkinshaw/Morrison 1995). The level of local responsiveness and the level of integration may widely differ within a particular MNC. One reason is that the forces for global integration and the forces for local responsiveness not only differ by industry but may also vary from country to country. For example, trade barriers might be low, technological standardisation high and consumer demand similar for most nations, but the reverse might be true for a few countries. Differentiation between subsidiaries, while most prominent in the transnational organisation, is to some degree used in all types of MNCs. Thus, in the perspective of the "differentiated network" (Nohria/Ghoshal 1997) the

level of the subsidiary must be planned separately. While it is evident that multinationally-oriented MNCs have a relatively high percentage of independent subsidiaries with high autonomy to exploit local market opportunities (Harzing 2000, p. 107), and most subsidiaries of a MNC with a global strategy will be dependent on the headquarters and merely implement the global strategy, heterogeneity between subsidiaries is common. Subsidiaries have different value-added chains, different resources, different local contexts, different capabilities and different performance. All these heterogeneous subsidiary characteristics will have an influence on the concrete strategy of the subsidiary. There are at least four groups of influence factors on the strategy of a particular subsidiary: • influence of the industry (as reflected in the I/R-framework) • influence of the MNC strategy (e.g. in the I/R-framework) • influence of the specific host country • influence of the subsidiary's own characteristics, e.g. its resources. 39 Part I Strategic Choice

Different Subsidiary Strategies in the same MNC Contingency but not Determination Different Subsidiary Characteristics I 2 The Integration/Responsiveness-Framework As a consequence, even in globally-oriented MNCs, some subsidiaries will have higher degrees of freedom and might even take over strategic roles. Even in multinationally-oriented MNCs, some subsidiaries will merely be responsible for producing products for a specific market without the autonomy to change their strategy or be pipelines for production from a centralised location. In particular in transnational organisations, it is obvious that the role of each subsidiary is planned separately (see Chapter 3). This may lead to highly dependent units in transnational organisations with very low autonomy and, in parallel, to units which might benefit from decentralisation and whose only task is to exploit local market opportunities in addition to specialised units which contribute to the MNC's competitive advantage by playing a strategic role. Conclusion and Outlook Transnational Strategies the Exception Rather than the Rule Complexity only if necessary The I/R-framework builds on a tension that is usually considered the most relevant particularity of international management: the dual forces for global integration and for local responsiveness. Global efficiency on the one hand and multinational flexibility on the other hand are considered primary objectives of the MNC that are difficult to achieve simultaneously. Furthermore, worldwide learning is considered crucial for the innovation capacity of a MNC and a certain level of integration is beneficial for MNC learning. In the I/R-framework, four MNC strategy types are proposed, each being suggested for a specific external context. While the transnational strategy is the dominant strategy recommendation in literature, most empirical studies show that few MNCs actually follow this strategy. Thus, it is an "idealized MNC model" (Birkinshaw/Morrison 1995, p.737) rather than a common phenomenon and the exception rather than the rule. It should be kept in mind that all of the strategy types are considered adequate - under given circumstances. And that the complexity of a transnational strategy is ambitious and only justified if the requirements of the external environment are complex, with simultaneously high need for global integration and local responsiveness. Unfortunately, this situation occurs more and more often and, thus, the transnational strategy will likely become more common in the future. Finally, it has to be emphasised that the three levels of external environment, MNC strategy and subsidiary strategy have to be clearly distinguished. While the three levels are closely linked to each other, the integration and the responsiveness on the three levels can vary. With more and more MNCs as differentiated networks, heterogeneity between subsidiaries of the same MNC is likely to increase, 40 Introduction to Strategic International Management Further Reading Yip, G. (1989): Global Strategy - In a World of Nations?, in: Sloan Management Review, Vol. 31, No. 1, pp. 29-41. HARZING, A. (2000): An Empirical Analysis and Extension of the Bartlett and Ghoshal Typology of Multinational Companies, in: Journal of International Business Studies, Vol. 31,

No. 1, pp. 101-120. Case Study: Retailing The Retail Industry Retailing is one of the world's largest industries (Zentes/Morschett/ Schramm-Klein 2007, p. 1). The top 10 retailers in the world alone have combined sales above 1 trillion USD. The world's largest retailer, Wal-Mart, employs more than 2 million people around the world and has sales of about 400 billion USD. The Top 10 Global Retailers Rank Company Country Retail Sales Main Store Formats No. of Countries of Origin 2008 (in million USD)

Rank	Company	Country	Retail Sales (million USD)	Main Store Formats	No. of Countries of Origin
1	Wal-Mart	USA	401,244	supercenter, Discount Department Stores, Hypermarkets	15
2	Carrefour	France	127,958	Hypermarkets, Supermarkets	38
3	Metro AG	Germany	99,004	Cash & Carry, Electronics Speciality	32
4	Tesco	United Kingdom	96,210	superstore, Supermarkets	13
5	Schwarz	Germany	79,924	Discount Stores (Lidl), Discount	24
6	Group	Hypermarkets (Kaufland)	8	Kroger	USA
7	Home Depot	USA	71,288	Home Improvement Stores	7
8	Costco	USA	70,977	Warehouse Clubs, Cash & Carry	8
9	Aldi	Germany	66,063	Discount Stores	18
10	Target	USA	82,884	Discount Department Stores	1

Source: Deloitte 2010, p. G14. While retailing has traditionally been a very local business and internationalisation lagged significantly behind the manufacturing sector, the last two decades have seen a remarkable change. A wave of internationalisation has resulted in a high level of internationalisation of the largest retailers (Swoboda/Foscht/Pennemann 2009). Companies like IKEA, Benetton, Zara, 41 Part I Table 2.2

2 The Integration/Responsiveness-Framework

Carrefour or The Body Shop are known around the world. The largest retailers and their international activities are displayed in Table 2.2.

