

THESIS ON SOCIAL SCIENCES (Economics)

**COORDINATION OF FOREIGN SUBSIDIARIES
IN GERMAN MULTINATIONAL COMPANIES**

**The Advancement and Application of a Pragmatic Tool
for the Differentiated Coordination of Foreign Subsidiaries
in German Multinational Companies
based on Empirical Studies, Intensive Case Studies,
and an Inter-Temporal Comparison**

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**Dissertation was accepted for the commencement of the degree of Doctor of
Philosophy on Social Sciences (Economics) on August 26, 2005**

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Commencement: September 9, 2005

Declaration: Hereby I declare that this doctoral thesis, my original investigation
and achievement, submitted for the doctoral degree at Tallinn University of
Technology has not been submitted for any degree or examination

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ISSN 1406-4790

ISBN 9985-59-564-5

TALLINNA TEHNIKAÜLIKOOL

**VÄLISMAISTE ALLÜKSUSTE KOORDINEERIMINE SAKSA
RAHVUSVAHELISTES ETTEVÕTETES**

MARKUS A. LAUNER

Tallinn 2006

Majandusteaduskond
Ärikorralduse Instituut
TALLINNA TEHNIKAÜLIKOOL

**Dissertatsioon on lubatud kaitsmisele Filosoofiadoktori teaduskraadi
taotlemiseks Sotsiaalteadustes (Majandus) ... aug. 2006**

Juhendaja: Prof. Maksim Saat, majandusteaduskond

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Kaitsmine: September, 2006

Deklaratsioon: deklareerin, et käesolev doktoritöö on koostatud minu enda
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List of Abbreviations

AktG	German exchange laws
App.	Appendix
Autonomy	The reverse to centralization of decision making
BU	Business Unit
Centralization	Centralization of decision making
Cf.	confer
Col.	Column
Diss.	Dissertation or doctoral thesis
EU	European Union
Fit	Fit to the respective theory
Formalization	Formalization of policies and systems
Habil.	Habilitation
i.p.	in particular
Misfit	Misfit to the respective theory
Multinationals	Multinational corporations
No.	Number
Normative Integration	Socialization
p.	Page
pp.	Pages
Publ.	Publisher
SGL	SGL Carbon Group
Socialization	Normative Integration
VEU	Sales Management Europe, Bosch EW
Vol.	Volume
VUB	Sales Management Abroad, Bosch EW
Ø	Average

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1. Introduction

1.1 Background

Subsidiaries of German multinational enterprises have developed into independent and strong units¹. Some of them today earn high profits, serve as strategic partners for the headquarters of the enterprise², and they produce decisive innovations for the whole enterprise³. On the other hand, some of the subsidiaries are dependent on the headquarters and in need of resources and management know-how⁴. Latest technologies made it possible to further centralize decision making, and more and more global strategies have been implemented by multinational corporations (Multinationals). Therefore managers of large Multinationals find themselves in the situation where they have to coordinate an international network of different foreign subsidiaries⁵.

Often, in theory and practice, this problem is met with management approaches, which portray Multinationals worldwide as a homogenous organization. All subsidiaries are treated equally worldwide with the same rights and management techniques⁶. They also attempt to coordinate the whole worldwide and complex network from the headquarters of the enterprise which leads to conflict situations where mature and self-sufficient subsidiaries are concerned⁷. However, worldwide and standardized coordination-concepts fail in practice because each foreign subsidiary has to be integrated into the existing culture of the host country⁸, act in different environmental conditions⁹, is equipped with more or less resources and capabilities¹⁰, and plays a specific strategic role in the worldwide group¹¹ and thus represents an individual.

¹ In the past corporate headquarters or their joint research departments were considered the source of innovation. Today also subsidiaries are considered as a source of innovation. Cf. Hedlund, G., 1981, pp. 73-90 and Nohria, N./Ghoshal, S., 1997, p. 23; and Doz, Y.L./Santos, J./Williamson, P., 2001, p. 11; Gupta, A.K./Govindarajan, V., 1994, pp. 443-457 and 2000, pp. 473-457; Nobel, R./Birkinshaw, J., 1998, pp. 479-496.

² Cf. Bartlett, C.A./Ghoshal, S., 1990a, pp. 149-173 and 2002, 131-154.

³ Cf. Kutschker, M./Schmid, S., 2004, p. 332.

⁴ Cf. Bartlett, C.A./Ghoshal, S., 1990b, pp. 141-144 and 2002, pp. 123-126; Stewart, J.M., 1995, pp. 63-73.

⁵ Cf. Kutschker, M./Schmid, S., 2004, p. 336.

⁶ Science refers to this as the UNO-Syndrome. Cf. Bartlett, C.A./Ghoshal, S., 2002, pp. 114-115, quoted according to Levitt, A., 1983, pp 92-102. First published in Bartlett, C.A./Ghoshal, S., 1990, pp. 131 and 137.

⁷ Science refers to this as Headquarter-Hierarchy-Syndrome. Cf. Bartlett, C.A./Ghoshal, S., 2002, pp. 115-116.

⁸ As to the dependence of organizations- and coordination-structure from the respective country-culture refer to Nohria, N./Ghoshal, S., 1997, p. 23.

⁹ Cf. Robock, S.H./Simmons, K./Zwick, J., 1977, pp. 11-89.

¹⁰ Cf. Pfeffer, J./Salancik, G.R., 1978.

¹¹ Cf. Bartlett, C.A./Ghoshal, S., 1990, pp. 138-146 and 2002, pp. 121-128.

Consequently, each subsidiary has to be dealt with specifically and coordinated individually in the worldwide group¹². Despite the interest from the field of management policy in differentiated concepts for the coordination of foreign subsidiaries, there is a lack of research in the area of business management¹³. While several theories for the coordination of foreign subsidiaries only consider the perspective of the group, and subsidiaries are viewed as a black box, the few approaches that do differentiate are little known and too complex for their application in practice¹⁴.

The lack of suitable theories and concepts is reinforced by the differing and even contradictory results of numerous empirical individual studies and coordination researches¹⁵. Furthermore in the field of research, it is becoming clear that single results are not enough for the clarification of international questions of coordination. More holistic approaches are needed, which can integrate and depict a large number of influences on the coordination¹⁶. But the key problem of almost all theories on coordination of subsidiaries is the lack of practicability in business practice. While some theories of differentiated coordination are well accepted in academia, they aren't in entrepreneurial practice. Existing theoretical concepts are still too abstract for an operative implementation in the business practice¹⁷. In addition, the use of applicable theories in business practice does not lead to satisfactory results.

1.2 Objective of the Thesis

This thesis has the objective to develop pragmatic analysis-instruments for the research of the differentiated coordination of foreign subsidiaries. Since the key focus is on the term “pragmatic”, the thesis will concentrate on the application of theories in business practice. The objective is to further develop existing theories into pragmatic tools usable in intensive case studies in science as well as in research projects in business practice and management consultancy. This objective is based on the need in science and practice expressed by several professors, researchers, and business managers in extensive interviews.

¹² Cf. Thompson, J.D., 1967a; Lawrence, P.R./Lorsch, J.W., 1967a, pp. 1-47.

¹³ Cf. Kutschker, M./Schmid, S., 2004, pp. 1036-1037.

¹⁴ Cf. Nohria, N./Ghoshal, S., 1997, p. 129.

¹⁵ Cf. Harzing, A.K., 1999, pp. 81-112.

¹⁶ Cf. Drazin, R./van de Ven, A.H., 1985, p. 514-539.

¹⁷ Cf. Nohria, N./Ghoshal, S., 1997, pp. 93-97.

In addition, the various single theories should be combined and related to each other to develop a more holistic analysis-instrument accepted in business practice.

The analysis-instruments that will be developed are intended to assist the theorist as well as corporate managers and management consultants in relation to the topic of coordinating subsidiaries in the managerial practice or in empirical case studies. Additionally, it is intended to develop methods, which will lead to a comprehensive analysis-instrument that will allow concrete recommendations for ready-to-use applications¹⁸.

The objective of this application-oriented and scientific thesis is:

1. A broad analysis of the scientific literature to examine existing theories as to their meaningfulness concerning differentiated coordination. In this thesis only applicable theories are described in brief. In a separate publication all commonly used theories to describe coordination in Multinationals were analyzed and examined¹⁹.
2. To bring suitable theories and models into a unified research basis, so that they can be simultaneously and complementarily used and implemented.
3. To create a ready-to-use analysis-instrument. Various models are partially too theoretical and too far from the possibility of use in practice. They shall be developed further for their application in intensive case studies.
4. To integrate various theories into a comprehensive and broad analysis-instrument. This model will provide actionable guidelines for the analysis of the differentiated coordination of foreign subsidiaries.
5. To generate generally valid statements as to the current development of multinational enterprises.

¹⁸ Cf. Macharzina, K., 1982, pp. 111-143; 1992, pp. 591-607; 2002c; 2002, pp. 491-508.

¹⁹ Cf. Launer, M., 2004b

1.3 Progress of the Research

The objective of developing a pragmatic approach to measure and shape coordination mechanisms evolved from the professional situation of the author. During the past 12 years he examined the coordination of foreign subsidiaries in various multinational enterprises and, in doing so, the author applied various methods of analysis in entrepreneurial practice and management consultancy²⁰.

Starting point was the examination of the Robert Bosch GmbH in 1992, more specifically the area of electrical power tools (Bosch EW) as part of an international research project based on nine questionnaires²¹. At that time, Bosch EW management was working on developing a new and worldwide structural and organizational concept for the up-coming year 2000. The trigger at the time was the discussion about meeting the strategic challenge of globalization in the market of power tools by replacing the existing regional organizational structure with worldwide product-divisions.

Seeking theoretical support, in 1992, the author made direct contact with Professor Ghoshal and his assistant Harry Korine, both of whom were active at that time at the University INSEAD in Fontainebleau, Paris. At that time they were working on a large research project on the differentiated coordination of multinational enterprises. With the knowledge gained during the project, the first model of an analysis-instrument was developed and applied at Bosch EW²². This first approach was discussed with several professional management consultants in numerous interviews aimed at clarifying their relevance for the entrepreneurial practice, among them Dr. Wilhelm Rall of McKinsey and Dr. Thomas Herp of the Boston Consulting Group²³.

In 1994, in an internal departmental study of the Corporate Controlling of the Hoechst AG, the business area Basic Chemicals was examined by the author as to their worldwide coordination of its subsidiaries by using the formerly developed approach²⁴. Subsequently another company-internal study about the worldwide coordination of subsidiaries was produced for the management of SGL Carbon Corp., USA,

²⁰ Refer to the list of unpublished case studies by the author in the literature list.

²¹ Cf. Launer, M., 1993a.

²² Cf. Launer, M., 1993b.

²³ Refer to the list of interview partner in the Appendix.

²⁴ Cf. Launer, M., 1994.

for the business field of Carbon & Graphite Products in 1997. Afterwards ten local US-plants of SGL Carbon were examined during 1998 by using interviews and observations of their coordination requirements²⁵. From 1999 to 2000 the Philipp Holzmann AG was analyzed at the request of its foreign department²⁶. The company hardly differentiated its coordination mechanisms and mostly relied on independent market coordination of its subsidiaries. Today this enterprise is insolvent and serves as a negative study-example. Additionally, in 2002 and 2003, numerous top-level managers of German subsidiaries in New York/USA have been interviewed.

For this dissertation, the theoretical and practical findings gained so far were brought together during the period from 2000 through 2003. Parallel, a substantial theoretical foundation was produced to base the thesis on a broad and solid theoretical foundation. On the basis of four intensive case studies including empirical data analysis, numerous interviews, and a broad and solid theoretical foundation, a more holistic analysis-instrument with a scientific basis for measuring the differentiated coordination was developed, from which ready-to-use guidelines for action can be derived. The findings were published at the beginning of 2004 for the first time²⁷.

To finally independently test the developed analysis-instrument another empirical study was conducted as a follow-up study in 2004. Therefore the three enterprises Bosch EW, the successor company of Hoechst – the Celanese AG, and the SGL Carbon Group were interviewed again by using the same questionnaire.

Based on the findings gained, a 10-year comparison that goes beyond the development and application of the model was set up: current tendencies in the coordination policy of multinationals can be recognized, implications for the management of innovations can be derived, and to some extent theoretical considerations about Estonian subsidiaries of multinational enterprises could be made.

²⁵ Cf. Launer, M., 1997.

²⁶ Cf. Launer, M., 1999, p. 6 and 2000.

²⁷ Cf. Launer, M., 2004 a, b and c.

2. Theoretical Foundations and Definitions

2.1 Basic Scientific Principles and Philosophy of Science

Although the theories of **Business Management** and Management Science have increasingly been dealing with the internationalization of enterprises since the 1960's, a lack of comprehensive theoretical-conceptual approaches is still to be noticed²⁸. Although numerous approaches exist they are often limited to only partial aspects, and they have only limited theoretical foundation. The main reason for this is that questions concerning international activities of enterprises have been discussed in many individual disciplines within the Theory of Business Management, the Theory of Organization, within Psychology and Cultural Sciences, but any independent discipline of International Management has only evolved in recent times²⁹.

Welge and Holtbrügge (2003) provide a systematic overview of the existing approaches (refer to Appendix 3)³⁰. It shows that we can basically identify two different directions of research with different objectives as to the findings, paradigms, perspectives and methods: the Culture-Comparative versus the International Management Research. Basis of the **Culture-Comparative Management Research** is, among others, the „culture-bound thesis“³¹. Scientific findings are thus derived from cultural differences themselves. Based on this approach, a pragmatic and culture-independent analysis-instrument, which could be applied to all situations in an enterprise, cannot be developed. For a culture-independent research (culture-free-thesis³²) the research

²⁸ Refer to the contributions by Buckley, 1991, pp. 7-22 and Macharzina, K./Österle, M.-J., 2002c, pp. 5-19; Engelhardt, J./Dähn, M., 2002, pp. 23-44; Fayerweather, J., 1981, pp. 17-31; Hennart, J.-F., 2001, pp. 127-149.

²⁹ Cf. Macharzina, K., 2002d, pp. 3-21. A detailed exposition of the theoretical foundations of the external trade from a viewpoint of the national economy can be found in the study-book by Rose, K./Sauernheimer, K., 1999, a short introduction by Bender, D., 2003, pp. 475-560. A sound overview of the most important strategies for internationalization is offered by Jahrreiss, W., 1984; Buckley, P.J./Casson, M., 1985; Braun, G., 1988 and Stein, I., 1998, pp. 79-89. Concerning their empirical relevance refer to Stehn, J., 1992 and Swoboda, B., 2002. A comparative analysis of different theoretical explanation-approaches of competitive advantages of multinational enterprises can be found with Roxin, J., 1992 and Welge, M.K./Holtbrügge, D., 1997, pp. 1054-1061. Concerning their practical significance for different fields and enterprises refer to Bryan, L., et al., 2000. See also Schweitzer, M., 1997, pp. 18-80; Vernon, R., 1999, pp. 35-49.

³⁰ See also Holtbrügge, D., 2001b, pp. 338-345; 2001c; 2003.

³¹ Refer to Kieser, A./Kubicek, H. 1992, p. 254; 2001; Hansen, K.P., 2000; Bergemann, N./Sourisseaux, A.L.J., 2003; Trompenaars, A., 1998, pp. 1-12.

³² According to Barrett and Bass (1970) this statement can be further distinguished in the Universality and Economic-Cluster School. Cf. Barrett, G./Bass, B.M., 1970, p. 181. See also Peppard, J./Fitzgerald, D., 1997, pp. 446-460.

program **International Management Research** is better suited³³. International enterprises, which are active in different cultures at the same time and have several subsidiaries, are the object of this research approach. Precise guidelines for action are derived, and thus a pragmatic scientific objective is the priority³⁴.

Concerning the methods, models and results of the International Management Research program we can again distinguish two different perspectives of research³⁵: the atomistic and the holistic perspective. The **Atomistic Perspective** examines the political, legal, economic and cultural environmental conditions. Objective is to balance the information deficit of foreign versus domestic enterprises. The object of examination is not the subsidiary but the environment, which does not support the approach of this thesis. The **Holistic Perspective** of International Management is suitable for examining existing multinational enterprises with a large number of subsidiaries³⁶. The holistic perspective also includes, besides the basic economic principles³⁷, also the socio-scientific approach³⁸, as reference is made to the explanatory models of Anthropology, Psychology, Ethnology and Sociology. The attempt is to measure the internationality of an enterprise not quantitatively – i.e. through the degree of its internationalization – but rather qualitatively. The qualitative approach deals less with definitions but rather provides a profound understanding of multinational enterprises. The central issues of multinational enterprises, such as leadership, strategy, structure, culture and coordination are addressed.

In this context, a **multinational corporation** - or short, multinational - is defined as an open, socio-technical system³⁹. It is typical for such a multinational enterprise that

³³ An overview of the central contents of the International Management-Research in Germany is provided by the study-books of Perlitz, M., 2000, pp. 8-24; Kieser, A./Woywode, M., 2001; Müller, S./Kornmeier, M., 2001; Scherm, E./Süss, S., 2001 and Kutschker, M./Schmid, S., 2004 as well as the collected volumes by Macharzina, K./Welge, M.K., 1989; Kumar, B.N./Hausmann, H., 1992; Kutschker, M., 1999, pp. 361-411; Krystek, U./Zur, E., 2002 and Macharzina, K./Österle, M.-J., 2002a, pp. 3-21. An overview of the Anglo-American research approach can be found in Toyne, B./Nigh, D., 1997. Practice-oriented case studies are available in the collected volumes by Zentes, J./Swoboda, B., 2000.

³⁴ Cf. Welge, M.K./Holtbrügge, D., 2003b, p. 37.

³⁵ Cf. Welge, M.K./Holtbrügge, D., 2003b, pp. 39-47; Holz Müller, H., 1995.

³⁶ Refer also to Marketing as Leadership Conception in enterprises by Raffée, H., 1984, pp. 25-29 and Nieschlag, R./Dichtl, E./Hörschgen, H., pp. 8-13. For approaches to the Business Management Organization Theory refer to Kieser, A./Kubicek, H., 1992, pp. 33-66.

³⁷ In international management the Economic Basis approach goes back to the theories of the absolute cost-advantage between two countries by Adam Smith. Refer also to Smith, A., 1776.

³⁸ Cf. Schanz, G. 1979, pp. 121-137; Raffée, H., 1984, pp. 25-29.

³⁹ Cf. Sundaram, A.K./Black, J.S., 1992, p. 733. An extensive discussion of the definition of the term multinational enterprises refer to Kutschker, M./Schmid, S., pp. 236-246. See also the eclectic approach by Dunning, J.H., 1988, pp. 1-31; 1995, pp. 461-491; 2001, pp. 173-190; Fisch, J.H./Österle, M.-J., 2003, pp. 2-21; Forsgen, M., 1990, pp. 261-263. See also Stähle, W.H., 1973.

a parent company – which also is called the corporate headquarters – has at least one subsidiary abroad, and a transfer of goods, capital and employees takes place⁴⁰. The parent company or the board of directors, represent the highest decision-making body, and the subsidiaries operate within a provided framework. The basis for these enterprise-internal processes are usually contracts for transferring profits and filling in leadership positions, supervisory board or the board of managing directors with members of the board of directors or leading employees from the parent company⁴¹. Such an enterprise focuses all its considerations on its different markets and the local environments. Therefore, in research, questions of coordination are studied with so called **Situational Approaches**⁴². Differences in the real organizations are attributed to different environmental conditions and their context. Within the German-speaking region this definition is attributed to Stähle (1973). In the English-speaking world it is referred to as „situational approach“ or „contingency approach“⁴³.

To carry out a more holistic examination of the coordination problem in differing environments, the subsidiaries must specifically be included in the considerations. In doing so, the new paradigm⁴⁴ of the theory of **Transnational Organization**⁴⁵ by Bartlett and Ghoshal (2002) provides a suitable basis. The model describes a system of subsidiaries that get managed differentiated by headquarters. The objective, among others, is to increase the innovative capability. The subsidiaries serve as a source of ideas, experiences, knowledge and specialized know-how, and they participate in the creation of the strategy and the innovation process. This structure is based increasingly on specialized subsidiaries with strategic roles, which are integrated into a network of activities (refer to Appendix 6)⁴⁶. This theory can also depict multi-central structures⁴⁷. Decisions are not only made in the parent company but also in various subsidiaries locally.

⁴⁰ Cf. Dunning, J.H., 1974, p. 13; 1981, pp. 31-34; Pausenberger, E., 1979, col. 2139.

⁴¹ Cf. Welge, M.K./Holtbrügge, D., 2003a.

⁴² To the situational approach refer to Kieser, A./Kubicek, H., 1992, pp. 45-65.

⁴³ Cf. Schreyögg, G., 1978.

⁴⁴ To the definition of the term paradigm refer to Ritzer, G., 1975, p. 157; Galilei, G., 1982.

⁴⁵ Cf. Bartlett, C.A./Ghoshal, S., 1990, pp. 149-173. Cf. The summary by Bühner, R., 1991, pp. 157-158; Kieser, A./Kubicek, H., 1992, pp. 288-291. See also Ghoshal, S., 1987, pp. 425-440; Ghoshal, S./Bartlett, C.A., 1988, pp. 365-388; 1990, pp. 603-625 1995, pp. 86-96; Scherer, A.G., 2003.

⁴⁶ Bartlett, C.A./Ghoshal, S., 1990, p. 118. About the strength of the integrated network as structural framework of the transnational enterprise refer to Bartlett, C.A./Ghoshal, S., 1990, pp. 118-125.

⁴⁷ Refer to the works by Forsgen, M., 1990; Forsgen, M./Johanson, J., 1992; Forsgen, M./Holm, U./Thilenius, P., 1997, pp. 475-494 and Forsgen, M./Holm, U./Johanson, J., 1995, pp. 235-253 and Bartlett, C.A./Ghoshal, p., 1990.

Thus the so called **headquarters perspective** is abolished and the multinational enterprise is considered a network of equal entities⁴⁸. Consequently, the subsidiaries increasingly become a priority. Subsidiaries, in comparison with the parent company, grow in their importance, as they earn increasingly higher portion of the turnover, profits and marginal income⁴⁹. Thus in academic research, the relationship between the parent company and the individual subsidiaries has become a focus of interest.

Foreign subsidiaries (affiliates) are simply considered **100%- subsidiaries**. This includes 100% owned affiliates, majority participations, joint ventures and legally independent branches. They have their own legal identity but are led⁵⁰, represented⁵¹ and controlled⁵² by the parent company. Excluded are minority participations with a share capital of less than 50%, assuming conflicts of interest with other shareholders⁵³. In the literature foreign subsidiaries are often referred to as **foreign direct investment (FDI)**⁵⁴. In this regard, the term distinguishes a subsidiary from financial and portfolio investments. According to the German Federal Bank, FDIs are capital transfers abroad, with „the intention to gain direct influence on the business activities of the receiver of the capital, or provide new capital for an enterprise, in which the investor already holds a significant stake“⁵⁵. Within this closed system the various tasks have to be distributed internationally, so that innovation processes can be allowed to develop locally. The international acclamation of **the division of labor** within the network of several subsidiaries towards a common goal needs a coordination process⁵⁶.

⁴⁸ This thesis views network-structures in multinational enterprises as intra-organizational networks, where the parent-subsidiary relationship stands in the foreground. Latest studies already consider inter-organizational⁴⁸ and even virtual⁴⁸ network-structures. Also Hedlund (1986, pp. 9-35, 1993, pp. 211-236) shows that in hetero-hierarchically organized enterprises, which he also calls poly-archaic, must not absolutely occupy the central position. Refer also to Sydow, J., 1992 and 1995, pp. 160-161; Kaufmann, L., 1993; Kutschker, M., 1994, pp. 95-113; Jarillo, J.C., 1988. As regards Franchise-Networks refer to Sydow, J., 1994. Concerning strategic networks in Japan refer to Sydow, J., 1991b, pp. 238-254. Concerning virtual enterprises refer to Bleicher, K., 1997, pp. 585-599 and Krystek, U./Redel, W./Repegather, S., 1997. Concerning the definition of virtual enterprises refer to Wütherich, H.A./Philipp, A.F./Frentz, M.H., 1997, v.a. pp. 46-48 and pp. 94-95 and also Wütherich, H.A./Philipp, A.F., 1998. Mertens, P./Faisst, W., 1996, pp. 280-285 consider this organizational form as a „Top enterprise for a limited time“. Concerning the conditions of virtual networks refer to Malone, T.W./Laubacher, R.J., 1999, pp. 28-36. To the lacking theoretical foundation refer to Weibler, J./Deeg, J., 1998, i.p. pp. 111-122; Ferner, A./Varul, M., 2000, pp. 115-140. Concerning virtual reality within an enterprise refer to Wütherich, H.A./Philipp, A.F./Frentz, M.H., 1997, pp. 63-67.

⁴⁹ Cf. Kutschker, M./Schmid, S., 2004, p. 332.

⁵⁰ The term leadership is used with the meaning of leading the employees and also with the meaning goal-oriented influence on negotiations as well as in the sense of the strategic guidance of the enterprise (central areas of decisions are the formulation of a strategy and the realization). Cf. Dill, P./Hügler, G., 1987, p. 144.

⁵¹ See also § 17 paragraph 1 AktG. Between mother and subsidiary isn't necessarily a relationship of liability, this means each organization is usually only liable for its own obligations.

⁵² Control here is the translation of "to control". This means to lead, supervise, control, regulate, guide, and check. Cf. Kenter, M., 1985, pp. 29-37. The economic concept of control was preferred over the institutional one. Cf. o.V., 1982.

⁵³ Cf. Welge, M.K./Al-Laham, A., 2002, pp. 633-638.

⁵⁴ Cf. Seifert, H., 2000, pp. 622-627.

⁵⁵ Cf. The German Federal Bank, 1965, p. 19.

⁵⁶ Cf. Kieser, A./Kubicek, H., 1992, pp. 75-95; Kutschker, M./Schmid, S., 2004, pp. 992-994.

2.2 Mechanisms for the Coordination of Foreign Subsidiaries

2.2.1 Basics for the Challenges in International Coordination

Concerning the definition of the term **coordination and its mechanisms**, little agreement exists⁵⁷. Kutschker and Schmid (2004) consider coordination equally to strategies like international market development, market entrance timing and resource allocation⁵⁸. Welge and Holtbrügge (2003) consider coordination as a process-instrument, subordinate to the corporate structure. With its greater flexibility and the possibility of fine-tuning it is more suitable for the differentiated coordination-requirements of multinationals⁵⁹. Kieser and Kubicek (1992) consider coordination as the second basic principle besides the division of labor, which is characteristic for all organizations⁶⁰. All authors agree that coordination in principle is understood as the mutual harmonization of elements within a system for the sake of optimizing the system⁶¹. In other words, coordination is the mutual harmonization between the individual subsidiaries and the corporate headquarters of a multinational enterprise⁶².

According to Prahalad and Doz (1987) the basic structure of the coordination of foreign subsidiaries can be divided into two complementary perspectives⁶³: the **interaction** with the host country and the interaction with the parent company. The fundamental understanding within the enterprise strategy is the local adaptation in the respective host country by each subsidiary versus the integration of the subsidiary into the world market.

The authors developed therefore the well-known approach of the **Integration-Responsiveness-Framework**⁶⁴.

⁵⁷ Presently there is no agreement about the meaning of coordination. Cf. Dill, P./Hügler, G., 1987, p. 147; Flaherty, T.M., 1989, pp. 96-98; Frese, E., 1988a, pp. 32-35; 1988b, pp. 87-90; 2000; John, C.H.St./Young, S.T./Miller, J.L., 1999, pp. 109-127.

⁵⁸ Cf. Kutschker, M./Schmid, S., 2004, p. 1036.

⁵⁹ Cf. Welge, M.K./Holtbrügge, D., 2003b, p. 164.

⁶⁰ Cf. Kieser, A./Kubicek, H., 1992, p. 96.

⁶¹ Cf. about the diversity of the term coordination Hoffmann, F., 1980, pp. 300-305.

⁶² Cf. Egelhoff, W.G., 1984, pp. 74-75; 1988, pp. 11-34; Kappich, L., 1988. For a more detailed definition of the term coordination refer also to Launer, M., 2004a, pp. 30-31.

⁶³ Cf. Brij, K., 1987, pp. 17-21.

⁶⁴ Cf. Prahalad, C.K./Doz, Y.L., 1987, p.25; Welge, M.K./Holtbrügge, D., 2003b, p. 41-45; see an evaluation of the model at Taggart, J.H., 1997a, pp. 295-318 and 1997b, pp. 51-75.

- 1) The necessity of **adapting** the company structures, systems and processes to the respective national conditions (**local responsiveness**) is determined by differing national needs, different market- and production structures, regulations from the host country's government, and country-specific differences of the respective costs and the quality of local employees.
- 2) The necessity of the globalization of structures, systems, and processes. Through the **convergence** of consumer needs in many countries and due to the existence of global clients and competitors who are active worldwide, the possibility of using the advantage of economies of scale as well as synergy and learning effects through the **global integration** of enterprise policy.

Coordinating subsidiaries, which is also referred to as parent-daughter-relationship⁶⁵, can also be called „mixed-motive-dyad“⁶⁶ according to Schmidt and Kochhan (1977) and thus can further be distinguished into interdependent⁶⁷ and dependent⁶⁸ interests⁶⁹. The system-internal **interdependence-relationships** are shown according to Thompson (1967a) in Appendix 7⁷⁰. He distinguishes:

- 1) **Interdependences** result from the exchange of goods, information and services⁷¹. The extent of interdependence can be seen as a continuum between strong and weak interdependence. The partners in a transaction are either motivated to cooperate due to advantages, or they may have autonomous interests. In transfer-price-negotiations, for example, interests are asymmetrical.

⁶⁵ Cf. Alpaner, G.G., 1978, pp. 47-56; Birkinshaw, J./Hood, N., 1998, pp. 773-795; Daniels, J.D./Pitts, R./Trotter, M., 1984, pp. 292-307; 1985, pp. 223-237; Hedlund, G., 1984, pp. 109-123; 1999, pp. 5-44.

⁶⁶ Cf. Ghoshal, S./Nohria, N., 1989, pp. 324-325. Refer also to Aitken, M./Hage, J., 1968, pp. 912-913. The term was derived from the considerations of Schmidt and Kochan, who conceptualized inter-organizational relationships as „mixed-motive situation“. Cf. Schmidt, S.M./Kochan, T.A. 1977, p. 220. Refer also to Welge, M.K., 1989b, col. 1537-1552. See also Brockhoff, K./Hausschildt, J., 1993, pp. 396-403.

⁶⁷ Cf. Thomson, J.D., 1967, pp. 54-55.

⁶⁸ Cf. Ghoshal, S./Nohria, N., 1989, pp. 324-325.

⁶⁹ The presentation and evaluation of conflicts between parent-company and subsidiaries is not a complete one, because the conflict-affinity between parent-company and different foreign subsidiaries varies according to their heterogeneity of the respective circumstances in the host country. See also Agthe, K., 1979, pp. 434-442.

⁷⁰ Concerning the distinction between types of interdependence refer also to Frese, E., 1972, pp. 404-407, who classifies vertical and horizontal interdependences. The most comprehensive classification is the one by Emery, who distinguishes between simultaneous and sequential, and between simple and complex ones, and between reciprocal and non-reciprocal ones. He also distinguishes sequential interdependences into cyclic, convergent and divergent ones. Cf. Emery, J.C., 1969, pp. 22-23; Egelhoff, W.G., 1988, pp. 2-5; 1997, pp. 26-29. This basis of a relatively simple typology can also be found with Heinrichs, J., 1973, pp. 75-77; Baliga, B.R./Jaeger, A.M., 1984, pp. 25-40.

⁷¹ Refer to the general examples from General Motors by Baliga, B.R./Jaeger, A.M., 1984, pp. 25-30. See also Klein, H.J., 1993.

- 2) **Dependent interests** result from the use of shared and rare resources. It must be assumed that interests are asymmetrical and this may lead to conflicts. These internal conflicts⁷² can be further distinguished into organizational conflicts⁷³ and conflicts of distribution⁷⁴.

According to Pfeffer and Salancik (1978) conflicts of interest are based among others, on the dependence of subsidiaries on the enterprise headquarters as it relates to resources⁷⁵. In order to harmonize dependent and interdependent relationships of interest within a system of labor division and conflicting goals, coordination mechanisms are needed. Every administrative mechanism, which serves the integration of individual parts of an organization, can be considered a coordination mechanism or instrument.⁷⁶ The literature contains numerous approaches, which deal with the identification and different possibilities of systemizing coordination mechanisms⁷⁷. According to Williamson (1975) coordination mechanisms can basically be divided into **market and hierarchy**⁷⁸. This distinction is based on the assumption that coordination processes bear transaction costs. The various coordination mechanisms can therefore be identified in cash flows.

Using **market-coordination**, the management of subsidiaries and the resolution of conflicts are solved through competition in the internal markets within the organization⁷⁹. The decisions are made locally by the subsidiary⁸⁰ on the basis of classic contracts⁸¹. Transaction costs occur by negotiating and concluding contracts⁸². Once prices are fixed they will have a long-term bureaucratic effect on the coordination.

⁷² To differentiate internal and external conflicts refer to Duhnkrack, T., 1984, pp. 77-80; Wiechmann, U.E./Pringle, L.G. 1980, pp. 7-14. See also Roth, K./Nigh, D., 1992, pp. 277-301.

⁷³ Organization-conflicts are for example planning-conflicts, conflicts of decision-making, and conflicts of controlling. Conflicts can also arise due to different mentalities and management-abilities of leadership personnel. Cf. Duhnkrack, T., 1984, pp. 77-80.

⁷⁴ Distribution-conflicts arise especially in relation of distributing resources. Cf. Duhnkrack, T., 1984, pp. 77-80.

⁷⁵ Cf. Pfeffer, J./Salancik, G.R., 1978.

⁷⁶ Cf. Martinez, J.I./Jarrillo, J.C. (1989), p. 489-490.

⁷⁷ Several representatives, who will not be quoted again later, will be mentioned here as examples: Brandt, W.K./Hulbert, J.M., 1976, pp. 57-64; Welge, M.K., 1980 and 1989 a, b and c; Mascarenhas, B., 1984, pp. 91-106; Marcati, A., 1989, pp. 35-50; Wolf, J., 1994, pp. 115-119; Reger, G., 1997, pp. 50-54; Muralidharan, R./Hamilton, R.D., 1999, pp. 352-361 and Harzing, A.-K., 1999, pp. 7-31.

⁷⁸ Refer to Williamson, O.E., 1975, pp. 20-56 and also the fundamental works by Coase, R.H., 1937, pp. 386-405. Refer also to the graphics of the outline of the transaction-cost-approach by Picot, A./Dietl, H., 1990, pp. 178-183 and Harzing, A.-K., 1999, pp. 12-14. See also Boisot, M.H., 1986, pp. 135-158; Jones, G.R., 1983, pp. 454-466.

⁷⁹ Cf. Kieser, A.; Kubicek, H., 1992, p. 118.

⁸⁰ Cf. Tietzel, M., 1981, pp. 211-212.

⁸¹ Classical contracts lay down the prevailing conditions of the transaction and a certain behavior context at the time of concluding the contract. Cf. Macneil, I.R., 1978, pp. 862-864.

⁸² Cf. Kieser, A.; Kubicek, H., 1992, p. 118.

However, within enterprises transfer prices are also used for directing resources and profits, and thus they are not freely negotiable. Therefore, within multinational enterprises the coordination via market- and transfer prices is a formal coordination mechanism⁸³.

The **hierarchical coordination**, in contrast, is based on establishing clear lines of command and authority⁸⁴, which delegates specific tasks to the participants via hierarchical order⁸⁵. Opportunistic attitudes are prevented by control mechanisms, which result in coordination costs due to their creation and maintenance⁸⁶. However, the interpretation of hierarchically given directions is not run purely objectively. Rather, employees form their own subjective understanding of orders in accordance with their respective value-concepts⁸⁷, and thus the danger of deviation exists⁸⁸. In contrast to the market-oriented coordination this can lead to strong conflicts of interests and misinterpretations. This type of coordination is also considered formal.

Edstrom and Galbraith (1977) as well as Ouchi (1980) expanded this transaction-cost-theoretical paradigm⁸⁹ by adding the so-called **Clan coordination** mechanism⁹⁰. If all members of the organization pursue the same objectives and thus form a clan, a strong motivation to harmonize all activities towards one common goal will come about⁹¹. The intention is to prevent conflicts between the parent company and subsidiaries before they even start. The coordination costs arising from this type of coordination are considerably higher than the costs of coordination mechanisms described above⁹². For example, the costs to transfer common objectives through the leadership of expatriate

⁸³ Cf. Abdallah, W.M., 1989.

⁸⁴ Structural mechanisms in most empirical studies connect to the bureaucracy-model by Weber and are based on organizational rules. Therefore they are part of the formal organization-structure. Cf. Weber, M., 1972, quoted after Kieser, A./Kubicek, H., 1992, p. 73.

⁸⁵ Refer also to the differentiation of the hierarchy as a fundamental principle of order. Hierarchy as a formal structure of positioning above and subordination as well as a process to establish a hierarchy by Laske, S./Weiskopf, R., 1992, col. 791-800.

⁸⁶ The coordination-costs of hierarchy as fundamental principle of order, hierarchy as a formal structure of the positioning above and subordination as well as a process to establish a hierarchy by Laske, S./Weiskopf, R., 1992, col. 791-800.

⁸⁷ Cf. Pondy, L.R./Mitroff, J.J., 1979, pp. 8-10; Dill, P./Hügler, G., 1987, pp. 147-152.

⁸⁸ This is based on the danger of overstraining employees through limited capacity of digesting information. This can lead to a „structural overstrain“. Cf. Türk, K., 1976, pp. 113-115.

⁸⁹ Cf. Stähle, H., 1991, p. 474; Kieser, A.; Kubicek, H., 1992, pp. 122. Concerning forms of coordination between market and hierarchy refer to Williamson, O.E., 1985, pp. 71-79.

⁹⁰ „Clan“-Organizations achieve the coordination of complex organizational processes through the „organic“ solidarity of their members. This is manifested in the internalization of enterprise-related values and norms. Cf. Heinen, E., 1987, pp. 7-9; Powell, W.W., 1990, pp. 295-336. Ouchi based his concept on the idea of „organizational solidarity“ that is focused on the whole society, cf. Dürkheim, E., 1977. Cf. Heinen, E., 1987, pp. 11-12. But Ouchi did not connect to precise methodological concepts. Cf. Dülfer, E., 1991, pp. 1-20.

⁹¹ Cf. Kieser, A./Kubicek, H., 1992, p. 122; Pfeffer, J./Salancik, G.R., 1978, pp. 149-151.

⁹² Cf. Ouchi, W.G., 1980, pp. 129-141.

personnel are much higher than hiring managers from the host country. This form of coordination can be considered informal and personal (refer to Appendix 8).

Martinez and Jarillo (1989) summarize the formal and informal coordination-mechanisms systematically⁹³. **Formal mechanisms** require the creation of departments or the building of organizational units to determine a formal structure. On the one hand, coordination takes place through the centralization of decision making which means hierarchical guidelines that must be followed. On the other hand, coordination can be carried out by using formalization and standardization and with the help of procedural guidelines, description of the position, handbooks and rules, strategic planning, budget planning, goal-setting, time-plans and by controlling results. The so-called Aston Group⁹⁴ has explicitly examined these coordination mechanisms in depth. On the basis of these findings, the coordination mechanism centralization of decisions and formalization of policies and systems can be considered robust mechanisms in the coordination of subsidiaries⁹⁵.

Informal mechanisms⁹⁶ are based on personal contacts in temporary and institutional working groups, visits of managers from the subsidiary in the headquarters, or vice versa, the informal communication and socialization of employees⁹⁷. This is also called normative integration⁹⁸.

From this, a sound classification of coordination mechanisms results: the

- **centralization of decision making,**
- **formalization of policies and systems,**
- **and normative integration**⁹⁹.

⁹³ Cf. Martinez, J.I./Jarillo, J.C. (1989), pp. 489-492.

⁹⁴ Cf. Pugh et al., 1969, pp 91-114.

⁹⁵ Cf. Pugh, D.S./Hinings, C.R./Turner, C., 1968, pp. 65-105; Pugh, D.S./Hinings, C.R., 1976; Pugh, D.S./Hickson, D.J./Hinings, C.R./Turner, C./ 1968, pp. 76-78; Kieser, A./Kubicek, H., 1992, p. 122.

⁹⁶ Other authors differentiate between structural and non-structural mechanisms, cf. Kieser, A./Kubicek, H. (1992), pp. 280-282, or in bureaucratic and cultural mechanisms, cf. Baliga, B.R./Jaeger, A.M. (1984), pp. 26-29, or in technocratic and person-oriented control-dimensions, cf. Kenter, M.E. (198), p. 113.

⁹⁷ Cf. Martinez, J.I./Jarillo, J.C. (1989), p. 491; Kieser, A./Kubicek, H. (1992), p. 281.

⁹⁸ Normative integration is identical with the terms guidance by enterprise-culture or organization-culture, socialization or common values. Cf. also to Ghoshal, S./Nohria, N. (1989), pp. 323-327; Welge, M.K. (1989a), col. 1186; Kieser, A./Kubicek, H. (1992), pp. 118-125.

⁹⁹ This classification can be traced back to the sociologist Leavitt as well as to March and Simon. Cf. March, J.G./Simon, H.A., 1958; Leavitt, H., 1964, p. 56. This classification was later also used by Thompson, J.D., 1967; Lawrence, J.W./Lorsch, P.R., 1967; Child, J., 1973, pp. 1-17 and 1984; Galbraith, J.R., 1973; Mintzberg, H., 1983;

Khandwalla¹⁰⁰ introduced it first to the Anglo-Saxon Business Management Theory, and in the German-speaking region it was Hoffmann¹⁰¹. In a similar way, Welge (1980) and his student Kenter (1985) transferred this systematic onto international enterprises. Nevertheless it should be noted that this classification does have some arbitrariness despite its popularity, and it has not been without critics¹⁰². In the following this systematic will be described and explained in more detail.

Baliga, B.R./Jaeger, A.M., 1984, pp. 25-40; Bartlett, C.A./Ghoshal, S., 1989, p. 96; Nohria, N./Ghoshal, S., 1997, pp. 97-105; Dobry, A., 1983, pp. 15-33.

¹⁰⁰ Cf. Khandwalla, P.N., 1972 and 1973, pp 481-495 as well as Khandwalla, P.N., 1975, p. 143.

¹⁰¹ Cf. Hoffmann, F., 1980, pp. 330-334.

¹⁰² Cf. Rühli, E., 1992, col. 1168-1174.

2.2.2 Centralization of Decision Making

The centralization of decision making is considered as one of the most important coordination mechanisms, also called centralization¹⁰³ or turned around: autonomy. The term centralization is not defined consistently in the literature. Some authors define centralization as the place within an organization where decisions¹⁰⁴ are made. „Who is the last person, whose consent is needed, before a legitimate action can be carried out – even though some others will still have to confirm the decision later?“¹⁰⁵ Other definitions for the centralization as a coordination-mechanism are decision-autonomy¹⁰⁶ and decision-delegation¹⁰⁷. But they describe either a pre-determined tendency or a central or decentralized place¹⁰⁸.

The common aspect of all terms is that they define the **allocation of the decision**¹⁰⁹, which generally means the distribution of the responsibility for decisions. Gates and Egelhoff (1986) provided fundamental findings in this regard¹¹⁰ and their definition will be followed in this thesis. A central decision is made within the home country regardless of the hierarchy. A decentralized decision is made in the respective host country. The decision in this respect can be made by a local manager or an expatriate; it would still be a local decision. Decision in this regard is not the place where the action is initiated or prepared. It is more important where the final decision is being made. Lots of local decisions still need to be clarified with headquarters or in international discussion rounds. Decision making therefore is in terms of power.

¹⁰³ An overview of numerous studies about the centralization in the parent-subsidiary-relationship provides Gates, S.R./Egelhoff, W., 1986, pp. 72-73. Planning as a coordination-mechanism is also included in this thesis under centralization. Planning-decisions can be made centrally or de-centrally within the “counter-current” process. Planning as a “goal-oriented guidance of the enterprise-activities” (Wild, J., 1974, p. 201) is considered guideline, which is periodically worked out under consideration of the enterprise-objectives, and which coordinates activities of the places of implementation. These guidelines are usually decided by fixed procedures in an institutionalized process. Personal directions and the results of programs do not belong here. Cf. Kieser, A./Kubicek, H., 1992, p. 281; Drumm, H.J., 1996, pp. 7-20; Ouchi, W.G., 1978, pp. 293-314 and 1979, pp. 833-848.

¹⁰⁴ Organization here defines the institutional organization-term, which means an enterprise is an organization. Concerning the term organization cf. also to Kieser, A./Kubicek, H., 1992, pp. 1-25; Hungenberg, H., 1995.

¹⁰⁵ Pugh et al., 1968, pp. 76-78.

¹⁰⁶ Cf. Garnier, G.H., 1982, pp. 893-895; Hedlund, G., 1981, pp. 25-32; Otterbeck, L., 1981, pp. 337-343.

¹⁰⁷ Cf. Kieser, A./Kubicek, H., 1992, p. 185; Kastura, B., 1996..

¹⁰⁸ Cf. Welge, M./Holtbrügge, D., 2000, pp. 769-771.

¹⁰⁹ Allocation of decisions here includes distribution of authority to decide and authority to give directions. Regarding the connection between authority to decide and authority to give direction cf. Kieser, A./Kubicek, H., 1992, pp. 153-155.

¹¹⁰ Cf. Gates, S.R./Egelhoff, W.G., 1986, pp. 71-92.

The problem of allocating the decision in the entrepreneurial practice of multinational enterprises is often reduced to the two structural dimensions: worldwide product divisions versus regional or by country area divisions¹¹¹. However, this viewpoint is too narrow and is based only on considerations concerning the structure of the enterprise. Appendix 9 illustrates graphically the many options of different **decision-allocations**.

„Centralization (...) refers to a governance mechanism in which the decision-making process is hierarchically organized with the headquarters often making most of the crucial strategic and policy decisions. Since centralization shifts the focus of power asymmetrically in favor of the headquarters, it can lead to serve dissonance if the subsidiary is a powerful actor in the exchange relation“¹¹². Therefore, not all decisions in a subsidiary can be centralized. Especially subsidiaries which are strong in resources, mature and have substantial know-how, can protest **against patronization** by the enterprise’s headquarters or by some other central authority. In specific cases considerations are needed to decide whether to accept this potential for conflict or not¹¹³.

However, it is not meaningful to **decentralize all decisions** and instead using other coordination mechanisms and thus try to bypass conflicts. From the viewpoint of the theory of transaction costs, centralization is the most economic coordination mechanism. The reason is that cost-intensive harmonizing and negotiation process¹¹⁴ are not needed¹¹⁵. In contrast, central decision-making authorities also need time until they reach a decision. Information has to be collected and evaluated, and a decision that has to be made, must be agreed on in various committees. In a dynamic and fast changing environment such a loss of time can lead to considerable disadvantages¹¹⁶.

In summary, centralization can lead to conflicts with subsidiaries and it requires considerable time, but it is the most economic coordination-mechanism.

¹¹¹ Expert-interviews by the author. Refer to list in the Appendix. Cf. Bassen, A., 1998, pp. 21-35.

¹¹² Ghoshal, S./Nohria, N., 1989, p. 326.

¹¹³ Cf. Pfeffer, J./Galancik, G.R., 1978.

¹¹⁴ These processes cause ex ante-transaction-costs. Ex ante- and ex post-transaction-costs are distinguished in relation to the transaction-costs-theory. The first occur before and the latter after the effectiveness of an action (decision). Cf. Ebers, M./Gotsch, W., 1993, p. 216.

¹¹⁵ Cost will also occur in the case of centralization, e.g. cost for supervision and guarantee (ex post-transaction-costs) of the decisions made. For detailed explanation of the transaction-costs-theory cf. Ebers, M./Gotsch, W., 1993, pp. 216-234; Picot, A./Dietl, M., 1990, pp. 178-184.

¹¹⁶ Cf. Nohria, N./Ghoshal, S., 1997, pp. 101-102.

2.2.3 Formalization of Policies and Systems

Another coordination-mechanism is the **formalization of policies and systems**, or briefly called formalization¹¹⁷ or structure-formalization¹¹⁸. This describes the written fixation of organizational rules by using charts, handbooks, guidelines etc.¹¹⁹. The goal is to organize a pre-set procedure for creating positions and procedures (programs)¹²⁰, budgets negotiations¹²¹ and binding transfer-price discussions¹²². This kind of formalization is considered bureaucratic¹²³. To reach certain goals formal rules are set up. These rules are impersonal in the sense that they are valid without depending on individuals. And they are official in the sense that they have been authorized by the headquarters¹²⁴.

A formalized process therefore is based on extensive rules, policies, and regulations; an informal process on the other hand gives the people more freedom to make own choices in daily business and strategic decisions. Therefore, formalization can be seen as preset decision making which makes it sometimes difficult to clearly separate the two mechanisms from centralization. But nowadays, rules and regulations are not made in headquarters only. On the other side do they get changed frequently and have a slight tendency to decision making or so called internal politics. In this thesis, however, it is unimportant where formalization comes from as long as formalization does not replace decision making.

„Formalization decreases the power of both the headquarters and the subsidiary as it constrains the exchange relation to an impersonal set of rules that often assume a power independent of the motivations of the actors in the exchange relation“¹²⁵. Through formalization decisions are neither made centrally nor decentralized, in this way decisions become routine¹²⁶. Through **routines and automated processes** con-

¹¹⁷ Refer to detailed depiction of instruments for formalization by Berger, K.H., 1961, pp. 531-576.

¹¹⁸ Cf. Pugh, D.S./Hickson, D.J./Hinings, C.R./Turner, C., 1968, p. 67.

¹¹⁹ Cf. Althans, J., 1980.

¹²⁰ Cf. Kaufmann, L., 2001.

¹²¹ Cf. Anyane-Ntow, K, 1991, pp. 201-221; Eisenführ, F., 1992, pp. 363-373; Fischer, T.M., 1995, pp. 155-164.

¹²² Cf. Al-Eryani, M./Alam, P./Akhter, S., 1990, pp. 409-425. Djanani, C./Winning, M., 1999, pp. 243-267; Drumm, H.J., 1989, pp. 2077-2085; Emanuel, C.R./Mehafdi, M., 1994; Galbraith, J.R./Edström, A., 1976, pp. 100-112; Pausenberger, E., 1992, pp. 769-786.

¹²³ Cf. Kieser, A./Kubicek, H., 1992, pp. 159-160.

¹²⁴ Cf. Kieser, A./Kubicek, H., 1992, pp. 159-160.

¹²⁵ Ghoshal, S., 1985, p. 106, and the quoted literature.

¹²⁶ In relation to the bureaucratic formation of the parent-subsidiary relationship in multinational enterprises especially Hedlund has provided decisive contributions. Cf. Hedlund, G., 1980, pp. 23-36.

flicts between the headquarters and the subsidiaries are reduced and power structures are stabilized. Rules and systems are impersonal and impartial. In a specific situation of decision making the employee refers to an existing set of alternatives which have been agreed on a long time before. Therefore formalization is especially useful in situations where conflicts between centers of power should be avoided¹²⁷.

However, the coordination is based on **bureaucratic processes**. In stable environments decisions can thus be made quickly. But in dynamic and constantly changing environments formal and unbending rules obstruct the adaptation to new market conditions and requirements. The change and new harmonization of the rules, however, require some time. Weber (1946) already pointed out that formalization or bureaucracy is the most efficient organizational form in a stable environment. However, establishing and constantly updating such rules, and supervising their implementation will incur cost. These costs are usually higher than those of the centralization¹²⁸.

In summary, formalization leads to transaction costs, but provides a conflict-free coordination. In dynamic environments, however, this bureaucratic coordination-mechanism can result in considerable loss of time and inflexibility.

¹²⁷ Cf. Nohria, N./Ghoshal, S., 1997, pp. 99-100. See also Brandt, W./Hulbert, J.M., 1977, pp. 119-146.
¹²⁸ Cf. Weber, M., 1946; Nohria, N./Ghoshal, S., 1997, p. 102.

2.2.4 Normative Integration of Employees

The third coordination-mechanism is the socialization of the employees¹²⁹ or, their normative integration¹³⁰. This includes the informal or personal coordination¹³¹ as well as a structured self-coordination¹³². The concept of **socialization** includes the cognitive, affective and behavior-centered assimilation¹³³ of the employees via repeated conscious and unconscious psychic influences¹³⁴. It can be achieved through a distinct culture of the enterprise and the establishment worldwide of shared values and objectives¹³⁵. In this regard socialization or normative integration is defined in broad term. The definition includes all actions that lead to a set of shared values. Even rules and regulations transfer values and central decision from headquarters influence the value set locally in the subsidiary. The definition therefore is more result oriented towards the implemented set of shared values and not technocratic described in terms of specific actions.

It should be emphasized as well that this does not mean that the shared values are expressed specifically in a functional-system-oriented¹³⁶ manner by the headquarters¹³⁷. The enterprise's culture¹³⁸ is not defined in technocratic terms as Actual- or Should-be-culture. According to Schein (1985), culture is rather the basis of all daily activities of the people in the enterprise¹³⁹. Every interaction and problem solving among employees lead to socialization¹⁴⁰. This is called the **interpretative-individualistic** viewpoint¹⁴¹. Learning processes, which are based on the avoidance of individual fear

¹²⁹ This describes learning processes, through which an individual grows into a network of relationships. Cf. Wiswede, G., 1992, col. 2270. Refer especially to van Maanen, J./Schein, E.H., 1979, pp 209-264.

¹³⁰ Cf. Ghoshal, S./Nohria, N., 1989, pp. 325-327. They refer back to Edstrom and Galbraith (1977) and Ouchi (1980), who depicted the normative integration of employees to coordination in multinational enterprises.

¹³¹ The person-oriented control can be interpreted as control of the individual behavior. Cf. Jäger, A.M., 1989, col. 10. As to participating decision-making refer to Khandwalla, P.N., 1975, p. 141.

¹³² This is understood as self-coordination through group-decisions. Cf. Kieser, A./Kubicek, H., 1992, p. 106. According to Schein (1984) in group-processes and communal problem-solving-processes the values and norms are transferred to other organization members. Cf. Schein, E.H., 1984, pp. 5-6.

¹³³ Cf. Allaire, Y./Firsirotu, M.E., 1984, pp. 193-226.

¹³⁴ Cf. Abramson, N.R./Keating, R.J./Lane, H.W., 1996, pp. 123-147.

¹³⁵ Cf. Adigun, I.O., 2000, pp. 372-378; Albert, U./Silverman, M., 1984, pp. 12-21; Albrecht, H.K., 1970, pp. 2085-2089; Festing, M., 1990, pp. 243-267.

¹³⁶ Dürkheim can be considered a "classical" representative of the functional socio-scientific approach. Merton and Parson provided a functionalistic frame for socio-scientific theories. Cf. Ritzer, G., 1975, pp. 158-159; Greipel, P., 1988, pp. 84-90; Kobi, J.-M./Wütherich, H.A., 1986.

¹³⁷ To distinguish the different views on normative integration refer also to Burrell, G./Morgan, G., 1979.

¹³⁸ See over 100 definitions of culture at Kröber, A.L./Kluckhohn, L., 1952.

¹³⁹ Cf. Hofstede, G., 1978, pp. 127-135; 1980, pp. 1170; 1994, pp. 1-14; 2001a and 2001b; Drumm, H.J., 1991, p. 163; Deal, T.E./Kennedy, A.A., 1982; Derensky, H., 1994. See also Dierkes, M., 1988, pp. 554-575; Dormayer, H.J./Ketterm, T., 1987, pp. 49-66; Engelhardt, J., 1997, pp. 9-45..

¹⁴⁰ Cf. Schein, E., 1992, pp. 3-15; Harzing, A.-K., 2001, pp. 366-379.

¹⁴¹ The origins of the interpretative viewpoint can be traced back to Aristoteles. Social communities did not exist objectively in his view, but they were social and individually set-up "reality-constructs". Cf. Greipel, P., 1988, pp. 90-100.

of uncertainty and risks¹⁴², are at the center of this definition. Theories of group dynamics are used to explain social phenomena, e.g. the theory of roles¹⁴³, learning-action-approach¹⁴⁴, the social-cognitive learning-theory¹⁴⁵, the dialectic approach of strategic planning¹⁴⁶, and the Strategic-Choice-Approach¹⁴⁷.

The socialization of employees in a subsidiary has the goal to create **shared values** and attitudes and thus assure similar decision making to that at headquarters¹⁴⁸. If all employees in the enterprise strive towards the same goals or towards the goals that were pre-set for their respective field, then the decisions taken will automatically be in the interest of the whole enterprise. Focusing on common goals and values reduces the potential for conflict between the parent company and its subsidiaries. Van Maanen and Schein (1979), and especially Ouchi (1980) and Jäger (1983) have contributed research results that point the way ahead.

The socialization has the advantage that its coordination-effects are rather implicit. Especially when innovative tasks and tasks with a high degree of complexity and ambiguity are concerned, shared values and norms assure that the **objectives of the parent** company are taken into consideration. The socialization of employees also helps to find and implement decisions quickly, and thus helps to reduce time and effort¹⁴⁹. Thus normative integration is neither based on the intervention by headquarters nor is it based on impersonal rules. It can be concluded from this that the normative integration is the proper mechanism to coordinate complex situations in subsidiaries¹⁵⁰.

However, the use of this coordination mechanism results in high expenses for a **Corporate Identity (CI)** strategy¹⁵¹, personal training, employee communication, or dispatching leadership personnel/expatriates, etc¹⁵². An additional and important precon-

¹⁴² Cf. Drumm, H.J., 1991, p. 163.