Forces for Global Integration and Forces for Local Responsiveness

Converging Consumer Needs Costs Trade Liberalisation Over the last few decades, strong forces for global integration have been influencing the retail industry:

- In different retail sectors, consumer needs became more homogeneous around the world. This has partly been driven by cultural convergence. For example, international TV series and media have led to a convergence in the fashion industry and cross-national target segments (e.g. in fashion styles) have emerged. The convergence of consumer needs has also been pushed by the global activities of the consumer goods manufacturers, though. The products of Apple or Sony in consumer electronics and communications, of Nike and Adidas in sports fashion, of Electrolux or General Electric in appliances, and so on, are in demand by consumers around the globe. While this trend is less strong in the food retail sector (where national and regional brands still have a high market share), food multinationals like Nestle, Unilever and Procter & Gamble gain market shares and also push towards globalisation.
- Given that retailing is an increasingly complex business with high costs for infrastructure (stores, warehouses, IT-systems, etc.), economies of scale play a major role. International companies can more easily afford the necessary investments and IT-standardisation has become common - making at least an international harmonisation of IT-systems viable. Also, in many retail sectors, retail companies are confronted with the same suppliers in different countries. Integration of activities - in particular of procurement activities - is necessary to gain economies of scale in procurement and to gain negotiation power towards the supplier. The necessity of international procurement leads to purchasing organisations in China or India - something which can also be realised more easily when being globally integrated (Zentes/Morschett/Schramm-Klein 2007, pp. 266-275).
- Governmental drivers have facilitated international integration in a number of industries. Trade barriers for textiles have been drastically reduced. Within the EU, free trade allows retailers to transport goods from central warehouses to their stores in different countries without custom tariffs and other hindrances. Another governmental driver, the deregulation of the telecommunications sector, has caused the emergence of shops

42 Introduction to Strategic International Management for mobile communications across Europe, as well as in other parts of the world.

- Furthermore, since many

retailers have started to internationalise, more and more often, the different actors are confronted with global competition. Whether in home improvement retailing (with the internationalisation of Kingfisher, OBI, The Home Depot and others), in food retailing (with most large competitors now being internationally active), in consumer electronics (with companies like Media-Markt and DSG), more and more often the same companies meet in different foreign markets as competitors. To play "global chess" effectively, a certain level of coordination is obviously necessary. The relevance of global competitors becomes evident when observing the fashion industry. Companies like H&M, Zara, Benetton, etc. have changed this retail sector tremendously over the last decade. On the other hand, while for many different consumer goods a trend towards convergence can be observed, consumer demand is still heterogeneous. This is the case due to highly disparate incomes. Even within the industrialised world, per capita income is still very heterogeneous, and when considering the new markets for retailers, like Eastern Europe, China or even India, the differences are enormous. Consequently, expenditure for clothing, for electronics, for appliances, etc., also differs widely. In addition, consumer tastes differ for cultural reasons. Whether food tastes (which obviously differ strongly between countries such as France, the USA and India, for instance) or the taste concerning interior design which influences furniture retailers and home improvement stores, consumers around the world still differ.

External Environment: Forces for Global Integration and Local Responsiveness in Different Retail Sectors

Part I Global Competitors Heterogeneous Demand

Figure 2.3 high low • Consumer Electronics • Food • Appliances • Media (Music, DVDs) • Fashion • Cosmetics • Pets • Drug Stores • Telecommunication • Home Improvement • Books low Forces for Local Responsiveness high low

2 Global Orientation The Integration/Responsiveness-Framework

Figure 2.3 represents an attempt to categorise different retail sectors by the different I/R-forces. For example, in consumer electronics, consumer demand is rather similar worldwide and the standardisation of products and the existence of only a few suppliers worldwide leads predominantly to the need for global integration. On the other hand, supply for many product categories in home improvement is still rather local, as are consumer tastes. With "transnational" requirements, food retailing is experiencing enormous cost pressure and the emergence of global competitors, leading to the need for global integration. At the same time, disparate consumer income and consumer tastes, as well as remaining trade barriers (including the relevance of freshness, which hinders long logistics chains), lead to the necessity to adapt activities to the local markets. Similarly, when looking into drug stores and cosmetics, suppliers are more and more often the same (e.g. the large manufacturers of cosmetics and body-care products like Nivea, Johnson & Johnson, L'Oreal and Procter & Gamble) but consumer behaviour regarding cosmetics still differs greatly. For example, while tanning creams are sold in Western countries, whitening creams are sold in cosmetic stores in Asia. The existence of different skin types, hair colours, etc. in the human population globally requires simultaneously high global integration and local responsiveness.