¹⁴³ Refer to Katz, D./Kahn, R.L., 1978, pp. 185-190.

¹⁴⁴ Refer to Ansoff, H.I., 1982, pp. 5-9.

¹⁴⁵ Refer to Bandura, A./Jeffery, R.W., 1973, pp. 122-130.

¹⁴⁶ Refer to Mason, R.O., 1969, pp. B403-B414. Refer also to Kritik von Schreyögg, G., 1984, p. 84 and Greipel, P., 1988, pp. 171-174.

¹⁴⁷ Refer also to Child, J., 1972, pp. 1-4.

¹⁴⁸ Cf. Refer to Jäger, A.M., 1989, col. 2020; Kieser, A./Kubicek, H., 1992, p. 118.

¹⁴⁹ Cf. Schreyögg, G., 1999, pp. 460-464.

¹⁵⁰ Cf. Nohria, N./Ghoshal, S., 1997, pp. 100-102.

¹⁵¹ Cf. Birkigt, K./Stadler, M./Funk, H.J., 1988; Kreutzer, R./Jugel, S./Wiedmann, K.-P., 1986; Segler, K., 1989, pp. 254-266; Wiedmann, K.-P., 1988, pp. 236-242; Wiedmann, K.-P./Jugel, S., 1987, pp. 186-203.

¹⁵² Cf. Adler, N./Bartholomew, S., 1992, pp. 52-65 and 2002.

dition is the long-term employment of employees¹⁵³, because socialization of people with shared values takes a long time.

In summary, normative integration is a coordination-mechanism which is free of conflict and which is very suitable to be implemented in stable as well as in dynamic environments. However, besides these excellent qualities, there are high transaction costs, and therefore the implementation of this mechanism has to be well considered.

2.3 Discussion of Current Research

The coordination mechanisms that were presented have already been the subject of several research programs in International Management since the 1960's (refer to Appendix 1)¹⁵⁴. Almost all studies of coordination in multinational enterprises related to them as one homogenous unit at the **level of the headquarters**. Thompson (1967), Lawrence and Lorsch (1967), Prahalad and Doz (1981) are considered the first authors who presented coordination of foreign subsidiaries in their works in a differentiated way¹⁵⁵. For the first time factors relevant to the coordination of single subsidiaries were described, e.g. especially the external environment. Based on this, Hennart (1991) presented a model on a transaction cost basis¹⁵⁶. In contrast, Pfeffer and Salancik (1978) differentiated an organization according to its internal power-relations based on the available resources. Lawrence and Dyer (1983) have combined both viewpoints together. In their view, enterprises differentiate their organization according to the complexity of the environment and the available resources.

Martinez and Jarillo (1989) offer one of the first comprehensively planned studies. In their pioneering work they show in a **fundamental scientific penetration** the various development directions of coordination mechanisms. 85 studies were examined and analyzed for that purpose. Through their work the field of international coordination gained a higher degree of transparency¹⁵⁷. Welge and his student Kenter¹⁵⁸ were the

¹⁵³ Cf. additionally the findings from Japanese enterprises by Jäger, A.M., 1983, p. 94. See also Berthoin Antal, A./ Böhling, K., 1998, pp. 215-236.

¹⁵⁴ Refer also to the overview by Harzing, A.K., 1999, pp. 18-19; Kutschker, M./Schmid, S., 2004, p. 1006.

¹⁵⁵ Cf. Prahalad, C.K./Doz, Y.L., 1981, pp. 5-13. See also Prahalad, C.K./Doz, Y.L., 1987.

¹⁵⁶ Cf. Hennart, J.-F., 1991, pp. 71-96.

¹⁵⁷ Cf. Martinez, J.I./Jarillo, J.C., 1989, pp. 489-514.

¹⁵⁸ Cf. Welge, M.K., 1980; 1981, pp. 25-78; 1985; 1989a, col. 1182-1191; 1989b, col. 1537-1552; 1989c, col. 1206-1220; 1989d, Col. 1590-1602; 1990, pp. 1-16; 1992, pp. 569-589 and Kenter, M., 1985.

most well known German representatives in the research area of International Coordination Strategies at that time. Especially during the 1980's, they contributed intensively to a better understanding of the coordination between the parent company and its subsidiaries¹⁵⁹. Since then, plenty of authors have tried in numerous situational approaches, based on empirical studies, to describe subsidiaries and their respective coordination. Depending on their environment and the individual situation of the respective subsidiary, coordination is described in a differentiated way. However, the coordination mechanisms were mainly examined individually and descriptively only.

Only two theoretical approaches were found which not only **differentiate the coordination** mechanisms but also observe them from a more holistic perspective. Nohria and Ghoshal (1989, 1997) showed in a broad empirical study that successful multinational enterprises coordinate their subsidiaries in a differentiated way. The three coordination mechanisms are examined and presented simultaneously and in complete combination with different local environmental and subsidiary situations. However, the authors themselves criticize that „we have contributed significantly to the formulation of a complete contingency model of multinationals. However, although such a model may be helpful of business academics studying organization theory, it is less clear that the ideal types of the model offer readily applicable prescriptions for managers.“¹⁶⁰

In contrast to previous coordination studies Bartlett und Ghoshal (1990, 2002) offer a new integrated model based on a **new paradigm**. Beside other current developments, the theory describes specified and strategic roles for subsidiaries in a **transnational enterprise**. The authors show that various country organizations delegate different specified roles and responsibilities for the sake of better coordination. The difference to other role models is that the three coordination mechanisms are incorporated in the model. The specific combination of the coordination mechanisms is not based on the situation of the environment or the subsidiary context but rather on a new approach the internal flow of goods, information, and resources. Schmid, Bäuerle und Kutschker (1999) provide an overview of many similar approaches, which describe the coordination through the distribution of specified roles (refer to Appendix 2).

¹⁵⁹ Refer also to Hoffmann, S.T., 1992.

¹⁶⁰ Nohria, N./Ghoshal, S., 1997, pp. 129.

Since then numerous additional studies have appeared concerning differentiated coordination. Although the mechanisms became increasingly theoretically supported, more detailed, and presented in a broader context, the user in practice gets lost. For example, Harzing (1999) analyzed 26 headquarters and 287 subsidiaries of 104 enterprises. Like Nohria and Ghoshal she used a comprehensive theoretical approach, based on the approach of the transnational theory by Bartlett and Ghoshal. Harzing produced numerous interesting results but she did not provide a holistic coordination model which could be applied in reality.

In an empirical study, Holtbrügge (2001) examined 66 foreign subsidiaries of **German multinational corporations**. His conclusion is that neither a dominance of personnel-oriented coordination mechanisms nor an increase in horizontal coordination connections could be noticed. However, he states that managers expect an increase of personal, informal coordination. He also concludes that German corporations practically do not use horizontal coordination mechanisms. In addition the study notices a lack of harmonization between the cross-country configuration of value creating activities and coordination. Here too, no holistic approach was developed.

Macharzina and Österle (2002) summarized the latest and most innovative approaches of coordinating foreign subsidiaries. Especially the essay of Rall (2002) showed completely new ways of contemplating the parent-subsidiary-relationship by using **inter-organizational networks**. Welge and Holtbrügge (2003) also dealt with the **network-approach**, in which the relationship between the parent-company and the subsidiaries become a priority and the enterprise is looked upon as a globally integrated unit. While a comprehensive perspective is applied in relation to the group, singular approaches are applied to the explanations about the coordination of foreign subsidiaries. Coordination is described as the sum of individual and independent coordination mechanisms. Kutschker and Schmid (2004) realized that the numerous empirical findings from a large number of studies are still unable to answer the question which coordination strategy has the highest efficiency. Also, the **search for context-factors** has not been successful so far, in which one combination of coordination strategies would be superior to another set of coordination strategies¹⁶¹.

¹⁶¹ Cf. Kutschker, M./Schmid, S., 2004, pp. 1036-1037.

It seems obvious that a more **holistic**¹⁶² **and pragmatic research** of differentiated coordination¹⁶³ of foreign subsidiaries has been neglected during recent years.. For their application in intensive case studies and in enterprises, a pragmatic, more holistic, and differentiated approaches has to be further developed¹⁶⁴.

„Although research in the field of International Management may seem more practice oriented than research in many other areas, it rarely contributes directly to practice and it is often difficult to find ready-to-use applications of research results”¹⁶⁵.

¹⁶² Already Drazin and van de Ven, 1985, pp. 514-539 requested, that the management of coordination relationships between the parent and several subsidiaries should be seen more holistically.

¹⁶³ Nohria and Ghoshal (1997) request in particular to view the coordination mechanisms not only holistically, but also in combination with each other. The models and theories must be able to describe the implementation of the coordination-mechanisms per subsidiary and environmental situation in a differentiated way as well.

¹⁶⁴ In relation to the strategic dimension refer also to Kutschker, M./Schmid, S., 2004, p. 1037.

¹⁶⁵ Harzing, A.K., 1999, p. 371.

3. Developing an Extended Theoretical Basis and Deduction of Hypotheses

The demand for a comprehensive and pragmatic study of the differentiated coordination of foreign subsidiaries requires an **extended theoretical basis**. It is not enough to enumerate existing theories and then set up hypotheses from this. Existing theories are insufficient so far and the results would only be of a theoretical nature. Therefore, extended and modified theories and models need to be developed that can be applied in practice. We must therefore:

1. Bring the **theories onto a common basis**. This basis consists of the 3 coordination mechanisms centralization, formalization, and normative integration.
2. The models must be **adapted to the requirements** of business practice.

Different adaptation measures are necessary to adapt the theories and models. In business practice it is impossible to work with only statistically significant results. Each statement for each subsidiary has to be as accurate as possible otherwise the whole theory will not be accepted by business managers. Therefore the models and theories must be adjusted precisely. To do this, they must be precisely calibrated until each statement is correct. Furthermore, theoretical and abstract concepts must be substantiated for **ready-to-use applications**. The intensity of application for each coordination mechanism must be determined precisely as well as the optimal combination of the three coordination-mechanisms.

In the next section, the relevant theories and models will be presented individually and they will be adapted and **modified for business purposes**. Afterwards it is possible to derive hypotheses for each model (Model-Hypothesis). The selection of the theories and models has been carried out through a separate extensive scientific study¹⁶⁶. The discussion starts with one of the oldest theories from the 1960's.

¹⁶⁶

Refer to Launer, M., 2004a.

3.1 Undifferentiated Coordination on Group-Level with an Extended EPRG-Scheme

3.1.1 Introduction and Discussion of the Theory

One of the fundamental structures in International Management dates back to the approach by Perlmutter (1965, 1969, 1972), who explained different basic orientations of multinationals in sociological, psychological and anthropological categories¹⁶⁷. He assumed that values and attitudes, experiences, habits and prejudices of individuals will shape the type of a multinational enterprise. Accordingly he differentiated three different **orientation- and leadership systems**¹⁶⁸:

- **ethnocentric** (orientation shaped by parent-company; home country attitude)
- **polycentric** (orientation centered on host country; host country orientation)
- **geocentric** (environmental differences disappear; world oriented orientation)

Later the **regio-centric** approach was added¹⁶⁹. A summary of the different orientations can be found in Appendix 11. This typology – according to its first letters it is also called EPG- or **EPRG-Approach**¹⁷⁰ - has shaped the International Management-Research decisively, and is often considered one of their most important theoretical foundations¹⁷¹.

Meffert (1986, 1989, 1990) and Meffert and Bolz (1998) used these four orientations to sort them into the **Global Integration – National Responsiveness Framework** by Prahalad and Doz (1987, refer to Appendix 8)¹⁷². Thus a portfolio of four fields with different shapes was developed.

¹⁶⁷ Cf. Perlmutter, H.V., 1969, p. 11; Schneider, U., 1996, pp. 127-144. The possibilities to transfer management styles see Takahashi, Y., 1989, pp. 2063-2076.

¹⁶⁸ Refer also to Heenan, D.A./Perlmutter, H.V., 1978, pp. 17-22; a summary can be found with Kreutzer, R., 1990, pp. 12-26 and Pausenberger, E., 1982, p. 76, Tab. 1. Refer also to the overview and critical depiction by Kutschker, M./Schmid, S., 2004, pp. 278-289. Launer, M., 2004a, pp. 20-21, describes the model in relation to the coordination of subsidiaries of multinational enterprises.

¹⁶⁹ Cf. Heenan, D.A./Perlmutter, H., 1979, p. 20.

¹⁷⁰ As to the critique of the EPRG-Scheme refer to Launer, M., 2004a, pp. 21-22.

¹⁷¹ Cf. Ricks, D.A., 1985, p. 3.

¹⁷² Cf. Prahalad, C.K./Doz, Y.L., 1987, p. 25. A good summary of the approach is provided by Welge, K./Holtbrügge, D., 2003b, p. 41ff. The expanded theory by Doz, Y.L./Prahalad, C.K., 1991, pp. 145-164 and 1993, pp. 24-50 is well described by Kutschker, M./Schmid, pp. 307-311.

Henzler and Rall (1985) attributed **typical industries** into the four fields, as is common in the practice of business consultants¹⁷³. He positioned the various branch industries according to their global and local advantages (refer to Appendix 9)¹⁷⁴. Based on their **branch-allocation**, now corporations can easily be classified into the four categories.

This theory does not provide explicit statements regarding the coordination of subsidiaries. However, in the course of this thesis it has been used repeatedly as a basis for developing fuller theories and models. It would be wrong to ignore this basic theory and not examine it for implicit statements regarding the differentiated coordination. It might be of relevance for the business practice.

3.1.2 Development of a Coordination Model based on the EPRG-Scheme

The EPRG-Scheme and the extended theories built on it do not contain any explicit statements regarding the coordination of subsidiaries. Therefore, statements regarding these mechanisms, their implementation, combination and intensity of use must be derived by the author from statements provided by the literature before using it¹⁷⁵. The four archetypes of orientation will now be described¹⁷⁶ by developing an extended perspective.

The characteristic of the first cluster, an **ethnocentric business culture**¹⁷⁷, **under certain conditions connected with an export strategy**¹⁷⁸, is characterized by the extensive transfer of structure, systems, processes, and resources from the parent company to their subsidiaries. According to Meffert (1990) this orientation goes parallel with the organizational structure like an export department¹⁷⁹. The subsidiaries function as

¹⁷³ Cf. Henzler, H./Rall, W., 1985a, p. 184 and 1985b, p. 262; Rall, W., 1986, p. 160; Welge, M.K./Holtbrügge, D., 2003, p. 78-80.

¹⁷⁴ Cf. Henzler, H., Rall, W., 1985a, p. 184 and 1985b, p. 262; Rall, W., 1986, p. 160. Launer, M., 2004a, pp. 62-66 also studied the influence of the point in time of the internationalization on the coordination-mechanisms. However, this approach will not be pursued further in this thesis, because this will not lead to pragmatic results for the practice. The result of the analysis can be found in the Appendix 10.

¹⁷⁵ Refer also to Launer, M., 2004a, pp. 60-87. The derivation of statements concerning coordination-instruments was the same for the business culture, organizational structure, and the enterprise strategy.

Cf. Meffert H./Bolz, J., 1998, p. 285. Refer also to the critique by Kutschker, M./Schmid, S., 2004, p. 301.

¹⁷⁷ Cf. Meffert, H., 1990, p. 107.

¹⁷⁸ Cf. Meffert, H./Bolz, J., 1998, p. 61.

¹⁷⁹ Cf. Meffert, H., 1990, p. 102.

„adjunct to domestic business or a source of quick profit“¹⁸⁰. The objective is the use of knowledge and abilities available in the headquarters through worldwide diffusion and adaptation¹⁸¹.

According to the theory, the strategy will follow a more centralistic leadership concept¹⁸². Therefore, the degree of **centralization** will be high¹⁸³. The local subsidiaries receive orders and directions from the parent company¹⁸⁴. Often the headquarters sends its delegates to the foreign countries to manage the local import business or growth of young subsidiaries¹⁸⁵. The expatriates will transfer the Know-how of the parent company and assure that the strategic objectives set by the headquarters are in line.

Neither in the original theory, nor in other literature could a detailed description of the **formalization of policies and systems** be found in regard to the EPRG model. It has to be assumed that local subsidiaries are managed via simple key data and financial ratios¹⁸⁶, since there are hardly any complicated harmonization processes necessary¹⁸⁷. The advantages of a formal integration of the subsidiary into the group are very limited¹⁸⁸.

The **normative integration** is probably relatively low as well. Rarely are high-ranking managers found to be working in an export department with intensive relationship to the management in the home country¹⁸⁹. Although the ethnocentric orientation assumes that socialized top managers will be transferred abroad, this refers only to the first level of leadership. Furthermore these managers frequently change their work place. Even the frequency of visits by headquarters personnel can assumed to be low. Therefore, the overall coordination intensity can be considered to be rather low for the first cluster¹⁹⁰.

¹⁸⁰ Magaziner, I.C./Reich, R.B., 1985, p. 8.

¹⁸¹ Cf. Bartlett, C.A./Ghoshal, S., 1990a, p. 32.

¹⁸² Cf. Kutschker, M./Schmid, S., 2004, p. 288.

¹⁸³ This has been derived from the explanations by Harzing, A.K., 1999, p. 39; Meffert, H., 1990, p. 105.

¹⁸⁴ Cf. Meffert, H., 1990, p. 101.

¹⁸⁵ Cf. Perlitz, M., 2000, p. 137.

¹⁸⁶ As to the basic types of international enterprise systems refer to Meffert, H., 1990, p. 105. Refer also to Bartlett, C.A./Ghoshal, S., 1990 and 2002. The derivation has been detailed further by Launer, M., 2004a, p. 78.

¹⁸⁷ Cf. Perlitz, M., 2000, pp. 137-138.

¹⁸⁸ Cf. Bartlett, C.A./Ghoshal, S., 1990, p. 74

¹⁸⁹ Cf. Meffert, H./Bolz, J., 1998.

¹⁹⁰ Refer to the explanations by Bartlett, C.A./Ghoshal, S., 1990, p. 76 and Harzing, A.K., 1999, p. 39.

The second orientation, the **polycentric business-culture**¹⁹¹ goes along with a strategy of **national adaptation**¹⁹² and is characterized by its far-reaching consideration and adaptation to local conditions of the respective host country. In practice, so-called regional area structures are set up¹⁹³. The purpose is to create a national image. Domestic leadership positions are mostly taken over by local managers to use their extensive knowledge of local market characteristics, expense-structures and legal norms¹⁹⁴. The parent company abdicates on optimizing individual national strategies on a group-level¹⁹⁵.

The coordination-intensity has to be rated higher than in the ethnocentric, export oriented approach, but in total it is still considered to be low¹⁹⁶. The group considers the subsidiaries as a portfolio of various local units. Thus the **degree of autonomy** of the individual subsidiary is relatively high¹⁹⁷. The local management teams are less connected with the headquarters and thus usually strive for more autonomy. The **degree of formalization** can be rated at low to medium¹⁹⁸. Usually simple financial controls or organizational handbooks are used for formal coordination¹⁹⁹. The integration in the host country is the priority. In contrast, there are only minor advantages to integrating the subsidiaries into the global system.

Normative integration is low as well²⁰⁰. Individual subsidiaries have rather little exchange relations between each other. In these cases, often single top managers are sent abroad, mainly responsible for controlling purposes. Mostly, this is limited to simple financial control. Thus only few managers are closely connected to the corporate headquarters. In extreme cases, the frequency of visits by headquarters personnel could be limited to one visit a year by a member of the board of management²⁰¹.

¹⁹¹ Cf. Meffert, H., 1990, p. 105

¹⁹² Cf. Scholl, R.F., 1989, col. 992.

¹⁹³ Cf. Meffert, H., 1990, p. 102.

¹⁹⁴ Cf. Perlitz, M., 2000, pp. 137-138.

¹⁹⁵ Cf. Welge, M.K., 1992, p. 570 f.

¹⁹⁶ Cf. Bartlett, C.A./Ghoshal, S., 1990, p. 74.

¹⁹⁷ Derived from the explanations by Kutschker, M./Schmid, S., 2004, pp. 283-289 and Harzing, A.K., 1999, p. 40.

¹⁹⁸ This was derived from the explanations by Meffert, H., 1990, p. 105.

¹⁹⁹ Cf. Bartlett, C.A./Ghoshal, S., 1990, p. 77.

²⁰⁰ This was derived from the explanations by Perlitz, M., 2000, pp. 137-138 and Meffert, H., 1990, p. 107.

²⁰¹ Cf. Perlitz, M., 2000, pp. 137-138.

A **geocentric business-culture**²⁰², connected with a **global strategy**²⁰³, global integration-strategy²⁰⁴ or strategy of global rationalization²⁰⁵, which became popular through Levitt (1983), addresses the worldwide formalization and standardization of structures, processes, systems and resources²⁰⁶. „The global competitor will seek constantly to standardize his offering everywhere (...). He will never assume that the customer is a king who knows his own wishes“²⁰⁷. The parent company does not consider itself rooted in any home country anymore but rather considers itself as a global enterprise. The historical origins in a particular country are more or less considered as a coincidence, not a home base.

A distinct **centralization of decision making** takes place to realize the advantages of standardization, especially in product-oriented worldwide organizational structures²⁰⁸. However, since the enterprise considers itself without a home base or belonging to any country of origin, the decisions are not necessarily centralized in the home country. Regional headquarters or other competence centers are possible which will develop in subsidiaries with the greatest know-how²⁰⁹. Thus the subsidiaries gain specialized, strategic roles²¹⁰.

Another characteristic is the extensive transfer of technology from the parent-company²¹¹. This leads to a high level of **formalization of policies and systems** because the transferred technologies have to be well documented and the processes have to be observed precisely²¹². Often the geocentric approach is used to occupy international market niches in a fast process. The fast penetration requires a formally coordinated and well-planned process²¹³.

²⁰² Cf. Meffert, H., 1990., p. 105.

²⁰³ Cf. Meffert, H./Bolz, J., 1998, p. 61.

²⁰⁴ Cf. Scholl, R.F., 1989, col. 991-992.

²⁰⁵ Cf. Welge, M.K., 1982a, pp. 171-189; Negandhi, A.R./Welge, M.K., 1984.

²⁰⁶ Cf. Meffert, H., 1990, p. 195.

²⁰⁷ Levitt, A., 1983, p. 94.

²⁰⁸ This has been derived from the explanations by Meffert, H., 1990, p. 101, and Perlitz, M., 2000, p. 138.

²⁰⁹ Cf. Forsgen, M./Holm, U./Johanson, J., 1995, pp. 475-491; Forsgen, M./Johanson, J., 1992, pp. 19-31; Kutschker, M./Schurig, A./Schmid, S., 2002b, pp. 224-245; Schmid, S., 2000a, pp. 182-204.

²¹⁰ Cf. Perlmutter, H., 1965, pp. 157-158; Perlmutter, H., 1969, pp. 13-14; Heenan, A./Perlmutter, H., 1979, pp. 20-21.

²¹¹ Cf. Perlitz, M., 2000, p. 138.

²¹² This has been derived from the explanations by Meffert, H., 1990, p. 104 and Bartlett, C.A./Ghoshal, S., 1990, p. 77 and Harzing, A.K., 1999, p. 40.

²¹³ Cf. Bartlett, C.A./Ghoshal, S., 1990, p. 77.

The **normative integration** of the employees can be considered high as well. Due to this globally intensive coordination strategy employees work closely together on a worldwide basis. Many corporations even create a worldwide spirit through a dedicated corporate identity-strategy²¹⁴. The overall intensity of coordination can be considered very high. A globally harmonized strategy requires global coordination through distinct coordination mechanisms.

The fourth approach, a **region-centric or synergetic business-culture** is connected with a **mixed strategy**²¹⁵, also called a dual, opportunistic²¹⁶ or multi-focus strategy²¹⁷. The main-characteristic of this orientation is the simultaneous utilization of cross-national differences, scale-effects and economies of scope.

The region-centric segment has not been researched well until now. There is no unified strategy according to which every subsidiary can be treated the same way globally. Each subsidiary represents an individual and is integrated into a specific regional concept. It has to be coordinated in accordance with its respective individual needs. The coordination-mechanisms are implemented case-by-case and according to the respective local situations²¹⁸. Therefore a general guideline for the coordination of subsidiaries cannot be derived. In this case the corporate strategy is to coordinate each subsidiary in differentiated ways. In any case, the intensity of coordination is very high. The more the corporate strategies and coordination mechanisms are differentiated, the higher the effort of implementation is²¹⁹. Figure 1 summarizes these thoughts²²⁰.

²¹⁴ This has been derived from the explanations by Perlitz, M., 2000, p. 138 and Kutschker, M./Schmid, S., 2004, p. 281 and Harzing, A.K., 1999, p. 40.

²¹⁵ The collected volumes by Porter, M.E., 1989a inform about the characteristics of transnational strategies; Welge, M.K., 1990; Lecraw, D.J./Morrison, A.J., 1993 also the monographs by Govindarajan, V./Gupta, A.K., 2002 and Yip, G.S., 2003.

²¹⁶ Cf. Meffert, H., 1986, p. 691 and Harzing, A.K., 1999, p. 41.

²¹⁷ Cf. Scholl, R.F., 1989, col. 992 f.

²¹⁸ This is derived from the explanations by Bartlett, C.A./Ghoshal, S., 1990, pp. 95-97; Harzing, A.K., 1999, pp. 40-41; Kutschker, M./Schmid, S., 2004, pp. 289-298.

²¹⁹ Cf. Bartlett, C.A./Ghoshal, S., 1990, pp. 95-97; Harzing, A.K., 1999, p. 41.

²²⁰ A detailed analysis can be found with Launer, M., 2004a, pp. 66-69.

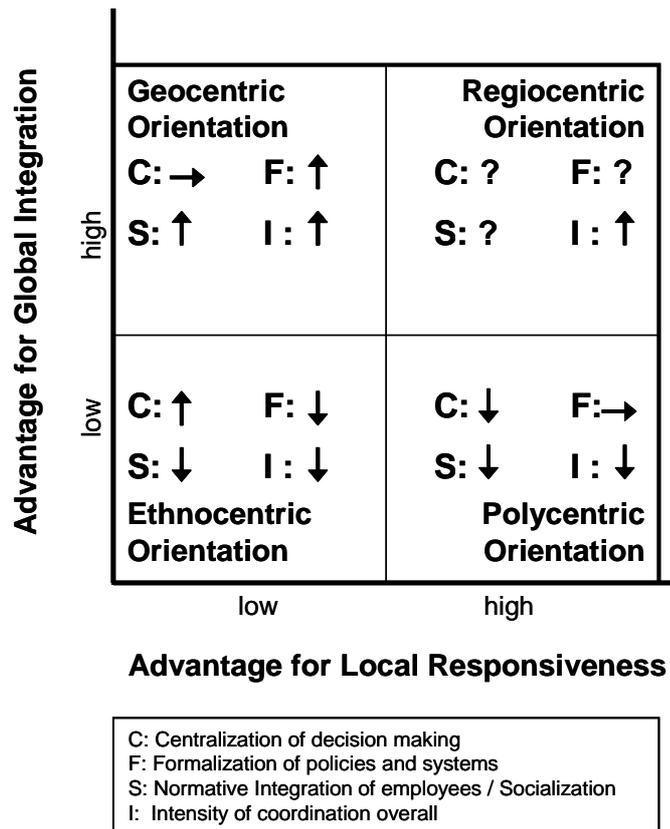


Figure 1: Development of coordination guidelines based on the extended EPRG-Scheme
Source: Launer, M., 2004a, p. 70, 81 and 85

First guidelines for an analysis of foreign subsidiaries and their coordination could be derived from the EPRG-Scheme on the group-level (Refer also to Appendix 11 and 12). Therefore the model will be further developed and calibrated in the pre-studies (1993-2000). Then it will be studied comprehensively in the follow-up study (2004). The following hypothesis-model will be put forward:

1. Model-Hypothesis: The EPRG-Scheme contains implicit statements regarding the coordination of foreign subsidiaries on a group-level. The EPRG-Model developed describes explicit coordination-statements for ethnocentric, polycentric, and geocentric enterprises, which can be applied successfully in case studies and in business practice.

To better understand the limitations of the model for the use later in the case studies and entrepreneurial practice the developed model will now be critically reflected.

3.1.3 Critical Reflections on the New Model

The EPRG-Scheme was examined extensively and modified for business purposes to derive a usable hypothesis. To make the model user friendly for **business applications**, it was expanded in regard to various business strategies, corporate cultures, and organizational structures, published separately²²¹. Initially the model did not allow explicit conclusions as to the coordination of subsidiaries since it was designed for that purpose. From the numerous literature sources however, the respective coordination strategies for different enterprise-approaches could be derived. The extended statements were theoretically substantiated and firmly supported²²².

However, the key problem of this approach is its dominant headquarters perspective²²³. The coordination model is not differentiated, because it does not treat the subsidiaries individually. The assumption is that all subsidiaries are treated equally on a worldwide basis. This perspective is especially problematic in business, because globally responsible managers want to reduce the complexity of international coordination requirements to one single denominator²²⁴. However, reality is not that simple and each subsidiary does represent an individual. The model therefore can only be used on a group-level.

The use of the model is scientifically not solid underpinned since it is still not empirically proven. The geocentric orientation has been criticized extensively as well. The most critical point remains the lack of explanations as to the region-centric category²²⁵. Perlmutter also never tested his results with questionnaires. That makes it difficult to operationalize the theory into an analysis-instrument. However, the model provides useful and basic orientation patterns, which could be used in further developed theories or in connection to other theories²²⁶. Even if the statements regarding the individual coordination mechanisms could not be confirmed, they nevertheless provide useful guidelines for the fundamental orientation of multinationals.

²²¹ Refer also to Launer, M., 2004c, pp. 60-90.

²²² Refer to literature evaluation of Launer, M. 2004a, pp. 60-90. Cf. Bartlet, C.A./Ghoshal, S., 1990, pp. 56-98; Meffert, M., 1990, pp. 97-112; Perlitz, M., 2000, pp. 137-141; Harzing, A.K., 1999, pp. 31-47; Kutschker, M./Schmid, S., 2004, pp. 278-301.

²²³ Cf. Kutschker, M./Schmid, S., 2004, p. 286.

²²⁴ Expert-interviews.

²²⁵ Cf. Kutschker, M./Schmid, S., 2004, pp. 283-289.

²²⁶ Refer to the concept of Requisite Complexity von Nohria, N./Ghoshal, S., 1997, pp. 173-192.

3.2 Individual Coordination Strategies determined by the Context-Structure - a Contingency Approach

3.2.1 Introduction and Discussion of the Approach

After introducing one of the oldest approaches describing coordination on a group-level - which did not yet differentiate the coordination-mechanisms - now the research approaches from the 60s and 70s will be addressed. In particular, the representatives applying the situational approach²²⁷ or the **contingency approach**²²⁸ have carried out numerous empirical analyses within the so-called comparative theory of organizations. In this approach individual coordination mechanisms are examined in correlation to different environments²²⁹ and business conditions. Up to this day, this method is the most widely applied research approach in organization theory²³⁰. The established “if-then” relations can be of good help to derive recommendations in business practice.

According to Lawrence and Lorsch (1967) and Thompson (1967) corporations should differentiate their structures depending on **different environmental conditions** they face. The authors include in their classification specifically formal structural arrangements as well as formal and informal management processes. Subsequently numerous authors studied situational factors, but the results show many discrepancies and even partially contradict each other. Therefore it has to be examined which situational factors should be used in a future analysis of the differentiated coordination.

The size of a subsidiary was subject of numerous situational studies, especially concerning centralization. While some scientist found a negative influence of the size of an affiliate on centralization²³¹, others could disprove this finding by showing a positive influence²³², or they reported mixed²³³ or insignificant²³⁴ results. Also, no definite relation could be proven between the age of a subsidiary and the coordination-

²²⁷ The Situational Approach has been shaped especially by the works of the Aston-Group around Derek Pugh. It is based on the fundamental assumption, that organizations must adapt their structures to the respective situation in order to be efficient. The situation of an organization is determined by external and internal factors. Cf. Kieser, A., 1992, pp. 161-164. For a detailed depiction of the situational approach and its history of coming into existence refer to Kieser, A., 1992, pp. 161-191.

²²⁸ Cf. Schreyögg, G., 1978; Zeithamel, V./Varadarajan, R.P./Zeithamel, C.P., 1988, pp. 37-63.

²²⁹ Cf. Dülfer, E., 1981, pp. 1-44; 1989, pp. 2097-2111..

²³⁰ Cf. Kieser, A./Kubicek, H., 1992, p. 46.

²³¹ Cf. Cray, D., 1984, pp. 85-99; Hedlund, G., 1981, pp. 25-78; Picard, J., 1979.

²³² Cf. Halsberghe, E./Van de Bulcke, 1982, pp. 20-50.

²³³ Cf. Gates, S.R./Egelhoff, W.G., 1986, pp. 71-92;

²³⁴ Cf. Goehle, D.G., 1980 and Garnier, G., 1982, pp. 893-908.

mechanisms. While some researchers documented a negative relation²³⁵, others gained insignificant results²³⁶ or they could prove that no relation exists²³⁷. The same applies to **uncertainties in local markets**. The results in relation to centralization have been partly negative²³⁸, insignificant²³⁹ or did not show a systematic relation²⁴⁰. The studies examining the cultural distance of subsidiaries to the corporate headquarters have so far not produced any interesting results²⁴¹.

However, Nohria and Ghoshal (1997) found significant and convincing results in their comprehensive study **differentiating the coordination** of foreign subsidiaries. Accordingly it can be considered as proven that the environmental complexity and the resource level of a subsidiary correlate significantly with each coordination mechanism²⁴². In the following these two variables shall be theoretically supported and then firmly studied empirically.

3.2.2 Coordination in Dependence of the Resource Levels of Subsidiaries

First, the internal circumstances of a company will be analyzed. For the headquarters large subsidiaries represent a higher investment risk than small ones²⁴³. On the other hand they contribute considerably to the total turnover, and often play a strategic role within the group²⁴⁴. However, with an increasing resources level their interests can diverge from those of the parent company²⁴⁵. Since the parent company depends on its **local resources**²⁴⁶, it surely will cause conflict situations and severe negotiations²⁴⁷. The larger a particular subsidiary is, the lower the effectiveness of coordination becomes by the parent company due to the autonomy sought by the subsidiary²⁴⁸.

²³⁵ Cf. Gates, S.R./Egelhoff, W.G., 1986, pp. 71-92; Hoffmann, R.C., 1988, pp. 41-55; Youssef, S.M., 1975, pp. 136-145; Halsberghe, E./Van de Bulcke, 1982, pp. 20-50; Wolf, J., 1994, pp. 893-908; Goehle, D.G., 1980; Picard, J., 1979.

²³⁶ Cf. Garnier, G., 1982, pp. 893-908; Goehle, D.G., 1980; Picard, J., 1979.

²³⁷ Cf. Harzing, A.K., 1999, p. 291.

²³⁸ Cf. Hedlund, G., 1981, pp. 25-78 and Gates, S.R./Egelhoff, W.G., 1986, pp. 71-92 in relation to competition-intensive circumstances.

²³⁹ Cf. Baliga, B.R./Jaeger, A.M., 1984, pp. 25-40; Neghandi, A.R., 1987; Quester, P.G./Conduit, J., 1996, pp. 395-421.

²⁴⁰ Cf. Harzing, A.K., 1999, p. 297.

²⁴¹ As to the describing and unconvincing studies refer to Baliga, B.R./Jaeger, A.M., 1984, pp. 25-40 and Rosenzweig, P.M./Singh, J.V., 1991, pp. 340-361. Auch Harzing, A.K., 1999, pp. 297-298 produces unimpressive results.

²⁴² Cf. Nohria, N./Ghoshal, S., 1997, p. 106.

²⁴³ Cf. Alsegg, R.J., 1971, pp. 99-100; Bamberger, I./Wrona, T., 1996a, pp. 386-391 and 1996b, 130-153; Grant, R.M., 1991, pp. 114-135.

²⁴⁴ Cf. Roccoeur, J.L., 1966, p. 15; Raschke, U./Wolfrum, B., 1994, pp. 501-517.

²⁴⁵ Cf. Barney, J.B., 1991, pp. 99-120; Makodok, R., 2001, pp. 387-401.

²⁴⁶ Cf. Prahalad, C.K./Doz, Y.L., 1981, pp. 6-9; Wernerfeldt, B., 1984, pp. 171-180.

²⁴⁷ Cf. Schmidt, S.M./Kochan, T.A., 1977, p. 220.

²⁴⁸ Cf. Roccoeur, J.L., 1966, p. 155.

For the parent company various degrees of dependence result from the varying resources levels of the subsidiaries, which are depicted in the Resource-Dependence-Approach by Pfeffer and Salancik (1978) and Pfeffer (1981). The authors „ ... have shown that organizational processes are dependent on internal **power relationships** which, in turn, are critically contingent upon the internal of organizational resources“²⁴⁹. The multinationals therefore have to differentiate their organizational processes in accordance with the varying resources levels of its subsidiaries²⁵⁰.

Large subsidiaries, representing a high level of technology, capital and management abilities, strive for high autonomy and tend to reject the **centralization of decisions**²⁵¹. They will try to use their resources for their own local interests. Especially high growth subsidiaries accumulating enormous resources, established or acquired at at earlier times when international coordination was still difficult, tend to show autonomous behavior. This statement is similar to the results shown in the studies by Alsegg (1971) and Hedlund (1980). In the empirical study of Ghoshal and Nohria (1989), concerning the concept of international differentiation, it was shown as well that successful subsidiaries with growing resources levels have to be managed more autonomously than smaller subsidiaries. „The subsidiary represents a pool of rich resources in an overall resource distribution that cannot be altered at will, and indeed tends to persist over time“²⁵². The results by Gates and Egelhoff (1986), however, disproved that centralization correlates negatively with the size of the subsidiary²⁵³, But in their approach the size of the subsidiaries was not sufficiently described in depth. Putting these arguments together the following hypothesis may be advanced:

1st Situational Hypothesis: The centralization of decision making is negatively correlated with the resource levels of subsidiaries.

The second coordination mechanism, the **formalization of policies and systems**, can prevent conflicts by routinization and impersonal ways of decision making in affiliates with high resource levels, as has been studied by Hedlund (1980, 1981). Therefore multinationals will try to implement their technocratic coordination mechanisms

²⁴⁹ Ghoshal, S./Nohria, N., 1989, p. 324.

²⁵⁰ Cf. Nohria, N./Ghoshal, S., 1997, pp. 94-105.

²⁵¹ Cf. Alsegg, R.J., 1971, pp. 99-100; Roccour, J.L., 1966, p. 15.

²⁵² Ghoshal, S./Nohria, N., 1989, p. 325.

²⁵³ Cf. Gates, S.R./Egelhoff, W.G., 1986, pp. 75-97.

especially in large subsidiaries²⁵⁴. Welge (1981) found as well that large subsidiaries²⁵⁵ of German multinationals show a high intensity of structural coordination and a high degree of planning activities. In his view, large subsidiaries are managed much more bureaucratically²⁵⁶. Nohria and Ghoshal (1997) too, prove the positive correlation between the resources level and formalization. Based on these findings the 2nd Situational Hypothesis can be stated:

2nd Situational Hypothesis: Formalization of policies and systems correlates positively with the resource levels of subsidiaries.

According to Van Maanen and Schein (1979) as well as Ouchi (1980), **socialization** of employees minimizes conflicts in multinational enterprises. Walton and McKersie (1965) show in particular that socialization leads to a reduction of conflicts between parent and subsidiary, especially during negotiations. Ghoshal and Nohria (1989) confirm the connection between resource levels of successful subsidiaries and the use of socialization processes empirically²⁵⁷. Therefore the 3rd Situational Hypothesis is:

3rd Situational Hypothesis: Socialization of employees through normative integration correlates positively with the resource level of subsidiaries.

In summary, this is the first approach – if the hypotheses are confirmed – that will provide recommendations for operations on subsidiary level. The described construct concerning the level of resources in subsidiaries in relation to the coordination mechanism appears to be very solid. The influence of the resources levels will therefore be examined more in depth in the empirical study.

²⁵⁴ Cf. Kieser, A./Kubicek, H., 1992, p. 306.

²⁵⁵ The size of subsidiaries was measured by the turnover. The tendency however can be recognized in relation to the number of employees.

²⁵⁶ Cf. Welge, M.K., 1980; Welge, M.K., 1981, pp. 65-68 and the quoted.

²⁵⁷ This is shown by the significant co-relational coefficient ($p < 0,001$) of 0,51 between the variables „local resources“ and „socialization“ in the study by Ghoshal, S./Nohria, N., 1989, p. 331, table 2. This stands in contradiction to the results by Kenters, who could not establish the connection between the size of the subsidiary and the socialization. The turnover and the number of employees do not appear as operational. Cf. Kenter, M. 1985, pp. 285-287.

3.2.3 Coordination of Subsidiaries in Relation to the Environmental Complexity

The second situational variable is the environmental complexity of local markets²⁵⁸. It has been well established by authors such as Thompson (1967) and Lawrence and Lorsch (1967a) that the structures of successful organizations, in which they include formal structural arrangements as well as formal and informal management processes, are and should be differentiated according to the characteristics of the external environment they face. According to Lawrence and Dyer (1983) the complexity of the environment can be operationalized with the two variables **technological dynamism and competition**²⁵⁹. The increasing complexity of the international environment results in a stronger interdependence between the parent company and its subsidiaries as well as an increased mutual vulnerability²⁶⁰. „Imperfect knowledge and fluctuations in the environment induce both the headquarters and the subsidiary to engage in reciprocal exchange relationships to make the realization of even independently disparate goals more predictable over time”²⁶¹.

In high dynamic and complex situations the level of uncertainty increases in such a way that hierarchical coordination mechanisms will be overstrained. Thus the quality of the decisions that have to be made will suffer, especially if they are made from far distance²⁶². Therefore, **centralization** appears inadequate²⁶³. If market conditions in a certain country change rapidly, the subsidiary must be able to make decisions quickly to maintain its competitiveness. Inquiries to the headquarters and complicated approval procedures would slow down the adaptability of the subsidiary. Local managers, in contrast to the managers in the headquarters, have the advantage to better understand the local market conditions. Especially in a dynamic environment with continuously changing circumstances the local management has faster access to local knowledge than the parent company.

Ghoshal and Nohria (1989) found that centralization correlates negatively with the increase of environmental complexity. The results by Gates and Egelhoff (1986),

²⁵⁸ Cf. Bronner, R., 1992, pp. 1121-1130; Mahini, A., 1990, pp. 27-35.

²⁵⁹ Concerning the dimension and registration of complexity and dynamic of environments refer to Kieser, A./Kubicek, H., 1992, pp. 366-376.

²⁶⁰ Cf. Ghoshal, S./Nohria, 1989, p. 325.

²⁶¹ Ghoshal, S./Nohria, N., 1989, p. 325.

²⁶² Cf. Galbraith, J., 1973, and Ouchi, W.G., 1980, p. 139.

²⁶³ Cf. Sullivan, D., 1994, pp. 325-342.

however, disproved that centralization correlates negatively with the speed of product innovations and the competitive climate change²⁶⁴. The matter therefore should be examined again. The 4th Situational Hypothesis therefore is:

4th Situational Hypothesis: Centralization of decision making correlates negatively with increasing environmental complexity.

The extent of the **formalization** in relation to the environmental complexity has not been completely resolved in the literature. However, it seems to be clear that subsidiaries in dynamic and complex environments should not be bothered with administrative processes. Nohria and Ghoshal (1989, 1997), however, could not confirm this hypothesis in their empirical study²⁶⁵. It rather seems that formalization increases with an increasing environmental complexity. That makes sense since many decisions that have to be made quickly in a dynamic environment need to have a mutual decision basis aligned with the headquarters. Subsidiary managers can rely on established rules and decision-making procedures. That also legitimizes their decisions at a higher management level. From the headquarters point of view autonomous actions of local managers will be restricted. At the same time, a better coordination will be achieved without the headquarters having to decide itself. Therefore, the

5th Situational Hypothesis is: Formalization of policies and systems correlates positively with environmental complexity.

In a complex environment, corporate culture or the **socialization of employees** appears to be the most suitable mechanism for the coordination of business activities. The study by Burns and Stalker (1961) already indicated²⁶⁶ that with increasing dynamism corporations tend to move from mechanical or hierarchical structures²⁶⁷ towards so-called organic organizational forms²⁶⁸.

²⁶⁴ Cf. Gates, S.R./Egelhoff, W.G., 1986, pp. 75-97.

²⁶⁵ Refer to the comments made by Nohria, N./Ghoshal, S., 1997, pp. 108. They tried to explain the positive correlation between formalization and environmental complexity in detail.

²⁶⁶ Since the data basis of this study is limited to single case studies the results are purely of theoretical nature. Cf. Lehnert, S. 1983, pp. 129.

²⁶⁷ Cf. Burns, T./Stalker, G.M., 1961, pp. 79-122.

²⁶⁸ The organic system is characterized by a high complexity. Individual organizations are taken into account by the structure of their tasks. There is a limited formalization and hierarchy. Job descriptions are wide open and decision making is decentralized. There is a structure based on horizontal, lateral, and vertical information channels. Cf. Burns, T./Stalker, G.M., 1961, pp. 122.

Khandwalla (1975) found in his study as well a correlation between experienced uncertainty regarding the environment²⁶⁹ and organizational variables²⁷⁰. In times of uncertainty, successful corporations implemented a participative management style on all levels, a more decentralization organization, and the absence of developed control mechanisms²⁷¹. The use of **technocratic coordination mechanisms** as a guideline should be limited especially in situations of complex environments because they are to a high degree resistant to change and do not provide the necessary flexibility²⁷². The results provided by Ghoshal and Nohria (1989) confirm on the basis of successful individual subsidiaries the correlation between environmental complexity and the use of socialization²⁷³. A high relative rate of product and process innovation, manifested by technological dynamism, correlates significantly with the implementation of socialization processes²⁷⁴. Putting these arguments together, it may be hypothesized:

6th Situational Hypothesis: Socialization of employees through normative integration is positively correlated with the environmental complexity.

Describing the environment of subsidiaries via the environment-complexity has produced already some success in sciences. The construct can be described well and analyzed through competition intensity. This will be further researched in depths.

3.2.4 Critical Reflections on the Situational Approach

The situational approaches differentiate the use of coordination mechanisms individually by subsidiary. However, they do not yet provide a comprehensive approach, because they do not consider the different coordination mechanisms in combination. Since they are widely recognized in coordination theory, they should not be dismissed. Furthermore, the findings are the basis for advanced theories²⁷⁵.

²⁶⁹ The origins lie with the ignorance about developments in the environment (Information-defect) and result from actions (Evaluation-defect), or one does not know what to do (Reaction-defect). Cf. Lehnert, S., 1983, p. 150.

²⁷⁰ Cf. Khandwalla, P.N., 1975, p. 150.

²⁷¹ Cf. Lehnert, S., 1983, p. 152.

²⁷² Cf. Kieser, A./Kubicek, H., 1992, p. 287.

²⁷³ The significant correlation-coefficient shows this ($p < 0,001$) from 0,26 between the variables "environmental complexity" and "socialization" in the study by Ghoshal, S./Nohria, N., 1989, p. 331, Table 2..

²⁷⁴ This has to be concluded by the lower correlation-coefficient 0,8 ($p < 0,001$) between the variables "competition" and "socialization". Cf. Ghoshal, S./Nohria, N., 1989, p. 331, table 2.

²⁷⁵ Refer to Nohria, N./Ghoshal, S., 1997, pp. 93-112 and pp. 173-190.

The models presented so far do not consider **transaction costs**, which occur by implementing coordination mechanisms. The interaction of the different mechanisms is not observed either. It seems like even a higher number of empirical analyses cannot describe the optimal coordination sufficiently. This is so due to the fundamental approach. Most of these models are of descriptive nature and observe pure facts of reality. To validate normative statements, successful enterprises are compared with less successful ones. This approach is based on the assumption that successful enterprises have implemented the right form of coordination for their subsidiaries. This deterministic causal inference is frequently criticized in theory and practice²⁷⁶.

But the main point of criticism seems to be that the **optimal level of coordination** is located between two extreme poles on a continuum between high and low. But none of the models describes sufficiently where the optimum is located on the continuum and how it can be achieved. Additionally, over the last years alternative solutions to the traditional coordination have been discovered. For example, regional headquarters have been established in business practice. This is a move away from the construct of a corporate headquarters. Latest developments in business cannot be described anymore with the existing models and empirical findings. Moreover, they can even less provide recommendations for action in professional environments.

Additionally there is the fundamental **problem of causality** in contingency models. The cause and effect context has been definitely resolved. The established “if-then-relations“ are purely descriptive and have only limited power of prediction. To determine a specific situation precisely there is also an identification problem.. Important criteria for the content and the power of prediction are precision as well as volume, quantity and quality of assumptions for the description of a given situation²⁷⁷. Contingency-theoretical approaches assume dependent and independent variables, although dependence in social systems is difficult to prove²⁷⁸. In addition, the influence of the local culture is not taken into account²⁷⁹. Therefore, an extended and comprehensive perspective of the differentiated coordination in multinationals may be needed.

²⁷⁶ Cf. Kieser, A./Kubicek, H., 1992, pp. 45-59.

²⁷⁷ Cf. Lehnert, S., 1983, pp. 169-186.

²⁷⁸ Cf. Stähle, W., 1981, pp. 215-226.

²⁷⁹ Cf. Kieser, A./Kubicek, H., 1992, p. 285.

3.3 Differentiated Coordination of Individual Subsidiaries in Theory Internal Differentiation

3.3.1 Introduction and Discussion of the Theory

The Theory of Internal Differentiation, which is part of the book *Differentiated Networks* by Nohria and Ghoshal (1991, 1997), tries to open up new ways in describing the coordination of foreign subsidiaries in multinationals²⁸⁰. It seems that the attempt has been successful to study three coordination-mechanisms in combination, to integrate the latest theoretical findings regarding coordination, and to take the transaction costs into consideration at the same time. According to Drazin and van de Ven (1985) the authors argue that for a more complete **contingency theory** it is necessary to consider the context structure relationships more comprehensively and to explore the influences simultaneously.

The authors show in a broad empirical analysis how successful multinationals can optimize the implementation of the control mechanisms centralization, formalization, and normative integration in different context structures²⁸¹. With the **context factors** “resources level of subsidiaries” and the “complexity of local markets” a four-field-portfolio is set up. The differentiated implementation of the coordination is described for each cluster in detail²⁸². It also shows, that the findings of the situational approaches presented before, cannot simply be transferred into an integrated contingency framework. According to Thompson's norm (1967 a) of „administrative rationality“, the most efficient coordination is not necessarily the addition of one-dimensional findings in coordination mechanisms. An enterprise with a limited amount of resources available has to carefully manage the quantity of coordination efforts. Therefore it has to evaluate in each individual case which mechanism should be used to integrate a subsidiary into the group structure. Now the various **combinations of coordination mechanisms** will be introduced in such a way that they will be applicable in scientific case studies as well as in and in business practice.

²⁸⁰ Cf. Harzing, A.K., 1999, pp. 105-106; Eccles, R.G./Nohria, N., 1991; Ghoshal, S./Nohria, N., 1989, pp. 323-337; Ghoshal, S./Westney, E.D., 1993, pp. 1-23.

²⁸¹ The concept of differentiation is mainly based on the studies by Blau and Schönherr, 1971, Lawrence and Lorsch, 1967b, as well as by Lawrence and Dyer, 1983. Cf. Hamilton, R.D./Kashlak, R.J., 1999, pp. 167-189; Hamilton, R.D./Taylor, V./Kashlak, R.J., 1996, pp. 857-868; Ghoshal, S./Moran, P./Almeida-Costa, 1995, pp. 748-759; Bartlett, C.A./Ghoshal, S., 1990, p. 269, foot notes 2 to chapter 4.

²⁸² Lawrence and Dyer, 1983 have already described the synthesis of these two viewpoints for national enterprises. They treat the whole organizational unit as analysis-unit and describe different environmental situations in accordance with their industrial context and with the scarcity of resources.

3.3.2 Application of the Theory to the Entrepreneurial Practice

By using the two variables environmental complexity of local markets (operationalized by the intensity of competition and the relative rate of product innovations) and resource level of the subsidiaries a portfolio with four fields is created. Each cluster represents a unique situation in which the coordination mechanisms are combined in a unique way²⁸³. The four clusters will now be introduced individually:

The **hierarchical structure** is appropriate for subsidiaries facing low environmental complexities and a low level of resources. The theoretical basis for this situation can be found in Williamson (1975). In environments with low complexity the main focus is on limiting transaction costs. Formalization and normative integration provide only little advantages in this situation, and their cost-intensive implementation cannot be justified. However, low resources of the subsidiary and the low complexity of the market easily allow the centralization of decision making²⁸⁴.

The second cluster describing a **federative structure** is adequate in subsidiaries with high of level of resources and facing a low environmental complexity. Provan (1983) described this situation in more detail and called it the „United Way“²⁸⁵. It is often found in older subsidiaries, which over the course of time have achieved a high level of resources through accumulation. The group depends on the performance of these subsidiaries, because they represent an accumulation of critical resources. Thus, higher costs are justified in the implementation of more complex coordination mechanisms. Centralization is not recommended because the subsidiary does not want its autonomy reduced. It would lead to conflict situations between the parent company and its affiliate. Normative Integration would be a waste of administrative resources because these interdependences in these situations will be limited. Finally, formalization is the appropriate mechanism in this situation. It facilitates the exchange between the parent company and the subsidiary, and through a precisely defined set of rules and procedures, it will serve as control mechanism for the subsidiary²⁸⁶.

²⁸³ Cf. Nohria, N./Ghoshal, S., 1997, pp. 97-111. Refer also to the summary by Harzing, A.K., 1999, p. 106.

²⁸⁴ Refer to the studies by Aston Group. Cf. Pugh, D.S./Hickson, D.J./Hinings, C.R./Turner, C., 1969, pp. 91-114 and Pugh, D.S./Hickson, D.J./Turner, C., 1968, p. 65-105.

²⁸⁵ In the explanations by Provan, K.G., 1983, pp. 79-89, certain parallels can be found.

²⁸⁶ Refer also to Hedlund, G., 1980, pp. 23-36; Burgelman, R.A., 1983, pp. 61-70.

A high level of resources and high environmental complexity is characteristic for subsidiaries with an **integrative structure**, which Kanter (1983) has described in more detail²⁸⁷. Here, centralization does not make sense either because it would result in frustrations of managers in highly competent subsidiaries. Although formalization is desirable it would lead to unnecessary, inflexible structures and would limit the reaction time for the subsidiary to adapt to complex and highly dynamic environments. However, in the empirical analysis carried out by the authors an unexpected phenomenon occurred. Formalization was even used in situations of high environmental complexity even more intensively²⁸⁸. This was partially in contrast to their assumptions. For a pragmatic business model, this phenomenon and has to be taken into consideration. Normative Integration, although very cost-intensive, is the appropriate mechanism in this situation. The shared values provide coordination of the subsidiary according to the headquarters' interest, and provides at the same time the necessary flexibility and adaptability²⁸⁹.

The fourth cluster describes the case of high environmental complexity and low resource levels called the **structure of clans**. This structure is described according to Ouchi (1980). In this situation subsidiaries are often very young or their resource level could not keep up with external developments. Centralization can be applied because the subsidiary depends on the parent company due to its low resource level. Formalization – as is the case with the integrative structure – is not recommended, because it will make the subsidiary inflexible in the dynamic environment. Normative Integration is extremely important because it makes the coordination of resources with the parent company easier for both²⁹⁰. Figure 2 summarizes the results graphically.

²⁸⁷ Kanter, R.M., 1983, describes this situation as well.

²⁸⁸ Refer also to Hedlund, G., 1980, pp. 23-36; Burgelman, R.A., 1983, pp. 61-70.

²⁸⁹ Cf. Van Maanen, J./Schein, E.H., 1979; Walton, R.E./McKersie, R.B., 1965; Ouchi, W.G., 1980, pp. 129-141.

²⁹⁰ Cf. Ghoshal, S./Nohria, N., 1989, pp. 327-329; van Maanen, J./Schein, E.H., 1979; Walton, R.E./McKersie, R.B., 1965; Ouchi, W.G., 1980, pp. 129-141.

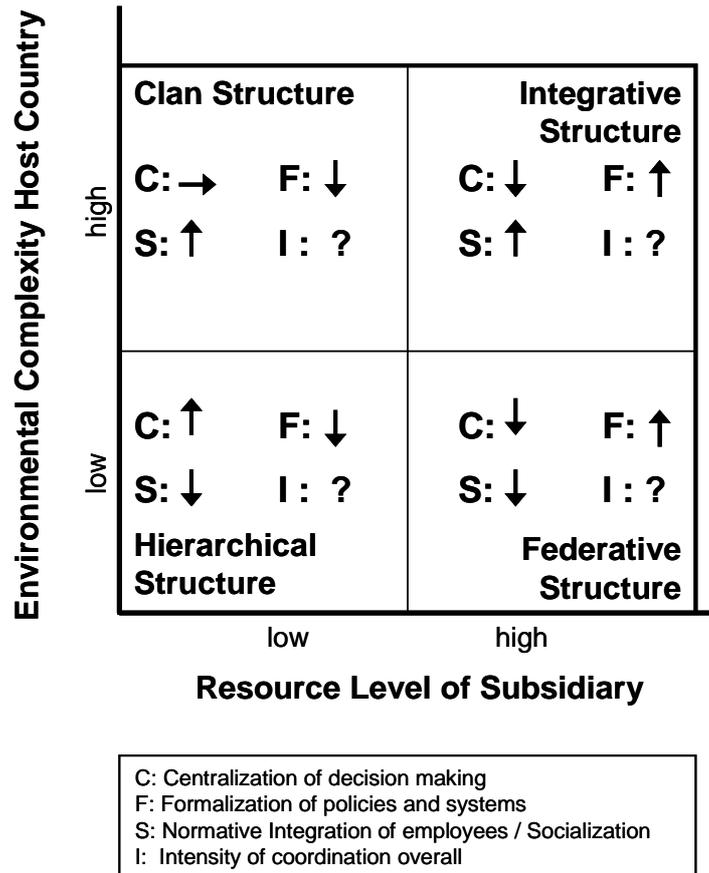


Figure 2: Different coordination strategies according to the concept of Internal Differentiation
Source: Own graphic accordance to Nohria, N./Ghoshal, S., 1997, p. 103

The presentation shows that the model comprises all findings simultaneously and the comprehensive coordination of foreign subsidiaries is constituted in a differentiated and more holistic way. Therefore, the model will be further developed and calibrated in the pre-studies (1993-2000) before its final application in business practice. Then it will be empirically and comprehensively applied in the 2004 study. Therefore the following model-hypothesis is drawn-up:

2nd Model-Hypothesis: The theory of Internal Differentiation provides statements for the coordination of individual subsidiaries. The developed model, as shown in Figure 2, describes combinations of coordination mechanisms, which can be applied to scientific case studies and in business practice.

3.3.3 Critical Reflections on the Developed Model

The **recommendations**, which can be derived from the model of Internal Differentiation, should not be considered without critical reflection. The empirical study is based on the subjective evaluation of two managers of the respective company (**key informant approach**)²⁹¹. This approach is in theory and in particular in practice very critical. Moreover, it only evaluates the relative differences between the individual subsidiaries²⁹². In absolute terms it provides therefore only a limited assessment²⁹³. Nevertheless it provides clear guidelines for business practice and contributes to a better understanding of the different environmental demands in multinational enterprises. It thus provides a frame of orientation for the differentiated coordination of subsidiaries²⁹⁴.

The **causality-problem** of contingency theoretical approaches is also raised here (refer to chapter 3.1.3.). Even when the If-Then-relationships are theoretically underpinned there is always the question of cause and observation. The authors' however, describe the different situations in terms of transaction costs. That makes the model more solid since the **transaction-cost model** is theoretically sound. The question is as well as to whether the underpinning of the **portfolio with the two situational variables** "level of resources" and "environmental complexity" is solid. The approach was alright for the data-set used in that specific sample. However, it is not widely accepted or proven again.

Still it is implied that all multinationals have to coordinate their subsidiaries by following the exact same model. How could multinationals gain competitive advantages if there would be one model to follow to success? The fact is neglected that different orientation models exist, such as ethno-, poly- and geocentric approaches, and/or different strategic orientations such as international, multi-domestic, global, and transnational. The following approach will integrate these dimensions and therefore make the theory more flexible.

²⁹¹ Concerning the problems of the "key informant" approaches refer to Harzing, A.K., 1999, p. 183.

²⁹² The authors do not measure with their questionnaire the absolute shape of the coordination instruments, but they make a relative comparison between different countries. Refer to the questionnaire in the Appendix.

²⁹³ Cf. Ghoshal, S./Nohria, N., 1989, pp. 333-335.

²⁹⁴ Cf. Harzing, A.K., 1999, pp. 94-110.

However, Ghoshal provides a more holistic model of coordination. He researched all three coordination mechanisms simultaneously to provide the full picture of coordination. With that he is able to describe and incorporate the interactions and influences of the coordination mechanisms among themselves. The problem of the key informant approach is somewhat weakened since the author performed a broad and intensive initial study with extensive interviews. Therefore, the broad sample and statistical analysis is to prove the theory not create it.

3.4 Differentiated Coordination on Group-level with the Theory Requisite Complexity

3.4.1 Introduction and Discussion of the Theory

Nohria and Ghoshal (1997) not only dealt with the coordination of individual subsidiaries (Internal Differentiation) in their book **Differentiated Networks**. They also expanded their findings in several aspects and brought them forward to the group-level. The expanded approach of the „Requisite Complexity“ assumes that traditional structural dimensions – such as product- and area-organization, functional and integrated structures²⁹⁵ - are not sufficient anymore to the construction of a competitive structure. They rather consider the description of the parent-subsidiary-relationship in multinational enterprises as the adequate description of worldwide corporate structures²⁹⁶.

The new concept is based on the theory of Internal Differentiation, and thus is founded on the Global Integration – Local Responsiveness framework by Prahalad and Doz (1987). In the empirical study it could be proven that on a group-level multinationals show different coordination patterns which depended on the two dimensions of global integration and local adaptation.

Some enterprises only use one **integrating coordination mechanism** worldwide, centralization, formalization, or normative integration. Other companies combine two or three mechanisms for the worldwide coordination, and others use all three as dominant coordination mechanisms simultaneously. And some multinationals differentiate the use of coordination mechanisms depending on different environmental conditions and the resource levels of their subsidiaries.

Using Lawrence and Lorsch's (1967) dimensions of differentiation and integration to describe the corporate and coordination structure, **four different structural models** are developed. Each is assigned to a different environmental condition²⁹⁷. For the use in case studies and business practice they will be depicted individually.

²⁹⁵ Cf. Stopford, J.M./Wells, L.T., 1972.

²⁹⁶ Nohria, N./Ghoshal, S., 1997, pp. 173-179.

²⁹⁷ Cf. Nohria, N./Ghoshal, S., 1997, pp. 173-179.

3.4.2 Application of the Theory to the Entrepreneurial Practice

Guided by **Ashby's Principles**²⁹⁸ the complexity of a corporate structure should correspond with the complexity of the external environment. To transform this principle, two new types of coordination structures are defined, which are derived from different combinations of coordination mechanisms:

- 1) **Structural Differentiation**: The coordination mechanisms are coordinated individually for each subsidiary according to the Internal Differentiation approach.
- 2) **Structural Integration**: At least one coordination mechanism is dominant, and it has a worldwide integrating effect on all subsidiaries.

Appendix 14 provides a graphic depiction of the different possibilities. In the next step, the various possibilities of combinations in defined types of coordination structures will be described. The approach is based again on the portfolio „national responsiveness versus global integration“ describing a **four-fields-portfolio**, into which multinationals can be categorized. Since these coordination-types are new they will be explained individually²⁹⁹.

In the first organizational structure „**Ad Hoc Variation**“ no worldwide dominant integration mechanism exists. Decisions are neither centralized, nor is there a strong basis of formalization or normative integration by shared values. The coordination mechanisms are hardly differentiated between the subsidiaries. In general, there is a lack of an organizational logic.

As to the „**Structural Uniformity**“ the coordination mechanisms centralization, formalization, and socialization aren't differentiated among subsidiaries as well. But there is a dominant mechanism or a certain combination by which all subsidiaries are coordinated worldwide on an equal basis. Through this there is a prominent global integration. National differences faced by the subsidiary are hardly taken into consideration. It is assumed that this corporate structure has been used in companies which

²⁹⁸ Refer also to the theory of cybernetics by Ashby, W.R., 1961.
²⁹⁹ Nohria, N./Ghoshal, S., 1997, pp. 180-183.

had to expand quickly to a worldwide level. Managers in the headquarters needed a dominant coordination mechanism to make the worldwide expansion controllable.

In the third structure, the „**Differentiated Fit**“, the local environments of each subsidiary are taken into consideration. Each relationship between headquarters and subsidiary is unique, and the management processes in the enterprise are strongly differentiated. The coordination mechanisms centralization, formalization, and socialization are applied according to the specific needs and environmental conditions. However, there is not one particular dominant and globally used coordination mechanism. A worldwide integration mechanism is hardly needed because each subsidiary operates in its own environment, and activities are not harmonized among affiliates in other countries. The costs of such a complex and differentiated structure are necessary in this environment to satisfy all needs and demands within the corporate network.

The development of a „**Differentiated Network**“ is the ultimate organizational form. The coordination mechanisms centralization, formalization, and normative integration are differentiated according to the environment of each subsidiary. The company adapts to each local environment. Additionally, a worldwide integrative coordination mechanism exists, which in contrast to the other mechanisms is more prominent. This allows a simultaneous global integration to coordinate activities uniformly on a worldwide basis.

The overview in Appendix 15 portrays the four coordination types in a portfolio. The four coordination types are now attributed to different environments. In doing so, the authors do not refer back to Perlmutter's model³⁰⁰. To differentiate the different environments they use a new classification that is widely accepted in the literature of international management. It distinguishes international, multi-domestic, global, and transnational environments³⁰¹. This classification again dates back to the framework by Prahalad and Doz (1987) who distinguish the two dimensions of global integration and forces of national responsiveness. In this model the **different environmental situations** are defined as follows (refer also to Appendix 17):

³⁰⁰ Perlmutter describes different orientations of multinational enterprises. The Scheme is not suitable to describe different environments.

³⁰¹ This classification relates back to Bartlett, C.A./Ghoshal, S., 1990, pp. 56-98.

- 1) **International environment:** In this environment there is neither a need for national responsiveness nor for global integration.
- 2) **Multi-domestic or multinational environment**³⁰²: The forces for national responsiveness to local markets are high. But there is no necessity to integrate entrepreneurial activities globally.
- 3) **Global environment:** There is no need to adapt to local markets. The competitive advantage is the global integration of the enterprise's activities.
- 4) **Transnational environment:** In this market the corporation has to adapt to the respective national markets, but it also has to integrate its entrepreneurial activities globally as well.

This classification has to be distinguished from the one by Permuter, who described ethno-, poly-, geo- and region-centric orientations, although it is often used **synonymously in the literature** by mistake³⁰³. The integration of both concepts into one framework has often been criticized³⁰⁴. The various categories cannot be compared with each other³⁰⁵. The four clusters do not fit to each other and differ in details.

The optimal combination of the four environmental situations and the four different coordination structures has been proven by the empirical analysis based on the success of the subsidiaries. They are described as follows. In **international environments**, in which neither national responsiveness nor a global integration is required multinationals have little advantages by implementing a systematic organizational design. The costs for differentiating and integrating coordination mechanisms can be saved. Here the ad hoc coordination structure fits best. In **multi-domestic environments**, which demand adaptation to the local markets, the coordination mechanisms should be adapted to the respective local environment. The administrative costs for a differentiated organization can be avoided. However, enterprises should prevent the additional implementation of a dominant coordination mechanism in addition to the worldwide integration. This would unnecessarily increase the organizational complexity. The optimal coordination structure therefore is the differentiated fit.

³⁰² In the German literature, the term multinational environment here is not clearly distinguished from the term multinational corporation. Harzing prefers the term multi-domestic, the translation of which into German is difficult. Cf. Harzing, A.-K., 1999, p. 37, refer also to the respective footnote.

³⁰³ Cf. Sundaram, A.K./Black, J.S., 1992, pp. 729-757; Meffert, H., 1990, pp. 100-107.

³⁰⁴ Cf. Kutschker, M./Schmid, S., 2004, p. 301

³⁰⁵ Cf. Harzing, A.-K., 2000, pp. 101-120; Stüdlein, Y., 1997, pp. 204-211; Kutschker, M./Schmid, S., 2004, p. 301.

In **global environments** cross-country networks create strong forces for global integration of the enterprise's activities. Unified and integrative coordination structures enable the company to correspond to global networks. In addition, the worldwide application of a unified coordination mechanism is more economic than setting up a differentiated structure. Therefore the structural uniformity is the optimal structure. In **transnational environments** the enterprise has to adapt to national markets while it has to integrate its activities globally at the same time. The coordination structure needs differentiation, on the one hand, and global integration, on the other. The coordination structure that fits best is the differentiated network. The enormous administrative effort, costs involved, and the complexity of the organization are unavoidable.

Fundamentally the four types of coordination structures and the four different environments allow the definition of **16 combinations**. The diagonal in Figure 3 represents the **optimal structure-context combination** (refer to Appendix 16). It has been proven empirically that enterprises, which adapted their structures to the respective environment, have been more successful than those with other enterprise structures.

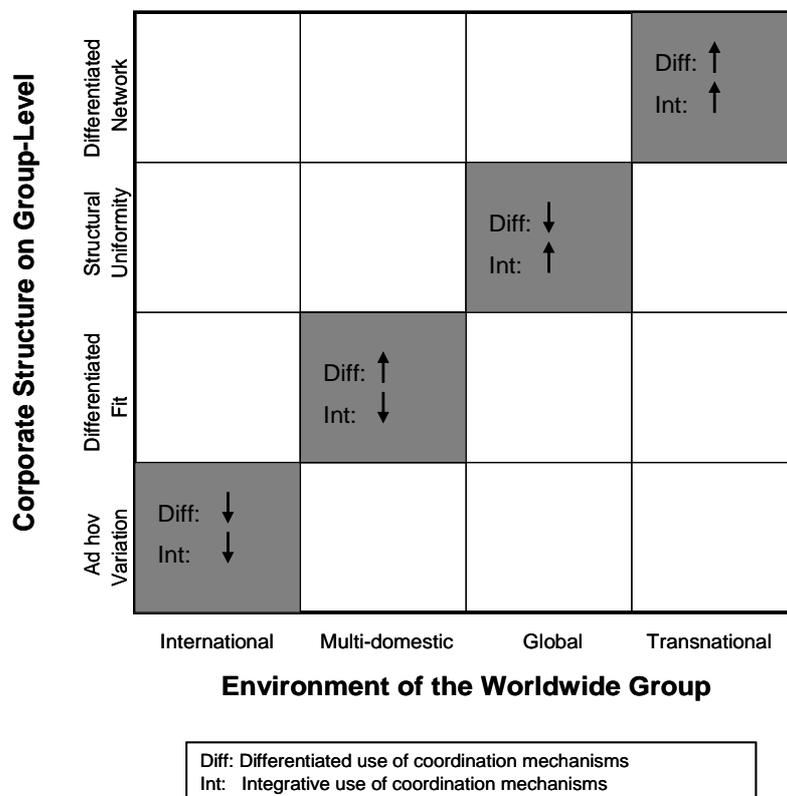


Figure 3: Coordination strategies according to the concept of the Requisite Complexity in relation to the environment of the group
 Source: Launer, M., 2004a, p. 125, in accordance with Nohria, N./Ghoshal, S., 1997, p. 188

The explanations show that the results present the coordination of foreign subsidiaries differentiated and comprehensively. Therefore the model will be further adapted and adjusted for its application in the case studies. Then it will be examined comprehensively by means of an empirical study through the hypotheses. For that purpose the following model-hypothesis is postulated:

3rd Model-Hypothesis: The theory of Requisite Complexity provides statements for the coordination on the group-level. The developed model – refer to Figure 3 – describes combinations of coordination mechanisms, which can be applied in research case studies and in business practice.

3.4.3 Critical Reflections on the Developed Model

The advantage of this model is the more holistic description of the enterprise structure as a combination of the procedural coordination mechanisms centralization, formalization, and socialization, the different environments and the various local markets. Therefore the concept is able to describe the worldwide structure of multinational enterprises. The comprehensive model of the Requisite Complexity provides a solid and applicable theory for differentiated coordination. However, the **causality problem** of contingency-theoretical approaches is raised again. Although the postulated statements have been confirmed by means of successful subsidiaries they are of a pure descriptive nature and only have limited power of prediction. The model has not been studied in business practice. Another question is whether the model is not overdeveloped. It combines theories which themselves have to be looked at critically.

Despite these **critical reflections** the coordination mechanisms are considered differentiated and comprehensively within the model. In addition, it melts the perspective of the group with the needs of the individual subsidiaries. No other model could be found, which describes coordination nearly as **complex**. It seems that further studies of coordination processes will require a new paradigm.

3.5 Differentiated Coordination of Individual Subsidiaries in the Theory of the Transnational Solution

3.5.1 A New Paradigm in the Study of Coordination Mechanisms

Ghoshal not only developed the traditional and situational approaches further. Together with Bartlett he created a new paradigm in describing coordination mechanisms³⁰⁶. The approach is theoretically based on the findings by Hedlund (1986), Prahalad/Doz (1987) and White/Poynter (1990)³⁰⁷. In their **new approach** they also studied horizontal relations between subsidiaries. They consider multinationals as an interdependent network organizations³⁰⁸ and move away from the pure headquarters' perspective. In this model the subsidiaries are connected among each other and centers of decision making can even be located outside the headquarters, e.g. in regional headquarters (refer to Appendix 2).

The model is part of the theory of the **Transnational Solution**, which in contrast to existing models includes the possibility of realizing global efficiency and local adaptability at the same time³⁰⁹. As has been stated before, until now the fourth cluster in the extended EPRG-Scheme, wherein global integration and local adaptation are demanded simultaneously, did not allow the derivation of statements regarding coordination³¹⁰. The model of transnational enterprises explicitly demands flexible and differentiated coordination mechanisms. Thus, three fundamentally new approaches concerning the coordination of subsidiaries are presented:

³⁰⁶ See also Bartlett, C.A., 1981, pp. 121-145; 1982, pp. 20-32; 1983, pp. 138-146; 1992, pp. 271-276; 1990b, pp. 138-146; 1992, pp. 124-132; 1997; 1989; 2000, pp. 132-142; o.V., 1992b, pp. 271-276.

³⁰⁷ For a comprehensive explanation of the individual approaches refer to Böttcher, R., 1996, p. 77-81. See also Bäuerle, I./Schmid, S., 1994, pp. 991-993; Hedlund, G./Rolander, D., 1990, pp. 15-46.

³⁰⁸ The current literature about International Management clearly shows that the depiction of different network-models by Bartlett, C.A./Ghoshal, S., 1986, pp. 87-94; 1987, pp. 49-59, b, 1989, 1990) has succeeded and been established worldwide. Cf. Kutschker, M./Schmid, S., 2004, pp. 527-530.

³⁰⁹ Cf. Kutschker, M./Schmid, S., 2004, pp. 527-530.; Perlitz, M., 2000, p. 633.

³¹⁰ Cf. Perlitz, M., 2000, pp. 633-635; Harzing, A.-K., 1999, pp. 104-106; Kutschker, M./Schmid, S., 2004, pp. 527-530 and numerous others.

- a) Coordination in **Organizational Networks**: The approach is based on different configurations of network structures which originate from different internationalization strategies and historical developments³¹¹.
- b) **Coordination of Flows** between the organizational units: The coordination is not derived from situational factors but rather from the flow of goods, information, and resources among the organizational units of the enterprise³¹².
- c) Coordination of subsidiaries according to **Specified Strategic Roles**: In this case coordination mechanisms are derived in relation to the flow of goods, information, and resources³¹³.

However, the coordination models are not complete and difficult to understand. Therefore, the models will be discussed more scientifically and transformed into the study pattern used in this thesis uniformly.

3.5.2 Developing a New Coordination-Model Based on Different Network Configurations on Group-Level

The first coordination approach in the theory of the transnational enterprise contains only implicit statements regarding the three coordination mechanisms. Therefore, the attempt is made to examine each of the alternative network configurations as to their application of the coordination mechanisms. Each network model is shaped by its special structural configuration, its administrative process, and its management mentality³¹⁴. They are presented in **ideal type of models**, without having a broad empirical basis. Statements concerning the coordination within the network models are therefore of an ideal-type nature (refer also to Appendix 18).

First is the **International Network-Model**, which is also called **Coordinated Federation**, and was used especially by US enterprises during the 1950's and 1960's in their internationalization process. Characteristically the subsidiaries were highly dependent on the parent company as to the supply of products, processes, and new ideas³¹⁵. The

³¹¹ Cf. Bartlett, C.A./Ghoshal, S., 1990, pp. 73-98; Kutschker, M./Schmid, S., 2004, p. 290.

³¹² Cf. Bartlett, C.A./Ghoshal, S., 1990, pp. 216-221.

³¹³ Cf. Bartlett, C.A./Ghoshal, S., 1990, pp. 138-146; Kutschker, M./Schmid, S., 2004, pp. 336-340.

³¹⁴ Cf. Bartlett, C.A./Ghoshal, S., 1990, p. 73; Miller, D., 1992, pp. 159-178; Schlüchtermann, J., 1999, pp. 49-71.

³¹⁵ Cf. Kutschker, M./Schmid, S., 2004, p. 290.

key ability of this network is the transfer of knowledge onto foreign markets³¹⁶. A high degree of coordination is required to control the worldwide and unified implementation of guidelines given to the dependent subsidiaries by the corporate headquarters³¹⁷. Therefore, **decisions are centralized**³¹⁸. The coordination of the coordinated federation is mainly secured by technocratic controls, which means via **formalization**. Through formal planning and control systems management ensures a close relationship between the parent company and its affiliates³¹⁹. The **normative integration** of the local employees is of little importance. The management in the subsidiaries is considered a satellite of the parent company³²⁰.

The **Multi-domestic Network Model**, also called **Decentralized Federation**, was especially used by European enterprises in their internationalization efforts before the world wars. The products and services of the company were differentiated in accordance with the requirements of the local markets. Consequently, local know-how in the subsidiary is high³²¹. The degree of interaction of affiliates among each other in decentralized federations is of little importance³²². **Socialization** is the key coordination mechanisms to normatively integrate the subsidiaries' top management by sending expatriates from the parent company. The expatriates have to assure that the focus of the affiliate is aligned with the headquarters' perspective. However, management is generally recruited locally. Therefore the overall normative integration level is medium³²³. Decisions are decentralized in the local entity³²⁴. Historically, centralization of decisions was hardly possible with the existing technologies³²⁵. Control and coordination of subsidiaries primarily takes place via the key personnel and its relationship to the headquarters. **Formalization** is considered low as well. Basic financial controls and target agreements were based on key data and financial ratios³²⁶.

³¹⁶ Cf. Bartlett, C.A./Ghoshal, S., 1990, pp. 74-75; Kutschker, M./Schmid, S., 2004, p. 290.

³¹⁷ Cf. Bartlett, C.A./Ghoshal, S., 1990, p. 75.

³¹⁸ Cf. Bartlett, C.A./Ghoshal, S., 1990, pp. 74-75; Kutschker, M./Schmid, S., 2004, p. 290.

³¹⁹ Cf. Kutschker, M./Schmid, S., 2004, p. 290; Bartlett, C.A./Ghoshal, S., 1990, pp. 74-75.

³²⁰ Cf. Harzing, A.-K., 1999, p. 292, the other way round refer Bartlett, C.A./Ghoshal, S., 1990, pp. 74-75; Kutschker, M./Schmid, S., 2004, p. 290.

³²¹ Cf. Bartlett, C.A./Ghoshal, S., 1990, pp. 74-75.

³²² This is derived from the opposite of the findings by Andersson, U./Forsgen, M., 1995, p. 73-85. Harzing, A.-K., 1999, pp. 291-292 has confirmed this statement empirically.

³²³ Cf. Bartlett, C.A./Ghoshal, S., 1990, p. 73; Kutschker, M./Schmid, S., 2004, p. 290.

³²⁴ Cf. Hedlund, G., 1981, pp. 25-78.

³²⁵ Harzing, A.-K., 1999, S. 292 concludes that in cases of stronger interdependence among the subsidiaries and with the parent company a stronger formalization and centralization follows. In contrast to this, the formalization and centralization in multinational organization models is low.

³²⁶ Cf. Bartlett, C.A./Ghoshal, S., 1990, p. 73; Kutschker, M./Schmid, S., 2004, p. 290.

The **Global Organization Model**, also called **Centralized Hub**, was used by Japanese enterprises in their internationalization in particular. The main ability of the network is the worldwide integration of activities³²⁷. One competitive advantage is the worldwide **formalization** through standardized structures, procedures, systems, and resources³²⁸. To carry-out the advantages of standardization, a strong **centralization of strategic competences** takes place³²⁹. The management of the parent company considers its subsidiaries as channels for supplying the world market. The parent company controls the implementation of decisions, the use of resources, and the flow of information³³⁰. Based on these assumptions it can be concluded that the **normative integration** of employees is rather low³³¹.

The fourth model is the **Transnational Network** is neither organized centrally nor de-centrally³³². It is an advanced network-configuration, in which all subsidiaries are in relation among each other and each has a specified strategic role³³³. Hierarchic structures are not prominent within the network³³⁴. **Decisions** are increasingly made within decentralized headquarters for a respective region³³⁵. Due to the increasing dynamic, heterogeneity and discontinuity in international environments, the parent company is not in the position to keep up its traditional leadership position. It can not make all strategic decisions centrally anymore³³⁶. Through high **normative integration** of the employees it is assured that all managers participating in the decision process worldwide think and act the same way by sharing a mutual vision³³⁷. The authors hardly make any explicit statements regarding the degree of **formalization**. However, they do mention that comprehensive information systems are necessary which includes informal information-based relationships³³⁸. Figure 4 summarized the results graphically.

³²⁷ Cf. Bartlett, C.A./Ghoshal, S., 1990, p. 75; Kutschker, M./Schmid, S., 2004, p. 290.

³²⁸ Cf. Mascarenhas, B., 1984, pp. 91-106 and Macharzina, K., 1993, pp. 77-109.

³²⁹ Cf. Bartlett, C.A./Ghoshal, S., 1990, p. 75; Kutschker, M./Schmid, S., 2004, p. 290.

³³⁰ Cf. Garnier, G., 1982, pp. 893-908 and Welge, M.K., 1982b, pp. 810-833.

³³¹ In the first publication it was assumed that the normative integration would be considered too high. This has been corrected here. Cf. Launer, M., 2004a, p. 104.

³³² Cf. Mahini, A., 1990, pp. 27-35; Bartlett, C.A., 1986, pp. 367-404; Bartlett, C.A./Ghoshal, S., 1990, pp. 81-98. Das Konzept enthält wesentliche Einflüsse von Perlmutter, 1969, pp. 9-18, 1972, pp. 53-66. Cf. Bartlett, C.A./Ghoshal, S., 1990, p. 269, Footnote 1 to chapter 4.

³³³ Cf. Andersson, U./Forsgen, M., 1995, pp. 72-87. This has been empirically confirmed by Harzing, A.-K., 1999, pp. 291-292.

³³⁴ Cf. Welge, M.K./Böttcher, R., 1991, p. 444.

³³⁵ Cf. Willke, H., 1989, 63-96.

³³⁶ Cf. Bartlett, C.A./Ghoshal, S., 1987, p. 58 and White, R.E./Poynter, T.A., 1990, p. 99.

³³⁷ Cf. Hennart, J.-F., 1991, pp. 71-96 and 1993, pp. 157-181; Baliga, B.R./Jaeger, A.M., 1984, pp. 25-40; Mascarenhas, B., 1984, pp. 91-106. Wolf, J., 1994, received a negative correlation between high interdependence of subsidiaries and the situationalization, Nohria, N./Ghoshal, S., 1997, p. 106. In contrast others showed a high correlation.

³³⁸ Cf. Kieser, A./Kubicek, H., 1992, p. 291.

Advantage of Global Integration	high	Global Organization: Central Hub	Transnational Orga- nization: Integrated Network
		C: ↑ F: ↑ S: ↓ I: ↑	C: ↑ F: ↑ S: ↑ I: ↑
	low	C: ↑ F: ↑ S: ↓ I: ↓	C: ↓ F: ↓ S: → I: ↓
		International Orga- nization: Coordinated Federation	Multi-domestic Orga- nization: Decentralized Federation
		low	high
Advantage of Local Responsiveness			
C: Centralization of decision making F: Formalization of policies and systems S: Normative Integration of employees / Socialization I: Intensity of coordination overall			

Figure 4: Application of coordination mechanisms in various Network Models
 Source: Own depiction, Launer, M., 2004a, pp. 101-106

The model provides helpful suggestions for the analysis of foreign subsidiaries and their coordination in the network-schemes on a group-level. The model differs from the EPRG-Model presented earlier. It has a modified basis and is able to describe the fourth transnational cluster. Therefore it will be methodically optimized and then empirically studied in depth. Therefore the following model-hypothesis is derived:

4th Model-Hypothesis: The network schemes contain statements concerning the coordination of foreign subsidiaries on a group-level. The coordination model developed – refer to Figure 4 – describes useful combinations of coordination mechanisms, which can be applied to academic case studies and in practice.

Coordination processes, which are a burden to the headquarters where its know-how and competency is limited, are increasingly decentralized. The transnational model provides a variety of different, institutionalized and ad hoc applied mechanisms³³⁹. However, the presented model does not yet clearly describe how that works. It will be explained in the evolving new model by the authors.

³³⁹ Cf. Welge, M.K./Böttcher, R., 1991, p. 442; Bleicher, K., 1990, p. 11.

3.5.3 Differentiated Coordination of Subsidiaries based on the Flows of Goods, Information, and Resources

The **increased need for coordination** in multinational enterprises affords the transnational model to open new paths. Besides the self-regulating mechanisms on the basis of company internal markets, the controlled coordination is described via internal flows of goods, resources, and information³⁴⁰. Formal policies and systems are suggested for the coordination of the **flow of goods**. Once established, they can be carried out by lower management levels. The flow of goods is rather constant and can be planned well ahead. Thus, it is ideally suited for formalization whereas the flow of financial, human, and technical resources is considered more difficult. The **allocation of limited resources** is the most strategic task of the headquarters and thus it is a clear case for centralization. However, the most difficult task is the control of the extensive **flow of information and product know-how**. This is the essential flow for the functioning of the transnational organization. Due to its variety and complexity the flow of knowledge via formalized or standardized procedures is not possible. There is only one way to assure that non-central knowledge will be used for the welfare of the company: Local managers must be socialized with the objectives and values of the enterprise, and they must be made sensitive towards the needs and abilities of other units³⁴¹. Appendix 18 shows the model graphically³⁴².

The model is unusual and new, but **not empirically proven**. It rather seems to be derived deductively from a rather small number of observations. The construct of the “flows” is insufficiently defined and theoretically not solid. They look like observations from business practice, but do not yet lead to a confirmed theory. The authors themselves criticize the normative model: the recommendations for implementation are just not adequate in every situation. Simple flows of goods can also be controlled centrally, and routine information can be dealt with in a formalized way.. Therefore, it stays relatively open how in theory and practice the model should be applied. The authors use this scheme to describe the coordination process for decentralized subsidiaries with specified strategic roles within the group (see graphics in Appendix 19).

³⁴⁰ Cf. Bartlett, C.A./Ghoshal, S., 1990, p. 215 and 2002, p. 195; Schmid, S./Schurig, A./Kutschker, M., 2000, pp. 45-72.

³⁴¹ Cf. Bartlett, C.A./Ghoshal, S., 1990, pp. 216-221; Hamann, H., 2003.

³⁴² Refer also to Launer, M., 2004a, pp. 107-109.

3.5.4 Developing a New Coordination Model Based on Specified Strategic Roles for Subsidiaries

The role model led to a change of perspective in the literature concerning International Management³⁴³. The subsidiary became the center of interest, it can act as a **regional headquarters**³⁴⁴, center of excellence³⁴⁵, and it can be classified individually. Already the transfer of a strategic role itself can be considered as a coordinative function in the widest sense. But this function will not be pursued further here. The attempt is rather to derive the coordination of individual subsidiaries by the three coordination mechanisms as uniformly done in this thesis. In a broad study published separately several role models were researched to the extend of their description on coordination issues. The model embedded in the theory of the transnational corporation seemed to be the only role model describing the three coordination mechanisms. On the basis of the two independent context factors “strategic importance of local markets” and the “resource level of subsidiaries” the authors lay out another portfolio³⁴⁶. They derive from it four main directions to assign **strategic roles and competences** to subsidiaries³⁴⁷. The attempt is made here to derive recommendations from the implicit statements to describe the differentiated coordination of subsidiaries.

First, the **role of Strategic Leadership** is assigned to subsidiaries with a high resource level in a strategically important market. The affiliate has strong strategic capabilities and should therefore take over an independent strategic leadership role within the group. Thus, it strongly participates in the company internal flow of information, which should be controlled via mutual social processes. The authors see the normative integration as the dominant coordination mechanism³⁴⁸. These subsidiaries have a tendency towards autonomy. If the headquarters wants to coordinate activities more closely potential conflict situations arise. The centralization of decision therefore is the most unsuitable coordination mechanism. Due to its size the affiliate tends to be strongly involved in the flow of goods. As mentioned before, goods should be coordinated impersonally and via formal procedures and systems.

³⁴³ Cf. Schmid, S./Bäuerle, I./Kutschker, M., 1998; Rank, O.N., 2000; Kutschker, M./Schmid, S., 2004, p. 352.

³⁴⁴ Cf. Gerybadze, A., 1998, pp. 239-269; Gerybadze, A./Reger, G., 1998, pp. 183-217; Gerybadze, A., 1999, pp. 114-116 and Schuh, A., 1999, pp. 73-98; Schmid, S., 2003 and 2002, pp. 16-18.

³⁴⁵ Cf. Schurig, A., 2001.

³⁴⁶ Cf. Jarillo, J.C./Martinez, J.I., 1990, p. 503.

³⁴⁷ Refer also to the summary by Welge, M.K., 1990, p. 8.

³⁴⁸ Cf. Bartlett, C.A./Ghoshal, S., 1990, p. 219 and 2002, p. 199.

The **role of the Contributor or Strategic Support** is assigned to subsidiaries active in small and insignificant markets, but contributing special capacities or surplus-capacity within the network. These affiliates are of great importance for the flow of resources within the enterprise. Therefore the activities of these units are coordinated centrally as far as possible³⁴⁹. Because the enterprise operates in a market that is strategically unimportant their contribution to the information flow is rather irrelevant for other units of the group. Therefore the normative integration is considered on medium level. The authors do not mention the degree of formalization separately. But due to the existence of a dominant coordination mechanism (centralization) and the medium normative integration of employees through the contributing role, formal procedures and systems are almost not needed (reverse conclusion).

The **role of the Strategic Implementation, or Executing Role**, can be delegated to a subsidiary located in an unimportant market, which has just enough resources to carry out and maintain its own businesses. The affiliates with executing roles cannot contribute to the flow of information (thus a low degree of socialization results) and they are not involved in the flow of resources (central coordination is not necessary). The affiliates are highly dependent on the flow of goods from other subsidiaries and from the headquarters, and therefore they are rather formally coordinated³⁵⁰.

The fourth role is called the **Black Hole**. The term is used for subsidiaries that face a non acceptable situation within a strategically important market. The subsidiary has too low resource levels to be a player within the important market. However, the affiliate accumulates strategically critical information of the important market which are of importance to the whole enterprise. Therefore the flow of information has to be carefully coordinated and the employees of the subsidiary have to be integrated normatively. But the affiliate needs additional resources in order to represent itself adequately in the strategically important market. The parent company, however, controls this flow of resources through centralization. Formalization in this situation is rather inadequate due to the dynamism. Figure 5 summarizes the result graphically.

³⁴⁹ Cf. Bartlett, C.A./Ghoshal, S., 1990, p. 219 and 2002, p. 199.

³⁵⁰ Cf. Bartlett, C.A./Ghoshal, S., 1990, pp. 218-219 and 2002, pp. 198-200.

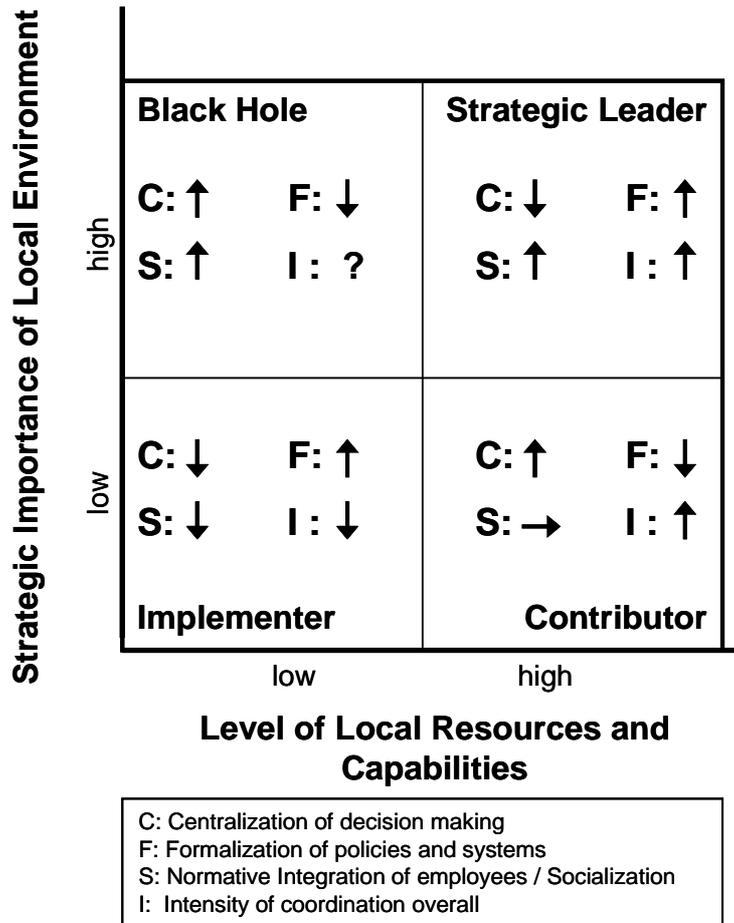


Figure 5: The derivation of coordination strategies based on Specified Strategic Roles for subsidiaries.

Source: Own depiction, Launer, M., 2004a, p. 113

Based on the company-internal flow of resources, information, and goods a new coordination model could be derived by defining strategic roles for subsidiaries. It will therefore be methodically advanced for business use and then studied empirically in this thesis. The following model-hypothesis is derived for this purpose:

5th Model-Hypothesis: On the basis of company-internal flows of resources, information, and goods statements for the differentiated coordination of subsidiaries can be derived by assigning Specified Strategic Roles. The coordination model developed – refer to Figure 5 – describes combinations of coordination mechanisms which can be applied in scientific case studies and in business practice.

3.5.5 Critical Reflections on the New Models

The study of network structures in multinational enterprises, and the building of a solid theoretical foundation is one of the **central areas of research** at this time. However, the presented network concept still has numerous conceptual weaknesses. The terminology is still too simple and the operationalization of the relationships among subsidiaries is not sufficient yet³⁵¹. Furthermore, theoretical arguments and normative statements are mixed up with observations found in individual enterprises³⁵². All presented network models show a strong ideal-type and normative character. In theory and practice they make the transition difficult from a hierarchical and decentralized organization model towards the presented network models³⁵³.

The theoretical concept of Specified Strategic Roles represents a rough and **purely descriptive description** of subsidiaries. It has been derived from the practice of nine successful enterprises, but it has not been empirically verified satisfactorily. The study by Jarillo and Martinez (1990) shows, however, that the implementation of the concept is useful for business practice. It can lead to a new perspective, from which consequences for the management of the parent-affiliate-relationship can be derived³⁵⁴. Other role model theories might better fit the needs to describe the roles of subsidiaries more precisely but they don't research the three coordination mechanisms.

The model presented as well as other models providing a typology of subsidiaries seem to be subject to a certain degree of arbitrariness. This results from the lack of theoretical arguments why certain dimensions have been introduced for the description of the role model. All role models lack an explicit organization theoretical foundation for the selection of the descriptive dimensions. Moreover, the models reduce the role concept to being strongly dependent on the situational dimensions. Therefore it is questionable whether the models are at all suitable for the use in practice and whether recommendations for action could be derived from them.

³⁵¹ Cf. Engelhard, J./Dähn, M., 1994, p. 257; Nedden, C., 1994, p. 194.

³⁵² Cf. Glaum, M., 1996, p. 115.

³⁵³ Cf. Buckley, P.J., 1996, p. 29; Malnight, T.W., 1996, pp. 43-65; Leong, S./Tan, C.T., 1993, pp. 449-464.

³⁵⁴ Cf. Jarillo, J.C./Martinez, J.I., 1990, p. 507.

4. Research Design and Methodology

4.1 International Research-Approach

Having derived the hypotheses from various modified theories, the research design will now be introduced how the thesis was conducted. In this regard methods are meant as the research method of the thesis and therefore need to be distinguished from the method or analysis-instrument developed within the thesis. This is important because the method of analyzing the companies has changed during the research phase and adjusted several times as it was the purpose of the thesis to develop a pragmatic tool. However, the method of the scientific research of the thesis was kept strictly consistent.

In summary, it has made to be clear that a large part of the theories are built on situational or contingency approaches. They are based on the assumption that the decision makers of the enterprise are aware of the different environments and the specific situations of the particular subsidiaries and that they take these facts into consideration in their decision making process³⁵⁵. The **situational factors** of this thesis are the “resource level of the subsidiary”, the “environmental complexity”, and the “strategic importance of local markets”³⁵⁶. All three factors are researched in depth and build a solid base for the development of a pragmatic analysis-instrument. In doing so it is assumed that decisions are made according to the same pattern in all countries and all enterprises³⁵⁷. The causality problem of the contingency models has been discussed already in the previous chapter. However, it needs to be mentioned that the problem of single contingency models may lead to a systematic problem in management theory. Most of the research conducted in this field is based on this approach. There are very limited other approaches used to give the scientific research base more variety.

The earlier mentioned „culture-free thesis“ is used as a basis³⁵⁸. Culture free in this regard is meant in the way that the developed model should be applicable in companies of other home countries other than Germany as well. By analyzing German Mul-

³⁵⁵ In contrast to this method also the „Strategic Choice“ approach exists. Cf. Child, J., 1972, pp. 1-22. See also Nasif, E.G./Al-Däai, H./Ebrahimi, B./Thiboeaux, M.S., 1991, pp. 79-91

³⁵⁶ A comprehensive depiction, the method and the problems of situational approaches can be found at Kieser, A./Kubicek, H., 1992, pp. 45-66.

³⁵⁷ Cf. Burns, T./Stalker, G.M., 1961, pp. 22-45; Lawrence, J.W./Lorsch, P.R., 1967b, pp. 25-66. As to the critique of the situational approach refer to Miller, D., 1981, pp. 1-26.

³⁵⁸ Cf. Harbisons, F./Myers, C.A., 1959, pp. 11-45. This thesis follows the approach by Hickson, D.J., et al, 1974, p. 74.

tionals, however, a cultural influence has to be assumed. But since the underlying theories are based on international research it will be assumed that the cultural influence on the analysis-instrument is minimal. The results by company can be aggregated interpreted in general for German Multinationals.

Nevertheless, each international research study contains implicit **cultural elements**. The cultural and mental background of the author is Germany although at the time of writing this thesis he lived in the USA³⁵⁹. But still the study has not been made in a parochial style – which means from the perspective of an ivory tower. Plenty of interviews were conducted within Europe and the USA as well additional interviews were held on international conferences with managers from Asia and Australia. The thesis has been prepared by one single person instead of an international research team. It cannot be avoided that a German perspective could have sneaked in, which is not necessarily “**culture-free**” and transferable internationally. However, it has been avoided to allow an ethnocentric research approach, which prefers the own culture over others. The author conducted numerous international interviews and the questionnaire derives from an international cooperation of an US citizen and an Indian living in France. The thesis has been written in the United States, and was under the supervision of Prof. Saat in Estonia³⁶⁰. This academic study has not been conducted from any particular point of view or bias and should be applicable in the international management practice.

4.2 Methods of Analysis in Intensive Case Studies

The nature of a practical oriented thesis is that it cannot be based on a broad mass inquiry. Therefore no random samples were taken from a broad and comprehensive universe. The concentration has been on a few **in depth case studies**³⁶¹. The research of the underlying theories and the intensive case studies has been worked on with a multi-level procedure.

Concerning problems of parochial studies (church tower perspective) refer to Adler, N.J., 1983, pp. 29-47.

³⁶⁰ Concerning the problem of inter-cultural research refer to Adler, N.J., 1983, pp. 29-47 and 1984, pp. 31-67; Rosenzweig, P.M., 1994, pp. 28-39; Singh, J., 1995, pp. 597-620.

³⁶¹ See also the study of Bartlett, C.A./Ghoshal, S., 1990, pp. 30, which is based on intensive case studies as well.

The first step was the review of present and broadly used theories. It showed that not all theories and concepts used in regard to coordination actually really describe coordination. The results of the selection process was published beforehand and discussed with various researchers. It proved to be right to pre-select the key theories. These theories were described in the previous section briefly.

After that the multinationals selected for this thesis were evaluated on the basis of public and company internal documents. The current situation was recorded in written form to assure that based on information available prior to the actual measuring was fixed. Based on this descriptions **case specific hypotheses** were derived. These case specific hypotheses were important to test the developed analysis-instruments. Each measurement had to match the former company description.

Finally between 2 and 9 key managers were interviewed in written form by standardized questionnaire which will be discussed in detail in the following. The results of this initial study have been analyzed and prepared graphically in presentations. A business oriented analysis was given priority to assure that the results were usable in actuality. Accordingly, complex scientific procedures were excluded, e.g. multivariate statistic methods. The method of analysis has been modified in an iterative process until the results corresponded with the reality, and the case specific hypotheses could be confirmed.

When the measurement results will match the former description based on the tested hypothesis' the underlying theory must be accurate and the method of measuring as well. In case there will be a gap between the former description and the actual measurement the reason needs to be researched in great detail and discussed with the managers. There are two possible results:

- a) In case the former description is alright and the measurement is not accurate than the method needs to be reviewed. In discussion with the managers the cause for the difference will be explored. The method than will be adjusted as long as the measurement result varies from reality (the results will afterwards be tested again in the follow-up study).

- b) In case the research and additional interviews proves that the description is wrong the hypothesis need to be dismissed. It will then be tested whether the own measurement is right and better describes the company's situation. If the measurement proves to be a good result and the managers accept the result than the method must have been right.

With this approach the methods derived from the underlying theories will be changed and adapted according to the needs in practice. This approach is basically an iterative process. The analysis-instrument will be adjusted as long as it does not describe the reality properly. However, the underlying theory will never be changed.

The analyzed results will be discussed in **numerous interviews** with managers from the respective enterprises. The purpose is to check through interviews whether the scientific results gained correspond with the reality in the particular case, whether the managers accept these results and whether they consider the derived recommendations as useful. In addition it will be tested whether they can understand the underlying theories. The opinions and suggestions of these managers will be absorbed into the thesis to a considerable extent, and influence it significantly. To assure the correct methodical procedure and for the generation of valuable scientific results and an objective interpretation, frequent interaction³⁶² with other researchers will take place.

The results of the initial study therefore will not prove that the developed method is accurate since it was adapted to the given situation. A second study will be necessary to test the developed analysis-instrument independently. This study was made in 2004 and will prove the accuracy of the developed model by again testing newly established case specific hypothesis. The results will be summarized at the end. However, theoretically the analysis instruments that failed could be further adjusted and tested again. This will not be done to avoid that the result is not based on the underlying theory anymore.

³⁶²

Concerning the methods of science refer to Chalmers, A.F., 2001, p. 140 and p. 150.

The result of each research step has been summarized in comprehensive scientific publications and was discussed with various experts. That will make sure that the developed method is accurate but not adjusted to a single case study. In the initial study the coordination of each individual subsidiary has been described and analyzed precisely in great detail and observed over several years. This is important to accurately examine the present the given situation and adjust the analysis-instrument accordingly. In addition, for each individual subsidiary a recommendation for an alternative coordination method was discussed and taken into account.

In addition, a ten year development study will be made as well comparing the results of the initial study with the follow-up study. The results however are not necessarily representative for all German Multinationals but give a good overview of the major trends. This thesis can summarize the most essential results only. The advantage is that it displays them in an internationally comparable manner.

4.3 Online Mail Survey by Questionnaire

The questionnaire used was closely based on existing research approaches in order to assure an international comparability³⁶³. It builds on the research project by the professors Bartlett, Ghoshal, and Nohria from the 1980's who used the same questionnaire for developing their theories. The research approach is still considered the **most promising approach**, the only almost holistic analysis method, and theoretically the most solid³⁶⁴. Accordingly, the first results of the case study 1993 - 2000 have been very successful³⁶⁵. The research design was therefore also kept the same for the 2004 study, thus assuring the comparability. However the theory of Perlmutter was not based on questionnaires. Therefore the result of this thesis can not prove or dismiss his theory. Rather it shows if the research design used in this thesis can be used to apply the theory in practice. The same holds true for the Situational Approaches. Other questionnaire techniques might come to other results than shown in this thesis.

³⁶³ Concerning the external influences on questionnaires refer to Diamantopoulos, A./Schlegelmilch, B.B./Webb, L., 1991, pp. 327-339.

³⁶⁴ Cf. Nohria, N./Ghoshal, S., 1997, pp. 16-18.

³⁶⁵ Cf. Launer, M., 1993b, 1994, 1997 and 2000.

Since the previous studies of the above mentioned professors were conducted internationally in English, the **questionnaires** had to be translated into German. The interviews have been conducted exclusively in Germany and thus no cultural and linguistic barriers occurred. The assumption is that all interviewees belonged to the same culture and spoke the same language, so they did not need a translation and clearly understood the topic and the questions of the questionnaire. Additionally they all had an academic education and thus were familiar with empirical interviews³⁶⁶. The author optimized the original questionnaire to the needs of intensive case studies. Since in each company several managers had to be interviewed, the questionnaire had to be shortened to the essentials to avoid upsetting the managers with an unnecessary lengthy questionnaire.

All constructs and variables in the questionnaire were made operational with separate questions. Each question then had to be answered for each country in which the enterprise operated subsidiaries. Thus, on average 10 questions multiplied by 15 countries resulted in 150 questions in total (refer to questionnaire in the Appendix)³⁶⁷. As in the original questionnaire each answer was measured with a **5-point Likert-scale**, which is considered sufficient for these kinds of analyses. A 7-point-scale was not usable since the results needed to be discussed with managers and approved by them. In a more theoretical study it could have led to a more precise result but in practice the managers wouldn't have been able to approve these precise measurements.

This raises the question whether the scale should have been downsized to a 3-point scale. This would have made it even easier to discuss the results in practice. However, the use of only three questionnaires in average combined with the rough measurement by three different categories would have made it impossible to separate the subsidiaries among each other. Especially graphically in portfolio charts most of the subsidiaries would have been positioned on one spot. This would have been implied that the subsidiaries on one spot face exactly the same environment or internal situation. The slight differences based on the 5 point-scale was broadly accepted and only in minor cases the managers' criticized the graphics.

³⁶⁶ Concerning the interviewed with different education and background refer to Punnett, B.J./Shenkar, O., 1994, pp. 39-55.

³⁶⁷ Cf. Nohria, N./Ghoshal, S., 1997, p. 16. Refer also to Martinez, J.L./Jarillo, J.C., 1991, pp. 429-444.

Therefore, the questionnaire is scientifically anchored and at the same time suitable for business practice. It had been tested before internationally³⁶⁸; however, for a business oriented thesis it was checked once again through a **pilot study** (Bosch EW).

4.4 Data Sampling and Pilot study

Empirical studies in organizational theory or coordination research usually use the so-called „**key-informant-approach**“³⁶⁹ for the collection of data. Therefore, in broad empirical studies only one single questionnaire per company is assumed in gaining certain knowledge about the company’s situation. For intensive-case-studies this procedure cannot be used. To draw a picture of an enterprise as close to reality as possible several answers are needed and an average must be calculated. In the course of the study it became obvious that questionnaires from the same enterprises were different indeed. Therefore the author used at least three questionnaires per enterprise, and in one exception only two. Figure 6 shows the number of questionnaires used in each company. The **response rate was 100 %**, while some of the interviewees were reminded to return the questionnaire. Since the response rate from board members is usually low, only managers from the second leadership level were interviewed³⁷⁰.

Bosch EW 1993	n=9
Hoechst 1994	n=2
SGL Carbon 1997	n=3
Philipp Holzmann 2000	n=3
Bosch EW 2004	n=3
SGL Carbon 2004	n=3
Celanese 2004	n=3

Figure 6: The interviewed enterprises in an overview

For the pre-studies from 1993 to 2000 the questionnaires were delivered by the company internal postal service or handed over personally. For the **current study in 2004** the internet was used and the questionnaires were sent by e-mail. The response rate was 100 % as well.

³⁶⁸ Cf. Nohria, N./Ghoshal, S., 1997, pp. 16-17

³⁶⁹ Cf. Philips, L.W., 1981, pp. 395-415.

³⁷⁰ Cf. Shipchandler, Z.E./Terpstra, V. Shaheen, D., 1994, pp. 181-199 and Harzing, A.-K., 1999, p. 206.

The case study of Bosch EW from 1993, the first of seven studies in total, served as a **pilot study**. Therefore this study was designed broadly with the largest participation (n=9). The results of these case studies were discussed intensively with academic researchers, management consultants, and with managers from Bosch EW. Through the pilot study it could be assured that all interviewees had understood the questionnaire and that the result was consistent. By analyzing the pilot study, however, the results weren't convincing yet. By discussing it with the key managers of Bosch EW, they did not find that the results were acceptable, too. It appeared that the analysis could not be done with the original methods provided by the theories. The analysis methods had to be adapted to the use in entrepreneurial practice. Therefore the data set from the years 1993 – 2000 was used for the development of a business oriented, pragmatic analysis approach.

5. Empirical Analysis from 1993 – 2000 for the Development of Business-oriented Analysis Methods

5.1 Adaptation of the Theories to a Pragmatic Approach

The theoretical basis developed in chapter 3 could not directly be applied to the pilot study with Bosch EW successfully. Therefore, the historical data set of the four companies Bosch EW (1993), Hoechst (1994), SGL Carbon (1997), and Philipp Holzmann (2000) were used as an **initial study**. The first run of the data with the methods based on the original theories showed for all four companies that the methods could not be applied to case studies and analyses in business practice. The models based on the original theories were too abstract. The procedures were not defined, the allocation of subsidiaries to the respective cluster wasn't clear, and there was a lack of experience in interpreting the results³⁷¹. Moreover, the managers neither accepted the results nor the **deviated recommendations**. Therefore the author has developed a pragmatic and application-oriented method for each theory for the use in individual scientific case studies³⁷². The theory behind these modified methods stayed the same just the application had to be adapted. In an iterative manner, the methods were adapted as long as the managers were satisfied with the results. The assumption was, if the theory is correct for successful companies than successful companies must be in line with the theory as well. By comparing the theoretical results with the opinions of the interviewed managers, the methods could be adapted and tested in reality. First method was the oldest one, the EPRG-theory.

5.1.1 The Adaptation of the New EPRG-Approach

For the analysis of the coordination on a group-level by using the EPRG-scheme, first the measurement of the coordination mechanisms had to be evaluated (refer to Appendix 11 and 12). For this purpose the evaluation criteria had to be defined and tested whether it fit to the reality. The measurements of each coordination mechanism were on a continuum from 1 to 5. The theory distinguishes between high, middle, and low value. Therefore the mechanisms were simply categorized in three equal sections. On the 5-point Likert-scale low coordination intensity was first assumed between 1

³⁷¹ Cf. Nohria, N./Ghoshal, S., 1997, p. 129 and Harzing, A.-K., 1999, p. 371.

³⁷² The handbook of Bartlett and Ghoshal was only of little help. Cf. Bartlett, C.A./Ghoshal, S., 2002, pp. 306-348.

and 3, medium between 2 and 4, and high between 3 and 5. However, the results in all four cases did not line up with the experience in reality. Therefore, the **categories** were changed and tested again. The categories were now for a low case between 1.0 and 2.3, a medium level between 2.4 and 3.6, and a high level between 3.7 and 5.0.³⁷³. The results now fit much better to the experience of the managers which will be shown in detail for each case study in the next chapter.

Since centralization was measured through the degree of autonomy, the figures are to be seen inversely (instead of the high centralization from 3.7 – 5.0 the autonomy is low between 1.0 – 2.3 etc.). For the measurement, average parameters were calculated for each enterprise on a group-level for each coordination mechanism. For the three mechanisms the data for all countries were summarized in one average figure each. The region-centric approach could not be described. In this cluster, the coordination mechanisms are differentiated for each region. An average figure on a group-level cannot evaluate this situation. The following Figure shows the developed classification.

	Autonomy		Formalization		Socialization	
Ethnocentric	1.0	2.3	1.0	2.3	1.0	2.3
Polycentric	3.7	5.0	2.4	3.6	1.0	2.3
Geocentric	2.4	3.7	3.7	5.0	3.7	5.0
Regio-centric	?	?	?	?	?	?

Figure 7: The pragmatic measuring of the coordination mechanisms in the EPRG-Scheme
 Source: Own depiction

In pre-studies with Bosch EW (1993), Hoechst (1994), SGL Carbon (1997) and Philipp Holzmann (2000) the modified model was tested several times in practical applications and first rule-of-thumbs were obtained. The detailed results were published a separate publication, but a summary will be provided in the next chapter³⁷⁴. Beforehand the additional methods and their adaptations are presented.

³⁷³ Cf. Nohria, N./Ghoshal, S., 1997, p. 129 and Harzing, A.-K., 1999, p. 371
³⁷⁴ Cf. Launer, M., 2004c.

5.1.2 Correlation Analysis for the Situational Approach

The second step of the analysis was the measuring of each individual subsidiary. For that, a correlation analysis was performed. Based on the theoretical findings, the correlations for the two situational factors were calculated statistically. The situational variables are the “environmental complexity” and the “resource level of the subsidiary”. The correlation analysis was performed for each single company and on an aggregated overall level of the initial study (and later for the main-study). Each individual company analysis was replenished graphically and analyzed separately. In doing so the attempt was made to find out international coordination patterns and to analyze country groups’ to gain a deeper understanding about the different coordination type.

The statistical results weren’t that significant and the managers did not find themselves in the findings. However, there was no choice to modify the theory. The method is a statistical process and it either correlates or not. Adaptations were not possible. The advanced method Internal Differentiation will be discussed in detail.

5.1.3 The Adaptation of the Advanced Theory Internal Differentiation

The third analysis is the more holistic study of the coordination mechanisms for each subsidiary individually without the use of statistical programs. Each affiliate was measured separately and compared to the **four clusters of the theory**. But the new approach is not only clustering the affiliates by the situational variables “environmental complexity” and the “resource level of the subsidiary” into four categories. In addition, the theory evaluates the use of coordination mechanisms in combination with each other and considers the transaction costs by using them. Therefore, the portfolio of the Internal Differentiation was used to analyze individual subsidiaries. It appeared that the model could not be used in individual case studies without adaptations. First, the results were not convincing at all. The first **problem** was the classification of the subsidiaries into the portfolio. Affiliates that were assessed with 3 on the scale of the questionnaire were placed directly on a cluster-border and thus could not be clearly classified. In statistical studies the affiliate would have been eliminated³⁷⁵.