Strategic Orientation of Retail Companies

External influences, like those depicted above, are not the only influence on a retail company's strategy. In addition, companies seem to have inherently different strategic orientations - even within the same industry sector. In Figure 2.4, a number of retail companies are categorised based on their dominant strategic orientation. As an example of a generally global orientation, the world's largest furniture retailer, IKEA, can be used. At IKEA, 95 % of the retail offer is the same around the world, including the famous Billy shelf. The company uses the same store format (large speciality stores) - big blue boxes with large car parks and a family-friendly set of services (like a children's club, restaurant, etc.). Concerning the communication strategy, IKEA attempts to use the same advertising messages and styles worldwide, as the catalogues from different countries reveal

(see Figure 2.5). As another example, Media-Markt, Europe's largest retailer of consumer electronics, follows a global strategy, where most elements of the company's business are rather standardised in the different markets in which the company is active. Currently, the company has about 700 outlets in 15 countries. The aggressive advertising focuses on the large selection within MediaMarkt's assortment and low prices. The German slogan, "Media-Markt - Ich 44 Introduction to Strategie International Management bin doch nicht blöd!" (Media-Markt - because I'm not dumb!), is used in a similar tonality in most of its foreign markets. For example, the slogan is reproduced as "Media-Markt - Parce que je ne suis pas fou!" (French), "Media-Markt - Ik ben toch niet gek!" (Dutch), "Media-Markt - Nie dla Idiot öw!" (polish), or "Media-World - Non sono mica scemo!" (Italian).

Strategie Orientation of MNCs: Global Integration and Local Responsiveness of Selected Retail Companies Part I | Figure 2.4 c: high 0 ""!! Cl .!l .!: Oi .c 0 Ci lew • Media-Markt • Carrefour, Rewe, • Ikea Wal-Mart. Tesco • Zara, The Gap. Benetton • Kingfisher • Aldi • DSG • Carlier • AS Watson • Hombach • Aldi • Delhaize • Tengelmann low high Local Responsiveness Some of the fastest growing chains in fashion apparel (like H&M and Zara) can also be considered to follow a global strategy. While some slight changes in the assortment are made, the general positioning, the store design and layout, the assortment, the advertising, the business processes, etc. are standardised across all markets internationally. IKEA Catalogues from Selected Countries Figure 2.5 Australia UK Holland Denmark < Saudi Arabia 45 | 2 Transnational Orientation Multinational Orientation The Integration/Responsiveness-Framework As an example of a different strategic orientation in the same retail sector, DSG International plc can be used. DSG International is Europe's second largest specialist electrical retailer, best known for its Currys stores in the UK. It also has a strong market position in other markets, with retail brands like Electro World (e.g. Greece and Central Europe), Elkjep (in the Nordic countries), UniEuro (Italy), and PC City (Spain). Those chains adapt to the local market needs while some value-chain activities are still strongly integrated, for instance, by a central purchasing organisation. In the current strategy, the company seeks to strengthen global integration by simplifying processes, sharing of best practices and still more group buying. Similarly, Kingfisher (with retail brands like B&Q in the UK and some other countries and Castorama in France) or the Chinese AS Watson (with Watson drug stores in Asia, Rossmann in Germany and Eastern Europe, Superdrug in the UK, Kruidvat in the Netherlands, DC in Ukraine and several other brands), use different retail brands and formats in different countries while trying to exploit synergy effects by joint purchasing and financial activities. These can be considered MNCs with a transnational orientation. In food retailing, a number of companies follow a transnational orientation, having similar activities globally. For example, Carrefour operates - among other formats - hypermarkets with a very similar merchandise structure worldwide. This means that the number of articles is similar, the product categories that are being sold are similar, a certain share of store brands are sold, the store layout is somewhat similar, etc. At the same time, the assortment itself, i.e., the concrete products being offered, differs considerably around the world. Local brands are offered, local tastes in food are considered, the presentation of certain product categories (e.g. fish or other fresh food) is tailored to the local customers' habits', etc. Group purchasing for global brands and often for store brands is combined with a rather high percentage of local purchasing in the respective country. For a food retailer, at least 60-70 % of the assortment has to be procured locally to be cost-competitive. On the other hand, Aldi, as a discounter, follows a more global approach. Since its offer consists mainly of store brands, there is no necessity to add local brands to the assortment. While procurement still has to be local to a certain degree and the assortment is slightly adapted (for example, in Switzerland, one-third of the assortment is Swiss products), the

overall strategy, the number of stock keeping units (SKUs), the strict policies and the business model are transferred to most foreign markets without major adaptations. It is also in food retailing, however, where pure multinational strategies by retail companies can be found. For example, the German retail company Tengelmann operates - among other activities - supermarkets in Germany 46 Introduction to Strategic International Management (Kaiser's and Tengelmann) and supermarkets and superstores in the USA (A&P). Both concepts are strongly adapted to each local market and joint activities, i.e., integration, are almost non-existent. Similarly, the Delhaize group operates Delhaize supermarkets in Belgium, Alfa-Beta supermarkets in Greece, Mega Image markets in Romania, Food Lion (and some other supermarket brands) in the USA and Super Indo supermarkets in Indonesia. The activities are only loosely coupled and in some cases (like Super Indo), Delhaize does not own the activity as a wholly-owned subsidiary but only holds a stake in the subsidiary. Obviously, then, a full integration would not be possible and local responsiveness is much more likely.

Strategies for Specific Retail Subsidiaries Even if the strategic orientation of a MNC is clear, specific country subsidiaries might follow the same or a deviating strategy (see Figure 2.6). The reasons for this can be manifold. There can be reasons internal to the company or factors in the external environment.

Strategy 0/Subsidiaries: Integration and Adaptation 0/Specific Retail Subsidiaries Part I Figure 2.6

Country	Score
New Zealand	20 4.98
Finland	6 5.43
Luxembourg	21 4.96
Germany	7 5.37
Qatar	22 4.95
Japan	8 5.37
U. Arab Emirates	23 4.92
Canada	9 5.33
Malaysia	24 4.87
Netherlands	10 5.32
Ireland	25 4.84
Hong Kong SAR	11 5.22
Iceland	26 4.80
Taiwan	12 5.20
Israel	27 4.80
United Kingdom	13 5.19
Saudi Arabia	28 4.75
Norway	14 5.17
China	29 4.74
Australia	15 5.15
Chile	30 4.70

Source: Schwab/Sala-i-Martin/Greenhill 2009, p. 13.

Porter's Diamond Model While the underlying understanding of competitiveness in the GCI relates to the economy as a whole, there are differences in the patterns of competitiveness relating to each particular industry. No nation will be competitive in all or most industries. At the industry level, Porter (1990a, 1990b) tried to explain why a nation achieves international success in a particular industry. Based on an intensive investigation of 100 industries in ten nations, he identified four attributes that promote or impede the creation of competitive advantage: (1) factor conditions, (2) demand conditions, (3) related and supporting industries, and (4) firm strategy, structure, and rivalry. These four attributes shape the environment in which local firms compete and determine the success of nations in international competition. They constitute the diamond (see Figure 6.1), a mutually reinforcing system in which the effect of one attribute is contingent on the state of the other attributes. Each of the four determinants of national competitive advantage is briefly discussed below.

114 The External Environment Determinants of National Competitive Advantage: Porter's Diamond Part 11 Figure 6.1

- Factor (Input) quantity endowment • natural resources - human resources • capital resources - physical infrastructure • administrative infrastructure - information infrastructure - scientific and technological infrastructure • factor quality • factor specialization

Source: Porter 1990a, p. 127.

Factor Conditions • a local context that encourages appropriate forms of firm structure and business upgrading • vigorous competition among locally based firms • sophisticated demand conditions • unique local demand in specialized segments that serve niche markets

The first element of the diamond is the nation's possession in factors of production. Consistent with the factor proportions theory (Heckscher-Ohlin), every country has a relative abundance of certain factor endowments. In his diamond model, Porter distinguishes between basic factors and advanced factors. Basic factors are factors such as land, climate, natural resources or demographics, while advanced factors relate to more sophisticated factors, including, for example, the nation's stock of knowledge resources (e.g. scientific, technical or

market knowledge), the transportation and communication infrastructure or a sophisticated and skilled labour force (Rugman/Collinson 2009, p. 458). In the diamond model, the advanced factors are regarded as being most significant for competitive advantage. These factors can be created through training, research and innovation and thus are a product of investment by individuals, companies or the government. The basic assumption is that a nation must continually upgrade or adjust its factor conditions. The basic factors provide the country with an initial advantage that subsequently can be reinforced by investing in advanced factors. On the other hand, disadvantages in basic factors entail that countries need to invest in advanced factors (Porter 1990b). Thus, upgrading a nation's advanced factors, such as the 115 Basic Factors and Advanced Factors I 6 Home Market Demand Size of Home Market Industrial Cluster Competitive Advantage of Nations and Regional Clusters educational system or infrastructure, is regarded as a means to improve a nation's competitive advantages.

Demand Conditions Demand conditions refer to the nature and the size of the home demand for an industry's products and services. Here, the main characteristics of its nature are the strength and sophistication of domestic customers' demand. Porter argues that companies are most sensitive to the needs of their closest customers (Porter 1990b, pp. 79-80). Thus, home market demand is of particular importance in shaping the attributes of the companies' products. The more sophisticated and demanding their local customers, the more pressure is created for innovation, for efficiency and for upgrading product quality. Therefore it is assumed that with increasing consumer sophistication in their home markets and, consequently, with increasing pressure on local sellers, their competitive advantage will escalate (Hill 2009, p. 190). While the nature of home market demand mainly relates to the pressure to improve local companies' performance, the size of the home market is important as it enables companies to achieve economies of scale and experience curve advantages. This is even more important when scale economies limit the number of production locations. In this case, the size of its market is an important determinant of the country's attractiveness as a potential location. Additionally, empirical evidence shows that efficient firms are often forced to look for international opportunities at stages when their early large home market becomes saturated. Their home markets provide these companies with scale advantages that can be used in the global marketplace (Hollensen 2007, pp. 99-100).

Related and Supporting Industries The presence of a business environment comprising related suppliers, competitors and complementary firms is regarded as highly supportive for an industry to build competitive advantages. Such a (geographical) concentration of companies, suppliers and supporting firms at a particular location is labelled an industrial cluster (Porter 2000, p. 254).