³⁷⁵ Cf. Nohria, N./Ghoshal, S., 1997, p. 107.

But in practice this is impossible because each affiliate has to be evaluated and allocated. At the same time the problem of **rigid borders** between two clusters occurred in the evaluation (refer to Appendix 13). The normative integration, for example, is in situations of low environmental complexity low (measurement 1 to 3), and in case of high complexity it is high (measurement 3 to 5). Affiliates located close to this border could not be measured accurately because of this either-or-choice. Subsidiaries close the border showed a medium level of normative integration around 3, sometimes a higher, sometimes a lower. Therefore a medium or middle field with the measurements 2.4 – 3.6 was introduced. The evaluation of low normative integration was adapted to 1.0 to 2.3 and a high normative integration from 3.7 to 5.0. By extending the evaluation from a two cluster to a three cluster evaluation the measurement was smoothed and more linear throughout the scale. The results improved dramatically. Theoretically this is correct, because the two variables are on a continuum. The evaluation with transaction costs is correct as well. The costs for the use of coordination mechanisms can be adjusted on a linear continuum. Figure 8 shows the modification graphically at Hoechst Chemicals (1994).

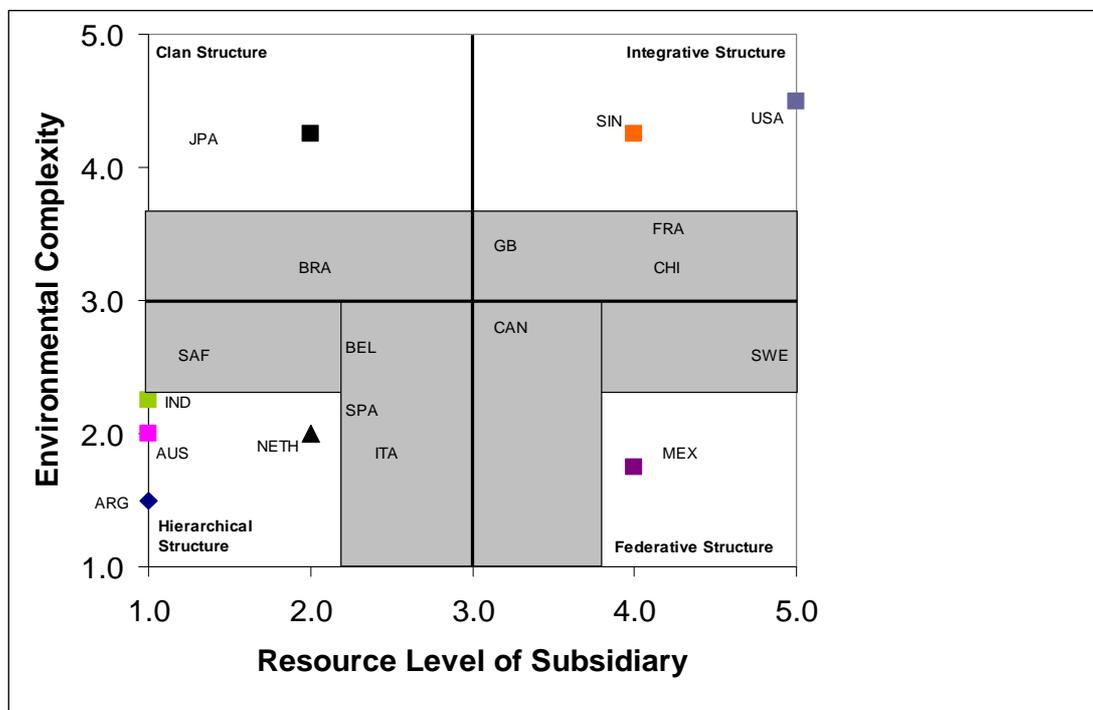


Figure 8: The expanded and modified portfolio Internal Differentiation
Source: Own depiction, Launer, M., 2004c

A similar problem occurred in the case of low environmental complexity between the two clusters hierarchy and federation. The two mechanisms centralization and formalization spring from high to low when crossing the rigid border. Here too, a medium field was introduced and a two step evaluation enlarged to a three step evaluation. Through these **medium fields** the problem of sharp transitions and the problem of classifying affiliates into the clusters could be solved.

Each coordination mechanism of each affiliate was measured individually and compared with the demands of the theory. The outcome of this was **Fits and Misfits** in relation to the theoretical requirements. Even with the advanced method the number of Misfits was very high and it appeared as if the theory would still not be applicable. The managers were surprised about the numerous problem situations although business in these areas ran smoothly. Even the introduction of medium fields (refer to Figure 8) did not improve the result satisfactorily.

Another control step to analyze the individual answers in the questionnaire showed that only one cross that moved by one point on the scale in questionnaire could lead to a Misfit in the result. While in the scientific and statistic-based analysis results are slightly diluted because of this or may become less significant an adequate solution for the use in business practice had to be found. Therefore a **Tolerance Measure** was introduced. In case a Misfit occurred, the individual answer was checked as to whether one single deviating answer in comparison to the other answers had been decisive for that. If that was the case the slight deviation was tolerated and counted as a Fit instead. With this procedure in place, the situation in the individual affiliates reflected the reality much better. The results on this new basis was tested for each subsidiary and discussed with the managers, who approved the new advanced method. It appeared that now the results were much better and the recommendations to the managers were more realistically.

The single results of the three coordination mechanisms were then aggregated for each subsidiary. From this either a **Fit to the theory** resulted, or 1, 2 or 3 Misfits could occur. The results of the individual subsidiaries were then summarized in charts. The interviewed managers considered this overview as very helpful. Figure 9 shows the result graphically using Hoechst (1997) as an example.

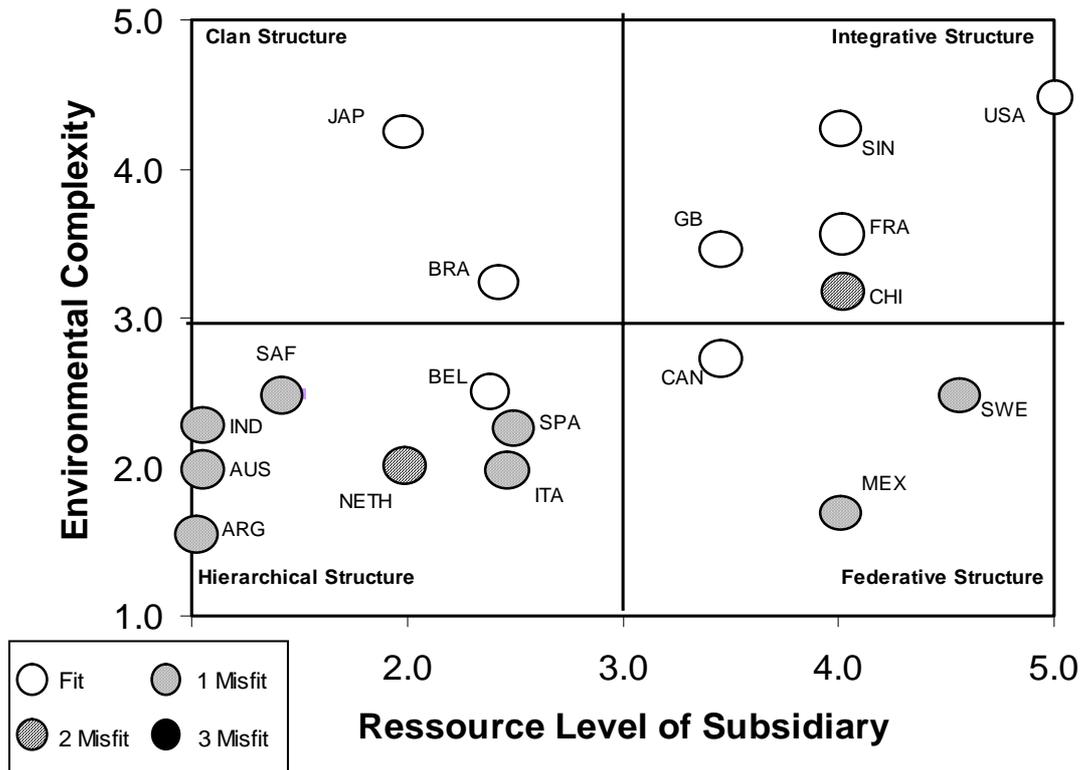


Figure 9: The analysis of the Internal Differentiation for Hoechst AG
 Source: Own depiction, Launer, M., 2004c.

Now the data set per company could be analyzed in more depth by the total number of Misfits per company, by different Cluster or by coordination mechanisms. However, the negative example of Philipp Holzmann showed that the over all result did not differ distinctively from other companies in comparison, although the company is insolvent today and grave coordination errors occurred. Therefore a new measure – the **Difference Measure** – was introduced. It measures the quantitative distance of the deviation of each Misfit between the measured value and the border-value of the associated clusters. In this way, absolute deviations as well as average deviations were measured. While the result is of limited help for a single enterprise it is suitable for comparison between two and more companies. Because two companies with the same number of Fits and Misfits to the theory could vary significantly in their deviation per Misfit. The end result of the Internal Differentiation analysis was then used as a basis for the advanced analysis Requisite Complexity.

By modifying the method, the original underlying theory was not changed. Especially this result proved that a **pragmatic method** had to be developed to use the theory in entrepreneurial practice.

5.1.4 The Adaptation of the Advanced Theory Requisite Complexity

The fourth analysis step, the application of the theory of the Requisite Complexity at the **group-level** is largely based on the results of the findings based on the theory Internal Differentiation. However, the results cannot be taken over without further methodological steps. The decision had to be made for each enterprise whether it differentiates the coordination mechanism or whether a dominant and worldwide integrating mechanism was given (refer to Appendix 14).

The differentiating or integrating coordination pattern now had to be **clustered** to the four categories (refer to Appendix 15). In the case of a differentiated use of the coordination mechanism an evaluation had to be made to decide when an enterprise implemented the coordination mechanisms differentiated according to the theory Internal Differentiation (cluster Differentiated Fit) or without a system (cluster Ad Hoc Variation). The theory, however, did not provide any help for this³⁷⁶. Since other similar theories did not provide any help, data from the initial study had to be collected and a rule-of-thumb to be developed by experience. By analyzing the pre-studies from 1993-2000 and using Philipp Holzmann as a negative example to distinguish the measurements, an advanced method could be developed.

The results were then transferred into the **16-field portfolio** of the Requisite Complexity and then checked whether the coordination structure indicated a Fit to the environment of the whole group (refer to Appendix 16). The evaluation of the environment for an enterprise was again based on the enterprise literature (refer to Appendix 9), the enterprise internal reports, and on the interviews of managers³⁷⁷.

However, the initial study did not contain an enterprise with a dominant, worldwide **integrating coordination mechanism**. Hoechst Chemicals and SGL Carbon, which operated in a global market, according to the theory, were in need of a worldwide integrating mechanism. But both of them had an exclusively differentiated structure. Therefore no actual examples through the evaluation of dominant coordination

³⁷⁶ Cf. Nohria, N./Ghoshal, S., 1997, pp. 179-185.

³⁷⁷ Cf. Nohria, N./Ghoshal, S., 1997, pp. 174-179. The authors suggest the use of "Index of Integration" by Kobrin, S.J., 1991, pp. 17-31. In the particular case the attribution mostly bases on the already introduced portfolios by McKinsey (refer to Kux, B./Rall, W. 1990, pp. 73-84). The managers knew it and this contributed to the necessary acceptance of the measures.

mechanisms could be collected in advance from the prepared case studies. Hence a theoretical case was constructed. Accordingly, a dominant coordination mechanism was given, if the average in all countries with one or more coordination mechanisms was above 3.7 (in case of autonomy under 2.3). It turned out that the assumptions could be realized both in the concept Requisite Complexity as well as in the Internal Differentiation³⁷⁸.

This analysis step is the last one in the paradigm of situational and transaction cost approaches. In the next analysis step a new research program will be the basis. It is now based on the theory of the Transnational Solution. The coordination mechanisms were first examined by means of the Network Approach.

5.1.5 The Adaptation of the New Approach based on Network Configurations

The bases of the theory of the Transnational Solution are the different network configurations of multinational enterprises (refer to Appendices 17 and 18). With the help of the developed coordination-model the average figures of the mechanisms of all subsidiaries were analyzed and evaluated like in the EPRG-scheme. However, an advantage over the EPRG-measurement was that the fourth, **transnational or regio-centric** cluster was now described in its context³⁷⁹. But behind these measurements as well are flexible, situation-adequate coordination mechanisms which cannot be expressed through average figures. Therefore the result of the analysis is superficial, aggregated on a group-level, and evaluated by average figures only. It does not yet provide a deeper understanding of the network configuration. Figure 10 summarizes the analysis-method graphically.

	Autonomy		Formalization		Socialization	
International	1.0	2.3	3.7	5.0	1.0	2.3
Multi-Domestic	3.7	5.0	1.0	2.3	2.4	3.6
Global	1.0	2.3	3.7	5.0	1.0	2.3
Transnational	1.0	2.3	3.7	5.0	3.7	5.0

Figure 10: Analysis of coordination mechanisms in different Network Configurations
Source: Own Depiction, Launer, M., 2004c

³⁷⁸ Later these assumptions were analyzed and proven in detail in the follow-up study, especially in the case of Celanese.
³⁷⁹ Cf. Meffert, H., 1990, pp. 100-107; Meffert, H./Bolz, J., 1992.

The method worked methodologically the same way as the EPRG-scheme. It does, however, differ in its content due to a complete different theoretical basis. In the initial study the results of both methods were compared to each other.

5.1.6 The Adaptation of the New Approach of Specified Strategic Roles

The analysis of the coordination mechanism by means of Specified Strategic Roles for individual subsidiaries is a more **advanced theory** of the Transnational Solution. However, it is at the same time the least specific in comparison with the theories presented so far. The classification of affiliates is still unproblematic³⁸⁰, and additionally the authors provide guidelines in their new revised book³⁸¹. But these guidelines are exclusively meant for the discussion of potential roles of subsidiaries. The application of the coordination mechanisms, however – as the author derives it from the theory – is not yet further developed in this book. It is based on the new paradigm of coordinating according to the **company-internal flows** of goods, resources and information. Therefore an own method had to be developed.

First the respective value of the three coordination mechanisms for each cluster was measured. This showed that the classification with narrow borders and average values (1 – 2.3 low, 2.4 – 3.6 medium, and 3.7 - 5 high), as used in the Internal Differentiation approach, did not provide a satisfactory result with any of the four enterprises. The analysis with simple, rigid borders, namely that 1 – 3 is low, and 3 – 5 is high, brought results that could be used much better. For each enterprise each individual affiliate per cluster was studied. The result again presented **Fits and Misfits** to the theory which can be counted and compared. Based on the results recommendation for actions were tried to derive.

However, the manager could not make much use of the model with Specified Roles in the pilot study (Bosch EW). „The classification does not make sense“³⁸², because subsidiaries are not coordinated according to their resource level and the strategic importance of the respective market. Furthermore, the two clusters Strategic Support and Black Hole are not satisfactory situations. The assets in the group should be better op-

³⁸⁰ Cf. Meier, A., 1997; Leong, S./Tan, C.T., 1993, pp. 449-464.

³⁸¹ Cf. Bartlett, C.A./Ghoshal, S., 2002, pp. 327-329.

³⁸² Expert-interviews.

timized instead of **attributing roles to affiliates** from this cluster. The higher the strategic importance of the market the more the subsidiary should be provided with resources. In the literature this critique has not been discussed so far. Therefore in the following case studies of the initial and follow-up study the foundation for a sound and critical analysis will be developed. Figure 11 illustrates the context graphically.

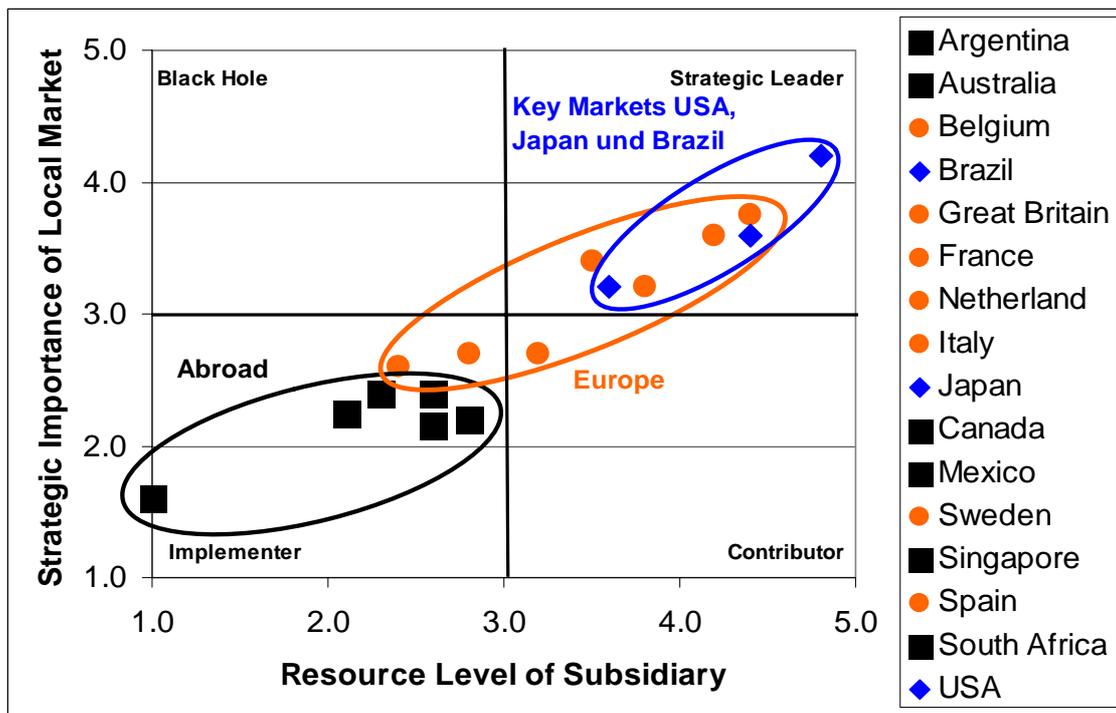


Figure 11: The distribution of Specified Strategic Roles for Bosch EW
 Source: Own Depiction, Launer, M., 2004b, p. 105

The Pilot study showed as well that in the context of the resource level of subsidiaries and the strategic importance of the local market we are not dealing with **two independent variables**. Thus the depiction of a portfolio would actually not be correct. Therefore the correlation coefficient between the variables was checked. The suspicion was confirmed in the statistical analysis. The correlation coefficient between the resource level and the significance of the market were found to be at 0.96 for Bosch EW and thus showed **strongly positive correlation** (refer to Appendix 106). The explanation was that due to the pilot study a one sided result might have occurred, which would probably not have been the case with larger number of companies. The method, which in itself is conclusive, was therefore used further in case studies. The pilot study at Bosch EW will now be introduced as the first of the four pilot-studies.

5.2 Brief Description of the Case Studies from the Initial Study

5.2.1 The Case of Bosch EW (1993)

5.2.1.1 Starting-Situation and Case-Specific Hypotheses

The central challenge on the world market for electrical power tools was the increasingly specific consumer demands³⁸³. They necessitated an ever stronger **local adaptation** of the product variety to the specific circumstance in the country posed. For example, the consumer in the USA, the professionals in particular, needed large and robust tools – so called „Heavy Tools“, for large construction sites and forest works. In contrast, in Japan the tools had to be smaller but with larger proportions, due to different body builds. The highest demands on product adaptation from local markets existed in Europe due to the different electrical currents and technical safety rules³⁸⁴. Worldwide competition and pressure towards global rationalization due to strong price pressure forced all competitors on the market simultaneously towards **worldwide integration** of their business³⁸⁵. This development challenged management to find the right balance between global integration and local adaptation, which represents a transnational challenge (refer to Appendix 20)³⁸⁶. Thus, the market can be described as globally blocked or as geocentric³⁸⁷. Accordingly, the Bosch Group had a complex matrix-structure which reflected the complexity of the market³⁸⁸.

The **competitor** Black & Decker³⁸⁹ at that time tried to globalize its businesses based on the typical international and ethnocentric focus for American enterprises. Bosch EW had a multinational or polycentric focus and wanted to establish global structures with the new concept “Structure 2000”, which anticipated transnational coordination measures³⁹⁰. The Japanese competitor Makita³⁹¹ already had transnational structures and was the most successful (refer to Appendix 20)³⁹².

³⁸³ Cf. Herdt, H.-K., 1986; o.V., 1988; o.V., 1992a.

³⁸⁴ Cf. company internal documents of the sales department.

³⁸⁵ Expert-interviews and Annual Report Robert Bosch, 1992.

³⁸⁶ Cf. Bartlett, C.A., 1989, p. 428; Meffert, H., 1990, p. 99.

³⁸⁷ Cf. Kux, B., Rall, W., 1990, p. 77. See also o.V., 1991a, pp. 25-37; o.V., 1991c, pp. 32-33.

³⁸⁸ Cf. Heuss, Th., 1986. As to the critique of the matrix-structure refer to Bartlett, C.A./Ghoshal, S., 1990, pp. 50-52.

Underlying the assumption that structure has to follow the strategy/market conditions, cf. Chandler, A.D. Jr., 1962.

³⁸⁹ Black & Decker, especially strong through the possibility of transferring a successful concept from its home country USA, does not have a country-specific strategy and failed due to the lack of a consequent global strategy, expert-interview Bosch EW.

³⁹⁰ The term transnational at that time was not well known and was used as a synonym of global.

³⁹¹ The strategy of Makita is characterized by aggressive, country-specific competition- and market-entry strategies. This is possible to such a degree, because Makita at this time only enters the world market with electro-tools, and thus the products have a low level of complexity, which allows flexibility; Expert-interview Bosch EW.

³⁹² Expert-interview and enterprise-internal presentations

Bosch EW had difficulties with the implementation of a more global strategy due to the autonomous country managers on the one hand, and "crusted structures" on the other hand³⁹³. To test the developed methods and modify them to fit to the reality, case-specific hypothesis were introduced and checked per case. The hypothesis' either described the situation of the company at that time or it was based on a company-specific problem that had to be identified by the analysis. Therefore, the

1st Case-Hypothesis is: If the developed models can be applied to individual case studies in practice, then the problem of autonomous affiliates, especially within the VUB (overseas sales group), should be indicated at Bosch EW.

Furthermore the managers commented that the enterprise structures within Europe were "crusted". This statement was made operational by a high a degree of normative integration and formalization to be able to measure it. Therefore, the

2nd Case-Hypothesis says: If the models are applicable, then the problem of „crusty“ structures in form of a normative integration and formalization that is too high should be able to be depicted within Europe.

5.2.1.2 Analysis of the Case

Now the analysis of the case study will be summarized briefly and the most important problem areas will be described³⁹⁴. The pilot study was much more in detail and evaluated each subsidiary by its context, history, interviews with the local country managers, as well as the developed and discussed recommendations. Various methodological approaches were tested of which the most promising solutions will be presented here. Then methods used and presented in this study were applied in the same way to all other case studies.

The first analysis step was the measuring of each coordination mechanism on an average basis. The average was build over all subsidiaries of Bosch EW (refer to Appendix 21). The results are purely descriptive so far since there is no theory to compare it

³⁹³ Expert-interview, refer also to Annual Reports Robert Bosch, 1992 and 1993. See also o.V., 1990.
³⁹⁴ Refer to detailed analysis by Launer, M., 2004 b and c

to. However, results were checked to the given situation and the case specific hypothesis. The aggregated answers (average of all countries) confirmed that on a group-level Bosch EW had largely autonomous affiliates (autonomy-degree: \bar{O} 3.4 on the scale from 1 to 5). Especially the overseas sales affiliates had a high degree of autonomy, meaning they were rather managed decentralized. The discussions with the managers confirmed this observation. The overseas affiliates, organized in the separate unit VUB, were too far away from the headquarters. More over, historically they were firmly managed by the country manager “L” that supervised not only Bosch EW in this country, but all other business units as well. It became clear through discussions that the structures were mostly created before the world wars, at a time when global coordination was far more difficult than today, and centralization was not possible. This confirmed the **1st Case-Hypothesis**, which predicted a high autonomy. This confirmation shows that the measuring of the mechanism reflects reality well.

The **crusty structures (2nd Case-Hypothesis)**, made operational through a high normative integration and formalization, could not yet be confirmed on the basis of average figures (formalization: \bar{O} 2.8; normative integration: \bar{O} 2.9, refer to Appendix 21). Here the evaluation of the term “too high” is still missing³⁹⁵. In any case, Bosch EW had a medium level of formalization and normative integration. The answers for each question, however, varied and thus confirmed that one single questionnaire would not have been an accurate measure (key-informant approach not applicable).

The **EPRG-Scheme** could not be applied to the enterprise situation because the theory does not provide explicit information as to region-centric orientations. In contrast, the analysis of different **Network Configurations** provides statements about the situation of high global integration and high national adaptation at the same time (transnational category). In the case of Bosch EW, the measuring instrument showed Misfits with all coordination mechanisms (refer to Appendix 22). This means that the affiliates, on an average basis were not coordinated according to the theory.

³⁹⁵ Here the problem is shown, if the coordination instruments are only measured, but cannot be interpreted through a continuing theory.

But this result corresponded with reality since the managers agreed that the autonomy of affiliates was too high, the formalization degree too low, and the normative integration also was too low. The latter applies especially to affiliates from overseas. For an improved coordination Bosch EW planned with concept 2000 already to install a European-wide IT-infrastructure. The organizational unit VUB should be eliminated and the affiliates abroad much more normatively integrated. The accurate result confirms therefore the **4th Model-Hypothesis** in the case of Bosch EW which examines the applicability of the Network Approach. The interpretation of the coordination strategy in practice was accurately presented even though the result was negative.

The second analysis step, the **Situational Analysis** of coordination mechanisms, was now tested for single subsidiaries by its individual context. The correlation analysis measured the relation between the variables “environmental complexity” and “resource level”. However, the correlations shown were weak. The correlation-coefficient for centralization of 0.05 as to environmental complexity and 0.11 as to the resources level was very low (refer to Appendix 106). More over, the affiliates of USA, Japan and Brazil should be taken out of the statistical analysis. In the US a new joint venture was formed with the company Skill, Inc. The affiliate was therefore managed by the corporate headquarters of Robert Bosch GmbH (**Schillerhöhe**). In Japan the affiliate was not up and running and only three managers did speak English at that time. In Brazil the hyper-inflation and currency exchange problems made coordination impossible. By taking them out of the sample, a negative correlation for autonomy (positive correlation for centralization) for both variables are recognizable (refer to Appendix 23). The managers called this “the Bosch Way”. The more resources an affiliate had the more the assets were controlled regardless of potential conflicts. That result is the opposite of what the **Situational Hypothesis 1 and 4** had predicted and they are therefore dismissed.

For the **normative integration** 0.16 as to the environmental complexity and 0.44 as to the resources level hardly correlated as well (refer to Appendix 25). The deeper analysis of the resource levels of the affiliates showed that within Europe all subsidiaries had a high resource level, mostly because they were established earlier and were closer to the headquarters. At the same time the managers said the normative integration is higher due to the low distance, the European culture, and EU membership. This

also interfered strongly with the assumed culture-free thesis. Therefore the **Situational Hypotheses 3 and 6**, which examined this context, were discarded in the case of Bosch as well. Only **formalization** (correlation of 0.68 as to the environmental complexity and 0.68 as to the resource level, Appendix 106) correlated clearly in a positive way with both variables (refer to Appendix 24). Thus the **Situational Hypotheses 2 and 5**, which denotes formalization were confirmed.

In the next step of the analysis, measuring coordination mechanisms by means of the **Internal Differentiation**, no average figures were used but rather each affiliate was compared separately. Therefore each affiliate was categorized into the four cluster based on the underlying context relations and transaction costs (refer to Appendix 26). But the model had to be adjusted and adapted several times during the pilot study because at first it did not reflect the reality of Bosch EW correctly. For that purpose, each individual affiliate was analyzed in very detail and discussed with the managers. The model was afterwards adjusted iteratively in this initial study until it reflected the reality of all four corporations closely³⁹⁶. As a summary of this lengthy process the original method will be here described compared to the most advanced method.

In the analysis containing strict definitions and rigid borders according to the original theory **centralization** showed 6 Misfits (refer to Appendix 27)³⁹⁷. During the discussions it turned out that in Netherlands (Holland) the little too high autonomy wasn't a big problem at all. The modified method with more narrow borders, middle fields, and the tolerance measure showed 8 Misfits instead. The measurement of Netherlands was accepted due to the tolerance measure. In addition, the problems of strong centralization (too low autonomy) in Italy, Spain and England surfaced only in this measuring. The managers agreed that all three affiliates were too centrally coordinated due to historical reasons. The modified model was more accurate and confirmed again the **1st Case Hypothesis**. The results are described much more in depth by Launer (2004c).

³⁹⁶ This procedure was scientifically correct because the original theory had been already confirmed empirically broadly.
³⁹⁷ A Misfits corresponds with a coordination instrument in a country, the formation of which does not correspond with the theory

Formalization showed 3 Misfits for both methods (refer to Appendix 28). However, in the strict, original method the affiliate in Belgium was mistakenly evaluated too formally coordinated³⁹⁸. By interviewing the managers locally in Belgium they did not criticize the degree of formalization seriously. The common procedures helped them to more independently and avoid conflicts with the headquarters. The advanced method took that into account correctly and showed only 2 Misfits. The Misfit for the US could be tolerated because it was not due to one marginal deviation. The managers agreed that after the merger with Skill the company should be formally aligned again.

In the case of **normative integration** 8 Misfits were shown in the original method (refer to Appendix 29)³⁹⁹. In particular, the European affiliates Spain, Netherlands, Belgium, and Sweden had a too high degree of normative integration. This should indicate that the transaction costs to socialize those with shared values should have been too high. However, all four affiliates were close to the border to a high normative integration⁴⁰⁰. The opposite case was Canada which was categorized as a Clan but close to the border of the Hierarchy. The more advanced method took all that into account and the newly introduced medium field showed fits in all cases.

In total this resulted in 17 Misfits for the original method, or in other words 35% of all measured figures did not correspond with the strict theoretical guidelines⁴⁰¹. After adjusting the **measuring method** from 48 measured coordination formations (3 mechanisms times 12 countries) 36 Fits (75 %) and 12 Misfits (25 %) to the theory emerged (refer to Appendix 30). Six affiliates were coordinated according to the theory and eight affiliates showed one Misfit to the theory and two subsidiaries – Brazil and the USA – showed two Misfits. Thus, Bosch EW was managed in a differentiated manner but still not in accordance with the theory of Internal Differentiation due to the high rate of Misfits. However, the theory does not provide a **cut-off line** when the result is within or outside the range.

³⁹⁸ As described, the statements about reality were derived from the interviewed managers. The problem of their blindness or opportunistic attitude has been described already.

³⁹⁹ Siehe Launer, M., 2004b, S. 87.

⁴⁰⁰ Expert-interview.

⁴⁰¹ 16 countries multiplied three coordination instruments sum up to 48 measurements for Bosch EW.

The **deviation from the theory** and the evaluation of each single subsidiary the modified model was considered as close to reflecting reality by the managers in. The **2nd Model-Hypothesis**, which is meant to examine the usefulness of the theory in practice, can be considered confirmed for the case of Bosch EW following the adaptation. However, the original model described the **2nd Case-Hypothesis** better than the modified model due to the high Misfit-rate in normative integration (refer to Appendix 29). It was a too high normative integration and formalization expected and results were medium only. Formalization did not show a proving result.

The deviation-degree of the Misfits, which were measured by the **Difference Measure**, stood at 1.0 on average (1 scale value on the 5-point Likert-scale). The absolute deviation (sum of deviations measured at the deviation to the cluster border) stood at 11.8 (refer to Appendix 30). This result has to be seen in comparison to others. The results from the measurements regarding the Internal Differentiation were now further processed on an aggregated group-level.

The theory of the **Requisite Complexity** alleged (Appendix 31), that Bosch EW should have a coordination structure of the Differentiated Network” due to the transnational market. But the previous analysis of the Internal Differentiation proved that Bosch EW did not have an explicit coordination strategy. In terms of the theory of Requisite Complexity it is rather a structure of Ad Hoc Variation. This result was also plausible to the managers because the affiliates of Bosch EW, from a disciplinary viewpoint, belonged to the autonomous country affiliates which united several business fields under one roof. Bosch EW in 1993 had only conditional access to its affiliates and thus, hardly any control over their coordination. The **3rd Model-Hypothesis**, which is meant to examine the theory of Requisite Complexity in practice, is confirmed through the results from the case study of Bosch EW. Unclear was still whether a **25% Misfit-rate** by differentiating the coordination structure was rated as a Differentiated Fit or Ad Hoc variation. But the managers’ agreed on not having had a systematic coordination structure at that time. For better evaluating the Misfit-rates more experience and comparable results are necessary.

The application of the concept of **Specified Strategic Roles** to Bosch EW was the last step. According to the situational variables “strategic importance of the local market” and the “resource level of the subsidiary” every affiliate was categorized. The method produced a result typical of the mentality of the Bosch Group (refer to Appendix 32). The selected affiliates did not have surplus resources at all. None of the subsidiaries was a Strategic Support for the group in the portfolio (except for Belgium)⁴⁰². None of the subsidiaries represented the Black Hole, which means that capital was only invested in important markets – and this was done consistently. As mentioned before the context showed a correlation coefficient of 0.96 (refer to Appendix 106).

Nevertheless, the next step was to examine whether the affiliates have been attributed strategic roles in reality. However, in discussions it has been stated that this was not the case. Although locations for production, marketing affiliates and R&D centers existed the subsidiaries were integrated into their respective country subsidiary housing several business units. When the question was asked whether strategic roles could be distributed on the basis of this analysis the answer was that **resources were distributed** optimally and that there was no need for it. It would rather require a fundamental restructuring, which has the separation of the EW-activities from the country affiliates as an objective. Then all regional EW-affiliates could receive roles for implementation, and only some regional headquarters could be established in the triad markets. In the present case the role model was therefore discarded as it was considered impractical (**Model-Hypothesis 5**).

The final discussion was to whether the **flow of goods**, information, and resources should be used as a basis for deciding about coordination. The result was clearly that this was not considered meaningful. The theoretical analysis as to whether an empirical context existed between the roles from the theory and the implementation of coordination mechanisms, showed that at a rate of Misfits of 42 % (20 Misfits) the coordination in Bosch EW was based neither on strategic roles nor on internal flows (refer to Appendix 33). In an intermediate conclusion the results will be compared again with other enterprises, but first the second case will be presented briefly.

⁴⁰² The classification of the RG Belgium has to be changed into the role of strategic implementation for the sake of precision in measuring. Expert-interview Bosch EW.

5.2.2 The Case of Hoechst Chemicals (1994)

5.2.2.1 Starting Situation and Case-Specific Hypotheses

In 1994 Hoechst⁴⁰³ produced only few significant innovations⁴⁰⁴. Consequently the profitability was clearly below the industry average, especially in comparison with American competitors⁴⁰⁵. „Although Hoechst (was) prestigious, over the years it has become a tired Chemical-Texture-Pharmacy-and-many-other-things-Enterprise“⁴⁰⁶, whose most important products have lost their patent protection⁴⁰⁷.

The close connection to the location Frankfurt-Höchst led to a **strong centralistic** leadership within the German organization⁴⁰⁸. „Hoechst was rooted deeply in Germany, very research-active but not market-oriented, very introverted and academic“⁴⁰⁹. There was a large Central Directors Department (ZDA) with numerous country representatives, but they had almost no authority to make decisions abroad⁴¹⁰. However, most of the turnover was earned outside Germany, where foreign subsidiaries enjoyed **high autonomy**⁴¹¹. Coordination was carried out through the respective local management, which – typical for German enterprises – consisted almost only of leadership personnel sent from Germany. They coordinated their decisions directly with the parent company⁴¹². The structure of the Chemicals business was similar to Bosch EW: several Business Units were combined under one roof of a country affiliate. While the chemicals world market was considered global in theory and practice the organization was not expected to meet these demands (refer to Appendix 34)⁴¹³. Because of this organizational structure the

3rd Case-Hypothesis is: Hoechst AG in Germany was managed centrally, but its Business Unit Chemicals had worldwide de-centrally organized foreign subsidiaries with a high degree of autonomy.

⁴⁰³ Cf. Bäuml, E., 1989; Schreier, A.E./Wex, M., 1990.

⁴⁰⁴ Cf. Sommer, C., 2001, pp. 119-126; Müller, E., 1990, 4/1990; o.V., 1991b, pp. 30-31.

⁴⁰⁵ Cf. Welge, M.K./Holtbrügge, D., 2003b, p. 351.

⁴⁰⁶ Cf. Sommer, C., 2001, p. 120.

⁴⁰⁷ Cf. Welge, M.K./Holtbrügge, D., 2003b, p. 351.

⁴⁰⁸ Cf. Klein, H., 1996, pp. 36-50.

⁴⁰⁹ Quoted according to Berthoin Antal, A., 2001, p. A1.

⁴¹⁰ The central department of directors (ZDA) was rather used as a training place for leadership personnel.

⁴¹¹ Cf. Annual Report Hoechst AG 1993 and 1994.

⁴¹² Cf. Klein, H., 1996, p. 112-113.

⁴¹³ Cf. Kux, B./Rall, W., 1990, p. 77 and Expert-interviews.

In 1994, Jürgen Dormann took over the position as the chairman of the board. The new CEO described Hoechst AG as bureaucratic when he took his office⁴¹⁴. According to the foundations made the term bureaucratic can to a great extent be operationalized in high degree of formalization. On a group-level unified procedures and policies existed in thick German handbooks, which were implemented worldwide in the country affiliates. Accordingly, the Chemicals division had no separate guidelines. Therefore the

4th Case-Hypothesis is: The foreign subsidiaries of Hoechst Chemicals, display a medium measure of formalization due to a strong formalization on a group-level, but no separate policies for the Chemicals division.

Until 1998 Hoechst was considered an enterprise with a strong business culture⁴¹⁵. The Hoechst-Family was well known worldwide. If this strong business culture had been spread worldwide then the foreign subsidiaries should show a high degree of common values in the analysis. Hoechst AG implemented a worldwide Corporate Identity-Program and the Slogan High Chem[®]. But „The Family“ referred mostly to the overall group. There was no shared value basis in the Chemicals business that would function as a coordinative or integrative mechanism. The local chemical units were rather committed to the host country or the corporate headquarters called “Faulturm”. Therefore the

5th Case-Hypothesis is: The foreign subsidiaries of Hoechst Chemicals show a medium degree of shared values.

Ghoshal studied Hoechst AG on a corporate level already in 1985. According to their results, the overall corporation had a differentiated structure (but no information regarding the Misfit-rate was known) and a strong centralization of decision making within the ZDA was assumed. While in the Hoechst Group therefore the organizational structure of a **Differentiated Network** could be assumed (differentiated and integrated at the same time according to the requisite Complexity)⁴¹⁶, the managers of

⁴¹⁴ Cf. Dormann, J., 1993, pp. 1068-1077.

⁴¹⁵ Cf. Annual Reports by Hoechst AG, 1992 and 1993.

⁴¹⁶ Cf. Nohria, N./Ghoshal, S., 1997, pp. 181-189. The author knew the result of the study in advance, because of his direct contact with Prof. Ghoshal in 1992.

the Chemicals unit predicted that in their area no dominant coordination mechanism would exist. Therefore the

6th Case-Hypothesis therefore states: Hoechst Chemicals showed the coordination structure of the Differentiated Fit.

Interviews and research of literature also showed that resources in Hoechst were managed carefully. As was the case with Bosch EW, it was expected that subsidiaries received more resources as the market became more important. Therefore for the role model in contrast to the former Model Hypotheses was predicted as the

7th Case-Hypothesis: Hoechst distributed its resources according to the strategic importance of the markets. The role model in the case of Hoechst Chemicals will show a more linear relation between the level of resources and the strategic importance of the local markets.

5.2.2.2 Analysis of the Case

Again first the average measurement for each coordination mechanism was calculated. The average degree of autonomy of all subsidiaries demonstrated (refer to Appendix 35) that they were managed in an autonomous style (\bar{O} 3.7), just as expected (**3rd Case Hypotheses**). The interviews confirmed that the board of management centrally managed the local country management but not the Chemicals managers on the second leadership level. The average-measuring of the formalization showed clearly a medium development (\bar{O} 2.7) in that business area which thus was within expectations as well (**4th Case Hypotheses**, refer to Appendix 35). Managers from Corporate Controlling assured as well that almost no formal systems were set up and subsidiaries report turnover and profit figures quarterly only. The tables also show the extent of common values shared by the respective local chemicals unit with the Business Unit Management in Frankfurt-Höchst. The shared values figures are on average at 2.9 and thus in a medium area. The measurement indicated again a confirmation of the **5th Case-Hypotheses**. The measurement quality so far had been very good.

The **EPRG-Scheme**, in contrast to Bosch EW, produced a satisfactory result. For the global enterprise the degree of autonomy of \emptyset 3.7 was placed at the upper fringe and thus was a Fit to the theory (refer to Appendix 36). According to the theory, the formalization and socialization should have been higher ($> \emptyset$ 3.7) to reach a Fit. However, for both, the formalization and the normative integration, a medium measure had been expected. The two Misfits to the theory were therefore depicted correctly, and the **1st Model-Hypothesis**, which examines the EPRG-Scheme in practice, was confirmed through the example of Hoechst.

In contrast, the analysis according to the **Network Configuration** showed 3 Misfits to the theory. The average degree of centralization which in the EPRG-Model appeared still as a Fit in the upper border produced a Misfit in the Network Model instead. The underlying theory demands a higher centralization for companies operating in a global market (reversely, the autonomy-degree of \emptyset 3.7 was too high). The question is now which model, EPRG or Network, evaluates coordination strategies better. On the basis of the small difference in centralization it cannot be decided which of the models works more accurately. The managers however would have liked to have a more centrally managed business unit. This target was better addressed in the Network Model. In the case of socialization, however, the evaluations clearly went in **different directions**. The EPRG-Scheme demands high socialization and the Network Model low socialization. Unfortunately, Hoechst showed a medium level, which made the evaluation of the two models more difficult. But it is questionable in the case of Hoechst Chemicals whether a strong socialization (EPRG Model), the most expensive coordination mechanisms, would have been right step to advance global coordination. Instead a more centrally organized management would have been the priority and afterwards worldwide policies and systems for the Chemicals business itself. The Network Model showed this advice more clearly by asking for more centralization and formalization. The **4th Model-Hypothesis**, which examines the network approach in practice, is considered confirmed in the case of Hoechst. The subsequent recommendations are better and more realistic than in the EPRG Model.

The fourth step of the analysis was the review of the **Situational Hypothesis** by means of the variables “environmental complexity” and “resource level” (refer to Appendix 106). In the case of the centralization (correlation coefficient 0.29 and 0.35

respectively) a high correlation could not be assessed (refer to Appendix 37). Therefore, the **1st and 4th Situational Hypotheses** could be discarded. In the case of formalization in relation to the environmental complexity (0.46), a high correlation could not be found either. Therefore the **5th Situational Hypothesis** was discarded as well. As to the resources level however, a significant correlation existed (0.71), and this confirmed the **2nd Situational Hypothesis** in the presented case (refer to Appendix 38). In the case of the normative integration the environmental complexity correlated significantly (0.64; **6th Situational Hypothesis** confirmed), but not the resource level (0.45; **3rd Situational Hypothesis** discarded, refer to Appendix 39). It could be shown – as in the case of Bosch – that Situational Approaches are not reliable analysis instruments even when some single results looked promising.

In step five of the analysis the **Internal Differentiation** was measured for single affiliates. The clustering of the subsidiaries showed a widespread table (refer to Appendix 40). Again, the variant with strict borders was compared with the variant with smooth borders, medium fields, and a tolerance measure. Measuring according to the original theory with strict borders resulted in 5 Misfits for **centralization**. The same result was shown for the new variant (refer to Appendix 41). But the original method showed a misfit for the affiliate in Italy while the new model evaluated a Fit. The level of autonomy, however, was felt to be right by the Hoechst managers at the present level. In contrast, South Africa could be managed much more centrally, but it was not shown as a Misfit in the original method. The modified method seemingly portrayed the situation better and classified the affiliates in accordance with the evaluation of the managers. Theoretically that assessment was solid as well.

In the case of **formalization** the results clearly spread from each other. Three Misfits were shown for the new method while the original showed only one Misfit. The modified measurement in contrast indicated that the subsidiaries in Sweden and Mexico should be coordinated much more formally. Both affiliates are categorized as a Federal Structure, whose high level of resources should be controlled more strictly, without having to make personnel decisions. The managers totally agreed to this recommendation since changes in management and reporting lines were difficult to imple-

ment but a higher formalization would have been helpful (refer to Appendix 42)⁴¹⁷. In the case of China both methods indicated a Misfit meaning the affiliate should be more in line with the formal policies and systems. The modified method gave good advice to the interviewed managers.

The measuring result of the **shared values** surprised the Hoechst managers. Spain, Holland and Italy had a too high level of socialization in the new and modified measuring while the high normative integration was initially perceived as good (refer to Appendix 43). But when discussing the transaction costs that had occurred to reach this level of shared values, it became clear that the affiliates could have been managed in a more hierarchical and less costly style. That recommendation was new and very helpful for the Hoechst managers. However, the level of centralization was assumed to be right at a medium level. Thus, no dominant coordination mechanism was demanded by the new model for Italy and Spain. This had to be seen as a negative for installing the new medium field that diluted the use of centralization. In reality, however, the either-or choices are not always possible. The model showed a very acceptable alternative. The more centrally management would have lead to severe conflicts. This was argued based on the medium resource level and not because of the pride these cultures have (**culture-free thesis**). Consequently the measurements provided good recommendations for action. The original model instead evaluated the normative integration as too high for Sweden by showing an above average figure. The affiliate again is located close to a border and therefore much better analyzed.

Overall, the original method identified 9 Misfits to the theory or a 20 % failure rate. The result of the **advanced method** is slightly worse, 12 Misfits and 22% Misfit-rate, but with very useful recommendations and accurate measurements. Nevertheless, Hoechst Chemicals showed a Differentiated Structure relatively close with the Internal Differentiation theory. The **2nd Model-Hypothesis**, which examines the Internal Differentiation, can therefore be confirmed on the basis of the modified model for the case of Hoechst Chemicals. The deviation of the Misfits measured by means of the difference measure, averaged at 1.0 and therefore was identical with Bosch EW. The absolute deviation was at 12.4 for 18 affiliates (refer to Appendix 44).

⁴¹⁷ Expert-interview.

The result, a complex coordination structure of a Differentiated Fit, was now further used in the theory of **Requisite Complexity** (refer to Appendix 45). Each relationship between the parent-company and the subsidiary was shaped individually, and the management processes were differentiated. Nevertheless, there was no dominant and globally integrating coordination mechanism although this would have been proper in the global market (structure Structural Uniformity fits better). The managers agreed that the coordination structure had to be simplified. The Chemicals affiliates were integrated in the country subsidiary and thus coordinated by other than Chemicals business criteria. Chemicals management needed globally unified systems and processes, through which the areas of purchase, production, logistics, and sales could be managed globally. The **6th Case-Hypothesis** was confirmed by this analysis. The model realistically reflected the coordination structure, and it provided good recommendations. Nohria and Ghoshal also examined the Hoechst AG in 1986 on a group-level by using two questionnaires. In this case, it seemed on the group-level that Hoechst AG had assumed a much stronger centralization than it might have been in individual business areas. The ZDA in the corporate headquarters with more than 200 employees was considered as a worldwide integrating coordination instrument. It could be proven that their central influence did not reach the business level. The analysis and the interviews showed that the current situation in the business field was recognized correctly. Thus, the situation on a business level differed from the headquarters as had been expected. The **3rd Model-Hypothesis** can therefore be confirmed.

The analysis of **Specified Roles** showed that the two variables „strategic importance of local markets“ and „resource level of subsidiary“ correlate with a coefficient of 0.83 (refer to Appendix 106). The **7th Case-Hypothesis**, which examines this correlation, is thus confirmed meaning the use of a portfolio is questionable (refer to Appendix 46). In addition, the delegation of strategic roles by means of the two variables and the use of coordination mechanisms based on internal flows were not accepted by the managers at all. In their opinion the Role Model might work on a group-level but not in business. Assets have to be managed very economically and aren't the basis for delegating strategic roles. The rate of Misfits for the coordination mechanisms based on the deducted model stood at 43% (23 Misfits, refer to Appendix 47) and no theoretically useful pattern could be identified. The **5th Model-Hypothesis**, which has the role model in practice as its subject of study, had to be discarded for this case.

5.2.3 The Case of SGL Carbon (1997)

5.2.3.1 Starting-Situation and Case-Specific Hypotheses

SGL Carbon was established in 1992 through the merger of SIGRI Group, a 50/50 Joint Venture between Hoechst and Siemens, and American Great Lakes Carbon in 1993, the graphite activities of the French Pechiney Group were acquired, with productions in Belgium and Spain. Thus the largest supplier of carbon- and graphite products in the world was formed: SGL⁴¹⁸. The task was to bring together the individual parts of the enterprise to form a global company and to create synergies while facing ruinous competition. The oligopolistic market structure with only few suppliers (6 companies' active worldwide) and only a few buyers (approx. 200 steel clients) therefore demanded a global orientation of the Group (refer to Appendix 48)⁴¹⁹.

The board of management (Vorstand) tried to integrate the most important units into the group according to priorities. Therefore Business Units (BUs) were established, one in Europe and one in North America for each business⁴²⁰. The strategic management of assets was given priority and the focus was on key customers in the most important markets. It was therefore expected that the coordination structure was highly differentiated. Since no history or interfering country subsidiaries were present the coordination mechanisms were newly installed by strategic priorities. Therefore, the

8th Case-Hypothesis is: The newly formed SGL in 1997 had a differentiated coordination-structure and no dominant coordination mechanism yet.

The organization of the BUs was decentralized as stated in the mission. However, within the BU attempts were made to coordinate more activities centrally⁴²¹. The independent affiliates grouped together from different enterprises had to be brought together and a unified system had to be created. Therefore, the

9th Case-Hypothesis is: Centralization shows a medium level due to the decentralized corporate structure and a tendency to centralization on a business level.

⁴¹⁸ Cf. Annual Report of SGL Carbon Group 1993, 1994 and 1995.

⁴¹⁹ Cf. Kux, B./Rall, W., 1990, p. 77, Investor Relations - documents of the enterprise and Expert-interviews.

⁴²⁰ Cf. Annual Report SGL Carbon Group 1994 and 1995.

⁴²¹ According to enterprise-internal documents and expert-interviews.

Special importance was given to the normative integration of all employees in order to integrate activities worldwide. Production sites were strongly socialized, because the respective site managers were member of the BU management⁴²². Since the communication of shared values and the CI - strategy only started in 1994, the

10th Case-Hypothesis suspects: Normative integration will demonstrate average figures. Production sites will be more socialized than sales affiliates.

Since the board managed the group purely from the strategic perspective and were relying on a few financial key data only, formal systems were hardly introduced. Focus was a strictly business-oriented environment without bureaucratic structures. Procedures and systems in production were not adapted yet to each other. The plants more or less operated independently based on a simple corporate production plan. Some new policies were introduced by the central Corporate Planning & Coordination department. But they were still new and the implementation was slow. The priority was to become profitable again by increasing prices. The different systems derived from several merged companies will therefore show a low level of formalization.

The 11th Case-Hypothesis therefore is: Formalization was low in 1997.

Due to the merger of various enterprises in 1992/93 it was expected that resources at SGL had not yet been optimally distributed. Minority shareholdings in some subsidiaries slowed down the reallocation of corporate assets⁴²³. To control these assets the delegation of Specified Roles could be expected. The subsidiaries represented in the BU management should have had Strategic leadership tasks while the other affiliates had to follow directions. Therefore,

the 12th Case-Hypothesis is: The subsidiaries will be – different from Bosch EW and Hoechst – distributed evenly on the role model portfolio. The Model of Specified Strategic Roles should show good results in this situation in particular.

⁴²² Cf. Annual Report SGL Carbon Group 1996 and 1997.

⁴²³ Cf. Annual Report SGL Carbon Group, 1996.

5.2.3.2 Analysis of the Case Study

The analysis of the individual coordination mechanisms at SGL shows a picture typical for the situation (refer to Appendix 49). As expected in the **9th Case-Hypothesis** centralization showed a medium level in average (autonomy \bar{O} 2.8). However, the degree of centralization was much differentiated between the affiliates. The production affiliates represented in the BU's showed a de-central approach as stated by the Vorstand. The BU management on the second managerial level however, coordinated the sales affiliates rather centrally. Normative integration also showed the expected medium figures on average. The subsidiaries with the strongest socialization were the production locations in the USA, Belgium, France, Spain, and Italy which were represented in the BUs. Surprisingly Japan and Great Britain was highly normatively integrated as well. In Japan SGL was not active in terms of sales due to the closed market. The affiliate had the strategic role to observe the Japanese competitors and work closely with management to build competitive advantages. The production site in Great Britain was closed shortly after the merger due to an over supply in the market. The few key managers left probably worked closely together with BU management (to keep their job). The **10th Case-Hypothesis**, which predicted the normative integration as described, was thus confirmed. As expected, the degree of formalization was low with an average value of \bar{O} 2.3. This confirmed the **11th Case-Hypothesis**.

The **EPRG-Analysis**, which evaluated the **average figures** on group-level for a geocentric market, showed a Fit for centralization and two Misfits for formalization and normative integration (refer to Appendix 50). The Misfit in the normative integration is correctly portrayed (\bar{O} 3.1, demand $>$ \bar{O} 3.7), supposedly because the Corporate-Identity-Program had just started, and it had created shared values only a short amount of time. In the case of the formalization, however, the degree will remain low because of the enterprise corporate guidelines (\bar{O} 2.3, demand $>$ \bar{O} 3.7). The model therefore does not reflect the less formal coordination strategy correctly. The same applies to the centralization (\bar{O} 2.8). Although it still shows a Fit, the company will still centralize more strongly in future, and the medium level of centralization at the time was criticized by the managers. The **1st Model-Hypothesis** for the EPRG-model in the case of SGL Carbon does not reflect reality therefore cannot be confirmed.

The situation is different with regards to the analysis by means of the **Network-Configuration** (refer to Appendix 50). The average level of normative integration (\emptyset 3.1, demand $<$ \emptyset 2.3) does not yet allow judgment about the quality compared to the competing EPRG-model. Centralization leads to a Misfit as in the case of the EPRG Model, since a higher centralization was demanded. But the companies' strategy of increasing centralization will lead to a Fit in the long run. By discussing the two different approaches a more central coordination in a global and geocentric environment was preferred. Even when it is not correct to compare the global and geocentric orientation directly, the better fit of the Network Model was clear. In terms of formalization the model showed a Misfit again. In this regard the company has a unique approach that is not recommended in both, the EPRG and Network Model. The Misfit therefore is therefore correctly portrayed. The **4th Model-Hypothesis** was therefore confirmed.

The fourth step in the analysis was the examination of the **Situational Approach** (refer to Appendix 106). In the case of environmental complexity a significant correlation could not be established in relation to the centralization (correlation coefficient 0.26), the formalization (0.03), or the normative integration (0.27). The **Situational Hypotheses 4, 5 and 6** therefore did not apply for SGL (refer to Appendices 51, 52 and 53). The correlations regarding the resource level showed a positive picture. Centralization correlated with the factor 0.91, formalization with 0.89 and normative integration with the factor 0.65 (refer to Appendix 106). The **Situational Hypotheses 1, 2 and 3** could be confirmed. The discussion with the managers did not provide good feedback on this result. They were of the opinion that subsidiaries could not be coordinated according to the variables "environmental complexity" and "resource level".

The allocation of the subsidiaries into the portfolio of the **Internal Differentiation** showed an obvious pattern (refer to Appendix 54). The large production sites in complex and important market were clustered into the Integrative section. The less important production sites Canada and Belgium were categorized as Federative instead. All sales affiliates had a low resource level and therefore being categorized as Hierarchy or Clan. The newly installed post-merger organization showed a clearer pattern than the historically and bureaucratically burdened Bosch EW and Hoechst Chemicals.

The measurements of centralization (refer to Appendix 55) with the **Internal Differentiation method** showed in both variances identical results. The two Misfits for China and India were identified correctly. Both affiliates are new and the resources given are managed centrally. The few expatriates sent coordinated their start-up activities closely. In terms of the formalization (refer to Appendix 56) both methods were in agreement for the Misfit in China. The new affiliate was for sure not in line with the corporate policies yet. The advanced model showed a Misfit in Canada in addition. The managers interviewed within the US confirmed that result. For years they were trying to more formalize the relation since it was difficult to manage the site centrally. The plant manager however, refused to install more policies and systems as they already had. But a close coordination was essential because of the production network with the US-sites in Hickman/Kentucky and Ozark/Arkansas. The advanced model identified that problem area in an excellent manner.