Firm Strategy, Structure, and Rivalry This element of the diamond relates to the firm-based theories of internationalisation that focus on the actions of individual firms. National context and national circumstances influence strongly how companies are created, 116 The External Environment organised and managed and what the nature of domestic rivalry will be (Porter 1990b, p. 81). Domestic competition affects companies' ability to compete in the global marketplace. Not only does the presence of local competitors automatically cancel advantages that come from a nation's factor endowment or characteristics of home market demand, but the higher domestic competition is, and the more strong rivals are present on the home market, the more companies are forced to become more efficient and to adopt new technologies. The high pressure in a competitive home market leads to selection processes and leaves only the most efficient firms as survivors. At the same time it is associated with a continuous pressure on companies to innovate and to improve (Griffin/Pustay 2010, pp. 188-192). Not only does the competitive pressure vary between countries but also managerial practices, organisational modes, company goals and individual achievement goals differ significantly between countries. These

differences lead to dissimilar international strategies of the firms. Additionally, Porter argues that specific managerial systems are needed to be successful in each of the diverse industries. Thus, if a nation's firms follow a specific managerial system this only can be successful in selective industries. Thus, such differences also play an important role in the diamond model because different management ideologies influence the ability to build national competitive advantage (Porter 1990b, pp. 81-82).

Evaluation of the Diamond Model Each of the four elements of the diamond model has an influence on the nation's competitive advantage in a specific industry with all of these attributes depending on the state of the others. Usually, the presence of all four components is required to increase competitive advantage with weaknesses in any one determinant constraining an industry's potential for advancement and upgrading. While the diamond is regarded as a self-reinforcing system, the role of two additional forces is important: government and chance (see Figure 6.1). A controversial debate centres on the role of MNCs in the diamond model. Several researchers have argued that multinational activity should be included as a third outside variable because MNCs are influenced in their competitiveness by the configuration of the diamond in other than their home countries and this in turn influences the competitiveness of the home country (e.g. Dunning 1993b).

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Competitive Advantage of Nations and Regional Clusters The Role of Chance and Government

Government Interventions

As already mentioned, the basic underlying view of the diamond model is that competitive advantage can be created. Therefore nations can influence competitive advantage by systematically improving each of the elements of the diamond. In this connection it is important to note that government interventions must be considered in terms of their impact on domestic company activities as the underlying view in the diamond model is that "firms, not nations, compete in international markets" (Porter 1990a, p. 33). Governments can, for example, cultivate new and superior factor endowments, influence the nature of local competition, home market demand or clustering of firms by using measures such as subsidies, investing in the educational system, monetary and fiscal policy (e.g. tax incentives or low interest loans), the development and maintenance of a strong infrastructure (e.g. IT, communication systems, transportation), antitrust regulations or enforcing product and safety standards. However, one must not forget that such well-intentioned government actions also can backfire and lead to the creation of a "sheltered" domestic industry that is unable to compete in the global marketplace (Rugman/Collinson 2009, p. 459).

Role of Chance

Additionally, the role of chance in building competitive advantage is recognised in the diamond model. However, this influence of chance is not predictable. For example, chance influences the creation of new ideas or new inventions. Also wars, significant shifts in world financial markets, discontinuities in input costs (e.g. oil price shocks) or major technological breakthroughs can have a significant impact on a nation's competitive advantage.

Stages in National Development

The diamond model can be used to distinguish three growth stages of national competitive development (Porter 1990a, pp. 555-565):

- **Factor-driven stage:** The first stage, the factor-driven stage, relates to industries that draw their advantages solely from the nation's factor endowments, mainly from basic factors of production such as natural resources (e.g. mineral deposits). These industries can be successful internationally but they compete primarily on price.
- **Investment-driven stage:** This stage implies efforts of upgrading of the nation's industry as companies invest in modern technology and more efficient facilities.
- **Innovation-driven stage:** While in the second stage investment in modern, but already existing technology dominates, the third stage, the innovation-driven stage, is characterised by the creation of new technology or

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(production) methods. These improvements are yielded by internal innovation as well as by

innovation in cooperation with, or with assistance from, suppliers and companies in related industries. This model mainly relates to the stages of a nation's industries. Usually, countries span two or more stages in this model because there are likely to be industries (or companies) in all countries that are operating at each stage.

Regional Clusters In the diamond model, the regional clusters have a prominent role. "A cluster is a geographically proximate group of interconnected companies and associated institutions in a particular field, linked by communalities and complementarities" (Porter 2000/ p. 254). Therefore, clusters are closely linked with the dimensions "related and supporting industries" and "firm strategy, structure, and rivalry" of Porter's diamond model.

Actors in Regional Clusters Figure 6.2 Transportation and Communication Infrastructure
Legal and Regulatory Environment
Source: Adapted from Sölvell/Lindquist/Ketels 2003/p. 18; Andersson et al. 2004/p. 31. Clusters can include, for example, suppliers of specialised inputs (e.g. components, machinery, and services) or providers of specialised infrastructure (see Figure 6.2). They are usually extended downstream to customers and laterally to complementary industries and companies in industries related by technologies, common inputs or skills. Often, clusters also encompass governmental and other institutions (e.g. universities, think tanks, or standard-setting agencies) that provide specialised research, education, training, and technical support (Porter 1998, p. 78). This nature of clusters leads to an internal constellation that promotes both competition and cooperation. Competition occurs between the rival companies located in geographical proximity while cooperation mainly relates to vertical channel relationships with related companies, related industries or local institutions.