In contrast, the original measurement of the shared values showed 5 Misfits while the advanced variant showed 2 (refer to Appendix 57). Both methods correctly identified China as a Misfit where the new site was managed rather centrally instead with normative integration. The **advanced model** showed incorrectly a too high normative integration for the two production affiliates Belgium and France. While Belgium was still tolerated as a Fit due to one questionnaire not in line, France was clearly portrayed as a Misfit. This was due to the medium field where it was positioned. In this case the measurement was incorrect because the affiliate is represented in the BU and actually the chairman was from Paris. So a high socialization is expected. In this case the newly **medium field** failed. In contrast the original method shows a Misfit for Belgium due to the missing medium field. That result was incorrect as well. The reason for both mistakes could be argued with the post-merger misallocation of resources. While the old plant in Belgium was too large, France should have had a larger resource level. Under these considerations both models combined were correct, but none of it found both misallocations. The original method rated the sales affiliates in South Africa, Mexico, and India as a Misfit. However, all three sites were closely located to the border to the hierarchical segment and therefore the advanced method with the medium field took that circumstance into account much better.

Overall, the original method identified 8 Misfits (18% failure rate) while the advanced method showed 6 Misfits (failure rate 13%). This confirms the **8th Case-Hypotheses** which predicted correctly the target-oriented coordination according to the theory (refer to Appendix 58). In addition, the accurate measures (excluding the misallocations in France and Belgium) proved the **2nd Model-Hypothesis**. The deviation of Misfits, measured by the difference measurement, on average stood at 1.0. The absolute deviation stood at 6.2 for 15 subsidiaries (refer to Appendix 58).

In the theory of the **Requisite Complexity**, the results of the previous analysis have been assessed a Differentiated Fit. The coordination of the affiliates was differentiated by country, but an integrating coordination mechanism for dealing with the global market was missing (**8th Case-Hypotheses confirmed**). These results reflect very well the situation of that time, in which the board of the newly established enterprise started off the worldwide coordination according to priorities and not worldwide at the same time (refer to Appendix 59). They started with the production affiliates by unionizing them in BUs, and then increasingly the marketing affiliates through an intensive CI program. The **3rd Model-Hypothesis** was confirmed in this case.

For the first time, an allocation of subsidiaries within the portfolio **Specified Roles** existed (refer to Appendix 60). The managers saw the reason for that in the sub-optimal allocation of resources, since the group was still in the post-merger phase (**12th Case-Hypotheses confirmed**). However, they saw their task not in attributing strategic roles to their affiliates in this disorderly situation but rather in optimizing the corporate assets. The analysis-result of measuring coordination on the basis of the flow of goods, information, and resources was positive for the first time (refer to Appendix 61). Only 7 Misfits (16% failure rate) from 45 individual measures could be detected. The excess resources for Belgium were correctly identified and truly the affiliate had to be managed more formal and centrally (in the Internal Differentiation approach both measurements were at the lower border indeed). Japan correctly was identified as Black Hole. In an important market no resources could be allocated due to the closed market. The production sites represented in the BU management were correctly categorized as Strategic Leaders. This confirmed the **5th Model-Hypothesis**, which stated that the coordination on the basis of strategic roles can be analyzed realistically. However, the basis was a misallocation of corporate assets.

5.2.4 The Case of Philipp Holzmann (2000)

5.2.4.1 Starting-Situation and Case-Specific Hypotheses

Philipp Holzmann reported insolvency for the first time in 2000, and after several rescue attempts, it entered into bankruptcy proceedings two years later⁴²⁴. There were not only huge project losses but also the coordination of foreign and domestic subsidiaries was practically nonexistent⁴²⁵. Therefore, the company served as a negative example for the model test. In the event that good results were achieved anyway, the analysis instrument has to be questioned. Therefore, the

13th Case-Hypothesis is: All three coordination mechanisms will show a low formation due to the lack of a coordination strategy.

14th Case-Hypothesis: Accordingly, the coordination-structure Ad Hoc Variation (theory of the Requisite Complexity) is expected. In addition, the coordination structure will be differentiated but not according to the theory and without an integrating mechanism (theory of the Internal Differentiation).

The market demands for the construction industry, which can be considered transnational⁴²⁶, were very high, and thus the result should be even clearer. But even when globalization barriers existed, a global coordination of subsidiaries in the construction industry is essentially. The transfer of know how through formalization and normative integration should have given a fruitful basis for competitive advantages (refer to Appendix 62). Moreover, the subsidiaries of Philipp Holzmann received only little equity capital and technological know-how from the parent in Germany⁴²⁷. Therefore, the

15th Case-Hypothesis is: For the Role Model it is expected that the resource levels will be low for all affiliates, even in strategically important markets; except in for USA, where high hidden reserves were suspected.

⁴²⁴ Refer to public media statements of the Philipp Holzmann AG. See also the Annual Reports of 1999 and 2000.

⁴²⁵ Expert-interviews.

⁴²⁶ Cf. Kux, B./Rall, W., 1990, p. 77, Annual Report Philipp Holzmann AG, 1989 and 1999 and expert-interviews.

⁴²⁷ Cf. Enterprise internal documents and expert-interviews.

5.2.4.2 Analysis of the Case

At Philipp Holzmann the subsidiaries enjoyed a very autonomous life style. They were not connected to any formal structure, and the Holzmann culture did not exist abroad. Appendix 63 shows a low average level of coordination for all three mechanisms (correspondingly high for the autonomy). The **13th Case-Hypothesis** could therefore be confirmed. The **EPRG-Scheme** could not be used again because the regio-centric segment does not allow evaluations.

Next was the measurement of the coordination **on a group-level by the Network-Configuration**. This coordination model does describe the case of high global integration with simultaneous national adaptation demands (transnational). It shows three Misfits to the theory in the case of Holzmann (refer to Appendix 64). This statement was correct in the context with the measured coordination mechanisms. Interviews with managers had confirmed this as well. The **4th Case-Hypothesis** in the case of Holzmann was confirmed.

The study of the **situational approaches** did not produce useful results at all. The normative integration correlated slightly negative with both variables (refer to Appendix 67), which even contradicts the hypothesis. The resource level correlated – as in the case of SGL Carbon – positively with centralization (autonomy 0.91, refer to Appendix 65) and formalization (0.51, refer to Appendix 66). The **Situational Hypotheses 1 and 2** can therefore be confirmed, but all others have to be discarded (refer also to Appendix 106).

It was then analyzed whether Holzmann perhaps coordinated its subsidiaries according to the concept of **Internal Differentiation**. The transnational market demands were shown nicely by a high degree of environmental complexity for all subsidiaries (refer to Appendix 68). Out of 27 measured single coordination mechanisms, both measurements – original and modified – showed 16 Misfits (59 %) to the theory (refer to Appendix 72). Obviously Holzmann did not coordinate its subsidiaries and thus the negative differentiation compared to the other cases was performed successfully. The **2nd Model-Hypothesis** for the Internal Differentiation and the **14th Case-Hypothesis** could be confirmed as well, since the result inversely confirms the positive results of

the other companies. The individual results for subsidiaries will not be further commented (refer to Appendices 69, 70, and 71). But the deviations of the Misfits - measured by the difference measure - are of interest. On average the difference measure stood at 1.3, significantly higher than with the other three corporations (1.0 for all others) and clearly differentiated the measurement. The absolute deviation stood at 22.9 for only 9 affiliates which clearly show the significance of the results for the theory Internal Differentiation.

This plainly erroneous coordination was also expressed clearly in the concept of the **Requisite Complexity** (refer to Appendix 73). The required coordination structure of the Differentiated Network in a transnational market was contrasted by the non-structured coordination type Ad Hoc Variation. However, this clear result had to be seen somewhat relatively, because of the similar result in the case of Bosch EW (refer to Appendix 31). Bosch EW was coordinated far better than Philipp Holzmann but the concept did not highlight the differences. The result could indicate that Bosch EW may be coordinated according to the theory Internal Differentiation, but experience figures are still missing to decide on a theoretical solid basis.

The analysis of possible **Strategic Specified Roles** for subsidiaries showed again a correlation between the strategic importance of local markets and the resource levels of subsidiaries (correlation of 0.71, refer to Appendix 106). A concept of strategic roles did not exist in the Holzmann Group. This was also highlighted by the results of the coordination measurement on the basis of internal flows. With a total of 18 Misfits in 27 measurements (67%) a clearly differentiated negative example emerged when compared to the cases of Hoechst and Bosch, which also showed many Misfits but significantly fewer than Holzmann (refer to Appendix 74). Since the resource level for all subsidiaries was low as predicted, the **15th Case-Hypothesis** was confirmed.

Overall the negative results for Philipp Holzmann proved the other measurements to be in the right direction. Now the interim results will be compared and conclusions for the follow-up study in 2004 will be derived.

5.3 Interim Results of the Initial study (1993-2000)

The average measurement of individual coordination mechanisms over all countries produced the expected positive results and all **Case-Hypotheses** were confirmed. Only **Case-Hypothesis 2** regarding the crusty structures at Bosch EW could not be confirmed, but mainly because it could not be operationalized adequately. This result already points out that the analysis-instrument – on the basis of the questionnaire used – measured the coordination mechanisms accurately. In sort of a double test, the personal interviews lead to the same conclusions.

The analysis by means of the **EPRG-Scheme** produced a satisfactory result only in the case of Hoechst. The situation at SGL Carbon was not portrayed realistically. In the two cases where enterprises had a region-centric focus (Bosch and Holzmann) no statements could be made at all (refer to Appendix 108). Thus, it became clear from this initial study that the model creates problems in the analysis of coordination. It could not be adjusted or improved any better and no additional theoretical basis could be included. The **1st Model-Hypothesis** that tests the practicability of the EPRG scheme therefore has to be questioned, and it has to be excluded from the further use in the follow-up study. In contrast the coordination model, on the basis of the **Network Approach** based on the theory Transnational Solution, provided reliable results in all four cases. The **4th Model-Hypothesis** examining the usability of the network model in practice has been confirmed for the initial study, and the model can be used further in the form presented. In the follow-up study now the modified method for the Internal Differentiation will be used only.

The result of the **Situational Approach** was disappointing. Only in two enterprises correlations as could be found between the coordination mechanisms and the resource level only. The sum of individual results let assume that only the resource level can provide conditional statements concerning the coordination of subsidiaries. However, the environmental complexity did not provide acceptable analysis results. These results were confirmed by the overall statistical result measured over all four companies (Appendix 107). The resources level correlated positively with all coordination mechanisms: autonomy 0.446, formalization 0.704, and normative integration 0.526.

This confirms the **Situational Hypotheses 1, 2 and 3** regarding the correlation the resource level with all three coordination mechanisms. The **Situational Hypotheses 3, 4 and 5** must be discarded in the context of the correlation between the environmental complexity and all three coordination mechanisms. The Situational Approach will therefore not explicitly measured in the follow-up study anymore (refer to Appendix 107).

For the further analysis in the follow-up study based on the theory of **Internal Differentiation** it is important to monitor how the underlying assumptions of the present initial study compared to the original study. This is to make sure that both studies have the same kind of theoretical and statistical basis. The discovered correlations from the current initial study behaved excellent in comparison to the original study by Nohria and Ghoshal. The figures are largely compatible with each other, except the correlation between centralization and environmental complexity. In this study the correlation coefficient is only -0.03 in comparison with -0.27 in the original study (refer to Appendix 109). Nevertheless, it is assumed that the examination of the Internal Differentiation can be conducted without problems with the existing set of data.

The test whether the theory Internal Differentiation could be applied in practice only succeeded with a heavily modified analysis method. However, the modified method of analysis was very accurate and the managers could identify themselves again in the measurements. The **2nd Model-Hypothesis** was therefore clearly confirmed by the initial study and clearly showed the practicability of the theory of Internal Differentiation. The reading of the difference measure clearly showed that the difference as to Misfits at Bosch EW, Hoechst and SGL Carbon stood at $\emptyset 1.0$ (refer to Appendix 110). In contrast the deviations from the theory at Philipp Holzmann were significantly higher ($\emptyset 1.4$). The negative example was thus clearly differentiated from the other cases.

The concept of the **Requisite Complexity** was clearly confirmed for all four cases (**Model-Hypothesis 3**). However, two problems occurred. None of the enterprises showed a dominant, integrating coordination mechanism. Therefore it was still doubtful whether the model would reflect such cases correctly. Because of that, the model has to be analyzed further with the data from 2004. The problem of equal evaluation

results of the coordination quality of Bosch EW and Philipp Holzmann is a graver one. Only the difference measurement provided some information about the degree of difference in the coordination.

It is doubtful whether the coordination structure of Bosch EW might be the Differentiated Fit. None of the two theories – neither the Requisite Complexity nor the Internal Differentiation – provide instructions on the question from which number of Misfits on the coordination structure changes from one category to another. The same problem could arise when measuring dominant coordination mechanisms. Neither the theory nor the few existing case studies have allowed a classification until now.

The approach to measure and implement coordination mechanisms according to the **Specified Strategic Roles** of subsidiaries could not be confirmed and the **5th Model Hypothesis** therefore was dismissed. Only in the case of SGL Carbon could a positive result be achieved due to a suboptimal resource allocation. The negative case of Holzmann (Misfit-rate 67%) could at least be clearly distinguished from other cases (Misfit-rate 42%, 43% and 16%). Furthermore, it became clear that the variables resources level and importance of local Markets are not independent variables. In all four case studies they correlated with the coefficient of 0.664 relatively strongly, and therefore, the depiction of a portfolio is in question (refer to Appendix 107).

The results gained so far will now be checked again by means of current data from 2004 in an independent study.

6. Empirical Follow-up Analysis in 2004 to Study the Differentiated Coordination on Multinationals

In 2004 a second interview session was conducted with the enterprises that had participated in the initial study before⁴²⁸. The measurement and analysis instruments that had been developed were intended to be used on current data and put through another test. Simultaneously, the second study provides an opportunity to conditionally gain trends regarding the international coordination by German multinational enterprises.

6.1 The Case of Bosch EW (2004)

6.1.1 Change of the Situation since 1993

A clear development can be observed at Bosch EW. The price pressure in the market for power tools has increased enormously and the demand for globalization has grown stronger. The competitors Hilti and Metabo have positioned themselves well in the market and Makita, which was already organized transnational before, acts aggressively in the market. Black & Decker, which had implemented a global strategy in the transnational market, has become less successful in the meantime and their ranking has fallen. The EW-activities have been unhinged from the country affiliates, and the powerful “country lords” have lost their autonomy. The headquarters assigned **product-area-managers** within a worldwide product-segment-organization. Within Europe a marketing- and logistics system has been installed in order to optimize coordination. It will be interesting to analyze whether Bosch EW has further differentiated its structures, or whether a worldwide integrating coordination mechanism has been installed⁴²⁹.

Due to **price pressure** the production has been transferred increasingly abroad, e.g. to China, Hungary, Malaysia and Brazil. The marketing management for overseas (VUB), which was considered as poorly coordinated in the previous analysis, has been dissolved. In Asia and the USA, regional headquarters have been established, which manage the business more centrally and closer to the markets. Thus, there are no global responsibilities within the product-section-organization but rather regional

⁴²⁸ Except the Philipp Holzmann AG which is already subject to insolvency procedures.

⁴²⁹ Expert-interview. Cf. Bosch, 1998.

ones which are selected by their abilities and resources⁴³⁰. In Asia, marketing and sales are managed from Honk Kong, Controlling is located in China, and the coordination of production is in Malaysia⁴³¹. The **regional US headquarters** also takes care of the South American market⁴³². This trend is clearly a move towards a transnational organizational form, as described by Bartlett und Ghoshal 1990/2002. It remains an interesting subject to study whether the affiliates received strategic roles according to the introduced model.

6.1.2 Analysis of the Case

The measuring of the **coordination mechanisms** by worldwide average figures shows a clear change. The degree of autonomy has distinctly fallen from Ø 3.4 to Ø 2.5 (refer to Appendix 21 and 76). The growing centralization is clearly portrayed in the reorganization and introduction of the product-area-organization with regional headquarters. The new system for the marketing process could be the reason for the slight increase of formalization from Ø 2.8 to Ø 3.0. The normative integration has also risen slightly from Ø 2.9 to Ø 3.1. On group-level, the analysis of **Network Configuration** shows 3 Misfits (as before) and with a tolerance rate it shows one Fit to centralization (refer to Appendix 77). It appears as little has changed in the coordination at Bosch EW. Therefore, it could be questioned whether the **4th Model-Hypothesis** could be confirmed. Further analysis against the background of the following theories has to be done.

The analysis of the **Internal Differentiation** shows a new and positive result. It seems as if Bosch EW has directed the coordination mechanisms Formalization (1 Misfit, (before 3 Misfits, refer to Appendices 28 and 80) and normative integration (1 Misfit, (before 3 Misfit, refer to Appendices 29 and 81) in accordance with the theory. Centralization has even been developed to become the dominant and worldwide integrating coordination mechanism (3 Misfits, before 8 Misfits, refer to Appendices 27 and 79).

⁴³⁰ See also Davidson, W.H./Haspelagh, P., 1982, pp. 125-132.

⁴³¹ Cf. Bosch, 2002, pp. 11-25; Bosch, 2003.

⁴³² Expert-interview.

The phenomenon of a **dominant coordination mechanism** has now appeared for the first time. The evaluation has been carried out as follows: The dominant mechanism was assessed as a Fit when the measure was above 3.7 on the scale from 1 -5. Thus, the additional transaction costs (formalization and normative integration) and increasing conflicts (centralization) have been justified together with the advantages of the globally integrating function. Using the Celanese-case as an example, in another pilot study, these assumptions were tested in several variations⁴³³.

In the case of Bosch EW, only 5 Misfits to the theory remain, or a deviation rate of 10% (before 12 Misfits, 25%, refer to Appendix 82). The total deviation of Misfits measured by the **Difference-Measure** decreased to 5.2 (before 11.8) and the average deviation to Ø 0.4 (before Ø 1.0). Thus, a clear trend towards a more differentiated coordination can be interpreted. The changes in reality have been recognized clearly and pointed out by the measurement instrument, and thus the **2nd Model-Hypothesis** is confirmed.

The evaluation of the new coordination strategy according to the **Requisite Complexity** shows that Bosch EW has improved in both categories of assessment. The coordination is now differentiated according to the Internal Differentiation. In addition, global and integrating coordination is applied through a dominant centralization. This leads to the coordination form of the Differentiated Networks, which ideally suits the transnational market for power tools (refer to Appendix 83). The tendencies are well combined together on the group-level and this confirms the **3rd Model-Hypothesis**.

The analysis of the coordination mechanisms according to the **Specified Roles** shows a good result as well. Only 7 Misfits or a 15% deviation rate from the theory (refer to Appendix 85) occurs. But the result is deceiving. The affiliates are still located on a straight line within the portfolio (refer to Appendix 84), which means that resources are distributed according to the strategic importance of the local markets (correlation 0.87, refer to Appendix 106). Bosch EW has delegated the role of regional headquarters only in strategically important markets. It seems as if the positive results came by chance, because the fundamental assumptions to the theory are still inconsistent.

⁴³³ Cf. Launer, M., 2004c.

6.2 The Case of Celanese (2004)

6.2.1 Changes in the Situation since 1994

Celanese came into existence from a **spin-off** of the business area "chemicals" from the former Hoechst AG, and can be considered as its succeeding enterprise⁴³⁴. The company went public and, simultaneously, the new board of management (Vorstand) reconstructed the whole business globally and directed it consistently towards core- and target markets. As described in the case-model of Hoechst Chemicals, the market of chemicals is a global market. Barriers are almost non-existent and, thus, basic chemicals are exported worldwide. Due to the strong pressure on prices, and due to the high environmental regulations in Europe, products are increasingly produced locally in the regions abroad⁴³⁵.

To improve coordination, **new systems** and processes have been introduced worldwide. The introduction of SAP R/3 should be mentioned in particular, in which in 1994/95 the Hoechst AG became the DAX-showcase model for SAP. Additionally, the board of directors initiated a worldwide Corporate-Identity-Program in order to set the right mood for former employees of Hoechst for the newly established Celanese AG. Due to the new CI-strategy, it should be expected that the normative integration of employees has increased worldwide. Celanese now strives more consistently than Hoechst Chemicals for a global strategy.

6.2.2 Analysis of the Case

The analysis of the average values of individual **coordination mechanisms** shows that the board in the succeeding enterprise of Hoechst have centralized the coordination distinctly (autonomy level from Ø 3.7 to Ø 2.2, refer to Appendix 35 and 86). The centralization has become a dominant and globally integrating coordination mechanism. The introduction of globally unified systems – e.g. SAP – is clearly noticeable. The average figure for formalization rose from Ø 2.7 to Ø 3.8 at present, and thus it has become an integrating element in the worldwide coordination.

⁴³⁴ Cf. Berthoin, A., 2001; Eckert, S., 2000, pp. 95-135; Jungbluth, R., 1999, pp. 110-113.

⁴³⁵ Cf. Celanese, 2003.

The CI-Program shows its effects as well. The normative integration has risen on average in all countries from Ø 2.9 to Ø 3.9. Thus, the normative integration is a dominant coordination mechanism as well. According to the **Network Configuration**, the assessment of the coordination mechanisms on group-level shows 2 Fits (centralization and formalization) to the theory (3 Misfits before, refer to Appendices 36 and 87). Therefore, the improved coordination is well portrayed. The normative integration, however, is a Misfit because in a global strategy it is not needed as dominant coordination mechanism. The increase in normative coordination is assessed as a Misfit, because it is the most expensive mechanism. The model shows well the advantages and disadvantages of coordination, and therefore the **4th Model-Hypothesis** in this case is confirmed again. The example could also be used ideally for a pilot study for the assessment of dominant coordination mechanisms⁴³⁶. It is doubtful, however, whether three strongly formed mechanisms for the coordination are not too much.

The analysis of the **Internal Differentiation** has now been carried out on the basis of dominant coordination mechanisms. Thus, only 4 Misfits appear for centralization (refer to Appendix 89), since the USA, China, Sweden and Mexico show a medium level autonomy only. While the subsidiaries Sweden and Mexico could still be managed somewhat more centrally in China and the USA this is not to be expected. Nevertheless, the result reflects reality well (refer to Appendix 93). The assessment of the transaction costs was ignored because the demands only requested the highest possible coordination from all three mechanisms. The appropriateness of the **2nd Model-Hypothesis** is confirmed and the reality reflected but the assessment of the costs of the globally integrating mechanisms is diluted.

The presence of the dominant coordination mechanisms according to the theory **Requisite Complexity** result in an Integrated Structure (refer to Appendix 93). Since none of the coordination mechanism is implemented in a differentiated way, the coordination structure of **Structural Uniformity** is given. According to the theory, this will produce optimal coordination results, something that might be seen from the rising share prices of Celanese. The surplus of coordination is not assessed here either. The **3rd Model-Hypothesis** is confirmed but with reservations.

⁴³⁶

To remember: in the pre-studies the case of dominant coordination instruments did not occur.

The analysis of **Specified Roles** also shows in the present case, that the resources are used in relation to the strategic importance of the market (refer to Appendix 106). The correlation coefficient at 0.87 is very high, although the variables of a portfolio should be independent from each other (low or no correlation). The examination of the theory-compatible implementation of the coordination mechanisms results in the high Misfits rate of 15 (31% Misfits-rate, refer to Appendix 95). This surprises, because previously the coordination that was analyzed was rather too good, but maybe too expensive. The **5th Model-Hypothesis** therefore again cannot be confirmed. Now the examination of SGL Carbon remains.

6.3 The Case of SGL Carbon (2004)

6.3.1 Changes of the Situation since 1997

After a fantastic rise of the enterprise and a **fivefold increase in share price**, in comparison with the issuing price in 1995, at the initial public offering, SGL Carbon faced a Class Action Suit in the USA in 1997. In 1999 the enterprise had to finally plead guilty. A record fine was paid, which was only surpassed shortly after by the vitamin scandal of Roche and BASF⁴³⁷. In combination with the steel- and **Asian crisis** 1997/98, the enterprise came close to a liquidity crisis in 2003⁴³⁸. A successful capital increase in 2004 brought the necessary capital in order to continue the strategy of growth in the innovative areas of the company.

In the business area graphite electrodes the coordination had to be rethought completely. The market had become extremely competitive, prices had been more than halved, and supply had to be reduced to avoid **overproduction on the market**. The 2 BUs - Europe and USA - were dissolved in 2002/03 and one single BU-management was installed in the headquarters in Wiesbaden. Furthermore, the managers of the production locations were no longer represented in the BU, but new and globally responsible managers were nominated. The new team implemented a fundamental **re-organization** of the business area, and at the beginning of 2004, positive results were achieved again. The analysis of the coordination strategy is therefore very interesting.

⁴³⁷ Country-intern the case of ENRON and WorldCom are probably much higher in the ranking today.
⁴³⁸ Cf. Annual Report SGL Carbon Group, 2003.

6.3.2 Analysis of the Case

When measuring the average figures throughout all affiliates a clear change in the **coordination-strategy is shown**. The centralization at an average value of Ø 1.9 (before Ø 2.8, refer to appendices 55 and 96) has become a dominant coordination mechanism. The normative integration has developed into a worldwide integrating coordination mechanism as well and has been assessed with Ø 4.1 (before Ø 3.1). This result could not be attributed to the CI-strategy only. When questioned it was reported that all leading managers had been committed specifically to the new strategy. In numerous strategy meetings and personnel conversations the objectives have been communicated and further passed on globally. Finally the enterprise had no other choice. The motto, not to build bureaucratic structures, has obviously been upheld. The degree of formalization has risen insignificantly from Ø 2.3 to Ø 2.8 at present.

The **Network-Configuration** model now shows one Fit to the theory (centralization). Instead of developing the formalization into the dominant mechanism according to the theory, SGL decided to gain a strong normative integration of the employees which corresponds more with a transnational rather than global coordination strategy. The model assesses the increase in coordination with two Misfits (formalization and normative integration). From this, good recommendations for action can be derived, e.g. to implement globally the more economical formalization as an integrating element and thus save coordination costs. The **1st Model-Hypothesis** is therefore confirmed.

The analysis of **Internal Differentiation** shows that the difficult situation forced the enterprise to coordinate effectively and efficiently. The assessment of the individual affiliates – under consideration of two dominant coordination mechanisms – resulted only in 3 Misfits in relation to the theory (refer to Appendix 102). Misfits occurred in only two affiliates. China (2 Misfits) still remains a unit difficult to coordinate. It seems that the formal systems have not been transferred fully, and socialization of employees seems difficult due to the cultural differences. Singapore seems to be connected to all formal systems, although this would not have been necessary according to the theory.

The total deviation according to the measurements by the **Difference-Measure** has decreased to only 3.0 (before 6.2), the average deviation remained high (1.0 versus 1.0). The **2nd Model-Hypothesis** for the Internal Differentiation can therefore be confirmed again.

The examination of the **Requisite Complexity** shows that SGL Carbon is over-coordinated in its core business (refer to Appendix 103). The global market only requires one globally integrating coordination mechanism, but SGL has two of them. Additionally the formalization is implemented worldwide in a differentiated way, and this increases the complexity of the organization. Generally, a high degree of coordination is welcome but, with it, transaction costs occur which can be a disadvantage especially during a turn-around phase. The model assesses the strategy sufficiently and thus the **3rd Model-Hypothesis** is confirmed again.

Through an observation of the portfolio of **Specified Roles** it becomes clear that assets have been ordered anew. As in all other enterprises, the resources are distributed according to the strategic importance of the local markets (refer to Appendix 104). The restructuring was probably also due to the crisis situation during which surplus resources were redirected. However, the coordination mechanisms, very obviously, were not implemented according to internal flows of goods, information, and resources or according to strategic roles. The coordination model based on internal flows shows, with 14 Misfits, a deviation rate of 31%, which proves finally that the model of Specified Roles is not implemented – at least in the enterprises presented in this study (refer to Appendix 105). The variables strategic importance of local markets and the resource levels correlate again with a high factor (0.55, refer to Appendix 106), which is an indication that creating a portfolio is not justified. The **Model-Hypothesis 5** is therefore discarded again.

6.4 Interim Results of the Current Empirical Study

The study in 2004 tested the models for differentiated coordination again as a follow-up study. Those theories which had shown positive results in the initial study before (1993 to 2000), proper recommendations for actions were given, and provided a more holistic view of coordination in multinational enterprises. It could be proven again that measuring the average figures for each coordination mechanism throughout all countries led to an accurate measurement of coordination in multinational companies. Also, the analysis built upon average figures on a group level, the **Network-Configurations**, showed excellent results again. In addition it provided the first recommendations for action on a group-level. The **4th Model-Hypothesis** regarding the Network Approach is thus confirmed in totality and it clearly has to be given preference over the EPRG-concept (The **Model-Hypothesis 1** for the EPRG-Model has already been discarded in the initial study).

The **Situational Approaches** have been checked again individually as it was in the initial study. Overall however, the positive correlation between the coordination mechanisms and the resources level from the initial study was diluted in the follow-up study⁴³⁹. The correlation coefficients for socialization, autonomy, and formalization in the main-study were 0.277, 0.536, and 0.33 respectively and for all seven studies aggregated 0.377, 0.339, and 0.486 respectively (refer to Appendix 107). Thus it cannot be considered a useful context anymore. Therefore **all Situational Hypothesis** have to be dismissed (Situational Hypothesis 1 - 6).

The theory of **Internal Differentiation** in the modified form showed again accurate results on the basis of individual subsidiaries. Almost every one of the individual affiliates has been analyzed correctly and summarized on a group-level close to reality. This is shown in the excellent improvement visible in the Difference Measure as well (refer to Appendix 110). The recommendations for actions of individual affiliates again were of great value. Thus, Model Hypothesis 2 regarding the practicability of the theory Internal Differentiation was confirmed for the modified form again.

⁴³⁹ The correlation of the resources level with centralization in the follow-up study was only at 0.5, at 0.3 in the case of formalization and 0.227 in the case of Normative integration.

The combination of the theory with the **Requisite Complexity** again proved to be useful again and provided good results in the practical analysis. The two measuring- and analysis-instruments, however, provided less information for the transaction costs analysis of dominant and globally integrating coordination. Only a high degree mattered and there was no cost evaluation anymore. In contrast, the over-coordination could be analyzed well compared to the differentiated structures, which clearly resulted in an increase in transaction costs. The matching **Model-Hypotheses 3** regarding the usefulness of the theory of Requisite Complexity is thus confirmed without doubt.

The model of **Specified Roles** again was unable to describe the reality in multinational enterprises. The two variables - importance of the market and resources level, which correlate without a doubt (correlation coefficient over the whole study 2004 was 0.758, throughout all studies 0.712, refer to Appendix 107), and do not form a portfolio. It could be proven again that multinational enterprises distribute their resources according to the strategic importance of the local markets. In cases of inefficient allocation of the resources they were arranged anew instead of delegating strategic roles (case study SGL Carbon). In addition, the coordination mechanisms have not been implemented according to the concept of the flow of goods, information, and resources at all. The **5th Model-Hypothesis**, and thus the model of Specified Roles, has to be discarded completely. This result is for seven case studies only and thus should be confirmed in a larger, more statistically oriented research study in future.

7. Conclusion, Limitations, and Implications of the Overall Results

7.1 Summary of Main Findings in the Case Study 1993 till 2004

The starting point of this thesis was the lack of appropriate analysis-instruments suitable for the analysis of the differentiated coordination of foreign subsidiaries in a more holistic way on the one hand, and for the application, in business practice, on the other hand. The analysis of internationally recognized **literature** showed that although the topic of coordination is researched broadly and intensively in academia, it is not presented in a satisfactory, holistic manner for the application in practice. The main deficit is that the underlying theories lack of applicable methods for scientific intensive-case-studies or the application in the enterprise practice. In particular, concrete procedures and assessment standards are missing in order to implement the theories pragmatically. Therefore, in a broadly designed **literature analysis** various theories have been identified⁴⁴⁰, which examine the different coordination situations in depth. But it became clear that the different theories did not have the same fundamental base, and they were difficult to compare and combine with each other. Therefore, the identified theories needed to be transformed onto a unified basic structure which consisted of the coordination mechanisms centralization of decision making, formalization of procedures and systems, and the normative integration of employees.

In a **pilot study**, using the case study of the Bosch EW, the attempted was made to apply the different theories in practice for the first time⁴⁴¹. It became clear that the implementation of the derived theories could not be carried out as they are described in literature and an initial study was necessary to find out how the theories could be implemented methodically in practice. In this empirical initial **study**,⁴⁴² with the help of the data from four enterprises (1993 – 2000), a pragmatic method for the implementation of the respective theories was developed in a lengthy iterative process for each theory. The result were then applied to and analyzed with current data of 2004 of the same enterprises in an **empirical Follow-up-Study**.

The basis of the analysis-instrument is a well developed questionnaire for managers within the headquarters. It was shown that the key informant approach based on one

⁴⁴⁰ Cf. Launer, M., 2004a.

⁴⁴¹ Cf. Launer, M., 2004b.

⁴⁴² Cf. Launer, M., 2004c.

questionnaire per company was not applicable in business practice. At least three questionnaires prepared by high level managers were necessary to gain satisfactory results. While the original studies of Nohria and Ghoshal were developed on at least two questionnaires in broad empirical studies, which is acceptable for academic purposes, others still use the key informant approach. To gain accurate results for each and every subsidiary in business practice, three and more questionnaires per company lead to satisfactory results. The following table shows the results in a summary.

	Socialization	Autonomy	Formalization	Env. Complex.	Resources	Strategic Importance
All Cases						
Socialization	1.000					
Autonomy	-0.260	1.000				
Formalization	0.584	-0.036	1.000			
Env. Complex.	0.377	0.020	0.050	1.000		
Resources	0.377	0.339	0.486	0.468	1.000	
Strat. Import.	0.347	0.152	0.225	0.736	0.712	1.000
Case Studies 1993-1997						
Socialization	1.000					
Autonomy	0.141	1.000				
Formalization	0.614	0.352	1.000			
Env. Complex.	0.387	0.029	0.273	1.000		
Resources	0.526	0.446	0.704	0.445	1.000	
Strat. Import.	0.370	0.067	0.327	0.719	0.664	1.000
Case Studies 2004						
Socialization	1.000					
Autonomy	-0.129	1.000				
Formalization	0.325	0.330	1.000			
Env. Complex.	0.402	0.147	-0.207	1.000		
Resources	0.277	0.536	0.330	0.487	1.000	
Strat. Import.	0.379	0.470	0.133	0.754	0.758	1.000

Figure 12: The underlying statistical data in an overview
Source: Own Depiction

In numerous tests between theory and practice it was shown that the three coordination mechanisms centralization, formalization, and socialization can be satisfactorily and accurately measured with the developed research design. However, it was shown that each academic theory needed to be adapted and further developed to be able to use it in business practice. Therefore, adjustments were made to each original theory and measurement method to adapt the analysis-instrument to business practice.

The majority of the coordination theories refer to the **EPRG-Scheme** developed by Perlmutter (1969), an approach that is without empirical validity and purely theoretical. The application of the coordination mechanisms was not explicitly described in the original theory. Therefore, an own method had to be developed to measure the focus in corporations for the clusters of ethno-, poly-, geo-, and region-centric orientation. The developed model, however, was not convincing in practice even after several methodological adjustments. The model was still unable to describe the reality of coordination in multinational enterprises sufficiently, and the derived recommendations for action were hardly acceptable. It might be that the developed analysis-instrument was not appropriate or that the questionnaire wasn't able to measure the theory appropriately. However, the original model does not provide any support to operational the theory into practice. The different approaches were tested and discussed with managers of various companies. It seemed that the theory is popular but not really applicable in terms of the coordination of subsidiaries.

A very similar model, with slightly different assessment standards, provided good results that can be applied in practice. The coordination model described in the theory of the Transnational Solution by Bartlett and Ghoshal showed on the basis of different **Network Configurations** satisfactory results in both, the initial and follow-up study. Thus, the managers accepted the analysis results and recommendations. The classification of coordination strategies in international, multi-domestic (multinational), global and transnational was well understood by the interviewed managers. The model summarizes well the measurements of coordination mechanisms on an average basis, it assesses them accurately, and it offers useful alternatives for action. The methodological adaptations to the model for its use in practice were minimal.

However, both, the EPRG scheme as well as the network model describe coordination on a group level only and don't differentiate among subsidiaries. The subsidiaries are treated equally in a black box approach. The next analysis step therefore looked at the subsidiaries individually.

Situational and Contingency Analyses were conducted that analyze the three coordination mechanisms for each country in relation to the environmental complexity of the respective markets and the resources level of the subsidiaries. But the results – as illustrated in the literature before – differed strongly and did not provide useable recommendations for action. In the initial study, it appeared as if the resource levels of the subsidiaries would allow statements regarding the implementation of the three coordination mechanisms. But the follow-up study as well as the complete overview revealed that these statements could not be maintained empirically. One reason for this is probably that situational approaches show simple If-Then-Relationships, and they study only individual coordination mechanisms (not in combination). In addition, lots of other influential factors, such as transaction costs, are not taken into consideration.

The advanced analysis approach of the **Internal Differentiation** by Nohria and Ghoshal assesses the coordination mechanisms of individual affiliates based on transaction costs. Initially, the model couldn't be satisfactorily applied to individual affiliates. The approach was modified significantly, tested several times, and with the help of the interviewed managers, it was calibrated and adjusted. Each partial step was documented in figures and graphics, and supported by examples from the practice. The final version of the further developed analysis-instrument provided a very good basis for the analysis and derivation of recommendations for the coordination of individual foreign subsidiaries. The concept developed by the author has shown to be extremely suitable in practice. Each individual case study produced accurate analysis results and useful recommendations. Through profound individual analyses each individual subsidiary was examined as to whether the model produced adequate results, how the current coordination status in each affiliate was, and which changes were required in order to manage it in accordance with the theory.

To make the theory of Internal Differentiation more pragmatic the simple classification had to be improved, because the evaluation of coordination mechanisms in high

and low was not accurate enough. For both dimensions a **Medium Section** was added which did not exist in the original theory. The results improved, but the subsidiaries were still not accurately examined yet. Sometimes one answer of a single questionnaire that differed extremely from all others was able to negatively influence the result. Therefore, a **Tolerance Measure** was introduced to the analysis-instrument. This eliminated extreme evaluations of single questionnaires. These adjustments lead to accurate results. Additionally, a new measuring instrument was developed, the **Difference-Measure**, with the help of which the enterprises could now be compared with each other. It was helpful in particular to better understand the evaluation of the overall results of the theory.

The second, empirically and profoundly validated model, the theory of the **Requisite Complexity** by Nohria and Ghoshal, is directly built upon the theory Internal Differentiation. While in literature the two theories Internal Differentiation and Requisite Complexity are presented separately, the results of this thesis showed the compatibility of the two. It was shown that both theories can be used as one analysis tool. The managers that were interviewed considered the gained analysis results as correct, and they found the recommendations for action helpful. But the classification of the coordination mechanisms into the provided clusters created some difficulties. The theory does not offer help to evaluate the measurements as to when a coordination mechanism is implemented in a differentiated or integrating way. Therefore an own classification was developed and checked by means of the first experimental figures. Another problem was the assessment of integrating or so-called dominant coordination mechanisms. Due to the high formation of the coordination mechanisms in all countries, the efficient implementation – assessed through transaction costs – could not be checked anymore. However, the combination of the theories - Internal Differentiation and Requisite Complexity - unified the perspective of the enterprise headquarters with the local circumstances of each subsidiary in an ideal way.

The **Transnational Model** by Bartlett and Ghoshal on the basis of **Specified Roles** for individual subsidiaries, which pursues a completely new analysis approach, was not convincing in any way. To begin with, a solid theoretical basis was lacking. The two variables, strategic importance of local markets and the resources level of subsidiaries, correlated strongly and thus did not form a two-dimensional portfolio accu-

rately. The variables should have been independent from each other. However, it became clear that as the companies provided more resources to the subsidiaries the more strategically important the respective local market was.

Overall, the completely new foundation of the theory viewed the coordination on the basis of the **company-internal flow of goods, information, and resources**. But this foundation lacked of a theoretical fundament and could not be observed in practice of German companies at all. An examination, as to whether the coordination mechanisms were implemented on this new basis, did not reveal any context. The theory therefore was not able to be applied in the analysis of coordination matters.

Overall, the thesis shows that theories with a solid fundament are more successful in practice than so called weak theories without broad empirical analysis. While the theory of Internal Differentiation and Requisite Complexity still shows some minor shortcomings and room for improvements it showed that the solid theoretical base and broad empirical analysis led to a theory applicable in management practice. The non-empirical theory of Perlmutter for example not only is criticized in science but was also unusable in practice. The various attempts to describe coordination based on a pure situational basis with various contingency approaches failed as well. But the questions still unanswered are why these approaches fail in intensive case studies. It might be a methodical problem, the way to phrase the questions, or how to interpret the results. However, the interviews conducted for this thesis showed a clear result that they weren't applicable in the companies studied.

In the various conversations conducted before 2000, no participating corporation showed a **methodically process** in the development of coordination strategies. In contrast, the follow-up study in 2004 made it clear that the topic of coordination had moved far more to the forefront. Although the coordination mechanisms were discussed individually in the companies, it still appeared that a more holistic approach that combined the mechanisms was missing. In the follow-up study, however, the author observed a more intense focus on systematically analyzing coordination patterns. Especially the trend away from country subsidiaries managing various different business and industries towards more business oriented affiliates with one core business showed that the coordination could be organized much more target-oriented.

The methods and approaches in global coordination in business practice varied strongly. No unified approach to develop coordination strategies could be found. The reason for this was seen in the lack of practical coordination theories and methods. After introducing the developed analysis-instrument, the interviewed managers were now being able to incorporate coordination issues into their corporate strategies. This confirmed that the existing theories in academia needed an adjustment to practical needs. Therefore the developed overall method will be summarized once more.

7.2 Application of the Developed Model for the Analysis of the Differentiated Coordination in Multinationals

In the course of the study numerous experiences could be gained as to how the different, modified and mutually harmonized theories and methods can be aggregated into a complete model. The follow-up study showed that the developed process analyzed all relevant coordination matters systematically and put them into context of each other. The process can be summarized as follows:

1. Measuring the **average figures** per coordination mechanism on group-level throughout all countries. Analysis and control of the individual results.
2. Adoption of the results from (1) and assessment with the criteria of the theory of different **Network Configurations** for international, multi-domestic (multinational) global and transnational enterprises on group-level.
3. Measuring and evaluation of each affiliate with the modified method of the **Internal Differentiation**. Summarizing the single results in a portfolio for the assessment on a group-level.
4. Calculation of the **Difference Measure** for the assessment of the quality of result of (3) and comparison with all other company results.
5. Adoption of the results from (3) and assessment of the **Requisite Complexity** on the group-level by the criteria of differentiated versus integrating coordination in relation to the environmental situation international, multi-domestic (multinational), global, and transnational.
6. Comparison of the results of the Requisite Complexity (5) with the Network Approach (2) for final check.
7. Summary of the results from (2), (3), (4) and (5).

The developed model was tested among four companies in seven intensive case studies. It showed excellent and significant results. The underlying original theories were developed and tested internationally. Therefore it can be assumed that the gained results and the developed analysis-instrument is usable internationally even in other home countries than Germany as well.

It proved to be right to use a 5-point Likert scale to measure the environment, internal situations, and coordination mechanisms even when the subsidiaries were later categorized in two or three sections only. Graphically, the subsidiaries needed to be distinguishable within the categories for practical purposes. While in science it was acceptable to just categorize the subsidiaries, in practice it was not sufficient. All subsidiaries need to be separated from another and precisely positioned within the portfolios. Otherwise the results were not accepted in business management. A 7-point scale could have made the result even more precise and separate the subsidiaries even better. While in this thesis it was used the same questionnaire as in the original theory for validation purposes, in future the results of such analysis could be improved by using a larger scale. When having only a small amount of questionnaires per company it could be useful even to switch to an even number of scale points. The presented analysis-instrument lead to significant better scientific results and broad acceptance in business practice.

7.3 Discussion of long-term Trends in the Coordination of German Multinationals

Beside the development and application of an analysis-instrument the most important longitudinal aspects should be discussed in a before-and-after trend analysis for German Multinationals over the 12 years of research period.

The most important observation was the impact of the major restructuring phases German Multinationals went through during the 90ies. The large and multi-business country affiliate that combined different business within a country under one management seemed to be disappeared. In the past, these country affiliates represented various businesses of the conglomerates and were mainly coordinated on a holding level. That led to severe coordination problems on a business level, in particular at

Bosch EW, Hoechst Chemicals, and Philipp Holzmann. The globally responsible business unit had only limited power to coordinate their local business within a country. Today, the business units have direct access to their local subsidiaries and they are mainly independent legal units by now. SGL Carbon, Bosch EW, as well as the successor company of Hoechst Chemicals, Celanese, have business oriented local subsidiaries that get much closer, efficient and effectively coordinated by the central BU management. The measuring results for differentiated coordination according to the introduced theories were significantly better than at the beginning of the study in 1993. In addition, Bosch EW and Celanese introduced regional headquarters in Asia and North America during the 90ies that further improved the efficient use of coordination mechanisms. The local presence of the respective BU management within the key markets led to a more market and resource oriented coordination.

The results of the analysis of various Network Configurations in German multinational enterprises indicated that the enterprises show a tendency from multi-domestic and international towards implementing **global and transnational coordination mechanisms**. The EPRG-Scheme showed a trend from the polycentric towards the **geo- and region-centric orientation** for the researched companies, meaning there is a trend towards more centralized coordination mechanisms. It looks like the trend from historically determined decentralization to more centralized coordination mechanisms continued throughout the 90ies. This result is not only true for young companies but also for old companies that underwent large-scale restructuring phases during the last twelve years. The change in coordination, however, might also be a result of major structural and organizational restructurings as well as the use of new technologies and global the cost cutting pressure.

Additionally, there seems to be a trend away from the unsystematic implementation of coordination mechanisms in subsidiaries – which grew historically, which might have cultural or other roots, or which follow other unknown influencing factors. There was clearly a trend towards a more systematic **Differentiation of the coordination mechanisms** in line with the theory Internal Differentiation. This means that subsidiaries are increasingly coordinated by means of their respective resource levels and the complexity of the local market.

It can also be assumed that enterprises increasingly evaluate the **transaction costs** of coordination for each subsidiary. It was observed that the companies increasingly assess and recreate historically conditioned coordination models. This would imply that the enterprises will be more **strategically and purposefully coordinated**⁴⁴³.

The search for context factors, under which the implementation of a certain coordination strategy will be more efficient than another coordination strategy, seems to have moved a step forward. While in the past a **lack of context factors** that describe the successful coordination was deplored⁴⁴⁴, it now shows that the context factors, resource levels of subsidiaries and the environmental complexity of local markets, determine coordination.

The historical observation that there is no dominance of person-oriented coordination mechanisms in German multinational enterprises cannot be confirmed on the basis of the gained results. **Personal oriented coordination**, which was operationalized as more central decisions by leadership personnel and a higher socialization of employees, were in the follow-up study in 2004 higher than in the initial study from 1993 to 2000. The normative integration of employees at SGL Carbon and Celanese was even a dominant worldwide coordination mechanism.

The analysis shows as well a tendency away from country coordination on a holding level or Vorstand towards coordination on a business level. At Hoechst/Celanese and Bosch EW, the respective businesses were taken out of the corporate structures and managed directly by the globally responsible business units. This trend is based on the major restructurings that have taken place during the 90ies in Germany. The conglomerate Hoechst for example was restructured completely, cut and regrouped in business-oriented corporations, and focused on core businesses in each new unit. As a result coordination seems to be improved dramatically. Both, Hoechst/Celanese and Bosch EW improved there coordination substantially. It was observed that multi-business companies were more difficult to coordinate when business functions of several independent business units are shared or even crossed.

⁴⁴³ Therefore the results are very significant and a clear trend has been shown.

⁴⁴⁴ Cf. Kutschker, M./Schmid, S., 2004, pp. 1036-1037.

It also appears that nowadays the resources of the subsidiaries are **more effectively managed** and the overall coordination is less bureaucratic. The coordination pattern observed in the follow-up study in 2004 was improved compared to the former patterns at the beginning of the 90ies. The interviews within the subsidiaries throughout Europe and the US showed that the local management now was able to more concentrate on business.

In summary it can be stated that the **intensity of coordination** of German Multinationals has increased significantly. The average figures of all subsidiaries showed that especially the centralization of decisions has increased, and thus the affiliates are coordinated more closely throughout the world. This could be caused by new technologies that make central management possible. When subsidiaries of German Multinationals were established, centralized decision making was not possible at that time. Decentralization therefore dominated the coordination pattern for a long time. It looks like that the major re-organizational processes in the 90ies brought a big shift in terms of coordination in German Multinationals towards a more global coordination.

But not only have the coordination patterns changed. During the process of restructuring big personnel change took place as well⁴⁴⁵. Former managing directors were replaced often specifically to remove road blocks in the middle management. It seemed the managers used to independent decision making were not been able to adapt to the new central coordination patterns. “There is a completely new type of managing director needed to coordinate the newly established, local subsidiaries,” a manager said. The so called “Landesfürsten” have disappeared.

Normative integration of employees has increased significantly as well, and in some cases it has even developed into the dominating coordination mechanism. This result is surprisingly since German managers in the past stated in various research studies that normative integration would not be a point of focus. The trend did not surprise in companies that focused on employees and corporate culture such as Hoechst and SGL Carbon. But even the more on formalization focused Bosch EW normative integration improved dramatically.

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Refer to the interviews and Case descriptions at Bosch EW, SGL Carbon Group and Celanese AG.

7.4 Conclusions and Implications for the Coordination of Estonian Subsidiaries of Multinationals

The findings of the thesis allow theoretical and abstract economic considerations regarding subsidiaries. Since the EPRG scheme did not provide acceptable results in this study, a trend from ethno- and polycentric orientation towards a more region- and geocentric orientation could be observed but not accurately measured. Based on the Network Model, however, a trend from multi-domestic and international coordination strategies towards more transnational and global coordination was observable. But neither of the two approaches could give indications of coordination patterns on a subsidiary level. Both concentrate on the group level.

Based on the differentiating coordination theories some general trends on subsidiary level could be observed. Especially the portfolio of Internal Differentiation showed trends that could be generalized for specific countries. If Multinationals differentiate their coordination mechanisms according to the environmental complexity and the resource level of the subsidiary some trends for Estonian companies can be derived.

Should the trend towards more complex coordination strategies continue to develop small countries would have to expect certain economic effects. As shown in this study, the subsidiaries in Argentina, South Africa, India, Australia, Holland and Belgium have been placed in hierarchically structured clusters according to the concept of Internal Differentiation. The environmental complexity, operationalized by the technological dynamism and competitive situation, can be assumed to be low and the resources level of affiliates will remain low due to the size of the country⁴⁴⁶. In this case subsidiaries in Estonia would have to be managed hierarchically (as a tendency) in accordance with the model.

According to the theory Estonian subsidiaries are in a **dependent relationship** to the respective parent company abroad. **Conflicts** will therefore be solved through the dominance of the enterprise headquarters in a centralized way. Figure 12 shows the context graphically.

⁴⁴⁶ Cf. Launer, M., 2004d. See also Wesnitzer, M., 1993.

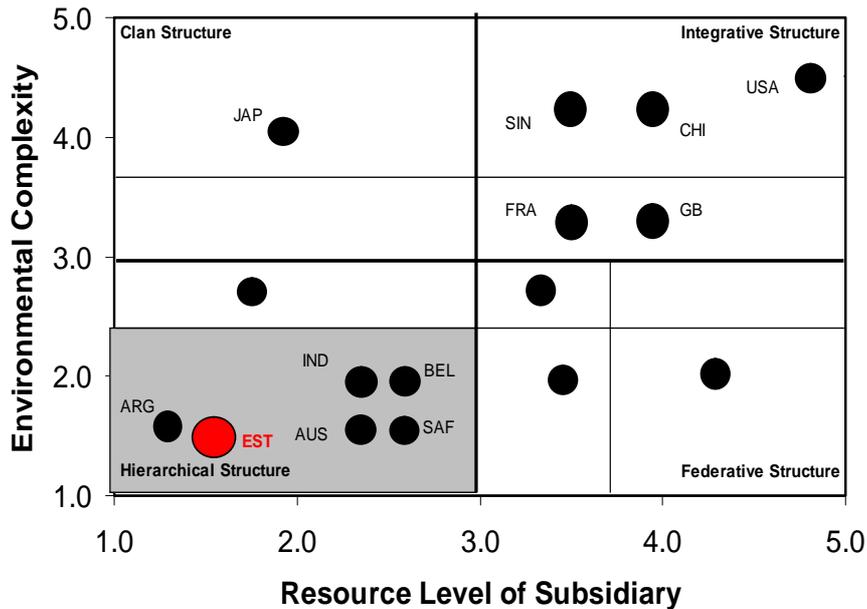


Figure 13: The theoretical position of Estonia in the model of Internal Differentiation
 Source: Own Depiction

If multinational enterprises follow this theoretical concept, the important decisions concerning subsidiaries in Estonia would be made centrally abroad. The affiliates would not be connected with the formal procedures and with the systems of the group, and the employees would not be socialized and integrated into the worldwide management pool⁴⁴⁷. This **coordination model** could have decisive effects on various economical policy developments.

The lack of decisions made decentralized could negatively affect the **wage dynamics**⁴⁴⁸ and **quality of workplaces**⁴⁴⁹. Local managers who want to take on more responsibility in multinational enterprises would have to do so in other subsidiaries or in the headquarters, and therefore they would have to leave Estonia⁴⁵⁰ leading to a potential lack of excellent managers. The low degree of formalization could mean that less bureaucracy is imported. But this would also mean that the Estonian subsidiaries would not be connected to the worldwide networks of communication and coordination⁴⁵¹. For example, if the software SAP R/3 does not get implemented locally it would have effects on the quality of the workplaces. The **missing normative integra-**

⁴⁴⁷ See also Brouthers, K.D./Brouthers, L.E./Nakos, G., 1998, pp. 485-504; Jost, T., 2001, pp. 23-29.

⁴⁴⁸ Cf. Noorkõiv, R./Orazem, P.F./Puur, A./Vodopivec, A., 1997; Philips, K., 1999, pp. 48-55.

⁴⁴⁹ Cf. Aaslund, A./Knudsen, K./Kutsar, D./Trapenciere, I., 1997; Eamets, R., 1999, pp. 4-6; Helemäe, J./Saar, E./Võormann, R., 1999, pp. 56-71; Kulikov, D., 1999, pp. 19-47; Marksoo, Ü./Luuk, M., 1999, pp. 7-18.

⁴⁵⁰ Cf. Allison, C./Ringold, D., 1996.

⁴⁵¹ Cf. Schuh, A., 2000, pp. 133-148.

tion of local managers could mean that the local managers would not be integrated into the culture of multinational enterprises⁴⁵². The frequency of visits from foreign managers could be limited and Estonian leadership personnel would have only few opportunities to establish personal contacts with the enterprise headquarters and important regional headquarters⁴⁵³.

What could be done by Estonia to gain more integrated coordination in foreign Multinationals? The size of the country will probably not allow local subsidiaries to gain a high level of resources. Even when achieving a higher resource level (maybe due to strong managerial capabilities), the re-clustering into the Federated Structure would rather lead to more formalized and bureaucratic coordination. This would not be an appropriate target.

An extremely high technological dynamism and high product innovation rate could re-position Estonian subsidiaries potentially from the hierarchical into the Clan cluster. Within the Clan Structure a higher normative integration of the local management could be achieved according to the theory. The decision making process would also be more decentralized on a middle level providing more autonomy for Estonian subsidiaries. By analyzing the technological trends in Estonia quite a substantial increase in technological dynamism can be observed already. If this trend continues in the future a much more integrated coordination of Estonian subsidiaries within foreign Multinationals could theoretically be achieved.

These tendencies should be further researched in future from a more economic point of view⁴⁵⁴.

⁴⁵² C.f. Holtbrügge, D./Berg, N., 2002, pp. 233-256; Holtbrügge, D./Boutler, T., 2003, Holtbrügge, D./Puck, J., 2003, pp. 46-49.

⁴⁵³ Cf. Holtbrügge, D., 1995; 1996a, pp. 273-292 and 1996b, 1-43; 1999, pp. 160-176; Anderson, B./Silver, B./Titma, M./Ponarin, E., 1996, pp. 25-45.

⁴⁵⁴ Refer to a first attempt by Launer, M., 2004d. See also Plötz, P./Polkowski, A., 2001 and 2002; Welge, M.K./ Holtbrügge, D., 1993, pp. 215-236.

7.5 Recommendations and Remarks for Future Research

It became clear in this thesis that an analysis-instrument based on contingency approaches combined with the transaction-cost-paradigm is still most suitable to describe the differentiated coordination of foreign subsidiaries in a more holistic way. This may seem old-fashioned compared to the latest approaches, however, it leads to very pragmatic and broadly accepted recommendations in entrepreneurial practice. The almost holistic model of the **Differentiated Networks**, which means the combined approach of the Internal Differentiation and the Requisite Complexity, contains all necessary theoretical foundations. With the advanced research method developed in this thesis it now can be used in a pragmatic form in scientific case studies and business practice. However, these theories have not made it yet into the study books of International Management. Therefore a call goes out to the authors of books on International Management to include this approach and to train students of business management in this comprehensive and theory-guided approach. However, it has to be mentioned that this paradigm has reached a peak in its development and could soon be replaced by more modern approaches.

In recent years multinational enterprises are increasingly considered and researched as intra-organizational and inter-organizational networks⁴⁵⁵. The theory of the transnational enterprise, as a popular example, is based on such an intra-organizational approach and offers a comprehensive model for the description of the differentiated coordination of foreign subsidiaries. However, the new paradigm including the approach of Specified Roles did not convince yet. It was surprisingly that such a popular theory was far away from acceptance in business practice. The failure of the model should be confirmed in a broader, statistically significant study⁴⁵⁶. In future, role models for subsidiaries and their impact on coordination patterns should be researched in more depth.

⁴⁵⁵ Cf. Perltz, M., 2000, pp. 629-636.

⁴⁵⁶ Refer also to the critique by Perlitz, M./Dreger, C./Schrack, R., 1996, pp. 275-281; Hungenberg, H., 1995, p. 261, and 2001; Nedeem, C., 1994, p. 81.