Advantages of Regional Industry Clusters The advantages from such clustering of firms mainly stem from the presence of a specialised infrastructure, industry-sector-specific factors of production and skilled labour in the specific professional field, from information and knowledge synergies, and the access to appropriate or superior inputs. If an industry is located close to its suppliers it will enjoy better communication and the exchange of cost-saving ideas and inventions with those suppliers. This is mainly a result of geographical proximity which enables close working relationships in which advantages from short lines of communication and a quick and constant flow of information with companies having the opportunity to influence their suppliers' technical efforts can help to accelerate the pace of innovation (Cavusgil/Knight/Riesenberger 2008, p. 105). The nation's industry benefits most from clustering if the suppliers or the complementary firms themselves are internationally competitive (Porter 1990b, p. 81).

Cluster Lifecycle Cluster development can be explained as an ongoing process with clusters passing through a number of stages. Even though the patterns of cluster development may not be identical and the pace of cluster evolution may vary, it is possible to discern certain characteristic patterns. In the ideal lifecycle of cluster development, six phases (see Figure 6.3) can be distinguished (Schramm-Klein 2005; European Commission 2002; Sölvell 2008, pp. 39-44):

1. **Emergence of pioneers:** Cluster development is usually stimulated by several causes, including a combination of basic or advanced factors in a region, such as natural resources, specific knowledge (e.g. in universities or research institutions), specific customer demand or technological innovation. According to the diamond model, these diverse drivers can be regarded as sources of competitive advantage. Primary companies emerge that focus on the deployment of these advantages. In the initial stage of cluster development, more and more companies emerge that focus on these specific competitive advantages, often they are spin-offs of these primary companies. Thus, an agglomeration of companies with similar production structures evolves. This increases local competition which in turn drives improvement and innovation among the local competitors.
2. **Development of specialised**

suppliers: In the second stage of the lifecycle specialised suppliers and service companies locate close to the core companies. Partly, this may be a result of (local) outsourcing activities. Additionally, in this stage of cluster development, the development of a specialised employment market occurs. The specialisation of companies and suppliers, which is associated with lower transaction costs, access to lower-cost and more specialised inputs (e.g. components, machinery, or business services), as well as access to highly specialised personnel lead to quality improvements and increased efficiency in the industry. These advantages are not available for competitors located in less agglomerate regions and are an important source of competitive advantage stemming from the external effects of firm clustering.

3. Emergence of related institutions: In the next stage, institutions such as universities, research institutes or governmental institutions locate in the cluster. These institutions foster local cooperation, mutual learning processes, and the local diffusion of technological developments. Thus, a cluster-specific knowledge base is established.

4. Attraction of related companies and specialised workforce: The cluster externalities attract related firms and specialised personnel to locate in the cluster region. This in turn leads to an additional enhancement of cluster attractiveness and of cluster externalities.

5. Development and upgrading of informal and personal relationship quality: This stage is characterised by the development of relationships between cluster members on an informal and personal level. Such relationships foster informal cooperation and knowledge transfer between companies and institutions in the cluster. In this context the transmission of tacit knowledge is of main importance.

6. Decline or transformation of the cluster: After a period of positive development, most regional clusters enter the declining stage. Often, the further advance of clusters is inhibited by technological, institutional or sociocultural factors that initially fostered positive development but in the long term can cause inflexibility or even inertia. In this case, clusters are trapped in their specialisation and further innovation is impeded. On the other hand, if such stages of inflexibility can be avoided, clusters at some stage of their development will need to adapt to change in market, product or technology. This leads to a transformation of the clusters into new forms, such as by focusing on new or diverse activities.

Figure 6.3 Cluster Lifecycle

Size of Cluster Attractiveness and Productivity of the Cluster

Emergence Growth Maturity Decline Transformation

Key factors for each stage:

- Emergence: Local Cooperation, Informal Cooperation, Inertia and Inflexibility
- Growth: Competitive Advantage of Nations and Regional Clusters, New or Diverse Technology
- Maturity: Transformation of the Clusters into New Forms, such as by focusing on new or diverse activities
- Decline: Transformation by Adaption
- Transformation: Innovation, Formal and Informal Relations, Inertia and Inflexibility, Information, Attraction of Related Firms and Specialised Personnel, Pioneer and Spin-offs

Source: Adapted from Schramm-Klein 2005, p. 542. Cluster Initiatives Clusters can emerge and develop without any governmental influence, simply as a result of specific beneficial constellations of a region (e.g. factor endowment or specific technology). On the other hand, the diamond model implies that governments can try to influence cluster development and to initiate clusters by providing specific benefits in a region to improve the competitive advantage of the nation (or specific regions). Cluster initiatives (CI) are organised efforts to enhance the growth and competitiveness of a cluster. They involve private industry, public authorities and/or academic institutions (Sölvell/Lindqvist/Ketels 2003, p. 9). Public authorities can make use of different means to enhance and improve cluster development, such as, for example (Sölvell 2008, pp. 53-54):

- Human resources upgrading: enhancement of the available skills pool, e.g. by vocational training or management education
- Cluster expansion: measures to increase the number of firms, e.g. through incubators that are designed to promote new business formation or by promoting inward investment within the region

122 The External Environment • Internationalisation: promotion of firm internationalisation, e.g. export promotion • Promotion of commercial cooperation: encouraging firms to communicate and interact with each other • Promotion of innovation: promotion of product, services and process innovation, e.g. through enhanced cooperation and networking between firms or through cooperation between firms and research institutions (e.g. university spin-offs) • Enhancement of environmental conditions: enhancement of conditions for business, e.g. through improving the legal and institutional setting or the physical infrastructure. These means are mainly meant to create a favourable environment that promotes the conditions for operating in the cluster to improve competition, growth and innovation in the cluster. In this connection, the enhancement of the attractiveness of a cluster for all (potential) actors in the cluster is one of the main motives of public authorities. Conclusion and Outlook Nations as well as companies strive to build competitive advantage to improve their role in the global marketplace. An important model to explain competitive advantage for specific industries of a country is Porter's diamond model. The main idea of this diamond model is that the characteristics of the home country play a central role in a company's international success. A firm's competitive advantage results from an effective combination of national circumstances and company strategy. The specific conditions in their home base may create an environment in which firms can attain international competitive advantage, but it is important to notice that it is up to each company to seize the opportunity (Hollensen 2007/ p. 98). In this connection, the role of regional clusters is stressed. Competitive advantage in regional clusters can be explained by basically three forms of cluster externalities (Porter 1998/p. 80): • Enhancement of productivity and efficiency: The sophisticated nature of competition forces companies continually to improve productivity. Additionally, synergies resulting from specialised inputs, specialised personnel, specialised infrastructure and information transfer between cluster companies reinforce such improvement. 123 Part 11 National Circumstances and Company Strategy Cluster Externalities I 6 Competitive Advantage of Nations and Regional Clusters • Facilitation of innovation processes and pace of innovation: Potential areas for innovation are often detected earlier and proceed faster in regional clusters because of the access to specialised resources, information sharing, close communication and cooperation between cluster members. • Stimulation of the foundation of new businesses: The foundation of new businesses is fostered because of the favourable site-related factors in regional clusters such as specialised suppliers, infrastructure or customers. Additionally, outsourcing and specialisation lead to new business cluster actors realising new business opportunities earlier and therefore, for example, spin-offs are brought forward. Further Reading PORTER, M. (1998): *On Competition*, Boston, MA, Harvard Business School Press, pp. 197-287. PORTER, M.; DELGADO, M.; KETELS, C.; STERN, S. (2008): *Moving to a New Global Competitiveness Index*, in: PORTER, M.; SCHWAB, K. (Eds.) (2008): *World Competitiveness Report 2008-2009*, Geneva, World Economic Forum, pp. 43-63. TALLMAN, S.; JENKINS, M.; HENRY, N.; PINCH, S. (2004): *Knowledge, Clusters, and Competitive Advantage*, in: *Academy of Management Review*, Vol. 29, No. 2, pp. 258-271. Case Study: Basel Region Cluster! History Located in the heart of Europe, Basel is situated at a relatively short distance from nearly all the important cities as well as transshipment points in Europe. The Region of Basel is one of the most dynamic economies and marks a perfect gateway to the EU market. Therefore, it is a very interesting location for diverse industries. The "Basel Region Cluster" which is discussed in this case study benefits strongly from these site-related factors and belongs to the world's top three pharmaceutical clusters today. 1 Sources used for this case study include the web sites www.isc.hbs.edu, www.swissbiotech.org and www.basel.ch as well as explicitly cited sources. 124 The External Environment Nevertheless, the primary reason

behind the birth of the Basel Region Cluster has been the related and supporting industries. With Basel being the centre of the silk and ribbon industry of Switzerland in the past, the demand for the dyestuff industry was high. In addition, in the nineteenth century, French scientists and industrialists fled France after the French government prohibited the use of synthetic dyestuffs to protect the domestic natural dye industry and the dependent farmers. As a result, around 1860 the so-called dyestuff duster was established in Basel. Due to the close connection of this industry with the pharmaceutical sector, pharmaceutical companies started to settle around Basel as well. Therefore, in the 1890s, the pharmaceutical duster grew out of the dyestuff industry. Chemistry education in Switzerland was very strong, guaranteeing both the dyestuff and the pharmaceutical industry high competitiveness. The river Rhine aided Basel as well, providing a route of transport and allowing the discharge of effluent. Furthermore, the two World Wars cut off Germany as the main competitor from the world markets and therefore pushed the expansion of the Swiss pharmaceutical producers. Nowadays, Basel impresses with its world-renowned research and innovation capabilities which reflect in its large number of Nobel Prize winners, one of the highest densities of patent registration and leading-edge medicine at the University Hospital.