In future research more attention should be paid to the interconnections of subsidiaries amongst each other, as well as the influence of regional decision centers, regional headquarters and local partial networks⁴⁵⁷. The coordination research goes even one step further, towards the so-called **inter-organizational network-research**. They do not only include the interconnections of subsidiaries among each other, but also external interconnections – e.g. in the form of Joint Ventures and Strategic Alliances (refer to Appendix 111)⁴⁵⁸. These approaches have been a part of many academic contributions, but the authors could not present a plausible coordination concept yet⁴⁵⁹. Sydow (1999) provides the most **comprehensive concept** in this regard, based on the constructs Market and Hierarchy within the transaction-cost-approach⁴⁶⁰. Rall, too, offers a theory about network structures⁴⁶¹, that points the way ahead, and which could lead towards a new organization paradigm⁴⁶².

This thesis developed a pragmatic analysis-instrument to better analyze coordination issues in science and improve the coordination of foreign subsidiaries in Multinationals in practice. The presented model is scientifically well grounded and in practice broadly accepted. It allowed analyzing coordination issues in detail on a single subsidiary level, trends in international coordination, inter-company comparisons, and even lead to economical conclusions for certain countries.

⁴⁵⁷ Cf. Hülsenbeck, J.-P., 1993, p. 70; Ghauri, P.N., 1992, pp. 357-364.

⁴⁵⁸ Cf. Renz, T., 1998; Perlitz, M., 2000, pp. 628-637; see also Kutschker, M./Schurig, S./Schmid, S., 2002a.

⁴⁵⁹ Refer to Easton, G./Araujo, L., 1989, pp. 97-105; Backhaus, K./Meyer, M., 1993, pp. 330-339; Hinterhuber, H.H./Levin, B.M., 1994, pp. 43-47; Sydow, J./Windeler, A./Krebs, M./Loose, M./Well, B., 1995.

⁴⁶⁰ Cf. Sydow, J., 1991a; 1991b, pp. 238-254; 1992, p. 315; Sydow, J.; 1993, pp. 47-82; 1994; 1999; Ortmann, G./Sydow, J., 1999, pp. 205-220.

⁴⁶¹ First thoughts can be read at Rall, W., 1993, pp. 73-93; 1999, pp. 89-115.

⁴⁶² Cf. Rall, W., 2002, pp. 759-776. See also Wildermann, H., 1997, pp. 417-439.

Reference List

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- Aaslund, A./Knudsen, K./Kutsar, D./Trapenciere, I. (1997) The Baltic Countries Revisited: Living Conditions and Comparative Challenges. The NORBALT Conditions Project. FAFO, 1997
- Abdallah, W.M. (1989): International Transfer Pricing Policies. Decision-Making Guidelines for Multinational Companies, New York et al., 1989
- Abramson, N.R./Keating, R.J./Lane, H.W. (1996): Cross-National Cognitive Process Differences: A Comparison of Canadian, American and Japanese Managers, in: Management International Review, Vol. 36, No. 2, 1996, PP. 123-147
- Adigun, I.O. (2000): Cross National Differences in Work Motivations: A Four-Nation Comparison, in: International Journal of Management, Vol. 17, No. 3, 2000, PP. 372-378
- Adler, N./Bartholomew, S. (1992): Managing globally competent people, in: Academy of Management Executive, Vol. 6, No. 3, 1992, PP. 52-65
- Adler, N.J. (1983): A Typology of Management Studies Involving Culture, in: Journal of International Business Studies, Vol. 14, PP. 29-47
- Adler, N.J. (1984): Understanding the ways of understanding: Cross-cultural management methodology reviewed, in: Farmer, R.N. (Publ.): Advances in international comparative management, Vol. 1, PP. 31-67
- Adler, N.J. (2002): International Dimensions of Organizational Behavior, 4. Edition, Cincinnati, Ohio, 2002
- Agthe, K. (1979): Aktuelle Probleme der Führungsorganisation internationaler Unternehmungen, in: Zeitschrift für Organisation, Vol. 45, No. 6, 1979, PP. 434-442
- Aitken, M./Hage, J. (1968): Organizational interdependence and intra-organizational structure, in: American Sociological Review, Vol. 33, 1968, PP. 912-930
- Albert, U./Silverman, M. (1984): Making management philosophy a cultural reality, Part 1: Get started, in: Personnel, Vol. 61, No. 1/1984, PP. 12-21
- Albrecht, H.K. (1970): Die Organisationsstruktur multinationaler Unternehmungen, in: Der Betrieb, Vol. 23, No. 45, 1970, PP. 2085-2089

- Aldrich, H.E (1972): Technology and organizational structure: A reexamination of the findings of the Aston Group, in: *Administrative Science Quarterly*, Vol. 17, 1972, PP. 26-43
- Al-Eryani, M./Alam, P./Akhter, S. (1990): Transfer Pricing Determinants of U.S. Multinationals, in: *Journal of International Business Studies*, Vol. 21, No. 3, 1990, PP. 409-425
- Allaire, Y./Firsirotu, M.E. (1984): Theories of Organizational Culture, in: *Organization Studies*, Vol. 5, No. 3, 1984, PP. 193-226
- Allison, C./Ringold, D., (1996): Labour Market in Transition in Central and Eastern Europe 1989-1995, Washington, D.C., The World Bank, 1996
- Alpander, G.G. (1978): Multinational Corporations. Homebase-Affiliate Relations, in: *California Management Review*, Vol. 20, No. 3, 1978, PP. 47-56
- Alsegg, R.J. (1971): Control relationships between American corporations and their European subsidiaries, in: *AMA Research Study 107*, American Association Inc., 1971
- Althans, J. (1980): Standardisierung von Marketingkonzeptionen in internationalen Unternehmen aus der Sicht von Tochtergesellschaften - Eine explorative Studie auf einem überseeischen Markt, Working Paper No. 20 of Institute for Marketing, University Münster, 1980
- Ambos, B. (2002): Internationales Forschungs- und Entwicklungsmanagement. Strategische Mandate, Koordination und Erfolg ausländischer Tochtergesellschaften, Wiesbaden, 2002, Diss. Hamburg
- Anderson, B./Silver, B./Titma, M./Ponarin, E. (1996): Estonia's Transition from State Socialism: Nationalities and Society on the Eve of Independence, Part 2: Political Attitudes and Behavior, in: *Estonian and Russian Communities, International, International Journal of Sociology*, Vol. 26, No. 2, 1996, PP. 25-45,
- Anderson, U./Forsgen, M. (1995): Using Networks to Determine Multinational Parental Control of Subsidiaries, in: Paliwoda, S.J./Ryans, J.K. (Publ.): *International Marketing Reader*, PP. 72-87
- Ansoff, H.I. (1982): Managing discontinuous strategic change - the Learning-Action-Approach, in: Ansoff, H.I./Basman, A./Storm, P.M. (Publ.): *Understanding and managing strategic change*, Amsterdam, New York, Oxford 1982, PP. 5-19

- Anyane-Ntow, K. (1991): A Comparison of Budgetary Control Systems in American and Japanese Manufacturing Firms, in: *Asia Pacific Journal of Management*, Vol. 8, No. 2, 1991, PP. 201-221
- Ashby, R.W. (1961): *Introduction to cybernetics*, New York 1961, 4. edition (Original edition, London, 1956, German translation: *Einführung in die Kybernetik*, Frankfurt, 1974)
- Backhaus, K./Büschken, J./Vöth, M. (2001): *Internationales Marketing*, 4. edition, Stuttgart, 2001
- Backhaus, K./Meyer, M. (1993): Strategische Allianzen und strategische Netzwerke, in: *Wirtschaftswissenschaftliches Studium*, Vol. 7, 1993, PP. 330-344
- Bakhtari, H. (1995): Cultural Effects on Management Style. A Comparative Study of American and Middle Eastern Management Styles, in: *International Studies of Management and Organization*, Vol. 25, No. 3, 1995, PP. 97-118
- Baliga, B.R./Jäger, A.M. (1984): Multinational Corporations: Control Systems and Delegation Issues, in: *Journal of International Business Studies*, Vol. 15, No. 2, 1984, PP. 25-41
- Bamberger, I./Wrona, T. (1996): Der Ressourcenansatz im Rahmen des Strategischen Managements, in: *WiSt - Wirtschaftswissenschaftliches Studium*, Vol. 25, No. 8, 1996, PP. 386-391
- Bamberger, I./Wrona, T. (1996): Der Ressourcenansatz und seine Bedeutung für die Strategische Unternehmensführung, in: *Zeitschrift für betriebswirtschaftliche Forschung*, Vol. 48, No. 2, 1996, PP. 130-153
- Bandura, A./Jeffery, R.W. (1973): Role of symbolic coding and rehearsal process on observational learning, in: *Journal of Personality and Social Psychology*, No. 26, 1973, PP. 122-130
- Barnard, Ch. J. (1968): *The function of the executive*, Cambridge/Mass. 1968
- Barney, J.B. (1986): Organizational Culture: Can It Be a Source of Sustained Competitive Advantage? In: *Academy of Management Review*, Vol. 11, No. 3, 1986, PP. 656-665
- Barney, J.B. (1991): Firm Resources and Sustained Competitive Advantage, in: *Journal of Management*, Vol. 17, No. 1, 1991, PP. 99-120
- Barrett, G.V./Bass, B.M. (1970): Comparative survey of managerial attitudes and behavior, in: Bodewyn, J. (Publ.): *Comparative management: teaching, training and research*, New York, 1970, PP. 179-217

- Bartlett, C.A. (1981): Multinational Structure Change: Evolution versus Reorganization, in: Otterbeck, Lars (Publ.): The Management of Headquarters-Subsidiary Relationships in Multinational Corporations, Aldershot, 1981, PP. 121-145
- Bartlett, C.A. (1982): How Multinational Organizations Evolve, in: The Journal of Business Strategy, Vol. 3, No. 1, 1982, PP. 20-32
- Bartlett, C.A. (1983): MNCs: Get off the Reorganization Merry-Go-Round, in: Harvard Business Review, Vol. 61, March-April, 1983, PP. 138-146
- Bartlett, C.A. (1986): Building and managing the Transnational: The organizational challenge, in: Porter, M.E. (Publ.): Competition in global industries, Boston, 1986, PP. 367-404 (German translation: Aufbau und Management der transnationalen Unternehmung: Die neue organisatorische Herausforderung, in: Porter, M.E. (Publ.): Globaler Wettbewerb, Strategien der neuen Internationalisierung, Wiesbaden, 1989, PP. 425-464)
- Bartlett, C.A. (1989): Aufbau und Management der transnationalen Unternehmung: Die neue organisatorische Herausforderung, in: M.E. Porter (Publ.): Globaler Wettbewerb, Wiesbaden, 1989, PP. 425-464
- Bartlett, C.A. (1992): Christopher Bartlett on Transnationals: An Interview, in: European Management Journal, Vol. 10, No. 3, 1992, PP. 271-276
- Bartlett, C.A./Ghoshal, S. (1986): Tap your subsidiary for global reach, in: Harvard Business Review, November-December, 1986, PP. 87-94 (German translation: Arbeitsteilung bei der Globalisierung, in: Harvardmanager, No. 2, 1987, PP. 49-59)
- Bartlett, C.A./Ghoshal, S. (1990): Internationale Unternehmensführung. Innovation, globale Effizienz, differenziertes Marketing, Frankfurt, New York, 1990 (Original: Managing across borders, Boston, 1989)
- Bartlett, C.A./Ghoshal, S. (1990b): Matrix Management: Not a structure, a frame of mind, in: Harvard Business Review, July-August, 1990, PP. 138-146
- Bartlett, C.A./Ghoshal, S. (1992): What Is a Global Manager? In: Harvard Business Review, Vol. 70, No. 5, 1992, PP. 124-132
- Bartlett, C.A./Ghoshal, S. (1997): The Individualized Corporation. A Fundamentally New Approach to Management, New York et al., 1997

- Bartlett, C.A./Ghoshal, S. (1998): *Managing Across Borders. The Transnational Solution*, 2. edition, London, 1998
- Bartlett, C.A./Ghoshal, S. (2000): *Going Global. Lessons from Late Movers*, in: *Harvard Business Review*, Vol. 78, March-April, 2000, PP. 132-142
- Bartlett, C.A./Ghoshal, S. (2002): *Managing across borders*, Boston, 2002
- Bassen, A. (1998): *Dezentralisation und Koordination von Entscheidungen in der Holding*, Wiesbaden, 1998, Diss., Östrich-Winkel
- Bäuerle, I./Schmid, S. (1994a): *Process Orientation and Deep Structure - Perspectives on the Internationalizing Corporation*. Discussion Paper No. 59 of *Wirtschaftswissenschaftliche Fakultät Ingolstadt*, Kath. University Eichstätt, December 1994
- Bäuerle, I./Schmid, S. (1994b): *Die Transnationale Organisation*, in: *WISU - Das Wirtschaftsstudium*, Vol. 23, No. 11, 1994, PP. 991-993
- Bauernfeind, J. (1991): *Großbritannien - Paradebeispiel einer Krise*, in: Berger, R. (Publ.): *Handbuch Europa '92*, Düsseldorf, Wien, New York, 1991, PP. 102-113
- Bäumler, E. (1989): *Farben, Formeln, Forscher, Hoechst und die Geschichte der indisutriellen Chemie in Deutschland*, München, Zürich, 1989
- Bea, F.X./Haas, J. (2001): *Strategisches Management*. 3., new revised edition, Stuttgart, 2001
- Belz, C./Mühlmeier, C. (2000, Publ.): *Internationales Preismanagement*, St. Gallen, Wien 2000
- Bender, D. (2003): *Außenhandel*, in: *Vahlens Kompendium der Wirtschaftstheorie und Wirtschaftspolitik*, 8. edition, München, 2003, Vol. 1, PP. 475-560
- Bendt, A. (2000): *Wissenstransfer in multinationalen Unternehmen*, Wiesbaden, 2000, Diss. Eichstätt
- Berekhofen, L. (1985): *Internationales Marketing*, 2. edition, Herne, Berlin 1985
- Bergemann, N./Sourisseaux, A.L.J. (2003, Publ.): *Interkulturelles Management*, 3. edition, Berlin et al., 2003
- Berger, K.H. (1961): *Organisationspläne und Dienstanweisungen*, in: Schnauffer, E. von/Agthe, K. (Publ.): *Organisation*, TFB Handbuchreihe, Vol. 1, Berlin, Baden-Baden, 1961, PP. 531-576

- Berger, R. (1991): Der europäische Binnenmarkt - Ein Schritt in Richtung Globalisierung, in: Berger, R. (Publ.): Handbuch Europa '92, Düsseldorf, Wien, New York 1991, PP. 9-38
- Berndt, R. (1996): Global versus Non-Global Communications, in: Berndt, R. (Publ.): Global Management, 1996
- Berndt, R./Fantapie Altobelli, C./Sander, M. (1999): Internationales Marketing Management, Berlin et al., 1999
- Berry, A.J./Broadbent, J./Otley, D. (1995, Publ.): Management Control. Theories, Issues and Practices, Houndmills, Basingstoke, 1995
- Berthoin Antal, A. (2000): Types of Knowledge Gained by Expatriate Managers, in: Journal of General Management, Vol. 26, No. 2, 2000, PP. 32-51
- Berthoin Antal, A./Böhling, K. (1998): Expatriation as an Underused Resource for Organizational Learning, in: Albach, Horst (Publ.): Organisationslernen – Institutionelle und kulturelle Dimensionen, Berlin, 1998, PP. 215-236
- Berthoin, Antal, A. (2001): The Transformation of Hoechst to Aventis. Case Study, Wissenschaftszentrum Berlin, Berlin, 2001
- Birkigt, K./Stadler, M./Funck, H.J. (1988): Corporate Identity: Grundlagen, Funktionen, Fallbeispiele, 4. edition, Landsberg, 1988
- Birkinshaw, J./Hood, N. (1998): Multinational Subsidiary Evolution: Capability and Charter Change in Foreign-owned Subsidiary Companies, in: Academy of Management Review, Vol. 23, No. 4, 1998, PP. 773-795
- Blau, J./Schönherr, R.A. (1971): The Structure of Organization, New York 1971
- Bleicher, K. (1990): Unternehmensphilosophien im internationalen Wettbewerb. Die europäische Chance: Suche nach einem eigenständigen Weg der Unternehmensführung, in: Zeitschrift für Organisation, No. 1, 1990, PP. 5-14
- Bleicher, K. (1992): Entwicklung der Managementkapazität, in: Strutz, H./ Wiedemann, K. (Hrsg): Internationales Personalmarketing. Konzepte-Erfahrungen-Perspektiven, Wiesbaden, 1992, PP. 3-21

- Bleicher, K. (1992): Leitbilder. Orientierungsrahmen für eine integrative Management-Philosophie. Entwicklungstendenzen im Management, Vol. 1, St. Gallen, 1992
- Bleicher, K. (1997): Zwischen Vision und Realität: Die virtuelle Unternehmung als Motor der Internationalisierung, in: Krystek, U./Zur, E. (Publ.): Internationalisierung. Eine Herausforderung für die Unternehmensführung, Berlin et al., 1997, PP. 585-599
- Boisot, M.H. (1986): Markets and Hierarchies in a Cultural Perspective, in: Organization Studies, Vol. 7, No. 2, 1986, PP. 135-158
- Bolz, J. (1992): Wettbewerbsorientierte Standardisierung der internationalen Marktbearbeitung. Eine empirische Analyse in europäischen Schlüsselmärkten. Darmstadt, 1992, Diss. Münster
- Borg, M. (1988): International Transfer of Managers in Multinational Corporations, Stockholm, 1988
- Bormann, W. (1970): Typus und Struktur internationaler Unternehmungen, in: Bormann, W. (Publ.): Managementprobleme internationaler Unternehmungen, Wiesbaden, 1970, PP. 19-49
- Bosch (1992): Annual Report, Stuttgart, 1992
- Bosch (1993): Annual Report, Stuttgart, 1993
- Bosch (1998): Leitlinien zur Personalpolitik, Stuttgart, 1998
- Bosch (2002): Für Bosch ins Ausland, Präsentation der Bosch Abteilung ZM2, Stuttgart, 2002
- Bosch (2003): Annual Report, Stuttgart, 2003
- Böttcher, R. (1996): Global Networking Management. Context-Decision-Making-Coordination, Wiesbaden, 1996, Diss. Dortmund
- Bottger, P.C./Hallein, I.H./Yetton, P.W. (1985): A Cross-National Study of Leadership Participation as a Function of Problem Structure and Leadership Power, in: Journal of Management Studies, Vol. 22, No. 4, 1985, PP. 358-368
- Brandt, W./Hulbert, J.M. (1977): Communication and Control in the Multinational Enterprise, in: Keegan, W.J./Mayer, C.S. (Publ.): Multinational Product Management, Chicago, 1977, PP. 119-146

- Brandt, W.K./Hulbert, J.M. (1976): Patterns of Communications in the Multinational Corporation: An Empirical Study, in: Journal of International Business Studies, Vol. 7, No. 1, 1976, PP. 57-64
- Braun, G. (1988): Die Theorie der Direktinvestition, Köln, 1988, Diss. Tübingen
- Bresser, R.F.K. (1998): Strategische Managementtheorie, Berlin, New York, 1998
- Brij, K. (1987): Deutsche Unternehmen in den USA: deutsches Management in amerikanischen Niederlassungen deutscher Mittelbetriebe, Wiesbaden, 1987
- Brock, D.M./Barry, D./Thomas, D.C. (2000): "Your forward is our reverse, your right, our wrong": Rethinking Multinational Planning Processes in Light of National Culture, in: International Business Review, Vol. 9, No., 6, 2000, PP. 687-701
- Brockhoff, K. (1994): Management organisatorischer Schnittstellen – unter besonderer Berücksichtigung der Koordination von Marketingbereichen mit Forschung und Entwicklung. Berichte aus den Sitzungen der Joachim Jungius-Gesellschaft der Wissenschaften e.V., Hamburg, Vol. 12, No. 2, 1994
- Brockhoff, K./Hausschildt, J. (1993): Schnittstellen-Management – Koordination ohne Hierarchie, in: Zeitschrift Führung und Organisation, Vol. 62, No. 6, 1993, PP. 396-403
- Bronner, R. (1992): Komplexität, in: Freise, E. (Publ.): Handwörterbuch der Organisation, Stuttgart, 1992, Col. 1121-1130
- Bronner, R./Mellewig, T. (1996): Eine Realtypologie betriebswirtschaftlicher Konzernorganisationsformen. Ergebnisse einer empirischen Untersuchung, in: Zeitschrift für Betriebswirtschaft, Vol. 66, supplementary issue, No. 3, 1996, PP. 145-166
- Brouthers, K.D./Brouthers, L.E./Nakos, G. (1998): Entering Central and Eastern Europe: Risks and Cultural Barriers, in: Thunderbird International Review, Vol. 40, No. 5, 1998, PP. 485-504
- Brown, A. (1998): Organizational Culture, 2. edition, London, 1998
- Bryan, L./Fraser, J./Oppenheim, J./Rall, W. (2000): Die neue Weltliga. Wie Unternehmen von grenzenlosen Märkten profitieren, Frankfurt am Main, New York, 2000
- Buaron, R. (1981): New Games Strategies, in: The Mc Kinsey Quarterly, No. 2, 1981, PP. 24-40

- Buckley, P.J. (1991): The Frontiers of International Business Research, in: Management International Review, Vol. 31, special issue, 1991, PP. 7-22
- Buckley, P.J. (1996): The Role of Management in International Business Theory: A Meta-Analysis and Integration of the Literature on International Business and International Management, in: Management International Review, Vol. 36, special issue 1, No. 1, 1996, PP. 7-54
- Buckley, P.J./Casson, M. (1985): The Economic Theory of the Multinational Enterprise, New York, 1985
- Bufka, J. (1997): Auslandsgesellschaften internationaler Dienstleistungsunternehmen. Koordination – Kontext – Erfolg, Wiesbaden, 1997, Diss. Mannheim
- Bühner, R. (1989): Rechtsform und Organisationsstruktur, in: Macharzina, K./Welge, M.K. (Publ.): Handwörterbuch Export und Internationale Unternehmung, Stuttgart, 1989, Col. 1841-1854
- Bühner, R. (1991): Betriebswirtschaftliche Organisationslehre, Oldenburg, 1991
- Bühner, R. (1993): Strategie und Organisation. Analyse und Planung der Unternehmensdiversifikation mit Fallbeispielen, 2., revised and enlarged edition, Wiesbaden, 1993
- Bundesminister für Finanzen (1983): Verwaltungsgrundsätze für die Prüfung der Einkunftsabgrenzung bei international verbundenen Unternehmen. Letter from 23.2.1983-NC5-S1341-4/83, in: Der Betrieb, Vol. 36, supplement, No. 4, 1983
- Burgelman, R.A. (1983): A model of the interaction of strategic behavior, corporate context, and the concept of strategy, in: Academy of Management Review, Vol. 8, 1983, PP. 61-70
- Burn, T./Stalker, G.M. (1961): The Management of Innovations, London, 1961
- Burrell, G./Morgan, G. (1979): Sociological paradigms and organizational analysis, London, 1979
- Carl, V. (1989): Problemfelder des Internationalen Management, München, 1989
- Celanese (2003): Annual Report, Wiesbaden, 2003
- Chakravarthy, B.S./Perlmutter, H.V. (1985): Strategic Planning for a Global Business, in: Columbia Journal of World Business, Vol. 20, 1985, PP. 3-10
- Chalmers, A.F. (2001): Wege der Wissenschaft, Berlin, Heidelberg, New York, 2001

- Chandler, A.D. Jr. (1962): *Strategy and Structure. Chapters in the History of the Industrial Enterprise*, Cambridge, London, 1962
- Chatman, J.A./Jehn, K.A. (1994): Assessing the relationship between industry characteristics and organizational culture: How different can you be? In: *Academy of Management Journal*, Vol. 37, No. 3, 1994, PP. 522-553
- Chen, M. (1995): *Asian Management Systems. Chinese, Japanese and Korean Styles of Business*, London, New York, 1995
- Child, J. (1972): Organizational structure, environment and performance - the role of strategic choice, in: *Sociology*, Vol. 6, 1972, PP. 1-22
- Child, J. (1973): Strategies of Control and Organizational behavior, in: *Administrative Science Quarterly*, Vol. 18, 1973, PP. 1-17
- Child, J. (1984): *Organization - a guide to problems and practice*, London, 1984, 2. edition (original edition London, 1977)
- Christensen, E.W./Gordon, G.G. (1999): An exploration of industry, culture and revenue growth, in: *Organizational Studies*, Vol. 20, No. 3, 1999, PP. 397-422
- Coase, R.H. (1937): The nature of the firm, in: *Economica*, Vol. 4, No. 4, 1937, PP. 386-405
- Cravens, K.S. (1997): Examining the Role of Transfer Pricing as a Strategy for Multinational Firms, in: *International Business Review*, Vol. 6, No. 2, 1997, PP. 127-145
- Cray, D. (1984): Control and Coordination in Multinational Corporations, in: *Journal of International Business Studies*, Vol. 15, 1984, PP. 85-99
- Cray, D./Mallory, G.R. (1998): *Making Sense of Managing Culture*, London et al., 1998
- Czinkota, M.R./Ronkainen, I.A./Moffett, M.H. (2003): *International Business Update 2003*, Fort Worth et al., 2003
- Daniels, J.D./Pitts, R./Trotter, M. (1984): Strategy and Structure of U.S. Multinationals: An Exploratory Study, in: *Academy of Management Journal*, Vol. 27, No. 2, 1984, PP. 292-307
- Daniels, J.D./Pitts, R.A./Trotter, M.J. (1985): Organizing for Dual Strategies of Product Diversity and International Expansion, in: *Strategic Management Journal*, Vol. 6, 1985, PP. 223-237

- Daniels, J.D./Radebaugh, L.H. (2001): *International Business. Environments and Operations*. 9. edition, Upper Saddle River, 2001
- Datta, D.K./Herrmann, P./Rasheed, A.A. (2002): Choice of Foreign Market Entry Modes: Critical Review and Future Directions, in: *Advances in International Management*, Vol. 14, 2002, PP. 85-153
- Davidson, W.H. (1983): Structure and Performance in International Technology Transfer, in: *Journal of Management Studies*, Vol. 20, No. 4, 1983, PP. 453-465
- Davidson, W.H./Haspelagh, P. (1982): Shaping a Global Product Organization, in: *Harvard Business Review*, Vol. 60, July-August 1982, PP. 125-132
- Deal, T.E./Kennedy, A.A. (1982): *Corporate Cultures. The rites and rituals of corporate life*, Reading, 1982
- Derensky, H. (1994): *International Management. Managing Across Borders and Cultures*, New York et al., 1994
- Deutsche Bundesbank (1965): Die deutschen Direktinvestitionen im Ausland, in: *Monatsberichte der Deutschen Bundesbank*, Vol. 17, No. 12, 1965, PP. 19-27
- Diamantopoulos, A./Schlegelmilch, B.B./Webb, L. (1991): Factors Affecting Industrial Mail Response Rates, in: *Industrial Marketing Management*, Vol. 20, PP. 327-339
- Dierkes, M. (1988): Unternehmenskultur und Unternehmensführung - eine vergleichende Analyse der Konzeptionen, in: *Zeitung für Betriebswirtschaft*, Vol. 58, No. 5/6/1988, PP. 554-575
- Dill, P./Hügler, G. (1987): Unternehmenskultur und Führung betriebswirtschaftliche Organisationen - Ansatzpunkte für ein kulturbewußtes Management, in: Heinen, E. et al. (Publ.): *Unternehmenskultur - Perspektiven für Wissenschaft und Praxis*, München, Wien, 1987, PP. 141-209
- Djanani, C./Winning, M. (1999): Der Verrechnungspreis im Spannungsfeld zwischen betriebswirtschaftlichen und steuer(recht)lichen Anforderungen, in: Kutscher, M. (Publ.): *Perspektiven der internationalen Wirtschaft*, Wiesbaden, 1999, PP. 243-267
- Dobry, A. (1983): *Die Steuerung ausländischer Tochtergesellschaften. Eine theoretische und empirische Untersuchung ihrer Grundlagen und Instrumente*, Giessen, 1983, Diss. Giessen

- Dormann, J. (1993): Geschäftssegmentierung bei Höchst, in: Zeitschrift für betriebswirtschaftliche Forschung, Vol. 45, No. 12, 1993, PP. 1068-1077
- Dormayer, H.J./Kettern, T. (1987): Kulturkonzepte in der allgemeinen Kulturforschung - Grundlage konzeptioneller Überlegungen zur Unternehmenskultur, in: Heinen, E. et al. (Publ.): Unternehmenskultur - Perspektiven für Wissenschaft und Praxis, München, 1987, PP. 49-66
- Doz, Y.L./Prahalad, C.K. (1991): Managing DMNCs: A Search for a new Paradigm, in: Strategic Management Journal, 12. Vol., special issue, summer, 1991, PP. 145-164
- Doz, Y.L./Prahalad, C.K. (1993): Managing DMNCs: A Search for a new Paradigm, in: Ghoshal, S./Westney, E. D. (Publ.): Organization Theory and the Multinational Corporation, New York, 1993, PP. 24-50
- Doz, Y.L./Santos, J./Williamson, P. (2001): From Global to Metanational, Boston, 2001
- Drazin, R./van de Ven, A.H. (1985): Alternate forms of fit in contingency theory, in: Administrative Science Quarterly, Vol. 30, 1985, PP. 514-539
- Dröge & Comp. (1995): Unternehmensorganisation im internationalen Vergleich. Struktur, Prozesse und Führungssysteme in Deutschland, Japan und den USA, Frankfurt, 1995
- Drumm, H.J. (1989): Transferpreise, in: Macharzina, K./Welge, M.K. (Publ.): Handwörterbuch Export und Internationale Unternehmung, Stuttgart, 1989, Col. 2077-2085
- Drumm, H.J. (1991): Probleme der Erfassung und Messung von Unternehmenskultur, in: Dülfer, E. (Publ.): Organisationskultur: Phänomen - Philosophie - Technologie, Stuttgart, 1991, PP. 163-172
- Drumm, H.J. (1996): Das Paradigma der Neuen Dezentralisation, in: Die Betriebswirtschaft, Vol. 56, No. 1, 1996, PP. 7-20
- Duhnkrack, T. (1984): Zielbildung und Strategisches Zielsystem der internationalen Unternehmung, Göttingen, 1984
- Dülfer, E. (1981): Zum Problem der Umweltberücksichtigung im "Internationalen Management", in: Pausenberger, E. (Publ.): Internationales Management. Ansätze und Ergebnisse betriebswirtschaftlicher Forschung, Stuttgart, 1981, PP. 1-44

- Dülfer, E. (1989): Umweltbeziehung der international tätigen Unternehmung, in: Macharzina, K./Welge, M.K. (Publ.): Handwörterbuch Export und Internationale Unternehmung, Stuttgart, 1989, Col. 2097-2111
- Dülfer, E. (1991): Internationales Management in unterschiedlichen Kulturbereichen, München, Wien, 1991
- Dülfer, E. (2001): Internationales Management in unterschiedlichen Kulturbereichen. 6., revised edition, München, Wien, 2001
- Dunning, J.H. (1974): The distinctive Nature of the Multinational Enterprise, in: Dunning, J.H. (1974, Publ.): Economic Analysis and the Multinational Enterprise, London, 1974, PP. 13-30
- Dunning, J.H. (1981): Explaining the International Direct Investment Position of Countries: Towards a Dynamic or Developmental Approach, in: Weltwirtschaftliches Archiv, Vol. 117, 1981, PP. 30-64
- Dunning, J.H. (1988): The Eclectic Paradigm of International Production: A Restatement and Some Possible Extensions, in: Journal of International Business Studies, Vol. 19, 1988, PP. 1-31
- Dunning, J.H. (1995): Repraising the Eclectic Paradigm in an Age of Alliance Capitalism, in: Journal of International Business Studies, Vol. 26, No. 3, 1995, PP. 461-491
- Dunning, J.H. (2001): The Eclectic (OLI) Paradigm of International Production: Past, Present, and Future, in: International Journal of the Economics of Business, Vol. 8, No. 2, 2001, PP. 173-190
- Dürkheim, E. (1977): Über die Teilung der sozialen Arbeit, Frankfurt, 1977
- Eamets, R. (1999): Estonian Labour Market and Labour Market Policy. Ministry of Social Affairs of Estonia, 1999, PP. 4-6
- Easton, G./Araujo, L. (1989): The Network Approach: An Articulation, in: Hallén, L./Johanson, J. (Publ.): Networks of Relationships in International Industrial Marketing, in: Advances in International Marketing, Vol. 3, London, 1989, PP. 97-103
- Ebers, M. (1987): Organisationskultur und Führung, in: Kieser, A./Reber, G./ Wunderer, R. (Publ.): Handwörterbuch der Führung, Stuttgart, 1987, Col. 1619-1630
- Ebers, M. (1997, Publ.): The Formation of Inter-Organizational Networks, Oxford et al., 1997

- Ebers, M./Gotsch, W. (2001): Institutionenökonomische Theorien der Organisation, in: Kieser, A. (Publ.): Organisationstheorien, 4. edition, Stuttgart, Berlin, Köln, 2001, PP. 199-251
- Eccles, R.G./Nohria, N. (1991): The post-structuralist organization, internal working-paper Harvard University, 1991
- Echert, S. (2000): Konvergenz der nationalen Corporate Governance-Systeme? Ursachen und Internationalisierungswirkung der Denationalisierung der Corporate Governance grosser deutsch-er Aktiengesellschaften am Beispiel der Hoechst AG, in: zu Knyphausen-Aufseß, v.D. (Publ.): Globalisierung als Herausforderung der Betriebswirtschaftslehre, Wiesbaden, 2000, PP. 95-135
- Edstrom, A./Galbraith, J.R. (1977): Transfer of managers as a coordination and control strategy in multinational organizations, in *Administrative Science Quarterly*, Vol. 22, 1977, PP. 248-263
- Egelhoff, W.G. (1982): Strategy and Structure in Multinational Corporations: An Information Processing Approach, in: *Administrative Science Quarterly*, Vol. 27, No. 3, 1982, PP. 435-458
- Egelhoff, W.G. (1984): Patterns of Control in U.S., UK, and European Multinational Corporations, in: *Journal of International Business Studies*, Vol. 15, fall 1984, PP. 73-83
- Egelhoff, W.G. (1988a): *Organizing the Multinational Enterprise. An Information-Processing Perspective*, Cambridge, MA, 1988
- Egelhoff, W.G. (1988b): Strategy and Structure in Multinational Corporations: A Revision of the Stopford and Wells Model, in: *Strategic Management Journal*, Vol. 9, No. 1, 1988, PP. 1-14
- Egelhoff, W.G. (1997): Organizational Change and Organizational Equilibrium: Two Different Perspectives of the Multinational Enterprise, in: Macharzina, K./Österle, M.-J./Wolf, J. (Publ.): *Global Business in the Information Age. Proceedings of the 23rd Annual EIBA Conference*, Vol. 1, Stuttgart, 1997, PP. 25-37
- Eisenführ, F. (1992): Budgetierung, in: Frese, E. (Publ.): *Handwörterbuch der Organisation*, 3. edition, Stuttgart, 1992, Col. 363-373
- Eisenhardt, K./Martin, J.A. (2000): Dynamic Capabilities: What are they? In: *Strategic Management Journal*, Vol. 21, No. 7, 2000, PP. 1105-1121

- Emery, J.C. (1969): *Organizational Planning and Control Systems. Theory and Technology*, New York, London, 1969
- Emmanuel, C.R./Mehafdi, M. (1994): *Transfer Pricing*, London et al., 1994
- Engelhard, J. (1997, Publ.): *Interkulturelles Management. Theoretische Fundierung und funktionsbereichsspezifische Konzepte*, Wiesbaden, 1997
- Engelhard, J./Blei, C. (1996): *Markteintrittsstrategien deutscher Unternehmen in der ehemaligen UdSSR*, in: Welge, M.K./Holtbrügge, D. (Publ.): *Wirtschaftspartner Russland. Rahmenbedingungen – Kooperationsstrategien – Erfahrungsberichte*, Wiesbaden, 1996, PP. 181-211
- Engelhard, J./Dähn, M. (1994): *Internationales Management*, in: *Die Betriebswirtschaft*, Vol. 54, No. 2, 1994, PP. 247-266
- Engelhard, J./Dähn, M. (2002): *Theorien der internationalen Unternehmenstätigkeit – Darstellung, Kritik und zukünftige Anforderungen*, in: Macharzina, K./Österle, M.-J. (Publ.): *Handbuch Internationales Management*, 2. edition, Wiesbaden, 2002, PP. 23-44
- Engelhard, J./Hein, S. (1996): *Erfolgsfaktoren der Auslandseinsatzen von Führungskräften*, in: Macharzina, K./Wolf, J. (Publ.): *Handbuch Internationales Führungskräfte-Management*, Stuttgart et al., 1996, PP. 83-111
- England, G. (1975): *The manager and his values*, Cambridge, MA, 1975
- Fayerweather, J. (1975): *Internationale Unternehmensführung. Ein Begriffssystem*, Berlin, 1975
- Fayerweather, J. (1978): *International Business Strategy and Administration*, Cambridge, MA, 1978
- Fayerweather, J. (1981): *A conceptual framework for the multinational corporation*, in: Wacker, W./Hausmann, H./Kumar, B. (Publ.): *Internationale Unternehmensführung*, Berlin, 1981, PP. 17-31
- Ferner, A./Varul, M. (2000): *‘Vanguard’ Subsidiaries and the Diffusion of New Practices: A Case Study of German Multinationals*, in: *British Journal of Industrial Relations*, Vol. 38, No. 1, 2000, PP. 115-140

- Festing, M. (1999): Wissenstransfer durch internationale Personalentwicklung – Strategische Bedeutung bei Globalisierung der Unternehmenstätigkeit, in: Martin, A./Mayrhofer, W./Nienhüser, W. (Publ.): Die Bildungsgesellschaft im Unternehmen? Special issue for Wolfgang Weber, München, 1999, PP. 243-267
- Festinger, L. (1954): A theory of social comparison processes, in: Human Relations, No. 7, 1954, PP. 117-140
- Festinger, L. (1957): A theory of cognition dissonance, Stanford, CA, 1957 (German Translation: Theorie der kognitiven Dissonanz, Bern, 1978)
- Fisch, G.G. (1966): Organization for profit: Management for the age of technology, New York 1964 (German translation "Gewinnbringende Organisation", München, 1966)
- Fisch, J.H. (2001): Structure follows Knowledge: Internationale Verteilung der Forschung und Entwicklung in multinationalen Unternehmen, Wiesbaden, 2001, Diss. Hohenheim
- Fisch, J.H./Österle, M.-J. (2003): Exploring the Globalization of German MNCs with the Complex Spread and Diversity Measure, in: Schmalenbach Business Review, Vol. 55, No. 1, 2003, PP. 2-21
- Fischer, T.M. (1995): Budgets als Führungsinstrument, in: Kieser, A./Reber, G./ Wunderer, R.: Handwörterbuch der Führung. 2. edition, Stuttgart, 1995, Col. 155-164
- Flaherty, T.M. (1989): Die Koordination globaler Fertigungsprozesse, in: Porter, M. E. (Publ.): Globaler Wettbewerb. Strategien der neuen Internationalisierung, Wiesbaden, 1989, PP. 95-125
- Fontari, M. (1996): Kooperationsgestaltungsprozesse in Theorie und Praxis, Berlin, 1996 (Betriebswirtschaftliche Schriften, Vol. 138), Diss. Trier
- Forsgren, M. (1990): Managing the International Multi-Centre Firm: Case Studies from Sweden, in: European Management Journal, Vol. 8, No. 1, 1990, PP. 261-267
- Forsgren, M./Holm, U./Johanson, J. (1992): Internationalization of the Second Degree: The Emergence of European-Based Centers in Swedish Firms, in: Young, S./Hamill, J. (1992): Europe and the Multinationals. Issues and Responses for the 1990s, Aldershot, Bookfield, 1992, PP. 235-253

- Forsgren, M./Holm, U./Johanson, J. (1995): Division Headquarters go abroad – A Step in the Internationalization of the Multinational Corporation, in: *Journal of Management Studies*, Vol. 32, No. 4, 1995, PP. 475-491
- Forsgren, M./Holm, U./Thilenius, P. (1997): Network Infusion in the Multinational Corporation, in: Björkman, I./Forsgren, M. (Publ.): *The Nature of the International Firm. Nordic Contributions to International Business Research*, Copenhagen, 1997, PP. 475-494
- Forsgren, M./Johanson, J. (1992): Managing in International Multi-centre Firms, in: Forsgren, M./Johanson, J. (Publ.): *Managing Networks in International Business*, Philadelphia et al., 1992, PP. 19-31
- Franko, L.G. (1976): *The European Multinationals*, London, 1976
- Fredows, K. (1989, Publ.): *Managing International Manufacturing*, Amsterdam et al., 1989
- Freeman, E.R. (1983): Strategic management. A stakeholder approach, in: Lamb, R. (Publ.): *Advances in strategic management*, Vol. 1, Greenwich, 1983, PP. 31-60
- Frese, E. (1972): Organisation und Koordination, in: *Zeitschrift für Organisation*, Vol. 41, 1972, PP. 404-411
- Frese, E. (1988a): Koordination und Organisationsstruktur (I), in: *WISU – Das Wirtschaftsstudium*, Vol. 17, No. 1, 1988, PP. 32-35
- Frese, E. (1988b): Koordination und Organisationsstruktur (II), in: *WISU – Das Wirtschaftsstudium*, Vol. 17, No. 1, 1988, PP. 87-90
- Frese, E./Hax, H. (2000, Publ.): *Das Unternehmen im Spannungsfeld von Planung und Marktkontrolle*, special issue No. 44 of “zbf”, Düsseldorf, Frankfurt, 2000
- Fritz, W. (1989): Marketing - ein Schlüssel des Unternehmenserfolges? Eine kritische Analyse vor dem Hintergrund der empirischen Erfolgsfaktorforschung, in: *Institut für Marketing (Publ.): Working Paper No. 72*, Mannheim, 1989
- Gabele, E. (1985): *Unternehmensgrundsätze: Empirische Erhebungen und praktische Erfahrungsberichte zur Konzeption, Einrichtung und Wirkungsweise eines modernen Führungsinstrumentes*, Frankfurt, Bern, New York, 1985
- Galbraith, J.R. (1973): *Designing complex organizations*, Reading/Mass., 1973

- Galbraith, J.R./Edström, A. (1976): International Transfer of Managers: Some Important Policy Considerations, in: Columbia Journal of World Business, Vol. 11, No. 2, 1976, PP. 100-112
- Galbraith, J.R./Nathanson, D.A. (1978): Strategy Implementation: The Role of Structure and Process, St. Paul et al., 1978
- Galilei, G. (1982): Dialog über die beiden hauptsächlichsten Weltsysteme, das ptolemäische und das kopernikanische. Aus dem italienischen von E. Strauss. Mit einem Beitrag von Albert Einstein. According to the issue from 1891, in: Sexl, R./Meyenn, K.v. (Publ.), Stuttgart, 1982
- Garnier, G. (1982): Context and decision making autonomy in the foreign affiliates of U.S. multinational corporations, in: Academy of Management Journal, December, PP. 893-908
- Gassmann, O. (1997): Internationales F&E-Management. Potentiale und Gestaltungskonzepte transnationaler F&E-Projekte, München, Wien, 1997, Diss. St. Gallen
- Gates, S.R./Egelhoff, W.G. (1986): Centralization in Headquarters-Subsidiary Relationships, in: Journal of International Business Studies, Vol. 17, No. 2, 1986, PP. 71-91
- Gaugler, E./Mungenast, M. (1992): Aus- und Weiterbildung, Organisation der, in: Freise, E. (Publ.): Handwörterbuch der Organisation, Stuttgart 1992, Col. 237-252
- Geerts, C. (1983): Dichte Beschreibung. Beiträge zum Verstehen kultureller Systeme, Frankfurt, 1983
- Gencturk, E.F./Aulakh, P.S. (1995): The Use of Process and Output Controls in Foreign Markets, in: Journal of International Business Studies, Vol. 26, No. 4, 1995, PP. 775-786
- Gertsen, M.C./Soderberg, A.-M. (1998): Cultural Dimensions of International Mergers and Acquisitions, Berlin, 1998
- Gerybadze, A. (1998): Kompetenzverteilung und Integrationskonzepte für Wissenszentren in transnationalen Unternehmen, in: Kutschker, M. (Publ.): Integration in der internationalen Unternehmung, Wiesbaden, 1998, PP. 239-269
- Gerybadze, A. (1999): Multinationale Unternehmen und nationale Innovationssysteme: Konflikt oder Komplementarität? In: Mayer, O.G./Scharer, H.-E. (Publ.): Internationale Unternehmensstrategien und nationale Standortpolitik, Baden-Baden, 1999, PP. 103-128

- Gerybadze, A./Meyer-Krahmer, F./Reger, G. (1997): *Globales Management von Forschung und Innovation*, Wiesbaden, 1997
- Gerybadze, A./Reger, G. (1998): *Managing Globally Distributed Competence Centers with Multinational Corporations: A Resource-Based View*, in: Scandura, T.A./Serapio, M. (Publ.): *Research in International Business and International Relations. Leadership and Innovation in Emerging Markets*, Vol. 7, Stanford, CT, London, 1998, PP. 183-217
- Gerybadze, A./Reger, G. (1999): *Globalization of R&D: Recent Changes in the Management of Innovation in Transnational Corporations*, in: *Research Policy*, Vol. 28, No. 2/3, 1999, PP. 251-274
- Ghuri, P. (1992): *New structures in MNCs based in small countries: a network approach*, in: *European Management Journal*, Vol. 10, No. 3, 1992, PP. 357-364
- Ghuri, P.N. (1992): *New Structures in MNCs based in Small Countries: A Network Approach*, in: *European Management Journal*, Vol. 10, No. 3, 1992, PP. 357-364
- Ghoshal, S. (1985): *The Innovative Multinational: A Differentiated Network of Organizational Level Analysis*, unpublished doctoral thesis, Cambridge, 1985
- Ghoshal, S. (1987): *Global Strategy: An Organizing Framework*, in: *Strategic Management Journal*, Vol. 8, No. 5, 1987, PP. 425-440
- Ghoshal, S./Bartlett, C.A. (1988): *Creation, Adoption, and Diffusion of Innovations by Subsidiaries of Multinational Corporations*, in: *Journal of International Business Studies*, Vol. 19, No. 3, 1988, PP. 365-388
- Ghoshal, S./Bartlett, C.A. (1990): *The Multinational Corporation as an Inter-Organizational Network*, in: *Academy of Management Review*, Vol. 15, No. 4, 1990, PP. 603-625
- Ghoshal, S./Bartlett, C.A. (1995): *Changing the Role of Top Management: Beyond Structure to Processes*, in: *Harvard Business Review*, Vol. 72, January-February, 1995, PP. 86-96
- Ghoshal, S./Moran, P./Almeida-Costa, L. (1995): *The Essence of the Mega-Corporation. Shared Context, not Structural Hierarchy*, in: *Journal of Institutional and Theoretical Economics*, Vol. 151, No. 4, 1995, PP. 748-759
- Ghoshal, S./Nohria, N. (1989): *Internal Differentiation within Multinational Corporations*, in: *Strategic Management Journal*, 10. Vol., w/o No., 1989, PP. 323-337

- Ghoshal, S./Nohria, N. (1991): Requisite variety and shared values: different approaches to managing headquarter-subsidiary relations in MNCs, internal working paper of INSEAD und Harvard University, 1991
- Ghoshal, S./Nohria, N. (1993): Horses for Courses: Organizational Forms for Multinational Corporations, in: Sloan Management Review, Vol. 34, No. 2, 1993, PP. 23-25
- Ghoshal, S./Westney, E.D. (1993): Introduction and Overview, in: Ghoshal, S./Westney, E.D. (Publ.): Organization Theory and the Multinational Corporation, New York, 1993, PP. 1-23
- Gilbert, X./Lorange, P. (1994): National Approaches to Strategic Management – A Resource-Based Perspective, in: International Business Review, Vol. 3, special issue, No. 4, 1994, PP. 411-423
- Glaum, M. (1995): Internationalisierung und Unternehmenserfolg, Wiesbaden, 1996, Habil. Giessen
- Goehle, D.G. (1980): Decision making in Multinational Corporations, Ann Arbor, 1980
- Govindarajan, V./Gupta, A.K. (2002): Erfolgreiche Internationalisierungsstrategien: Wettbewerbsvorteile erkennen und optimal nutzen, Weinheim, 2002
- Granovetter, M. (1985): Economic in action and social structure: The problem of embeddedness, in: American Journal of Sociology, No. 91, 1985, PP. 481-510
- Grant, R.M. (1991): The Resource-Based Theory of Competitive Advantage: Implications for Strategy Formulation, in: California Management Review, Vol. 33, No. 3, 1991, PP. 114-135
- Greb, R./Hassan, A. (2001): Die F&E-Produktivität von global verteilten F&E-Organisationen, in: Die Betriebswirtschaft, Vol. 61, No. 4, 2001, PP. 462-477
- Greipel, P. (1988): Strategie und Kultur: Grundlagen und mögliche Handlungsfelder kulturbewußten strategischen Managements, Bern, Stuttgart, 1988
- Greipel, P. (1990): Unternehmenskultur - Ansatzpunkt für ein erweitertes Verständnis strategischen Managements?, in: Lattmann, Ch. (Publ.): Die Unternehmenskultur, Heidelberg, 1990, PP. 319-338
- Grøgaard, J. (1996): Estonia in the Grip of Change – The NORBALT Living Conditions Project, Fafo, 1996

- Gupta, A.K./Govindarajan, V. (1994): Organizing for Knowledge Flows within MNCs, in: International Business Review, Vol. 3, No. 4, PP. 443-457
- Gupta, A.K./Govindarajan, V. (2000): Knowledge Flows within Multinational Corporations, in: Strategic Management Journal, Vol. 21, 2000, PP. 473-457
- Gupta, A.K./Govindarajan, V./Malhorta, A. (1999): Feedback-seeking Behavior within Multinational Corporations, in: Strategic Management Journal, Vol. 20, 1999, PP. 205-222
- Haire, M./Ghiselli, E./Porter, L. (1966): Managerial thinking: an international study, New York, 1966
- Hall, D.J./Saias, M.A. (1980): Strategy Follows Structure! In: Strategic Management Journal, Vol. 1, No. 2, 1980, PP. 149-163
- Halsberghe, E./Van den Bulcke, D.(1982): Beleidsautonomie van buitenlandse dochterondernemingen in België, Brüssel, 1982
- Hamann, H. (2003): Informationsversorgung in Transnationalen Unternehmungen, Diss., Dortmund, 2003
- Hamel, G./Prahalad, C.K. (1983): Managing strategic responsibility in the MNC, in: Strategic Management Journal, Vol. 4, 1983, PP. 341-351
- Hamel, G./Prahalad, C.K. (1989): "Strategic Intend" - aber jetzt gegen die Japaner, in: Harvard-manager, No. 4, 1989, PP. 90-102
- Hamel, W. (1996): Innovative Organisation der finanziellen Unternehmensführung, in: Betriebswirtschaftliche Forschung und Praxis, Vol. 48, No. 3, 1996, PP. 323-341
- Hamilton, R.D./Kashlak, R.J. (1999): National Influences on Multinational Control System Selection, in: Management International Review, Vol. 39, No. 2, 1999, PP. 167-189
- Hamilton, R.D./Taylor, V./Kashlak, R.J. (1996): Designing a Control System for a Multinational Subsidiary, in: Long Range Planning, Vol. 29, No. 6, 1996, PP. 857-868
- Hansen, K.P. (2000): Kultur und Kulturwissenschaft. Eine Einführung. 2., completely revised and enlarged edition, Tübingen, Basel, 2000
- Hanser, P. (1993): Marketing-Outsourcing. Schlankheitskur mit Risiko, in: Absatzwirtschaft, Vol. 36, No. 8, 1993, PP. 34-39

- Harbinson, F./Myers, C.A. (1959): *Management in the Industrial World*, New York, 1959
- Harris, I.C./Rüfli, T.W. (2000): *The Strategy/Structure Debate: An Examination of the Performance Implications*, in: *Journal of Management Studies*, Vol. 37, No. 4, 2000, PP. 587-603
- Harris, P.R./Moran, R.T. (1996): *Managing Cultural Differences. Leadership styles for a New World of Business*. 4. edition, Houston, 1996
- Hartfelder, D. (1984): *Management als Sinnvermittlung?* In: *Die Unternehmung*, Vol. 38, No. 4, 1984, PP. 373-395
- Harzing, A.-W. (1999): *Managing the Multinationals. An International Study of Control Mechanisms*, Cheltenham, Northampton, MA, 1999
- Harzing, A.-W. (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, 2000, PP. 101-120
- Harzing, A.-W. (2001): *Of Bears, Bumble-Bees and Spiders: The Roles of Expatriates in Controlling Foreign Subsidiaries*, in: *Journal of World Business*, Vol. 36, No. 4, 2001, PP. 366-379
- Hasenstab, M. (1999): *Interkulturelles Management. Bestandaufnahme und Perspektiven*, Sternenfels, 1999 (publication series *Interkulturelle Wirtschaftskommunikation*, Vol. 5), 1999, Diss. Jena
- Hausschildt, J./Vollstedt, M. (2002): *Unternehmenssprachen oder Company Language? Zur Einführung einer einheitlichen Sprache in global tätigen Unternehmen*, in: *Zeitschrift für Organisation*, Vol. 71, No. 3, 2002, PP. 173-183
- Hausmann, H. (2002): *Kulturelle Integrationsprobleme bei internationalen Mergers & Acquisitions*, in: Macharzina, K./Österle, M.-J. (Publ.): *Handbuch Internationales Management. Grundlagen-Instrumente-Perspektiven*, 2. edition, Wiesbaden, 2002, PP. 909-921
- Hedlund, G. (1980): *The Role of Foreign Subsidiaries in Strategic Decision-Making in Swedish Multinational Corporations*, in: *Strategic Management Journal*, Vol. 1, No. 1, 1980, PP. 23-36
- Hedlund, G. (1981): *Autonomy of subsidiaries and formalization of headquarters-subsidiary relations in Swedish MNCs*, in Otterbeck, L. (Publ.): *The management of headquarters-subsidiary relations in multinational corporations*, Hampshire, 1981

- Hedlund, G. (1984): Organization in-between: The Evolution of the Mother-Daughter Structure of Managing Foreign Subsidiaries in Swedish MNCs, in: *Journal of International Business Studies*, Vol. 15, No. 2, 1984, PP. 109-123
- Hedlund, G. (1986): The Hypermodern MNC - A Heterarchy? In: *Human Resource Management*, Vol. 25, No. 1, 1986, PP. 9-35
- Hedlund, G. (1993): Assumptions of Hierarchy and Heterarchy with Applications to the Management of the Multinational Corporation, in: Goshal, S./Westney, E.D. (Publ.): *Organization Theory and the Multinational Corporation*, New York, 1993, PP. 211-236
- Hedlund, G. (1999): The Intensity and Extensity of Knowledge and the Multinational Corporation as a Nearly Reconfigurable System (NRS), in: *Management International Review*, Vol. 39, special issue, No. 1, 1999, PP. 5-44
- Hedlund, G./Rolander, D. (1990): Action in Heterarchies - New Approaches to Managing the MNC, in: Bartlett, C.A./Doz, Y./Hedlund, G. (Publ.): *Managing the Global Firm*, London, New York, 1990, PP. 15-46
- Heenan, D./Perlmutter, H. (1978): *Multinational organization development: a social architecture perspective*, Reading/MA, 1978
- Heenan, D.A./Perlmutter, H.V. (1979): *Multinational Organization Development*, Reading et al., 1979
- Heinen, E. (1987): Unternehmenskultur als Gegenstand der Betriebswirtschaftslehre, in: Heinen, E. et al. (Publ.): *Unternehmenskultur, Perspektiven für Wissenschaft und Praxis*, München, 1987
- Heinrich, A. (2003): Internationalization of Russia's Gazprom, in: *Journal of East European Management Studies*, Vol. 8, No. 1, 2003, PP. 46-66
- Heinrichs, J. (1973): *Die Koordination von Entscheidungen in multinationalen Unternehmen*, Diss. Mannheim, 1973
- Helemäe, J./Saar, E.(1995): National Reconstruction and Social Re-Satisfaction. Nationalities Paper, Vol. 23, No. 1, PP. 127-140
- Helemäe, J./Saar, E./Vöörmann, R. (1999): *Estonian Labour Market and Labour Market Policy*. Ministry of Social Affairs of Estonia, PP. 56-71, 1999