The literature often uses different terms for the duster around Basel. Besides the Basel Region Cluster, terms like "meirobasel", "BaseiArea", "BioValley" and "Life Science Cluster Basel" are used. While most terms include the whole economic region around Basel, Basel Region Cluster contains the main parts of the duster which are presented below. Metrobasel, for instance, covers the functional trinational economic region (Switzerland, Germany and France) around Basel (BAK Basel Economics 2008, p. 3). As such, Basel belongs to the most successful economic regions worldwide. Metrobasel generated approximately 219,000 USD added value per employee in 2006 and put itself in second place amongst the regions compared, while New York is No. 1. Looking at the increase in real gross value added, metrobasel is No. 4 of all regions behind Geneva, New York and Oresund. Besides, metrobasel, along with the dusters in Munich and Zurich, belongs to the top three concerning patents in all fields of knowledge. The high share of the total employment in the life sciences sector already points to the existence of another description of the Basel Region Cluster. However, the term "Life Science Cluster Basel" only encompasses the life

125 Part 11 Development of the Pharmaceutical Cluster Metrobasel Life Science Cluster Basel | 6 BaseiArea and BioValley Competitive Advantage of Nations and Regional Clusters sciences industries. The term "Life Sciences" is used to cover development and manufacturing in the fields of pharmaceuticals (active pharmaceutical compounds, medicines and medicinal diagnostic products), agricultural inputs and medical technologies, including institutions that devote the majority of their efforts to the various stages of research, development, technology transfer and commercialisation. In addition to the diversity and density of the life sciences companies, the plurality of various organisations is another characteristic of the Basel Region Cluster. BaseiArea and BioValley Basel illustrate such organisations that support companies and institutions by providing access to the member's network as well as its broad range of knowledge and expertise especially in the field of life sciences. Thereby, small Swiss start-ups and spin-offs benefit from the powerful multinationals. BaseiArea covers biotech, nanotechnology, medical equipment, pharmaceuticals, agribusiness and specialty chemicals. BioValley is a trinational network that combines the already recognised centres in North-western Switzerland, Southern Baden (Germany) and Alsace (France). It is funded following the American model of Silicon Valley, but with the aim to establish a cross-border biotechnology cluster. Besides those networks, the companies of the Basel Region Cluster cooperate with partner organisations like the Messe Basel, Basel Banks, i-Net Basel and Basel Tourism as well as universities and training institutions.

Consequently, this implicates one of the world's highest densities of research specialists in life sciences, with about 10,000 researchers at work. Industries in the Basel Region Cluster Nowadays, the so-called "Basel Region Cluster" composes the following industries: • Pharmaceuticals & Biotechnology • Chemicals & Nanotechnology • Agribusiness & Food • Medical Technology • Commerce & Logistics • Microtechnology & Mechanical Engineering • Finance • IT • Art, Fashion, Design & Architecture. To demonstrate the success of these industries it is important to have an overview of the resident companies. Among these are pharmaceutical companies such as Novartis, the third largest pharmaceutical company in the world, Roche, one of the most highly capitalised Swiss companies at the market, and Syngenta, which is listed in the Financial Times Global 500 Index as one of the most important companies worldwide. In addition, chemical and nanotechnological companies like Ciba and Clariant, as well as microtechnology and mechanical engineering companies, with multinationals like Endress+Hauser, are strongly represented. Nevertheless, besides the headquarters of those global players, several young, internationally ambitious and growing small and medium-sized companies are located in the Basel area, such as Actelion, which is amongst the fastest growing biopharmaceutical companies in the world. In addition, suppliers and small related concerns are based around Basel. Despite the high importance of the variety of industries for the Basel Region Cluster, the focus of this case study will be the life sciences sector, especially the pharmaceuticals. With 900 companies, Basel has one of the highest per capita concentrations of successful life science businesses worldwide.

Location of Important Pharmaceutical and Chemical Companies in Basel

Company	Research & Development	Production	Headquarters
Novartis	Yes	Yes	Yes
Roche	Yes	Yes	Yes
Clariant	Yes	Yes	Yes
Ciba	Yes	Yes	Yes
Syngenta	Yes	Yes	Yes

Source: Adapted from ZeHer 2001, p. 27. These companies achieve annual revenue of 100 billion USD and annual profit of close to 20 billion USD (Basel Area 2008, p. 2). Novartis describes the success of the Pharmaceutical Cluster Figure 6.4. Figure 6.5 Competitive Advantage of Nations and Regional Clusters Basel Region Cluster as the most important and successful location in Europe for the pharmaceutical industry. To sustain this image, Novartis created the Novartis Campus which should offer an optimal environment for innovation and central functions. This working district is organised like a campus, which comprises the whole plant area, to facilitate communication and teamwork as well as recruiting the best talents. Likewise, Roche has shifted its main efforts in R&D, production and administration of the Pharmacy and Diagnostics division to the headquarters in Basel. Regarding the location of these companies (see Figure 6.4) it has to be affirmed that the expansion of R&D, production and headquarters has proceeded in the urban region of Basel as well as along the Rhine. The reasons for this development, in particular the advantages of the Basel region, will be illustrated within the description of the diamond model of Porter. The whole competitive position of Basel Region Cluster (see Figure 6.5) shows that the Basel area is a vibrant environment for life sciences, with the best conditions for success and growth.

Competitive Position of Basel Region Cluster

Category	Entities
Packaging Containers	Specialty Chemicals
Laboratory Instruments	Process Equipment
Medical Devices	Distribution
Life Sciences Products	Research
e.g. University of Basel	Friedrich Miescher Institute for Biomedical Research
Rache Pharma Research Institute	Basel Institute for Immunology
Institute of Social and Preventive Medicine	University Hospital
Basel etc.	Specialised Services (Banking, Accounting, Legal)
Universities and Training Institutions	Cluster/Partner Organisations
e.g. University of Basel	EU research. WWT
KfL	e.g. BioValley, Basel Area.. SNF
University of Zurich	University of Fribourg
BAI	