- Hennart, J.-F. (1991): Control in Multinational Firms: The role of price and Hierarchy, in: Management International Review, Vol. 31, Special Issue, 1991, PP. 71-96
- Hennart, J.-F. (1993): Control in Multinational Firms: The Role of Price and Hierarchy, in: Ghoshal, S./Westney, E.D. (Publ.): Organization Theory and the Multinational Corporation, New York, 1993, PP. 157-181
- Hennart, J.-F. (2001): Theories of the Multinational Enterprise, in: Rugman, A.M./Brewer, T.L. (Publ.): The Oxford Handbook of International Business, Oxford et al., 2001, PP. 127-149
- Henzler, H. (1988): Von der strategischen Planung zur strategischen Führung: Versuch einer Positionsbestimmung, in: Zeitschrift für Betriebswirtschaft, Vol. 58, No. 10, 1988, PP. 1286-1307
- Henzler, H./Rall, W. (1985): Aufbruch in den Weltmarkt, in: Manager Magazin, No. 9, 1985, PP. 177-190 und No. 10/1985, PP. 255-174 (the article was published in a different format: Facing up to the globalization challenge, in: The McKinsey Quarterly, Winter, 1986, PP. 52-68
- Henzler, H./Rall, W. (1985): Aufbruch in den Weltmarkt, in: Managermagazin, Vol. 15, No. 9, 1985, PP. 176-190, No. 10, PP. 254-262, No. 11, PP. 166-174
- Henzler, H.A. (1990): Geleitwort. Unternehmen als Weltbürger: So lokal wie nötig, so global wie möglich, in: Welge, M.K. (Publ.): Globales Management. Erfolgreiche Strategien für den Weltmarkt, Stuttgart, 1990, PP. V-VI
- Herder-Dorneich, P. (1991): Unternehmensphilosophie, 2. edition, Baden-Baden, 1991
- Herd, H.-K. (1986): Bosch 1886-1986: Portrait eines Unternehmens, Stuttgart, 1986
- Heuskel, D. (1999): Wettbewerb jenseits von Industriegrenzen. Aufbruch zu neuen Wachstumsstrategien, Frankfurt, New York, 1999
- Heuss, Th. (1986): Robert Bosch. Leben und Leistung, Stuttgart, 1986
- Hickson, D.J., et al (1974): The Culture-Free Context in Organization Structure: A Tri-National Comparison, in: Sociology, Vol. 8, 1974, PP. 59-80
- Hickson, D.J./Pugh, D. (1995): Management Worldwide. The impact of Societal Culture on Organizations around the Globe, London et al., 1995

- Hill, W./Fehlbaum, R./Ulrich, P. (1994): Organisationslehre I. Ziele, Instrumente und Bedingungen der Organisation sozialer Systeme. 5., revised edition, Bern, Stuttgart, Wien, 1994
- Hinterhuber, H.H./Levin, B.M. (1994): Strategic Networks – The Organization of the Future, in: Long Range Planning, No. 3, 1994, PP. 43ff
- Hoechst (1993): Annual Report, Frankfurt-Hoechst, 1993
- Hoechst (1994): Annual Report, Frankfurt-Hoechst, 1994
- Hoffman, R.C. (1988): The general Management of Foreign Subsidiaries in the U.S.A. – An Exploratory Study, in: Management International Review, Vol. 28, No. 2, 1988, PP. 41-55
- Hoffmann, F. (1980): Führungsorganisation. Vol. I: Stand der Forschung und Konzeption, Tübingen, 1980
- Hoffmann, F. (1989): Erfassung, Bewertung und Gestaltung von Unternehmenskulturen. Von der Kulturtheorie zu einem anwendungsorientierten Ansatz, in: Zeitschrift für Organisation, No. 3, 1989, PP. 168-173
- Hoffmann, S.T. (1992): Steuerung und Koordination japanischer Tochtergesellschaften in Europa und Nordamerika, Konstanz, 1992
- Hofstede, G (2001a): Lokales Denken, globales Handeln. Interkulturelle Zusammenarbeit und globales Management, 2. edition, München, 2001
- Hofstede, G (2001b): Culture's Consequences. Comparing Values, Behaviors, Institutions, and Organizations Across Nations, 2. edition, München, 2001
- Hofstede, G. (1978): Culture and organization - a literature review study, in: Journal of Enterprise Management, Vol. 1, 1978, PP. 127-135
- Hofstede, G. (1980): Culture's Consequences: International Differences in Work-Related Values, Beverly Hills, London, 1980
- Hofstede, G. (1980): Kultur und Organisation, in: Grochla, E. von (Publ.): Handwörterbuch der Organisation, Stuttgart, 1980, Col. 1168-1182
- Hofstede, G. (1983): The cultural relativity of organizational practices and theories, in: Journal of International Business Studies, fall, 1983, PP. 75-90

- Hofstede, G. (1984): Cultural consequences, international differences in work-related values, abridged edition, Beverly Hills, London, New Delhi, 1984
- Hofstede, G. (1984): Cultural Dimensions in Management and Planning. In: Asia Pacific Journal of Management, Vol. 1, No. 2, 1984, PP. 81-99
- Hofstede, G. (1993): Interkulturelle Zusammenarbeit. Kulturen – Organisationen – Management, Wiesbaden, 1993
- Hofstede, G. (1994): The Business of International Business is Culture, in: International Business Review, Vol. 3, No. 1, 1994, PP. 1-14
- Hofstede, G. (1997): Lokales Denken, globales Handeln. Kulturen, Zusammenarbeit und Management, München, 1997
- Hofstede, G. (1999): The Universal and the Specific in 21st-Century Global Management, in: Organizational Dynamics, Vol. 28, No. 1, 1999, PP. 34-43
- Holtbrügge, D. (1995): Personalmanagement Multinationaler Unternehmungen in Osteuropa. Bedingungen-Gestaltung-Effizienz, Wiesbaden, 1995, Diss. Dortmund
- Holtbrügge, D. (1996a): Perspektiven internationaler Unternehmenstätigkeit in der Postmoderne, in: Engelhard, J. (Publ.): Strategische Führung internationaler Unternehmen. Paradoxien, Strategien und Erfahrungen, Wiesbaden, 1996, PP. 273-292
- Holtbrügge, D. (1996b): Erfolgsfaktoren ausländischer Direktinvestitionen in Russland. Wirtschaftspartner Russland. Rahmenbedingungen-Kooperationsstrategien-Erfahrungsberichte, in: Welge, M.K./Holtbrügge, D. (Publ.). Wiesbaden, 1996, PP. 1-43
- Holtbrügge, D. (1999): Betriebswirtschaftliche Implikationen der Monetarisierung der russischen Wirtschaft, in: Osteuropa-Wirtschaft, Vol. 44, No. 2, 1999, PP. 160-176
- Holtbrügge, D. (2001a): Konfiguration und Koordination Multinationaler Unternehmungen. Ergebnisse einer empirischen Untersuchung. Dortmunder Beiträge zur Unternehmensführung, No. 31, Dortmund, 2001
- Holtbrügge, D. (2001b): Neue Organisationsformen, in: Zeitschrift für Organisation, Vol. 70, No. 6, 2001, PP. 338-345

- Holtbrügge, D. (2001c): Postmoderne Organisationstheorie und Organisationsgestaltung, Wiesbaden, 2001, Habil. Dortmund
- Holtbrügge, D. (2003): Internationale Unternehmen, Organisation der, in: Schreyögg, G./Werder, A. von (Publ.): Handwörterbuch Unternehmensführung und Organisation, 3. edition, Stuttgart, 2003
- Holtbrügge, D./Berg, N. (2002): Ausländische Unternehmungen in Russland als soziopolitische Akteure. Ergebnisse einer empirischen Untersuchung, in: Gorzka, G./Schulze, P.W. (Publ.): Russlands Perspektive. Ein starker Staat als Garant von Stabilität und offener Gesellschaft? Bremen, 2002, PP. 233-256
- Holtbrügge, D./Boutler, T. (2003): Auslandsinvestitionen in Russland, in: Meier, C./Pleines, H./Schröder, H.-H. (Publ.): Ökonomie - Kultur - Politik. Transformationsprozesse in Osteuropa, special issue for Hans-Hermann Höhmann for his 70. birthday, Bremen, 2003
- Holtbrügge, D./Puck, J. (2003): Interkulturelle Teams. Chancen, Risiken und Erfolgsfaktoren, in: Personal, Vol. 55, No. 8, 2003, PP. 46-49
- Holzmüller, H. (1995): Konzeptionelle und methodische Probleme in der interkulturellen Management- und Marketingforschung, Stuttgart, 1995
- Huber, K.H. (1992): Einführungsprogramme für neue Mitarbeiter, in: Gaugler, E./Weber, W. (Publ.): Handwörterbuch des Personalwesens, Stuttgart 1992, Col. 763-773
- Hülßenbeck, J.-P., 1993: Die Auswirkungen multinationaler Netzwerkstrukturen auf die Steuerung ausländischer Unternehmenseinheiten, diploma thesis University Mannheim, 1993
- Hünerberg, R. (1994): Internationales Marketing, Landsberg a.L., 1994
- Hungenberg, H. (1995): Zentralisation und Dezentralisation. Strategische Entscheidungsverteilung in Konzernen, Wiesbaden, 1995, Habil. Giessen
- Hungenberg, H. (2001): Strategisches Management in Unternehmen. Ziele-Prozesse-Verfahren, 2. edition, Wiesbaden, 2001
- Hungenberg, H. (1995): Zentralisation und Dezentralisation – Strategische Entscheidungsverteilung in Konzernen, Wiesbaden, 1995

- Jäger, A.M. (1983): The Transfer of Organizational Culture Overseas: An Approach to Control in the Multinational Corporation, in: *Journal of International Business Studies*, Vol. 14, No. 2, 1983, PP. 91-114
- Jäger, A.M. (1989): Steuerung, personale, in: Macharzina, K./Welge, M.K. (Publ.): *Handwörterbuch Export und Internationale Unternehmung*, Stuttgart, 1989, Col. 2018-2022
- Jago, A. et al. (1995): Interkulturelle Unterschiede im Führungsverhalten, in: Kieser, A./Reber, G./Wunderer, R. (Publ.): *Handwörterbuch der Führung*, 2. edition, Stuttgart, 1995, Col. 1226-1239
- Jahrreiss, W. (1984): *Zur Theorie der Direktinvestitionen im Ausland. Versuch einer Bestandsaufnahme, Weiterführung und Integration partialanalytischer Forschungsansätze*, Berlin, 1984, Diss. Köln
- Jarillo, J.C. (1988): On Strategic Networks, in: *Strategic Management Journal*, Vol. 9, No.1, 1988, PP. 31-41
- Jarillo, J.C./Martinez, J.I. (1990): Different Roles for Subsidiaries: The Case of Multinational Corporations in Spain, in: *Strategic Management Journal*, Vol. 11, 1990, PP. 501-512
- John, C.H.St./Young, S.T./Miller, J.L. (1999): Coordinating Manufacturing and Marketing in International Firms, in: *Journal of World Business*, Vol. 34, No. 2, 1999, PP. 109-127
- Johnson, J.P./Lenartowicz, T. (1998): Culture, Freedom and Economic Growth: Do Cultural Values explain Economic Growth? In: *Journal of World Business*, Vol. 33, No. 4, 1998, PP. 332-356
- Jones, G.R. (1983): Transaction costs, property rights, and organizational culture - an exchange perspective, in: *Administrative Science Quarterly*, Vol. 28, 1983, PP. 454-466
- Jost, T. (2001): Wettbewerbsvorteile deutscher Unternehmen in Mittel- und Osteuropa, in: *WiSt – Wirtschaftswissenschaftliches Studium*, Vol. 30, No. 1, 2001, PP. 23-29
- Jungbluth, R. (1999): Hoechst Radikal, in: *Stern*, No. 28, 1999, PP. 110-113
- Kanter, R.M. (1983): *The change masters*, New York, 1983
- Kappich, L. (1988): *Theorie der internationalen Unternehmungstätigkeit. Betrachtung der Grundformen des internationalen Engagements aus koordinationskosten-theoretischer Perspektive*, München, 1988 (series "Law and Economics", Vol. 13), Diss. Hannover

- Kastura, B. (1996): Dezentralisierungstendenz der Personalarbeit in Großunternehmen. Erklärungsansatz auf der Basis des Human Resource Management, Hamburg, 1996, Diss. Bamberg
- Katz, D./Kahn, R.L. (1966): The social psychology of organizations, New York, 1966
- Kaufmann, L. (1993): Planung von Arbeitnehmer-Zulieferer-Kooperationen – dargestellt als strategische Führungsaufgabe aus Sicht der abnehmenden Unternehmung, Giessen, 1993, Diss. Giessen
- Kaufmann, L. (2001): Internationales Beschaffungsmanagement. Gestaltung strategischer Gesamtsysteme und Management einzelner Transaktionen, Wiesbaden, 2001, Habil. Giessen
- Keegan, W.J./Schlegelmilch, B.B./Stöttinger, B. (2002): Globales Marketing-Management. Eine europäische Perspektive, München, Wien, 2002
- Keller, E. von (1982): Management in fremden Kulturen. Ziele, Ergebnisse und methodische Probleme der kulturvergleichenden Managementforschung, Bern, Stuttgart, 1982, Diss. St. Gallen
- Keller, E. von (1987): Kulturabhängigkeit der Führung, in: Kieser, A./Reber, G./ Wunderer, R. (Publ.): Handwörterbuch der Führung, Stuttgart, 1987, Col. 1285-1294
- Keller, E. von (1989): Comparative Management, in: Macharzina, K./Welge, M.K. (Publ.): Handwörterbuch Export und Internationale Unternehmung, Stuttgart, 1989, Col. 231-241
- Keller, E. von (1995): Kulturabhängigkeit der Führung, in: Kieser, A./Reber, G./ Wunderer, R. (Publ.): Handwörterbuch der Führung, Stuttgart, 1987, Col. 1397-1406
- Kenter, M.E. (1985): Die Steuerung ausländischer Tochtergesellschaften. Instrumente und Effizienz, Frankfurt et al., 1985
- Khandwalla, P.N. (1972): Uncertainty and the “Optimal” Design of Organizations, working paper, Faculty of Management, McGill University, Montreal, 1972
- Khandwalla, P.N. (1973): Viable and effective organizational design firms, in: Academy of Management Journal, No. 16, 1973, PP. 481-495

- Khandwalla, P.N. (1975): Unsicherheit und die "optimale" Gestaltung von Organisationen, in: Grochla, E. von (Publ.): Organisationstheorie, 1. Vol., Stuttgart 1975, PP. 140-156 (Original published under: Uncertainty and the "optimal" design of organizations, TIMS XIX Meeting, Houston, w/o Vol.)
- Khandwalla, P.N. (1975): Unsicherheit und die "optimale" Gestaltung von Organisationen, in: Grochla, E. (Publ.): Organisationstheorie. Vol. 1, Stuttgart, 1975, PP. 140-156
- Kiechl, R. (1990): Ethnokultur und Unternehmenskultur, in: Lattmann, Ch. (Publ.): Die Unternehmenskultur, Heidelberg, 1990, PP. 107-129
- Kieser, A. (2001, Publ.): Organisationstheorien, 4., unchanged edition, Stuttgart, Berlin, Köln, 2001
- Kieser, A./Hippler, G./Krüger, K.-H./Krüger, M. (1990): Die Einführung neuer Mitarbeiter in das Unternehmen, 2. edition, Frankfurt, 1990,
- Kieser, A./Kubicek, H. (1992): Organisation. 3. edition, Berlin, New York, 1992
- Kieser, A./Woywode, M. (2001): Evolutionstheoretische Ansätze, in: Kieser, A. (2001, Publ.): Organisationstheorien, 4., unchanged edition, Stuttgart, Berlin, Köln, 2001
- Kilduff, M. (1992): Performance and Interaction Routines in Multinational Corporations, in: Journal of International Business Studies, Vol. 23, No. 1, 1992, PP. 133-145
- Klein, H. (1996): Operation Amerika, Hoechst in den USA, München, 1996
- Klein, H.J. (1993): Internationale Verbundproduktion. Integrierte Produktionssysteme internationaler Unternehmungen, Giessen, 1993
- Kobi, J.-M./Wüthrich, H.A. (1986): Unternehmenskultur verstehen, erfassen und gestalten, Landsberg a.L., 1986
- Kobrin, S.J. (1991): An empirical analysis of the determinants of global integration, in: Strategic Management Journal, Vol. 12, 1991, PP. 17-31
- Koch, I. (1991): Dänemark - nach mageren Jahren wieder neue Möglichkeiten, in: Berger, R. (Publ.): Handbuch Europa '92, Düsseldorf, Wien, New York, 1991, PP. 134-138
- Kogut, B. (1985): Designing Global Strategies: Profiting from Operational Flexibility, in: Sloan Management Review, Vol. 27, No. 1, 1985, PP. 27-38

- Kogut, B. (1989): Research Notes and Communications - A Note on Global Strategies, in: Strategic Management Journal, Vol. 10, 1989, PP. 383-389
- Kortan, J. (1999): Auslandsinvestitionen in Polen, in: Giesel, F./Glaum, M. (Publ.): Globalisierung. Herausforderung an die Unternehmensführung des 21. Jahrhunderts, special issue for Prof. Dr. Ehrenfried Pausenberger, München, 1999, PP. 535-569
- Kosiol, E. (1980): Kollegien, in: Grochla, E. von (Publ.): Handwörterbuch der Organisation, Stuttgart, 1980, Col. 1013-1019
- Kreikebaum, H./Gilbert, D.U./Reinhardt, G.O. (2002): Organisationsmanagement internationaler Unternehmen. Grundlagen und neue Strukturen, 2. edition, Wiesbaden, 2002
- Kreutzer, R. (1989): Global Marketing - Konzeption eines länderübergreifenden Marketing. Erfolgsbedingungen, Analysekonzepte, Gestaltungs- und Implementierungsansätze, Wiesbaden, 1989, Diss. Mannheim
- Kreutzer, R. (1990): Global Marketing - Konzeption eines länderübergreifenden Marketing - Erfolgsbedingungen, Analysekonzepte, Gestaltungs- und Implementierungsansätze, Diss. Mannheim 1989 (see also: Global Marketing - Konzeption eines länderübergreifenden Marketing, Wiesbaden, 1990)
- Kreutzer, R./Jugel, S./Wiedmann, K.-P. (1986): Unternehmensphilosophie und Corporate Identity - Empirische Bestandsaufnahme und Leitfaden zur Implementierung einer Corporate Identity - Strategie, in: Institut für Marketing (Publ.): working paper, No. 40, Mannheim, 1986
- Kröber, A.L./Kluckhohn, L. (1952): Culture, a critical review of concepts and definitions, Cambridge, MA, 1952
- Kröber-Riel, W. (1990): Konsumentenverhalten, München 1990, 4. edition
- Kropf, B. (1998): Schweizer Führungskräfte in interkulturellen Führungssituationen. Wahrnehmung und Erfolgsrelevanz unterschiedlicher Managementformen, Bern et al., 1998, Diss. Bern
- Krubasik, E./Schrader, J. (1990): Globale Forschungs- und Entwicklungsstrategien, in: Welge, M.K. (Publ.): Globales Management, Stuttgart, 1990, PP. 17-28
- Krulis-Randa, J.S. (1984): Reflexionen über die Unternehmenskultur, in: Die Unternehmung, Vol. 38, 1984, PP. 358-372

- Krystek, U./Redel, W./Reppegather, S. (1997): Grundzüge virtueller Organisationen. Elemente und Erfolgsfaktoren, Chancen und Risiken, Wiesbaden, 1997
- Krystek, U./Zur, E. (2002): Handbuch Internationalisierung. Globalisierung - Herausforderung für die Unternehmensführung, 2. edition, Berlin et al., 2002
- Kühlmann, T.M. (1995, Publ.): Mitarbeiterentsendung ins Ausland. Auswahl, Vorbereitung, Betreuung und Wiedereingliederung, Göttingen, 1995 (publication series Wirtschaftspsychologie)
- Kulhavy, E. (1989): Internationales Marketing, 4., unchanged edition, Linz, 1989
- Kulikov, D. (1999): Estonian Labour Market and Labour Market Policy. Ministry of Social Affairs of Estonia, PP. 19-47, 1999
- Kumar, B.N. (1987): Deutsche Unternehmen in den USA. Das Management in amerikanischen Niederlassungen deutscher Mittelbetriebe, Wiesbaden, 1987
- Kumar, B.N./Epple, P. (2002): Exporte, Kooperationen und Auslandsgesellschaften als Stationen des Lernens im Internationalisierungsprozess, in: Macharzina, K./Österle, M.-J. (Publ.): Handbuch Internationales Management, 2. edition, Wiesbaden, 2002, PP. 257-272
- Kumar, B.N./Haussmann, H. (1992, Publ.): Handbuch der Internationalen Unternehmenstätigkeit, München, 1992
- Kutschker, M. (1994): Dynamische Internationalisierungsstrategie, in Engelhardt, J./Rehkugler, H. (Publ.): Strategien für nationale und internationale Märkte. Konzepte und praktische Gestaltung, Wiesbaden, 1994, PP. 221-248
- Kutschker, M. (1999, Publ.): Perspektiven der internationalen Wirtschaft, Wiesbaden, 1999
- Kutschker, M./Schmid, S. (1999): Organisationsstrukturen internationaler Unternehmungen, in: Kutschker, M. (Publ.): Perspektiven der internationalen Wirtschaft, Wiesbaden, 1999, PP. 361-411
- Kutschker, M./Schmid, S. (2004): Internationales Management, 3. edition, München, Wien, 2004
- Kutschker, M./Schurig, A./Schmid, S. (2002b): Centers of Excellence in MNCs. An Empirical Analysis from Seven European Countries, in: Larimo, J. (Publ.): Current European Research in International Business, Vol. 86, Vaasan Yliopiston Julkaisuja, Vaasa, 2002, PP. 224-245

- Kutschker, M./Schurig, A./Schmid, S. (2002a): The Influence of Network Partners on Critical Capabilities in Foreign Subsidiaries, discussion paper No. 158 der Wirtschaftswissenschaftliche Fakultät Ingolstadt, Kath. Universität Eichstätt-Ingolstadt, 2002
- Kux, B./Rall, W. (1990): Marketing im globalen Wettbewerb, in: Welge, M.K. (Publ.): Globales Management, Frankfurt, 1990, PP. 73-84
- Lam, S.K./Chen, X.-P./Schaubröck, J. (2002): Participative Decision Making and Employee Performance in Different Cultures: The Moderating Effects of Allocentrism/Idiocentrism and Efficacy, in: Academy of Management Journal, Vol. 45, No. 5, 2002, PP. 905-914
- Laske, S./Weiskopf, R. (1992): Hierarchie, in: Freise, E. (Publ.): Handwörterbuch der Organisation, Stuttgart, 1992, Col. 791-807
- Launer, M. (1993): Abschlußbericht zur Diplomarbeit. Organisationsanalyse der Robert Bosch GmbH – Geschäftsbereich Elektrowerkzeuge, unpublished, company internal memorandum, Stuttgart, 1993
- Launer, M. (1993): Unternehmenskultur und die Gestaltung der Mutter-Tochter-Beziehung in multinationalen Unternehmen, diploma thesis University Mannheim, 1993
- Launer, M. (1994): Die Koordinationsstruktur der Hoechst AG, Geschäftsbereich Basischemikalien, unpublished, department internal memorandum of Corporate Controlling, Hoechst AG, Frankfurt, 1994
- Launer, M. (1997): Die Koordinationsstrategie der SGL Carbon Group, Geschäftsfeld Carbon & Graphite, unpublished company internal memorandum, Charlotte, NC, 1997
- Launer, M. (1999): Investor Relations in der Bauindustrie - Tendenzen der Besserung, in: Public Relations Report, No. 1698, August 27th 1999, PP. 6
- Launer, M. (2000): Vorschläge zur Verbesserung der internationalen Koordination der Tochtergesellschaften der Auslandsabteilung, unpublished, company internal memorandum, Philipp Holzmann AG, Frankfurt, 2000
- Launer, M. (2004a): Eine Untersuchung der Lehrbuchtheorien des Internationalen Managements auf deren Aussagegehalt zur differenzierten Koordination ausländischer Tochtergesellschaften multinationaler Unternehmen, Mannheim, 2004

- Launer, M. (2004b): Fallstudie zur differenzierten Koordination ausländischer Tochtergesellschaften multinationaler Unternehmen aus 1993, Mannheim, 2004
- Launer, M. (2004c): Die Entwicklung eines pragmatischen Messinstrumentes zur Analyse der differenzierten Koordination ausländischer Tochtergesellschaften multinationaler Unternehmen, Mannheim, 2004
- Laurent, A. (1983): The cultural diversity of western conceptions of management, in: *International Studies of Management and Organizations*, Vol. XIII, No. 1-2, 1983, PP. 75-96
- Lawrence, P.R./Dyer, D. (1983): *Renewing American Industry*, New York, 1983
- Lawrence, P.R./Lorsch, J.W. (1967a): Differentiation and integration in complex organizations, in: *Administrative Science Quarterly*, Vol. 12, 1967, PP. 1-47
- Lawrence, P.R./Lorsch, J.W. (1967b): *Organization and environment*, Boston, 1967
- Leavitt, H.J. (1964): Applied Organization Change in Industry: Structural, Technical, and Human Approaches, in: Cooper, W.W., Leavitt, H.J., Shelly, M.W. (Publ.): *New Perspectives in Organization Research*, New York, London, Sydney, 1964, PP. 55-71
- Lecraw, D.J./Morrison, A.J. (1993, Publ.): *Transnational Corporations and Business Strategy*. United Nations Library on Transnational Corporations, Vol. 4, London, New York, 1993
- Lee, S.M./Peterson, S.J. (2000): Culture, Entrepreneurial Orientation, and Global Competitiveness, in: *Journal of World Business*, Vol. 35, No. 4, 2000, PP. 401-416
- Lehnert, S. (1983): Die Bedeutung von Kontingenzansätzen für das strategische Management: Analyse und Realisationsmöglichkeiten des strategischen Managements, Frankfurt, New York, 1983
- Leong, S./Tan, C.T. (1993): Managing Across Borders: An Empirical Test of Bartlett and Ghoshal (1989) Organizational Typology, in: *Journal of International Business Studies*, Vol. 24, No. 3, 1993, PP. 449-464
- Leontiades, J.C. (1986): Going Global. Global Strategies vs. National Strategies, in: *Long Range Planning*, Vol. 19, No. 6, 1986, PP. 96-104

- Leontief, W. (1956): Factor Proportions and the Structure of American Trade: Further Theoretical and Empirical Analysis, in: *The Review of Economics and Statistics*, Vol. 38, No. 4, 1956, PP. 386-407
- Levitt, T. (1983): The Globalization of Markets, in: *Harvard Business Review*, Vol. 61, No. 3, 1983, PP. 92-102
- Luo, Y. (2000): Dynamic Capabilities in International Expansion, in: *Journal of World Business*, Vol. 35, No. 4, 2000, PP. 355-378
- Macharzina, K. (1982): Theorie der internationalen Unternehmenstätigkeit - Kritik und Ansätze einer integrativen Modellbildung, in: Lück, W./Trommsdorff, V. (Publ.): *Internationalisierung der Unternehmung als Problem der Betriebswirtschaftslehre*, Berlin, 1982, PP. 111-143
- Macharzina, K. (1992): Internationalisierung und Organisation, in: *Zeitschrift Führung und Organisation*, Vol. 61, No. 1, 1992, PP. 4-11
- Macharzina, K. (1992): Organisation der internationalen Unternehmensaktivität, in: Kumar, B.N./Haussmann, H. (Publ.): *Handbuch der Internationalen Unternehmenstätigkeit*, München, 1992, PP. 591-607
- Macharzina, K. (1993): Steuerung von Auslandsgesellschaften bei Internationalisierungsstrategien, in Haller, M., et al (Publ.): *Globalisierung der Wirtschaft – Einwirkungen auf die Betriebswirtschaftslehre*, Bern, Stuttgart, Wien, 1993, PP. 77-109
- Macharzina, K. (1999): *Unternehmensführung. Das internationale Managementwissen. Konzepte – Methoden – Praxis*, 3. edition, Wiesbaden, 1999
- Macharzina, K. (2002): Internationales Management - Späte Rezeption und steile Entwicklung, in: Gaugler, E./Köhler, R. (Publ.): *Entwicklungen der Betriebswirtschaftslehre*, Stuttgart, 2002, PP. 491-508
- Macharzina, K./Engelhard, J. (1987): Internationales Management, in: *Die Betriebswirtschaft*, Vol. 47, No. 3, 1987, PP. 319-344
- Macharzina, K./Österle, M.-J. (1995): Internationalisierung und Organisation unter besonderer Berücksichtigung europäischer Entwicklungen, in: Scholz, C./Zentes, J. (Publ.): *Strategisches Euro-Management*, Stuttgart, 1995, PP. 203-225

- Macharzina, K./Österle, M.-J. (2002a): Das Konzept der Internationalisierung im Spannungsfeld zwischen praktischer Relevanz und theoretischer Unschärfe, in: Macharzina, K./Österle, M.-J. (Publ.): Handbuch Internationales Management. Grundlagen – Instrumente – Perspektiven, 2. edition, Wiesbaden, 2002, PP. 3-21
- Macharzina, K./Österle, M.-J. (2002b): Bestimmungsgrößen und Mechanismen der Koordination von Auslandsgesellschaften, in: Macharzina, K./Österle, M.-J. (Publ.): Handbuch Internationales Management. Grundlagen – Instrumente – Perspektiven, 2. edition, Wiesbaden, 2002, PP. 23-44
- Macharzina, K./Österle, M.-J. (2002c): Das Konzept der Internationalisierung im Spannungsfeld zwischen praktischer Relevanz und theoretischer Unschärfe, in: Macharzina, K./Österle, M.-J. (Publ.): Handbuch Internationales Management. Grundlagen-Instrumente-Perspektiven, 2. edition, Wiesbaden, 2002, PP. 3-21
- Macharzina, K./Welge, M.K. (1989, Publ.): Handwörterbuch Export und Internationale Unternehmung, Stuttgart, 1989
- Macharzina, K./Wolf, J. (1996, Publ.): Handbuch Internationales Führungskräfte-Management, Stuttgart et al., 1996
- Macneil, I.R. (1978): Contracts - adjustment of long-term economic relations under classical, neo-classical and relational contract law, in: Northwestern University Law Review, Vol. 72, 1978, PP. 854-905
- Mag, W. (1992): Ausschüsse, in: Freise, E. (Publ.): Handwörterbuch der Organisation, Stuttgart, 1992, Col. 252-262
- Magaziner, I.C./Reich, R.B. (1985): International Strategies, in: Vernon Wortzel, H./Vortzel, L.H. (Publ.): Strategic Management of Multinational Corporations: The Essentials, New York, 1985, PP. 4-9
- Mahini, A. (1990): Facing up complexity. An interview with Christopher Bartlett, in: The Mc Kinsey Quarterly, spring, 1990, PP. 27-35
- Makodok, R. (2001): Toward a Synthesis of the Resource-Based and Dynamic-Capability Views of Rent Creation, in: Strategic Management Journal, Vol. 22, No. 5, 2001, PP. 387-401

- Malnight, T.W. (1996): The Transition from Decentralized to Network-Based MNC Structures: An Evolutionary Perspective, in: *Journal of International Business Studies*, Vol. 27, No. 1, 1996, PP. 43-65
- Malone, T.W./Laubacher R.J. (1999): Vernetzt, klein und flexibel – die Firma des 21. Jahrhunderts, in: *Harvard Business Manager*, Vol. 21, No. 2, 1999, PP. 28-36
- Marcati, A. (1989): Configuration and Coordination – The Role of US Subsidiaries in the International Network of Italian Multinationals, in: *Management International Review*, Vol. 29, No. 3, 1989, PP. 35-50
- March, J.G./Simon, H.A. (1958): *Organizations*, New York, 1958
- Marksoo, Ü./Luuk, M. (1999): *Estonian Labour Market and Labour Market Policy*, Ministry of Social Affairs of Estonia, PP. 7-18, 1999
- Martinez, J.I./Jarillo, J.C. (1987): The evolution of research on coordination mechanisms in multinational corporations, in: *Journal of International Business Studies*, fall, 1989, PP. 489-514
- Martinez, J.I./Jarillo, J.C. (1989): The Evolution of Research on Coordination Mechanisms in Multinational Corporations, in: *Journal of International Business Studies*, Vol. 20, No. 3, 1989, PP. 489-514
- Martinez, J.I./Jarillo, J.C. (1991): Coordination Demands of International Strategies, in: *Journal of International Business Studies*, Vol. 22, No. 3, 1991, PP. 429-443
- Martinez, J.I./Ricks, D.A. (1989): Multinational Parent Companies' Influence over Human Resource Decisions of Affiliates: U.S. Firms in Mexico, in: *Journal of International Business Studies*, Vol. 20, No. 3, PP. 465-487
- Mascarenhas, B. (1984): The Coordination of Manufacturing Interdependence in Multinational Companies, in: *Journal of International Business Studies*, Vol. 15, No. 3, 1984, PP. 91-106
- Mason, R.O. (1969): A dialectical approach to strategic planning, in: *Management Science*, Vol. 15, No. 8, 1969, PP. B403-B414
- Mayrhofer, W. (1996): *Mobilität und Steuerung in international tätigen Unternehmen*, Stuttgart, 1996

- Meffert, H. (1986): Marketing im Spannungsfeld von weltweitem Wettbewerb und nationalen Bedürfnissen, in: Zeitschrift für Betriebswirtschaft, Vol. 56, 1986, PP. 689-712
- Meffert, H. (1990): Implementierungsprobleme globaler Strategien, in: Welge, M.K. (Publ.): Globales Management. Erfolgreiche Strategien für den Weltmarkt, Stuttgart, 1990, PP. 93-115
- Meffert, H. (1990): Implementierungsprobleme globaler Strategien, in: Welge, M.K. (Publ.): Globales Management, Stuttgart 1990, PP. 93-115 (the article was published again under: Globalisierungsstrategien und ihre Umsetzung im internationalen Wettbewerb, in: Die Betriebswirtschaft, No. 49/189, PP. 445-463)
- Meffert, H. (1991): Euromarketing im Spannungsfeld zwischen nationalen Bedürfnissen und globalem Wettbewerb, in: Berger, R. (Publ.): Handbuch Europa '92, Düsseldorf, Wien, New York, 1991, PP. 39-51
- Meffert, H. (1997): Marketing. Grundlagen marktorientierter Unternehmensführung. Konzepte – Instrumente – Praxisbeispiele, 8. edition, Wiesbaden, 1997
- Meffert, H./Bolz, J. (1992): Globale Wettbewerbsstrategien und länderübergreifende Integration - Status und Entwicklungsperspektiven, in: Wissenschaftliche Gesellschaft für Marketing und Unternehmensführung, working paper No. 70, Münster, 1992
- Meffert, H./Bolz, J. (1998): Internationales Marketing-Management, 3., revised and enlarged edition, Stuttgart, Berlin, Köln, 1998
- Meffert, H./Hafner, K./Poggenpohl, M. (1990): Unternehmenskultur und Unternehmensführung - Ergebnisse einer empirischen Untersuchung, in: Simon, H. (Publ.): Herausforderung Unternehmenskultur, Stuttgart, 1990, PP. 47-62 (Original: Unternehmenskultur und Unternehmensführung - Ergebnisse einer empirischen Untersuchung, in: Wissenschaftliche Gesellschaft für Marketing und Unternehmensführung, working paper No. 43, Münster, 1988)
- Meier, A. (1997): Das Konzept der transnationalen Organisation. Kritische Reflexion eines prominenten Konzeptes für die Führung international tätiger Unternehmen, München, 1997 (Münchener Schriften zur angewandten Führungslehre, Vol. 90), Diss. LMU München
- Meier, A./Stuker, C./Trabucco, A. (1997): Auslagerung der Personaldienstfunktion. Machbarkeit und Grenzen, in: Zeitschrift Führung und Organisation, Vol. 66, No. 3, 1997, PP. 138-145

- Mellewigt, T./Matiaske, W. (2000): Strategische Konzernführung: Stand der empirischen betriebswirtschaftlichen Forschung, in: Zeitschrift für Betriebswirtschaft, Vol. 70, No. 5, 2000, PP. 611-631
- Merkens, H. (1998): Branchentypische und firmenspezifische Wertvorstellungen in Unternehmenskulturen, in: Dürr, W./Liepmann, D./Merkens, H./Schmidt, F. (Publ.): Wertvorstellungen in Unternehmenskulturen, 1998, PP. 9-31
- Mertens, P./Faisst, W. (1996): Virtuelle Unternehmen. Eine Organisationsstruktur für die Zukunft?, in: WiSt – Wirtschaftswissenschaftliches Studium, Vol. 15, No. 6, 1996, PP. 280-285
- Middelmann, K. (2000): Wertmanagement in einem internationalen Konzern, in: Berens, W./Born, A./Hoffjan, A. (Publ.): Controlling international tätiger Unternehmen. Stuttgart, 2000, PP. 321-342
- Miller, D. (1981): Toward a new contingency approach: The search for organizational gestalten, in: Journal of Management Studies, Vol. 18, No. 1, 1981, PP. 1-26
- Miller, D. (1992): Environmental fit versus international fit, in: Organization Science, Vol. 3, No. 2/1992, PP. 159-178
- Mintzberg, H. (1983): Structure in Fives. Designing Effective Organizations, Englewood-Cliffs, 1983
- Morgan, G./Frost, P.J./Pondy, L.R. (1983): Organizational symbolism, in: Pondy, L.R./Frost, P.J./Morgan, G./Dandridge, T.C. (Publ.): Organizational symbolism, Greenwich, London, 1983, PP. 3-35
- Müller, E. (1990): Weiterentwicklung der Hoechst-Organisation: Startsignal für die Business Units. Beilage zum Mitarbeiterbrief für Führungskräfte, No. 4, 1990
- Müller, S./Kornmeier, M. (2001): Strategisches Internationales Management, München, 2001
- Muralidharan, R./Hamilton, R.D. (1999): Aligning Multinational Control Systems, in: Long Range Planning, Vol. 32, No. 3, 1999, PP. 352-361
- Müschen, J. (1998): Markterschließungsstrategien in Mittel- und Osteuropa, Bergtheim, 1998, Diss. Würzburg

- Myers, A./Kakabadse, A./McMahon, T./Spony, G. (1995): Top Management Styles in Europe: Implications for Business and Cross-National Teams, in: *European Business Journal*, Vol. 7, No. 1, 1995, PP. 17-27
- Nasif, E.G./Al-Dääj, H./Ebrahimi, B./Thibodeaux, M.S. (1991): Methodological Problems in Cross-Cultural Research: An Updated Review, in: *Management International Review*, Vol. 31, No. 1, 1991, PP. 79-91
- Naujoks, H. (1994): Konzernmanagement durch Kontextsteuerung - die Relevanz eines gesellschaftstheoretischen Steuerungskonzepts für betriebswirtschaftliche Anwendungen, in: Schreyögg, G./Conrad, P. (Publ.): *Managementforschung* 4. edition, Berlin, New York, 1994, PP. 105-141
- Nedden, C. (1994): Internationalisierung und Organisation. Konzepte für die international tätige Unternehmung mit Differenzierungsstrategie, Wiesbaden, 1994, Diss. Köln
- Neganghi, A./Welge, M.K. (1984): *Beyond Theory Z: Global Rationalization Strategies of American, German and Japanese Multinational Companies*, Greenwich, London, 1984
- Neghandi, A.R. (1987): *International Management*, Newton, 1987
- Neghanghi, A.R. (1990): External and Internal Functioning of American, German, and Japanese Multinational Corporations: Decision making and Policy Issues, in: Casson, M.C. (Publ.): *Multinational Corporations*, Aldershot, Brookfield, 1990, PP. 557-577
- Neuberger, O. (1991): *Personalentwicklung*, Stuttgart, 1991
- Nicklisch, H. (1920): *Der Weg aufwärts! Organisation*, Stuttgart, 1920
- Nicklisch, H. (1924): Kultur im Betriebe. Eine betriebswirtschaftliche Studie, in: *Zeitschrift für Handelswissenschaft für Handelswissenschaft und Handelspraxis*, Vol. 17, No. 1, 1924, PP. 3-5
- Nieschlag, R./Dichtl, E./Hörschgen, H. (1991): *Marketing*, Berlin, 1991
- Nobel, R./Birkinshaw, J. (1998): Innovation in Multinational Corporations: Control and Communication Patterns in International R&D Operations, in: *Strategic Management Journal*, Vol. 19, 1998, PP. 479-496

- Nohria, N./Eccles, R.G. (1992, Publ.): Networks and Organizations. Structure, Form, and Action. Boston, MA, 1992
- Nohria, N./Ghoshal, S. (1997): The Differentiated Network, San Franzisco, 1997
- Nonaka, I (1990): Managing Globalization as a Self-Renewing Process: Experiences of Japanese MNCs, in: Bartlett, C.A./Doz, Y./Hedlund, G. (Publ.): Managing the Global Firm, London, New York, 1990, PP. 69-94
- Noorkõiv, R./Orazem, P.F./Puur, A. Vodopivec, A. (1997): Employment and Wage Dynamics in the Estonia Transition, 1998-1995, Tallinn, mimeo
- Nord, W.R. (1985): Can organizational culture be damaged?, in: Frost, P.J./Moore, L.F./Louis, M.R./Lundberg, C.C./Martin, J. (Publ.): Organizational Culture, Beverly Hills, 1985, PP. 187-195
- o.V. (1982): Die Verantwortlichkeit von Muttergesellschaften für ihre Tochtergesellschaften: Eine vergleichende Untersuchung der Organization for Economic Cooperation and Development (OECD) in den OECD-Staaten, Frankfurt, 1982
- o.V. (1988): Bosch rotiert um die Welt. Die Geschichte der Marke Bosch, in: Frankfurter Allgemeine Zeitung of 21.4.1990
- o.V. (1990a): Die Personalentwickler der Bosch GmbH erwachen aus ihrem Dornröschenschlaf, in: Handelsblatt of 12./13.1.1990
- o.V. (1990b): Bosch stiftet internationales Managementinstitut, in: Frankfurter Allgemeine Zeitung of 21.4.1990
- o.V. (1991a): Unternehmen und Profile: Bosch, in: Manager Magazin, No. 8, 1991, PP. 25-37
- o.V. (1991b): Höchst AG: Chemieriese auf Durststrecke, in: Top Business. Industrie-Magazin, No. 11, November, 1991, PP. 30-31
- o.V. (1991c): Robert Bosch GmbH: Im Tal der Tränen, in: Top Business. Industrie-Magazin No. 11, November, 1991, PP. 32-33
- o.V. (1991d): Kartellamt prüft geplantes Joint Venture von Bosch mit Emerson "sehr genau", in: Handelsblatt vom 27./28.12.1991
- o.V. (1991e): Bosch Elektrowerkzeuge. Der Konzern stärkt die Marktposition in den USA, in: Handelsblatt of 31.01.1991

- o.V. (1992a): Elektrowerkzeuge bleiben gefragt, in: Frankfurter Allgemeine Zeitung of 07.02.1992
- o.V. (1992b): BMW Japan bleibt optimistisch, in: Frankfurter Allgemeine Zeitung of 14.02.1992
- o.V. (1992c): Christopher Bartlett on Transnationals: An Interview, in: European Management Journal, Vol. 10, No. 3, 1992, PP. 271-276
- o.V. (1992d): Elektrowerkzeuge - Bosch plant mit Emerson Gemeinschaftsunternehmen in den USA, in: Handelsblatt of 11.03.1992
- o.V. (1992e): Lean Company: Ständige Verbesserungen sind auch ein großer Erfolg, in: Blick durch die Wirtschaft of 15.04.1992
- o.V. (1992f): Firmenkultur ist mehr als "heiterer Sound" im Betrieb. Kienbaum-Studie beweist: Unternehmenskultur und Klima sind der Nährboden für unternehmerischen Erfolg, in: Süddeutsche Zeitung of 11./12.07.1992
- Öchsler, W.A. (1989): Managementaus- und weiterbildung, internationale, in: Macharzina, K./ Welge, M. (Publ.): Handwörterbuch Export und Internationale Unternehmung, Stuttgart, 1989, Col. 1357-1370
- OECD Committee on Fiscal Affairs (1979): Transfer pricing and multinational enterprises, Paris, 1979
- Oliver, A./Ebers, M. (1998): Networking Network Studies: An analysis of conceptual configurations in the study of interorganizational relationships, in: Organization Studies, Vol. 19, No. 4, 1998, PP. 549-583
- Ortmann, G./Sydow, J. (1999): Grenzmanagement in Unternehmungsnetzwerken: Theoretische Zugänge, in: Die Betriebswirtschaft, Vol. 59, No. 2, 1999, PP. 205-220
- Osgood, C. (1951): Culture: Its empirical and non-empirical character, in: Southwestern Journal of Anthropology, Vol. 7, o. No., 1951, PP. 202-214
- Ossadnik, W. (2000): Markt- versus ressourcenorientiertes Management - alternative oder einander ergänzende Konzeptionen einer strategischen Unternehmensführung?, in: Die Unternehmung, Vol. 54, No. 4, 2000, PP. 273-287
- Österle, M.-J. (1993): Joint Ventures in Russland. Bedingungen – Probleme – Erfolgsfaktoren, Wiesbaden, 1993, Diss. Stuttgart-Hohenheim, 1993

- Osterloh, M. (1994): Kulturalismus versus Universalismus. Reflektionen zu einem Grundlagenproblem des interkulturellen Managements, in: Schiemenz, B./Wurl, H.-J. (Publ.): Internationales Management, Eberhard Dülfer for his 70. birthday, Wiesbaden, 1994
- Otte, M. (1996): Amerika für Geschäftsleute. Das Einmaleins der ungeschriebenen Regeln, Frankfurt, New York, 1996
- Otterbeck, L. (1981): Concluding Remarks – And a Review of Subsidiary Autonomy, in Otterbeck, L. (Publ.): The Management of Headquarters Subsidiary Relationships in Multinational Corporations, Aldershot, 1981, PP. 337-343
- Ouchi, W.G. (1979): A Conceptual Framework for the Design of Organizational Control Mechanisms, in: Management Science, Vol. 25, No. 9, 1979, PP. 833-848
- Ouchi, W.G. (1980): Markets, Bureaucracies, and Clans, in: Administrative Science Quarterly, Vol. 25, No. 1, 1980, PP. 129-141
- Ouchi, W.G./Johnson, J.B. (1978): Types of organizational control and their relationship to emotional well-being, in: Administrative Science Quarterly, Vol. 23, June, 1978, PP. 293-314
- Park, K.-K. (1983): Führungsverhalten in unterschiedlichen Kulturen, Diss. Mannheim, 1983
- Parson, T. (1949): The structure of social actions, Glencoe, 1949
- Pascale, R.T./Athos, A.G. (1981): The art of Japanese management, New York, 1981 (German translation: Geheimnis und Kunst des japanischen Managements, München, 1982)
- Paul, T. (1998): Globales Management von Wertschöpfungsfunktionen, Wiesbaden, 1998, Diss. Dortmund
- Pausenberger, E. (1979): Internationale Unternehmen, in: Selbien, R./Selbien, H. (Publ.): Gablers Wirtschaftslexikon, Wiesbaden 1979, 10. edition, Col. 2139-2142
- Pausenberger, E. (1982): Die finanzielle Führung ausländischer Tochtergesellschaften, in: Lück, W./Trommsdorff, V. (Publ.): Internationalisierung der Unternehmung als Problem der Betriebswirtschaftslehre, Berlin, 1982, PP. 73-92
- Pausenberger, E. (1982a): Die internationale Unternehmung: Begriff, Bedeutung und Entstehungsgründe, in: WISU - Das Wirtschaftsstudium, Vol. 11, No. 3, 1982, PP. 118-123

- Pausenberger, E. (1982b): Die internationale Unternehmung: Begriff, Bedeutung und Entstehungsgründe (I), in: WISU - Das Wirtschaftsstudium, Vol. 11, No. 7, 1982, PP. 332-337
- Pausenberger, E. (1982c): Die internationale Unternehmung: Begriff, Bedeutung und Entstehungsgründe (II), in: WISU - Das Wirtschaftsstudium, Vol. 11, No. 8, 1982, PP. 385-388
- Pausenberger, E. (1989): Internationale(n) Unternehmung, Organisation der, in: Macharzina, K./Welge, M. (Publ.): Handwörterbuch Export und Internationale Unternehmung, Stuttgart, 1989, Col. 1052-1066
- Pausenberger, E. (1992a): Organisation der internationalen Unternehmung, in: Frese, E. (Publ.): Handwörterbuch der Organisation, 3. edition, Stuttgart, 1992, Col. 1052-1066
- Pausenberger, E. (1992b): Konzerninterner Leistungsaustausch und Transferpreispolitik in internationalen Unternehmungen, in: Kumar, B.N./Hausmann, H. (Publ.): Handbuch der Internationalen Unternehmenstätigkeit, München, 1992, PP. 769-786
- Pausenberger, E. (1992c): Internationalisierungsstrategien industrieller Unternehmungen, in: Dichtl, E./Issing, O. (Publ.): Exportnation Deutschland, 2., entirely revised edition, München, 1992, PP. 199-220
- Pausenberger, E. (1993): Organisationsmodelle im Internationalisierungsprozess, in: WISU - Das Wirtschaftsstudium, Vol. 22, No. 2, 1993, PP. 126-132
- Peccei, R./Warner, M. (1976): Decision-Making in a Multi-National Firm, in: Journal of General Management, Vol. 4, No. 1, 1976, PP. 66-71
- Peppard, J./Fitzgerald D. (1997): The Transfer of Culturally-Grouped Management Techniques: The Case of Business Process Reengineering in Germany, in: European Management Journal, Vol. 15, No. 4, 1997, PP. 446-460
- Perlitz, M. (1994): The Impact of Cultural Differences on Strategy Innovations, in: European Business Journal, Vol. 6, July 1994, PP. 55-61
- Perlitz, M. (2000): Internationales Management, 4. edition, Stuttgart, 2000
- Perlitz, M./Dreger, C./Schrank, R. (1996): Die Übertragbarkeit des Transnationalen Unternehmensmodells auf die pharmazeutische Industrie. Ergebnisse einer Befragung von Führungskräften, in: Zeitschrift für Organisation, Vol. 65, No. 5, 1996, PP. 275-281

- Perlmutter, H.V. (1965): L'Entreprise Internationale, in: Revue Economique et Sociale, Vol. 23, No. 2, 1965, PP. 151-165
- Perlmutter, H.V. (1969): The Tortuous Evolution of the Multinational Corporation, in: Columbia Journal of World Business, Vol. 4, No. 1, 1969, PP. 9-18
- Perlmutter, H.V. (1972): The tortuous evolution of the multinational corporation, in: Kapoor, A./ Grub, P.D. (Publ.): The multinational enterprise in transition, Princeton, N.J., 1972, PP. 53-66 (published before: Columbia Journal of World Business, Vol. 4, No. 22, 1969, PP. 9-18)
- Peters, T.G./Waterman, R.M.jun. (1982): In search of excellence, New York, 1982
- Peterson, R.B. (2003): The Use of Expatriates and Inpatriates in Ventral and Eastern Europe since the Wall came down, in: Journal of World Business, Vol. 38, No. 1, 2003, PP. 55-69
- Pettai, Ü./Sõstra, K. (1998a): Estonian Labor Force Survey. Estonian Labor Force in the 2nd quarter 1997, 1998
- Pettai, Ü./Sõstra, K. (1998b): Estonian Labor Force Survey 1995 and 1997. Estonian Labour Force 1989-1997, 1998
- Pfeffer, J. (1981): Power in organizations, Boston, MA, 1981
- Pfeffer, J./Salncik, G.R. (1978): The external control of organizations: A resource dependence perspective, New York, 1978
- Phatak, A.V. (1995): International Dimensions of Management, 4. edition, Cincinnati, 1995
- Philipp Holzmann (1999): Annual Report, Wiesbaden, 1999
- Philipp Holzmann (2000): Annual Report, Wiesbaden, 2000
- Philips, K. (1999): Estonian Labour Market and Labour Market Policy, Ministry of Social Affairs of Estonia, PP. 48-55, 1999
- Philips, L.W. (1981): Assessing measurements error in key informant reports: A methodological note on organizational analysis in marketing, in: Journal of Marketing Research, Vol. 18, 1981, PP. 395-415
- Picard, J. (1979): Factors of variance in multinational marketing control, in: Mattson, L.G./ Wiederseim, P. (Publ.): Recent Research on the Internationalization of Business, Uppsala, 1979

- Picard, J. (1980): Organizational Structures and Integrative Devices in European Multinational Corporations, in: Columbia Journal of World Business, spring, 1980, PP. 30-35
- Picot, A. (1991): Ein neuer Ansatz zur Gestaltung der Leistungstiefe, in: Zeitschrift für Betriebswirtschaft, Vol. 43, No. 4, 1991, PP. 336-357
- Picot, A. (1993): Organisationsstrukturen im Spannungsfeld von Zentralisierung und Dezentralisierung, in: Scharfenberg, H. (Publ.): Strukturwandel in Management und Organisation. Neue Konzepte sichern Zukunft, Baden-Baden, S. 217-235
- Picot, A./Dietl, H. (1990): Transaktionskostentheorie, in: Wirtschaftswissenschaftliches Studium, No. 4, 1990, PP. 178-183
- Picot, A./Reichwald, R. (1994): Auflösung der Unternehmung? Vom Einfluß der IuK-Technik auf Organisationsstrukturen und Kooperationsformen, in: Zeitschrift für Betriebswirtschaft, Vol. 64, No. 5, 1994, PP. 547-570
- Picot, A./Reichwald, R./Wigand, R.R. (2001): Die grenzenlose Unternehmung. Information, Organisation und Management, 4., entirely revised and enlarged edition, Wiesbaden, 2001
- Piontek, J. (1997): Global Sourcing, München, Wien, 1997
- Plötz, P./Polkowski, A. (2001): Wirtschaftslage und Reformprozesse in Estland, Lettland und Litauen – Memorandum 2001, Hamburg, 2001
- Plötz, P./Polkowski, A. (2002): Wirtschaftslage und Reformprozesse in Estland, Lettland und Litauen – Memorandum 2002, Hamburg, 2002
- Pondy, L.R./Mitroff, J.J. (1979): Beyond open systems models of organization, in: Research in Organizational Behavior, No. 1, 1979, PP. 3-39
- Porter, M.E. (1985): Competitive advantage, New York, 1985
- Porter, M.E. (1989a, Publ.): Globaler Wettbewerb, Wiesbaden, 1989
- Porter, M.E. (1989b): Der Wettbewerb auf globalen Märkten: Ein Rahmenkonzept, in: Porter, M.E. (Publ.): Globaler Wettbewerb, Wiesbaden, 1989, PP. 17-68
- Powell, W.W. (1990): Neither Market nor Hierarchy: Network Forms of Organization, in: Staw, B.M./Cummings, L.L. (Publ.): Research in Organizational Behavior, Vol. 12, Greenwich, CT, 1990, PP. 295-336

- Prahalad, C./Doz, Y.L. (1981): An Approach to Strategic Control in MNCs, in: Sloan Management Review, Vol. 22, No. 4, 1981, PP. 5-13
- Prahalad, C.K./Doz, Y.L. (1987): The Multinational Mission. Balancing Local Demands and Global Vision, New York, 1987
- Provan, K.G. (1983): The federation as an interorganizational network, in: Academy of Management Review, Vol. 8, 1983, PP. 79-89
- Pugh, D.S./Hickson, D.J./Hinnings, C.R./Turner, C. (1968): Dimensions of organization structure, in: Administrative Science Quarterly, Vol. 13, 1968, PP. 65-105
- Pugh, D.S./Hickson, D.J./Hinnings, C.R./Turner, C. (1969): The context of organization structures, in: Administrative Science Quarterly, Vol. 14, 1969, PP. 91-114 (German translation: Der Bedingungsrahmen organisatorischer Strukturen, in: Grochla, E. (Publ.): Elemente der organisatorischen Gestaltung, Reinbek, 1978, PP. 211-326)
- Pugh, D.S./Hinnings, C.R. (1976, Publ.): Organizational Structure. Extensions and Replications. The Aston Programme II, Westmead, 1976
- Pümpin, C. (1984): Unternehmenskultur, Unternehmensstrategie und Unternehmenserfolg, in: Allgemeine Treuhand AG (Publ.): Unternehmenskultur, Zürich, 1984, PP. 11-26
- Punnett, B.J./Shenkar, O. (1994): International Management Research: Towards a Contingency Approach, in: Prasad, B./Peterson, R.B. (Publ.): Advances in International Comparative Management, Vol. 9, Greenwich, CT, 1994, PP. 39-55
- Quester, P.G./Conduit, J. (1996): Standardisation, Centralisation and Marketing in Multinational Companies, in: International Business Review, Vol. 5, No. 4, 1996, PP. 395-421
- Raffee, H. (1984): Gegenstand, Methoden und Konzepte der Betriebswirtschaftslehre, in: Bätge et al. (Publ.): Vahlens Kompendium der Betriebswirtschaftslehre, Vol. 1, München, 1984, PP. 1-46
- Raffee, H./Kreutzer, R. (1986): Organisatorische Verankerung als Erfolgsbedingung eines Global-Marketing, in: Thesis, Vol. 3, No. 2, 1986, PP. 10-21
- Raffee, H./Kreutzer, R. (1988): Konzepte zur organisatorischen Verankerung des Global Marketing, in: Institut für Marketing der Universität Mannheim, working paper No. 67, Mannheim, 1988

- Rall, W. (1986): Globalisierung in Industrien und ihre Konsequenzen für die Wirtschaftspolitik, in: Kuhn, H. (Publ.): Probleme der Stabilitätspolitik, special issue for the 60. birthday of Norbert Klotten, Göttingen, 1986
- Rall, W. (1989): Organisation für den Weltmarkt, in: Zeitschrift für Betriebswirtschaft, Vol. 59, No. 10, 1989, PP. 1074-1089
- Rall, W. (1993): Flexible Formen internationaler Organisationsnetze, in: Schmalenbach-Gesellschaft (Publ.): Internationalisierung der Wirtschaft - Eine Herausforderung an die Betriebswirtschaft und Unternehmenspraxis, Stuttgart, 1993, PP. 73-93
- Rall, W. (1999): Globale Organisation: Fundament des Erfolgs im Weltmarkt, in: Giesel, F./Glaum, M. (Publ.): Globalisierung. Herausforderung an die Unternehmensführung des 20. Jahrhunderts. Special issue for Prof. Dr. Ehrenfried Pausenberger, München, 1999, PP. 89-115
- Rall, W. (2002): Der Netzwerkansatz als Alternative zum zentralen und hierarchisch gestützten Management der Mutter-Tochter-Beziehungen, in: Macharzina, K./Österle, M.-J. (Publ.): Handbuch Internationales Management. Grundlagen, Instrumente, Perspektiven, 2. edition, Wiesbaden, 2002, PP. 759-775
- Rank, O.N. (2000): Rollentypologien für Tochtergesellschaften. Ansätze und strategische Implikationen für das Internationale Management, Stuttgart, 2000
- Rasche, C./Wolfrum, B. (1994): Ressourcenorientierte Unternehmensführung, in: Die Betriebswirtschaft, Vol. 54, No. 4, 1994, PP. 501-517
- Raschke, U./Kronast, M. (1991): Vom Leitbild zum Kundenkontakt, in: Absatzwirtschaft, Sondernummer October, 1991, PP. 32-42
- Reger, G. (1997): Koordination und strategisches Management internationaler Innovationsprozesse, Heidelberg, 1997 (Technik, Wirtschaft und Politik, publication series des Fraunhofer-Instituts für Systemtechnik und Innovationsforschung ISI), Diss. St. Gallen
- Reineke, R.-D. (1988): Unternehmenskultur und Auslandsakquisition, in: Wissenschaftliche Gesellschaft für Marketing und Unternehmensführung, working paper No. 46, Münster, 1988
- Reineke, R.-D. (1989): Akkulturation von Auslandsakquisitionen, Wiesbaden, 1989 (publication Unternehmensführung und Marketing, Vol. 23), Diss. Münster

- Remer, A. (1982): Instrumente unternehmenspolitischer Steuerung. Unternehmensverfassung, formale Organisation und personale Gestaltung, Berlin, New York, 1982
- Renz, T. (1998): Management in internationalen Unternehmensnetzwerken, Wiesbaden, 1998, Diss. Kath. Universität Eichstätt
- Ricks, D.A. (1985): International Business Research: Past, Present and Future, in: Journal of International Business Studies, Vol. 16, No. 2, 1985, PP. 1-4
- Rieg, S. (2002): Wertorientierte Steuerung von Tochtergesellschaften im mittelständischen Konzern, in: Controller Magazin, Vol. 27, No. 2, 2002, PP. 158-163
- Ritzer, G. (1975): Sociology: A multiple paradigm science, in: The American Sociologist, Vol. 10, August, 1975, PP. 156-167
- Ritzer, G. (1995): Die McDonaldisierung der Gesellschaft, Frankfurt, 1995
- Robock, S.H./Simmons, K./Zwick, J. (1977): International business and multinational enterprises, Homewood, 1977
- Robson, M.J./Pararoidamis, N./Ginoglu, D. (2003): Top Management Staffing in International Strategic Alliance: A Conceptual Explanation of Decision Perspective and Objective formation, in: International Business Review, Vol. 12, 2003, PP. 173-191
- Roccur, J.L. (1966): Management of European subsidiaries in the United States, in: Management International Review, Vol. 6, No. 1, 1966, PP. 13-27
- Root, F.R. (1994): Entry Strategies for International Markets, 2. edition, New York et al., 1994
- Rose, K./Sauernheimer, K. (1999): Theorie der Außenwirtschaft, 13. edition, München, 1999
- Rosenstiel, L. von (1990): Der Einfluß des Wertewandels auf die Unternehmensstruktur, in: Lattmann, C. (Publ.): Die Unternehmenskultur: Ihre Grundlagen und ihre Bedeutung für die Führung der Unternehmung, Heidelberg, 1990, PP. 131-152
- Rosenstiel, L. von (1993): Unternehmenskultur - einige einführende Anmerkungen, in: Dierkes, M./Rosenstiel, L. von/Steger, U. (Publ.): Unternehmenskultur in Theorie und Praxis. Konzepte aus Ökonomie, Psychologie und Ethnologie, Frankfurt, New York, 1993, PP. 8-22
- Rosenzweig, P.M. (1994): When can Management Science Research be Generalized Internationally?, in: Management Science, Vol. 40, 1994, PP. 28-39

- Rosenzweig, P.M./Nohria, N. (1994): Influences on Human Resources Management Practices in Multinational Corporations, in: *Journal of International Business Studies*, Vol. 25, No. 2, 1994, PP. 229-251
- Rosenzweig, P.M./Singh, J.V. (1991): Organizational environments and the multinational enterprise, in: *Academy of Management Review*, Vol. 16, No. 2, 1991, PP. 340-361
- Roth, K./Nigh, D. (1992): The Effectiveness of Headquarters-Subsidiary Relationships: The Role of Coordination, Control, and Conflict, in: *Journal of Business Research*, Vol. 25, No. 4, 1992, PP. 277-301
- Roxin, J. (1992): *Internationale Wettbewerbsanalyse und Wettbewerbsstrategie*, Wiesbaden, 1992, Diss. Hohenheim
- Rühli, E. (1990): Visionen, in: *Die Unternehmung*, Vol. 44, No. 1, 1990, PP. 112-119
- Rühli, E. (1991): Unternehmenskultur - Konzepte und Methoden, in: Rühli, E./Keller, A. (Publ.): *Kulturmanagement in schweizerischen Industrieunternehmen*, Bern, Stuttgart, 1991, PP. 11-32
- Rühli, E. (1992): Koordination, in: Frese, E. (Publ.): *Handwörterbuch der Organisation*, 3. edition, Stuttgart, 1992, Col. 1164-1175
- Ruigrok, W./Pettigrew, A./Peck, S./Whittinton, R. (1999): Corporate Restructuring and New Forms of Organizing: Evidence from Europe, in: *Management International Review*, Vol. 39, special issue, No. 2, 1999, PP. 41-64
- Sackmann, S.A. (1990): Möglichkeiten der Gestaltung von Unternehmenskultur, in: Lattmann, Ch. (Publ.): *Die Unternehmenskultur*, Heidelberg, 1990, PP. 175-182
- Sackmann, S.A. (1991): Möglichkeiten der Gestaltung von Unternehmenskultur, in: Dülfer, E. (Publ.): *Organisationskultur. Phänomen - Philosophie – Technologie*, 2. edition, Stuttgart, 1991, PP. 153-188
- Sackmann, S.A. (1997): Introduction, in: Sackmann, S.A. (Publ.): *Cultural Complexity in Organizations. Inherent Contrasts and Contradictions*, Thousand Oaks, London, New Delhi, 1997, PP. 1-13
- Sander, M. (1996): Internationale Preispolitik - Charakterisierung, Einflußfaktoren und Probleme von Preisentscheidungen für länderübergreifend angebotene Produkte, in: Berndt, R. (Publ.):

- Global Management, Berlin et al., 1996 (publication series Herausforderungen an das Management, Vol. 3), PP. 157-173
- Schanz, G. (1979): Betriebswirtschaftslehre und ihre sozialwissenschaftliche Nachbardisziplinen - Das Integrationsproblem, in: Raffee, H./Abel, B. (Publ.): Wissenschaftstheoretische Grundfragen der Wirtschaftswissenschaften, München, 1979, PP. 121-137
- Schein, E.H. (1981): SMR Forum: Does Japanese management style have a message for American managers? In: Sloan Management Review, Vol. 23, No. 1, fall, 1981, PP. 55-68
- Schein, E.H. (1984): Coming to a new awareness of organizational culture, in: Sloan Management Review, Winter, 1984, PP. 3-16
- Schein, E.H. (1985): Organizational culture and leadership, San Francisco, Washington, London, 1985
- Schein, E.H. (1992): Organizational culture and leadership, 2., revised edition, San Francisco, Washington, London, 1992
- Scherer, A.G. (2003): Multinationale Unternehmen und Globalisierung. Zur Neuorientierung der Theorie der Multinationalen Unternehmung, Heidelberg, 2003, Habil. Erlangen-Nürnberg
- Scherm, E. (1996): Outsourcing - Ein komplexes, mehrstufiges Entscheidungsproblem, in: Zeitschrift für Planung, Vol. 7, w/o No., 1996, PP. 45-60
- Scherm, E./Süss, S. (2001): Internationales Management. Eine funktionale Perspektive, München, 2001
- Schewe, G. (1998): Strategie und Struktur. Eine Re-Analyse empirischer Befunde und Nicht-Befunde, Tübingen, 1998, revised edition of Habil. Kiel
- Schlächtermann, J. (1999): Konfiguration und Koordination internationaler Produktionsnetzwerke, in: Kutschker, M. (Publ.): Management verteilter Kompetenzen in multinationalen Unternehmungen, Wiesbaden, 1999, PP. 49-71
- Schmid, S. (1996): Multikulturalität in der internationalen Unternehmung. Konzepte – Reflexionen – Implikationen, Wiesbaden, 1996, Diss., Kath. Universität Eichstätt, 1997

- Schmid, S. (2000a): Foreign Subsidiaries as Centres of Competence - Empirical Evidence from Japanese Multinationals, in: Larimo, J./Kock, S. (Publ.): Recent Studies of Interorganizational and International Business Research, Vol. 58, Vaasa, 2000, PP. 182-204
- Schmid, S. (2000b): Dezentralisation von Forschung und Entwicklung in internationalen Unternehmen - Ergebnisse einer empirischen Untersuchung bei deutschen Tochtergesellschaften ausländischer Unternehmungen, discussion paper No. 139 of Wirtschaftswissenschaftlichen Fakultät Ingolstadt, Kath. Universität Eichstätt, August 2000
- Schmid, S. (2002a): Die Internationalisierung von Unternehmen aus der Perspektive der Uppsala-Schule, in: WiSt - Wirtschaftswissenschaftliches Studium, Vol. 31, No. 7, 2002, PP. 387-392
- Schmid, S. (2002b): Potenziale ausländischer Töchter nutzen - Kompetenzzentren: Eine strategische Option für Unternehmen, in: Agora, Vol. 18, No. 1, 2002, PP. 16-18
- Schmid, S. (2003): How MNCs can Upgrade Foreign Subsidiaries - A Case Study from Central and Eastern Europe, in: Stütting, H.-J./Dorow, W./Claassen, F./Blazejewski, S. (Publ.): Change Management in Transition Economies: Integrating Corporate Strategy, Structure and Culture, Houndmills, Basingstoke (printed at present)
- Schmid, S./Bäuerle, I./Kutschker, M. (1998): Tochtergesellschaften in international tätigen Unternehmen - Eine "State-of-the-Art" unterschiedlicher Rollentypologien, Discussion papaer No. 104 of Wirtschaftswissenschaftliche Fakultät Ingolstadt, Kath. Universität Eichstätt, August 1998
- Schmid, S./Bäuerle, I./Kutschker, M. (1999): Ausländische Tochtergesellschaften als Kompetenzzentren. Ergebnisse einer empirischen Untersuchung, in: Kutschker, M. (Publ.): Management verteilter Kompetenzen in multinationalen Unternehmen, Wiesbaden, 1999, PP. 99-126
- Schmid, S./Schurig, A./Kutschker, M. (2000): Flows in the MNC Network - Assumptions in Literature and Empirical Evidence. Proceedings of the 26th EIBA (European International Business Academy) Conference, Maastricht, December 2000 (CD-ROM-issue).
- Schmid, S./Schurig, A./Kutschker, M. (2002): The MNC as a Network - A Closer Look at Intra-Organizational Flows, in: Lundan, S.M. (Publ.): Network Knowledge in International Business, Cheltenham, Northampton, 2002 (Series New Horizons in International Business), PP. 45-72

- Schmid, S./Vadot, J. (2003): Grenzüberschreitende Unternehmungstätigkeit - Eine Fallstudie der Gruppe BIC, in: Bieswanger, M. et al. (Publ.): Abgrenzen oder Entgrenzen. Zur Produktivität von Grenzen, Frankfurt, 2003
- Schmidt, R.H. (1995): Die Grenzen der (Theorie) multinationalen Unternehmung, in: Bühner, R./Haase, K.D./Wilhelm, J. (Publ.): Die Dimensionierung des Unternehmens, Stuttgart, 1995, PP. 73-95
- Schmidt, S.M./Kochan, T.A. (1977): Interorganizational Relationships: Patterns and Motivations, in: Administrative Science Quarterly, Vol. 22, June, 1977, PP. 220-234
- Schneider, Dieter (2003): Wider Marktpreise als Verrechnungspreise in der Besteuerung internationaler Konzerne, in: Der Betrieb, No. 2 of 10.01.2003, PP. 53-58
- Schneider, S. (1988): National vs. corporate culture: Implications for human resource management, INSEAD working paper, No. 88/04, Fontainebleau, 1988
- Schneider, S.C./Barsoux, J.-L. (2003): Managing Across Cultures, 2. edition, London et al., 2003
- Schneider, S.C./DeMeyer, Arnoud (1991): Interpreting and Responding to Strategic Issues: The Impact of National Culture, in: Strategic Management Journal, Vol. 12, No. 12, 1991, PP. 307-320
- Schneider, U. (1996): Globalisierung und Regionalisierung als Herausforderung für das Führungskräfte-Management, in: Macharzina, K./Wolf, J. (Publ.): Handbuch Internationales Führungskräfte-Management, Stuttgart et al., 1996, PP. 127-144
- Schnyder, A.B. (1988): Unternehmenskultur: Die Entwicklung eines Unternehmungskultur-Modells unter Berücksichtigung ethnologischer Erkenntnisse und dessen Anwendung auf die Innovations-Thematik, Bern, Frankfurt et al., 1988 (Europäische Hochschulzeitschriften, series V, Vol. 987)
- Scholl, R.F. (1989): Internationalisierungsstrategien, in: Macharzina, K./Welge, M.K. (Publ.): Handwörterbuch Export und Internationale Unternehmung, Stuttgart, 1989, Col. 983-1002
- Schöllhammer, H. (1992): Personalwesen in multinationalen Unternehmen, in: Gaugler, E./Weber, W. (Publ.): Handwörterbuch des Personalwesens, Stuttgart, 1992, Col. 1863-1880
- Schreier, A.E./Wex, M. (1990): Chronik der Hoechst Aktiengesellschaft 1863-1988, Frankfurt, 1990

- Schreyögg, G. (1978): Umwelt, Technologie und Organisationsstruktur. Eine Analyse des kontingenztheoretischen Ansatzes, Bern, Stuttgart, 1978
- Schreyögg, G. (1984): Unternehmensstrategie - Grundfragen einer Theorie strategischer Unternehmensführung, Berlin, New York, 1984
- Schreyögg, G. (1989): Zu den problematischen Konsequenzen starker Unternehmenskulturen, in: Zeitschrift für betriebswirtschaftliche Forschung und Praxis, Vol. 41, No. 2, 1989, PP. 94-113
- Schreyögg, G. (1990): Unternehmenskultur in multinationalen Unternehmen, in: Betriebswirtschaftliche Forschung und Praxis, Vol. 42, No. 5, 1990, PP. 379-390
- Schreyögg, G. (1993): Unternehmenskultur zwischen Globalisierung und Regionalisierung, in: Haller, M. et al. (Publ.): Globalisierung der Wirtschaft. Einwirkungen auf die Betriebswirtschaftslehre, Bern, Stuttgart, 1993, PP. 149-170
- Schreyögg, G. (1998): Die Bedeutung der Unternehmenskultur für die Integration multinationaler Unternehmen, in: Kutschker, M. (Publ.): Integration der internationalen Unternehmung, Wiesbaden, 1998, PP. 27-49
- Schreyögg, G. (1999): Organisation. Grundlagen moderner Organisationsgestaltung, 3. edition, Wiesbaden, 1999
- Schreyögg, G./Grieb, C. (1998): Branchenkultur – Ein neues Forschungsgebiet, in: Glaser, H./ Schröder, E.F./Werder, A.v. (Publ.): Organisation im Wandel der Märkte, Erich Frese for his 60. birthday, 1998, PP. 359-384
- Schuh, A. (1990): Strategische Allianzen - Neue Formen kooperativer Wettbewerbsstrategien?, in: Der Markt, Vol. 29, No. 3, 1990. PP. 141-148
- Schuh, A. (1999): Vertriebsgesellschaft oder "Strategisches Zentrum"? Zur Rolle österreichischer Tochtergesellschaften im globalen Unternehmen, in: Kutschker, M. (Publ.): Management verteilter Kompetenzen in multi-nationalen Unternehmungen, Wiesbaden, 1999, PP. 73-98
- Schuh, A. (2000): Global Standardization as a Success Formula for Marketing in Central Eastern Europe?, in: Journal of World Business, Vol. 35, No. 2, 2000, PP. 133-148
- Schuh, S. (1989): Organisationskultur: Integration eines Konzeptes in die empirische Forschung, Wiesbaden, 1989

- Schuler, R./Jackson, S. (2001): HR Issues and Activities in Mergers and Acquisitions, in: *European Management Journal*, Vol. 19, No. 3, 2001, PP. 239-253
- Schurig, A. (2001): *Centers of Excellence Multinationaler Unternehmen - Darstellung und Ergebnisse eines internationalen Forschungsprojektes*, Diss. Kath. Universität Eichstätt, 2001
- Schwarz, G. (1989): *Unternehmenskultur als Element des Strategischen Managements*, Berlin, 1989
- Schweitzer, Marcell (1997): *Gegenstand und Methoden der Betriebswirtschaftslehre*, in: Bea, F.X./Dichtl, E./Schweitzer, M. (Publ.): *Allgemeine Betriebswirtschaftslehre*, Vol. 1: *Grundfragen*, Stuttgart, 1997, PP. 18-80
- Segler, K. (1989): *Corporate Identity*, in: Macharzina, K./Welge, M. (Publ.): *Handwörterbuch Export und Internationale Unternehmung*, Stuttgart, 1989, Col. 254-266
- Seifert, H. (2000): *Direktinvestitionsstatistik und Standortdiskussion*, in: *Wirtschaftswissenschaftliches Studium*, Vol. 29, No. 11, 2000, PP. 622-627
- Sethi, N.K. (1982): *Strategic planning for multinational companies*, in: *Long Range Planning*, Vol. 15, 1982, PP. 80-89
- SGLCarbon Group (1995): *Annual Report*, Wiesbaden, 1995
- SGLCarbon Group (1996): *Annual Report*, Wiesbaden, 1996
- SGLCarbon Group (1997): *Annual Report*, Wiesbaden, 1997
- SGLCarbon Group (2003): *Annual Report*, Wiesbaden, 2003
- Sherif, M./Hovland, C.J. (1961): *Social Judgement*, New Haven, 1961
- Shipchandler, Z.E./Terpstra, V., Shaheen, D. (1994): *A Study of Marketing Strategies of European and Japanese Firms manufacturing in the US*, in: *International Business Review*, Vol. 3, No. 3, 1994, PP. 181-199
- Silberer, G. (1991): *Werteforschung und Werteorientierung im Unternehmen*, Stuttgart, 1991
- Singh, J. (1995): *Measurement Issues in Cross-National Research*, in: *Journal of International Business Studies*, Vol. 26, No. 3, 1995, PP. 597-620
- Smircich, L. (1983): *Concepts of culture and organizational analysis*, in: *Administrative Science Quarterly*, Vol. 3, 1983, PP. 339-358

- Smith, A. (1776): Inquiry into the Nature and Cause of the Wealth of Nations, London, 1776
- Sommer, C. (2001): Hoechster Wandel, in Zerfaß, A. (Publ.): Brand Eins, Vol. 7, No. 10, 2001, PP. 119-126
- Sonnenborn, H.-P./Esse, M. (1991): Japan II: Führen in einer fremden Welt - das Beispiel BMW, in: Harvardmanager, No. 3, 1991, PP. 109-115
- Stähle, W.H. (1973): Organisation und Führung sozio-technischer Systeme. Grundlagen einer Situationstheorie, Stuttgart, 1973.
- Stähle, W.H. (1981): Deutschsprachige situative Ansätze in der Managementlehre, in: Kieser, A. (Publ.): Organisationstheoretische Ansätze, München, 1981, PP. 215-226
- Stähle, W.H. (1991): Management - Eine verhaltenswissenschaftliche Perspektive, 5. edition, München, 1991,
- Stähle, W.H./Sydow, J. (1992): Management - Eine verhaltenswissenschaftliche Perspektive, 5. edition, München, 1992,
- Stauder, J. (1978): Betriebliche Traineeprogramme und ihre Kontrolle, Köln, 1978
- Staufenbiel, I.E. (1980): Neue Tendenzen in der Trainee-Ausbildung, in: Grätz, F. (Publ.): Das Jahrbuch der Führungskräfte, Gräfenau, 1980, PP. 231-237
- Steensma, H.K./Marino, L./Weaver, K.M. (2000): Attitudes Toward Cooperative Strategies: A Cross-Cultural Analysis for Entrepreneurs, in: Journal of International Business Studies, Vol. 31, No. 4, 2000, PP. 591-609
- Stehn, J. (1992): Ausländische Direktinvestitionen in Industrieländern. Theoretische Erklärungsansätze und empirische Evidenz, Tübingen, 1992
- Steiger, P. (1988): Strategisches Durchsetzungskonzept: Entwicklung eines problemorientierten Ansatzes der Implementierung von Geschäftspolitiken, Bern, Stuttgart, 1988
- Stein, I. (1998): Die Theorien der Multinationalen Unternehmung, in: Schoppe, S.G. (Publ.): Kompendium der Internationalen Betriebswirtschaftslehre, 4. edition, München, Wien, 1998, PP. 79-89
- Stewart, J.M. (1995): Empowering Multinational Subsidiaries, in: Long Range Planning, Vol. 28, No. 4, 1995, PP. 63-73

- Stopford, J.M./Wells, L.T. (1972): *Managing the Multinational Enterprise*, New York, 1972
- Störig, H.J. (1991): *Kleine Weltgeschichte der Philosophie*, Frankfurt am Main, 1991
- Stüdlein, Y. (1997): *Management von Kulturunterschieden. Phasenkonzept für internationale strategische Allianzen*, Wiesbaden, 1997, Diss. St. Gallen 1997
- Sullivan, D. (1994): *Measuring the degree of Internationalization of a firm*, in: *Journal of International Business Studies*, Vol. 25, No. 2, 1994, PP. 325-342
- Sully de Luque, M.F./Summer, S.M. (2000): *The Impact of Culture on Feedback-Seeking Behavior: An Integrated Model and Propositions*, in: *Academy of Management Review*, Vol. 25, No. 4, 2000, PP. 829-849
- Sundaram, A.K./Black, J.S. (1992): *The Environment and Internal Organization of Multinational Enterprises*, in: *Academy of Management Review*, Vol. 17, No. 4, 1992, PP. 729-757
- Swoboda, B. (2002): *Dynamische Prozesse der Internationalisierung. Managementtheoretische und empirische Perspektiven des unternehmerischen Wandels*, Wiesbaden, 2002, Habil. Saarbrücken
- Sydow, J. (1991a): *Unternehmensnetzwerke*, Düsseldorf, 1991
- Sydow, J. (1991b): *Strategische Netzwerke in Japan*, in: *Zeitschrift für betriebswirtschaftliche Forschung*, Vol. 43, No. 3, 1991, PP. 238-254
- Sydow, J. (1992): *Strategische Netzwerke. Evolution und Organisation*, Wiesbaden, 1992, Habil. FU Berlin
- Sydow, J. (1993): *Strategie und Organisation international tätiger Unternehmungen - Managementprozesse in Netzwerkstrukturen*, in: Ganter, H.-D./Schienstock, G. (Publ.): *Management aus soziologischer Sicht. Unternehmensführung, Industrie- und Organisationssoziologie*, Wiesbaden, 1993, PP. 47-82
- Sydow, J. (1994): *Franchisingnetzwerke. Ökonomische Analyse einer Organisationsform der Dienstleistungsproduktion und -distribution*, in: *Zeitschrift für Betriebswirtschaft*, Vol. 64, No. 1, 1994, PP. 95-113
- Sydow, J. (1994): *Strategische Netzwerke. Evolution und Organisation*, Wiesbaden, 1994, Habil. Berlin

- Sydow, J. (1995): Unternehmensnetzwerke, in: Corsten, H./Reiss, M. (Publ.): Handbuch Unternehmensführung. Konzepte - Instrumente - Schnittstellen, Wiesbaden, 1995, PP. 159-169
- Sydow, J. (1999): Strategische Netzwerke: Evolution und Organisation, 4. reprint, Wiesbaden, 1999
- Sydow, J./Schreyögg, G. (1997, Publ.): Gestaltung von Organisationsgrenzen. Managementforschung 7, Berlin, New York, 1997
- Sydow, J./Windeler, A./Krebs, ./Loose, M./von Well, B. (1995): Organisation von Netzwerken: Strukturtheoretische Analysen der Vermittlungspraxis in Versicherungsnetzwerken, Opladen, 1999
- Taggart, J.H. (1997): An Evaluation of the Integration-Responsiveness Framework: MNC Manufacturing Subsidiaries in the UK, in: Management International Review, Vol. 37, No. 4, 1997, PP. 295-318
- Taggart, J.H. (1997): Autonomy and Procedural Justice: A Framework for Evaluating Subsidiary Strategy, in: Journal of International Business Studies, Vol. 28, No. 1, 1997, PP. 51-75
- Taggart, J.H./McDermott, M.C. (1993): The Essence of International Business, New York et al., 1993
- Takahashi, Y. (1989): Transferierbarkeit von Managementstilen, in: Macharzina, K./Welge, M. (Publ.): Handwörterbuch Export und Internationale Unternehmung, Stuttgart, 1989, Col. 2063-2076
- Tayeb, M.H. (1988): Organizations and National Culture - a Comparative Analysis, London, Newbury Park, Beverly Hills, New Delhi, 1988
- Teubner, G. (1992): Die vielköpfige Hydra: Netzwerke als kollektive Akteure höherer Ordnung, in: Krohn, W./Küppers, G. (Publ.): Emergenz: Die Entstehung von Ordnung, Organisation und Bedeutung, Frankfurt, 1992, PP. 189-216
- Theisen, M.R. (1991): Der Konzern, Stuttgart, 1991
- Theuerkauf, I. (1991): Global organization. Reshaping the global organization, in: The McKinsey Quarterly, No. 3, 1991, PP. 102-119

- Thiele, M. (1997): Kernkompetenzorientierte Unternehmensstrukturen. Ansätze zur Neugestaltung von Geschäftsbereichsorganisationen, Wiesbaden, 1997, Diss. Leipzig
- Thompson, J.D. (1967): Organizations, New York, 1967
- Thompson, V.A. (1967): Bureaucracy and Innovation, Huntsville, 1967
- Thorelli, H.B. (1966): The Multinational Corporation as a Change Agent, in: Southern Journal of Business, Vol. 1, No. 2, 1966, PP. 1-9
- Tichy, N.M./Tushman, M.L./Fombrun, C. (1979): Social network analysis for organizations, in: Academy of Management Review, No. 4, 1979, PP. 507-519
- Tietzel, M. (1981): Die Ökonomie der Property Rights - Ein Überblick, in: Zeitschrift für Wirtschaftspolitik, Vol. 30, 1981, PP. 207-243
- Toyne, B./Nigh, D. (1997, Publ.): International Business. An Emerging Vision. Columbia, SC, 1997
- Toyne, B./Walters, P.G.P. (1993): Global Marketing Management. A Strategic Perspective, 2. edition, Boston et al., 1993
- Trompenaars, F. (1993): Handbuch Globales Managen. Wie man kulturelle Unterschiede im Geschäftsleben versteht, Düsseldorf, 1993
- Trompenars A. (1998): Riding the waves of culture: understanding diversity in global business, New York, 1998
- Türk, K. (1976): Grundlagen einer Phatologie der Organisation, Stuttgart, 1976
- Ulrich, P. (1983): Konsensus-Management: Zur Ökonomie des Dialogs, in: gdi-impuls, Vol. 1, No. 2, 1983, PP. 33-41
- Ulrich, P. (1984): Systemsteuerung und Unternehmensentwicklung: Auf der Suche nach einem ganzheitlichen Paradigma der Managementlehre, in: Die Unternehmung, Vol. 38, No. 4, 1984, PP. 303-325
- Umapathy, Srinivasan (1987): Current Budgeting Practices in U.S. Industry, New York, Westport, London, 1987

- Vaara, E. (2000): Constructions of Cultural Differences in Post-Merger Change Processes: A Sense making Perspective on Finnish-Swedish Cases, in: *M@n@gement*, Vol. 3, No. 3, 2000, PP. 81-110
- Van Maanen, J./Schein, E.H. (1979): Towards a theory of organizational socialization, in: *Research in Organizational Behavior*, Vol. 1, 1979, PP. 209-264
- Veiga, J./Lubatkin, M./Calori, R./Very, P. (2000): Measuring Organizational Culture Clashes: A Two-Nation Post-hoc Analysis of a Cultural Compatibility Index, in: *Human Relations*, Vol. 54, No. 4, 2000, PP. 539-557
- Vernon, R. (1966): International Investments and International Trade in the Product Cycle, in: *Quarterly Journal of Economics*, Vol. 80, No. 2, 1966, PP. 190-207
- Vernon, R. (1979): The product Cycle Hypothesis in a New International Environment, in: *Oxford Bulletin of Economics and Statistics*, Vol. 41, No. 4, 1979, PP. 255-267
- Vernon, R. (1999): The Harvard Multinational Enterprise Project in Historical Perspective, in: *Transnational Corporations*, Vol. 8, No. 2, 1999, PP. 35-49
- Walton, R.E./McKersie, R.B. (1965): *A behavioral theory of labor negotiations*, New York, 1965
- Webber, R.A. (1969): Convergence in managerial philosophy and practice, in: Webber, R.A. (Publ.): *Culture and Management*, Homewood, 1969, PP. 517-527
- Weber, M. (1946): *Essay in Sociology*, in: Gerth, H.H./Wright Mills, C. (Publ.), New York, 1946
- Weber, M. (1972): *Wirtschaft und Gesellschaft*, 5. edition, Tübingen, 1972 (1. edition 1921)
- Weibler, J./Deeg, J. (1998): Virtuelle Unternehmen - Eine kritische Analyse aus strategischer, struktureller und kultureller Perspektive, in: *Zeitschrift für Planung*, Vol. 9, No. 2, 1998, PP. 107-124
- Welge, M.K. (1980): *Management in deutschen multinationalen Unternehmungen. Ergebnisse einer empirischen Untersuchung*, Stuttgart, 1980 (*Betriebswirtschaftliche Abhandlungen*, Vol. 47), Habil. Köln

- Welge, M.K. (1981): Die effiziente Gestaltung der Mutter-Tochterbeziehung in deutschen multinationalen Unternehmungen, in: Pausenberger, E. (Publ.): Internationales Management, Stuttgart 1981, PP. 45-77 (english translation: The effective design of headquarter-subsidiary relationships in German MNCs, in: Otterbeck, L. (Publ.): The management of the headquarter-subsidiary relationship in MNCs, Aldershot, 1981, PP. 25-78)
- Welge, M.K. (1982a): Das Konzept der globalen Rationalisierung, in: Lück, W./ Trommsdorff, V. (Publ.): Internationalisierung der Unternehmung als Problem der Betriebswirtschaftslehre, Berlin, 1982, PP. 171-189
- Welge, M.K. (1982b): Entscheidungsprozesse in komplexen, international tätigen Unternehmungen, in: Zeitschrift für Betriebswirtschaft, Vol. 52, 1982, PP. 810-833
- Welge, M.K. (1985): Unternehmensführung. Vol. 1: Planung, Stuttgart, 1985
- Welge, M.K. (1989a): Koordinations- und Steuerungsinstrumente, in: Macharzina, K./Welge, M.K. (Publ.): Handwörterbuch Export und Internationale Unternehmung, Stuttgart, 1989, Col. 1182-1191
- Welge, M.K. (1989b): Multinationale Unternehmungen, Planung, in: Szyperski, N./Winand, U. (Publ.): Handwörterbuch der Planung, Stuttgart, 1989, Col. 1206-1220
- Welge, M.K. (1989c): Mutter-Tochter-Beziehungen, in: Macharzina, K./Welge, M.K. (Publ.): Handwörterbuch Export und Internationale Unternehmung, Stuttgart, 1989, Col. 1537-1552
- Welge, M.K. (1989d): Organisationsstrukturen, differenzierte und integrierte, in: Macharzina, K./Welge, M.K. (Publ.): Handwörterbuch Export und Internationale Unternehmung, Stuttgart, 1989, Col. 1590-1602
- Welge, M.K. (1990): Globales Management, in: Welge, M.K. (Publ.): Globales Management, Frankfurt, 1990, PP. 1-16
- Welge, M.K. (1990): Globales Management, in: Welge, M.K. (Publ.): Globales Management. Erfolgreiche Strategien für den Weltmarkt, Stuttgart, 1990, PP. 1-16
- Welge, M.K. (1992): Strategien für den Internationalen Wettbewerb zwischen Globalisierung und lokaler Anpassung, in: Kumar, B.N./Hausmann, H. (Publ.): Handbuch der Internationalen Unternehmenstätigkeit, München, 1992, PP. 569-589

- Welge, M.K. (1995): Strukturen für weltweit tätige Unternehmungen, in: Corsten, H./Reiss, M. (Publ.): Handbuch Unternehmensführung. Konzepte-Instrumente-Schnittstellen, Wiesbaden, 1995, PP. 661-671
- Welge, M.K. (1996): Die Bedeutung Russlands im Rahmen globaler Strategien deutscher Unternehmungen, in: Welge, M.K./Holtbrügge, D. (Publ.): Wirtschaftspartner Russland, Wiesbaden, 1996, PP. 3-18
- Welge, M.K./Al-Laham, A. (1999): Strategisches Management. Grundlagen - Prozess, Implementierung, 2., entirely revised and enlarged edition, Wiesbaden, 1999
- Welge, M.K./Al-Laham, A. (2002): Erscheinungsformen und betriebswirtschaftliche Relevanz von Strategischen Allianzen, in: Macharzina, K./Oesterle, M.-J. (2002, Publ.): Handbuch Internationales Management, 2. revised and enlarged edition, Wiesbaden, 2002, PP. 625-650
- Welge, M.K./Böttcher, R. (1991): Globale Strategien und Probleme ihrer Implementierung, in: Die Betriebswirtschaft, Vol. 51, No. 4, 1991, PP. 435-454
- Welge, M.K./Holtbrügge, D. (1993): Effects of Foreign Direct Investment on Employment in the Former "Centrally Planned Economics" of Central and Eastern Europe, in: Bailey, P./Pari-sotto, A./Renshaw, G. (Publ.): Multinationals and Employment. The Global Economy of the 1990s, Genf, 1993, PP. 215-236
- Welge, M.K./Holtbrügge, D. (1996, Publ.): Wirtschaftspartner Russland, Wiesbaden, 1996
- Welge, M.K./Holtbrügge, D. (1997): Theoretische Erklärungsansätze globaler Unternehmenstätigkeit, in: WiSt – Wirtschaftswissenschaftliches Studium, Vol. 26, No. 11, 1997, PP. 1054-1061
- Welge, M.K./Holtbrügge, D. (1999): International Management under Postmodern Conditions, in: Management International Review, Vol. 39, No. 4, 1999, PP. 304-322
- Welge, M.K./Holtbrügge, D. (2000): Wissensmanagement in Multinationalen Unternehmungen - Ergebnisse einer empirischen Untersuchung, in: Zeitschrift für betriebswirtschaftliche Forschung, Vol. 52, No. 12, 2000, PP. 762-777
- Welge, M.K./Holtbrügge, D. (2003a): Organisatorische Bedingungen des Interkulturellen Managements, in: Bergemann, N./Sourisseaux, A.L.J. (Publ.): Interkulturelles Management, 3. edition, Berlin et al., 2003, PP. 3-19

- Welge, M.K./Holtbrügge, D. (2003b): Internationales Management. Theorien, Funktionen, Fallstudien, Stuttgart, 2003
- Wernerfelt, B. (1984): A Resource-Based View of the Firm, in: Strategic Management Journal, Vol. 5, No. 2, 1984, PP. 171-180
- Wesnitzer, M. (1993): Markteintrittsstrategien in Osteuropa. Konzepte für die Konsumgüterindustrie, Wiesbaden, 1993, Diss. Bamberg
- White, R.E./Poynter, A.T. (1990): Organizing for world-wide advantage, in: Bartlett, C.A. et al (Publ.): Managing the global firm, London, New York, 1990, PP. 95-113
- Whorf, B.L. (1965): Sprache, Denken, Wirklichkeit, Reinbek, 1965
- Wicher, H. (1989): Innovative Unternehmensorganisation - Ansätze und Konzeptionen, Ammersbeck, 1989
- Wicher, H. (1991): Führungsmodelle: Stand der Forschung, Ammersbeck, 1991
- Wiechmann, U.E./Pringle, L.G. (1980): Probleme in multinationalen Unternehmen, in: Harvardmanager, No. 4, 1980, PP. 7-14
- Wiedmann, K.-P. (1988): Corporate Identity als Unternehmensstrategie, in: Wirtschaftswissenschaftliches Studium, No. 4, 1988, PP. 236-242
- Wiedmann, K.-P. (1989): Gesellschaftsorientiertes Marketing als Konzept strategischer Unternehmensführung in der Pharmaindustrie, in: Dichtl, E./Raffée, H./Thiess, M. (Publ.): Innovatives Pharmamarketing. Marktorientierung als Erfolgsstrategie der 90er Jahre, Wiesbaden, 1989, PP. 39-82
- Wiedmann, K.-P./Jugel, S. (1987): Corporate-Identity-Strategie. Anforderungen an die Entwicklung und Implementierung, in: Die Unternehmung, Vol. 41, No. 3, 1987, PP. 186-203
- Wiedmann, K.-P./Kreutzer, R. (1989): Strategische Marketingplanung - Ein Überblick, in: Raffée, H./Wiedmann, K.-P. (Publ.): Strategisches Marketing, Stuttgart, 1989, 2. edition, PP. 61-141
- Wild, J. (1974): Grundlagen der Unternehmensplanung, Reinbek, 1974
- Wildemann, H. (1997): Koordination von Unternehmensnetzwerken, in: Zeitschrift für Betriebswirtschaft, Vol. 67, No. 4, 1997, PP. 417-439

- Williamson, O.E. (1985): *The Economic Institutions of Capitalism. Firms, Markets, Relational Contracting*, New York, 1985
- Williamson, O.E. (1975): *Markets and Hierarchies*, New York, 1975
- Williamson, O.E. (1990): *Die ökonomischen Institutionen des Kapitalismus. Unternehmen, Märkte, Kooperationen*, Tübingen, 1990
- Willke, H. (1989): *Controlling als Kontextsteuerung. Zum Problem dezentralen Entscheidens in vernetzten Organisationen*, in: Eschenbach, R. (Hrsg): *Supercontrolling. Vernetzt denken, zielgerecht entscheiden*, Wien, 1989, PP. 63-96
- Wiswede, G. (1992): *Sozialisation*, in: Freise, E. (Publ.): *Handwörterbuch der Organisation*, Stuttgart, 1992, Col. 2269-2274
- Wittgenstein, L. (1973): *Tractatus logico-philosophicus. Logisch-philosophische Abhandlungen*, Frankfurt, 1973, 9. edition (original issue London 1922)
- Wittlage, H. (1995): *Die Gestaltung der Organisationsstruktur internationaler Unternehmen - Kritische Analyse, alternativer Ansatz*, in: *Betriebswirtschaftliche Forschung und Praxis*, Vol. 47, No. 3, 1995, PP. 357-369
- Wolf, J. (1994): *Internationales Personalmanagement. Kontext - Koordination – Erfolg*, Wiesbaden, 1994, Diss. Stuttgart-Hohenheim
- Wolf, J. (2000): *Strategie und Struktur 1955-1995. Ein Kapitel der Geschichte deutscher nationaler Unternehmen*, Wiesbaden, 2000, Habil. Stuttgart-Hohenheim
- Wong, G.Y.Y./Birnbauer-More, P.H. (1994): *Culture, Context and Structure: A Test on Hong Kong Banks*, in: *Organization Studies*, Vol. 15, No. 1, 1994, PP. 99-123
- Wührer, G.A. (1995): *Internationale Allianz- und Kooperationsfähigkeit österreichischer Unternehmen*, Linz, 1995, Habil. Klagenfurt
- Wüthrich, H.A./Philipp, A. (1998): *Virtuelle Unternehmensnetzwerke. Agilität als Alternative zur "Unternehmensgröße"?*, in: *io-Management-Zeitschrift*, Vol. 67, No. 11, 1998, PP. 38-42
- Wüthrich, H.A./Philipp, A.F./Frentz, M.H. (1997): *Vorsprung durch Virtualisierung. Lernen von Pionierunternehmen*, Wiesbaden, 1997

- Yasin, M./Zimmerer, T./Green, R. (1989): Cultural Values as Determinants of Executive Attitudes on Decision Making: An Empirical Evaluation, in: International Journal of Value Based Management, Vol. 2, No. 2, 1989, PP. 35-47
- Yip, G.S. (2003): Total Global Strategy II, Upper Saddle River, NJ, 2003
- Yoosefi, T./Thomas, A. (2003): Beruflich in Russland. Trainingsprogramm für Manager, Fach- und Führungskräfte, Göttingen, 2003
- Youssef, S.M. (1975): Contextual Factors Influencing Control Strategy of Multinational Corporations, in: Academy of Management Journal, March, 1975, PP. 136-145
- Yunker, P.J. (1983): A Survey Study of Subsidiary Autonomy, Performance Evaluation and Transfer Pricing in Multinational Corporations, in: Columbia Journal of World Business, Vol. 18, No. 3, 1983, PP. 51-64
- Zaby, A.M./Rumpf, M. (1998): Das eklektische Paradigma, in: WiSt - Wirtschaftswissenschaftliches Studium, Vol. 27, No. 2, 1998, PP. 146-148
- Zeithaml, V./Varadarajan, R.P./Zeithaml, C.P. (1988): The contingency approach: Its foundations and relevance to theory building and research in Marketing, in: European Journal of Marketing, No. 7, 1988, PP. 37-63
- Zentes, J./Swoboda, B. (2000, Publ.): Fallstudien zum Internationalen Management. Grundlagen-Praxiserfahrungen-Perspektiven, Wiesbaden, 2000
- Ziener, M. (1985): Controlling in multinationalen Unternehmen, Landsberg, 1985

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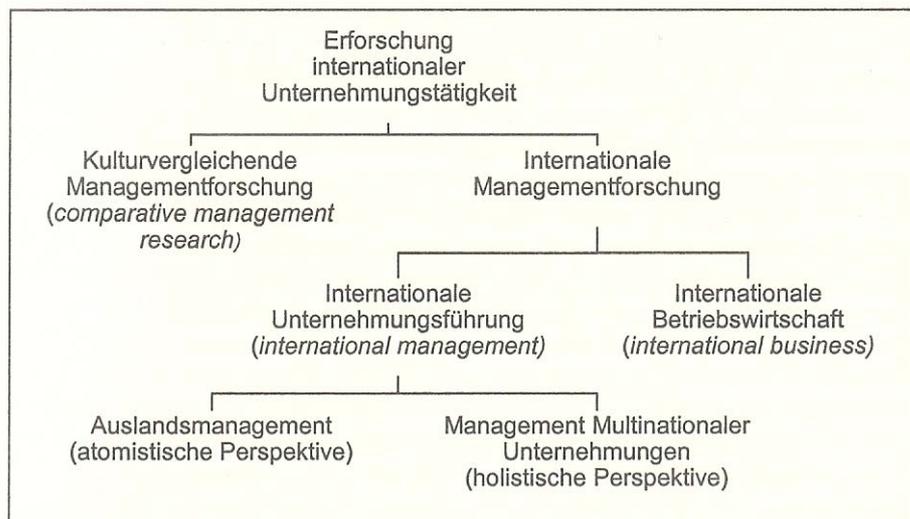
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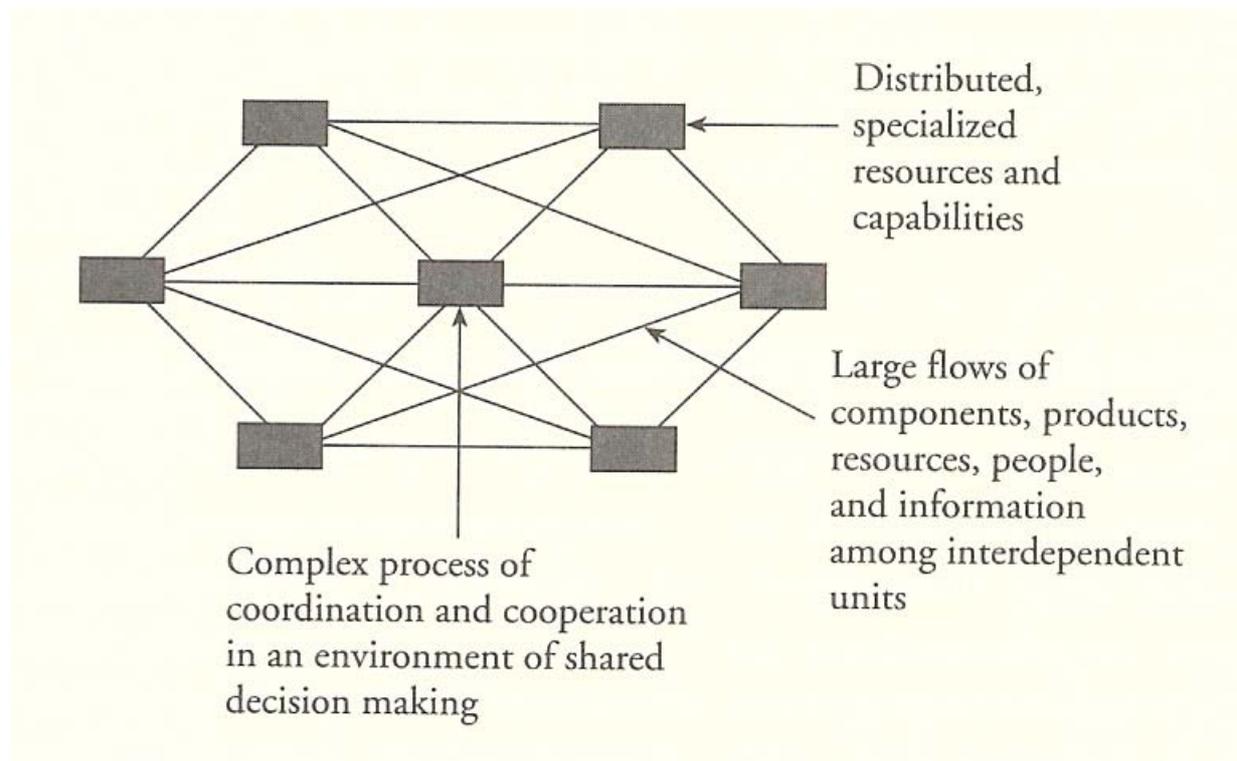
10. Appendix

Appendix 1: Overview of various Research Programs in International Management



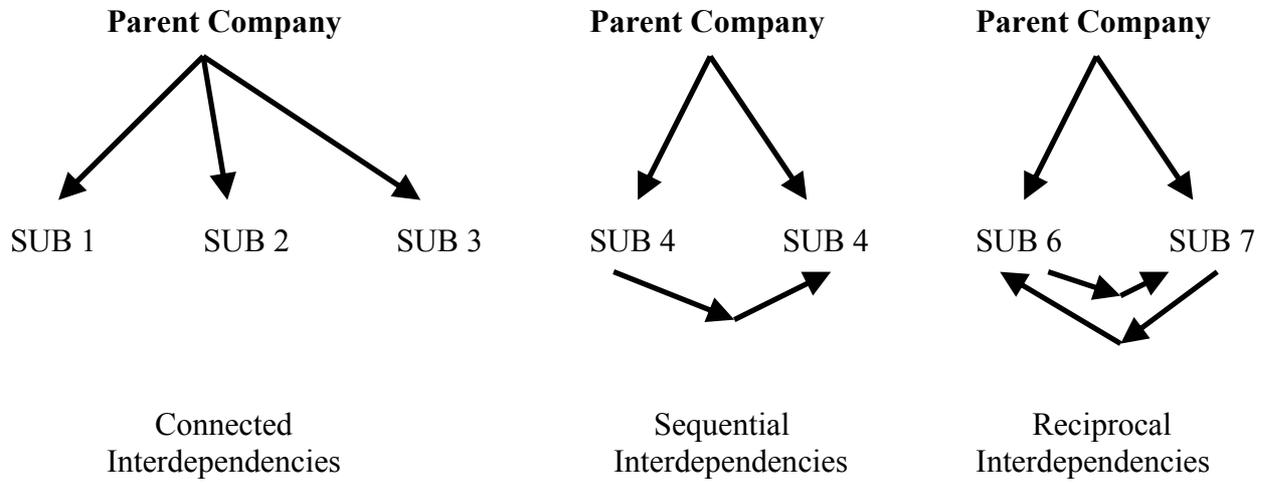
Source: Welge, M.K./Holtbrügge, D., 2003, P. 33

Appendix 2: The Network Model of Subsidiaries of the Theory Transnational Solution



Source: Bartlett, C.A./Ghoshal, S., 2002, P. 102 und 1990, P. 119.

Appendix 3: System-internal Interdependent Relationships in multinational Corporations



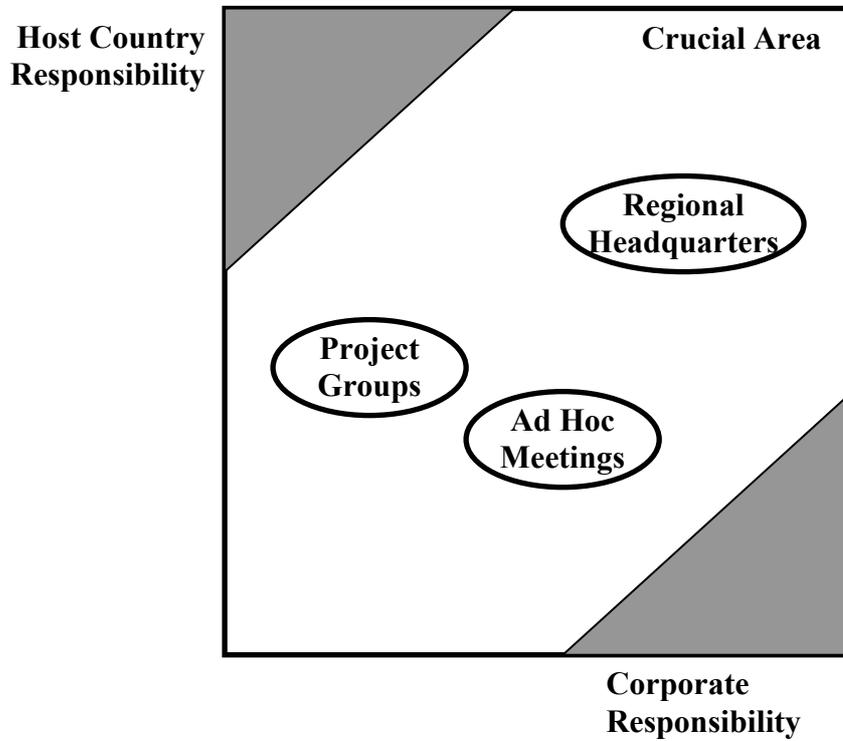
Source: Launer, M., 1993, P. 6, quoted after Thompson, J.D., 1967, PP. 54-55.

Appendix 4: The Coordination Mechanisms according to the Categories of the Transaction Cost Theory

<u>Coordination Category</u>	<u>Coordination Mechanisms</u>
Market	Price negotiations, target pricing
Hierarchy	Centralization of decision making Formalization of policies and systems
Clans and Corporate Culture	Socialization Personal coordination

Source: Launer, M., 1993, PP. 7, according to Williamson, O.E., 1975, PP. 20-25; Pugh, D.S./Hickson, D.J./Hinnings, C.R./Turner, C., 1968, PP. 76-78; Ouchi, W.G., 1980, PP. 129-141,

Appendix 5: Alternative Places of Centralization of Decision Making



Source: Own depiction, according to Hülsenbeck, J.P, 1993, P. 9.

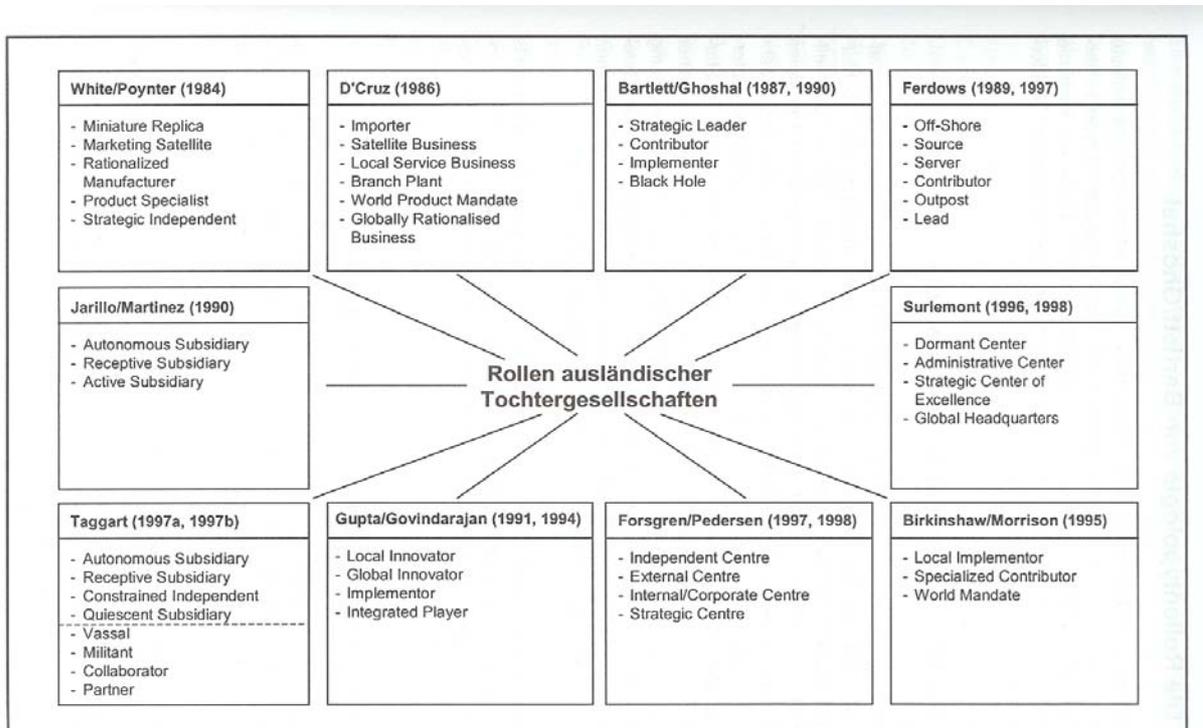
Appendix 6: Overview of Empirical Studies to the Topic Coordination of Subsidiaries

Autor	Koordinationsinstrumente	Autor	Koordinationsinstrumente
Johnstone (1965)	<ul style="list-style-type: none"> • Handbücher • Budgetberichte • persönliche Kontakte 	Yunker (1983)	<ul style="list-style-type: none"> • Zentralisation • Transferpreissysteme • ergebnisorientierte Führung
Skinner (1968)	<ul style="list-style-type: none"> • Involvement • Command 	Cray (1984)	<ul style="list-style-type: none"> • Control • Coordination
Brooke/Remmers (1973)	<ul style="list-style-type: none"> • Organisationsstruktur • Zentralisation 	Kenter (1985)	<ul style="list-style-type: none"> • technokratisch • personenorientiert
Bodinat (1975)	<ul style="list-style-type: none"> • Direct Influence • Indirect Influence 	Egelhoff (1988b)	<ul style="list-style-type: none"> • Organisationsstruktur • Zentralisation • Berichtswesen • Führungskräfte transfer • Planungssysteme
Galbraith/Edström (1976)	<ul style="list-style-type: none"> • Zentralisation • bürokratische Steuerung • Führungskräfte transfer 	Schaan (1989)	<ul style="list-style-type: none"> • Bereitstellung von Ressourcen • Gestaltung des organisatorischen Kontexts • Führungskräfte transfer • informelle Mechanismen
Hulbert/Brandt (1980)	<ul style="list-style-type: none"> • Organisationsstruktur • Planungssysteme • Kommunikationssysteme • Kontrollsysteme 	Marcati (1989)	<ul style="list-style-type: none"> • Organisationsstruktur • Informationsstruktur • Entscheidungsautonomie • formelle Regelungen • Führungskräfte transfer
Slipsager (1979)	<ul style="list-style-type: none"> • strukturell • technokratisch • personenorientiert 	Ghoshal/Nohria (1989)	<ul style="list-style-type: none"> • Zentralisation • Standardisierung • kulturelle Steuerung
Prahalad/Doz (1981)	<ul style="list-style-type: none"> • Steuerung über Ressourcenabhängigkeit • Steuerung über den administrativen Kontext 	Martinez/Jarillo (1989)	<ul style="list-style-type: none"> • strukturelle und formelle Mechanismen • informelle und subtile Mechanismen
Hedlund (1981)	<ul style="list-style-type: none"> • Zentralisation • Standardisierung 	Roth/Schweiger/Morrison (1991)	<ul style="list-style-type: none"> • Administrative Mechanisms • Operational Capabilities
Welge (1980)	<ul style="list-style-type: none"> • strukturell • technokratisch • personenorientiert 	Macharzina (1992)	<ul style="list-style-type: none"> • strukturell • technokratisch • personenorientiert
Jaeger (1983)	<ul style="list-style-type: none"> • bürokratisch • kulturorientiert 	Meffert (1993)	<ul style="list-style-type: none"> • Standardisierung • personenorientierte Koord. • technokratische Koord. • Zentralisierung • Konfiguration

Im Literaturverzeichnis dieses Buches sind nur die Quellen vermerkt, die auch im Text Verwendung

Source: Wolf, 1994, P. 116, quoted after Kutschker, M./Schmid, S., 2004, P. 1006

Appendix 7: Overview over various Approaches of Specified Roles in Multinationals



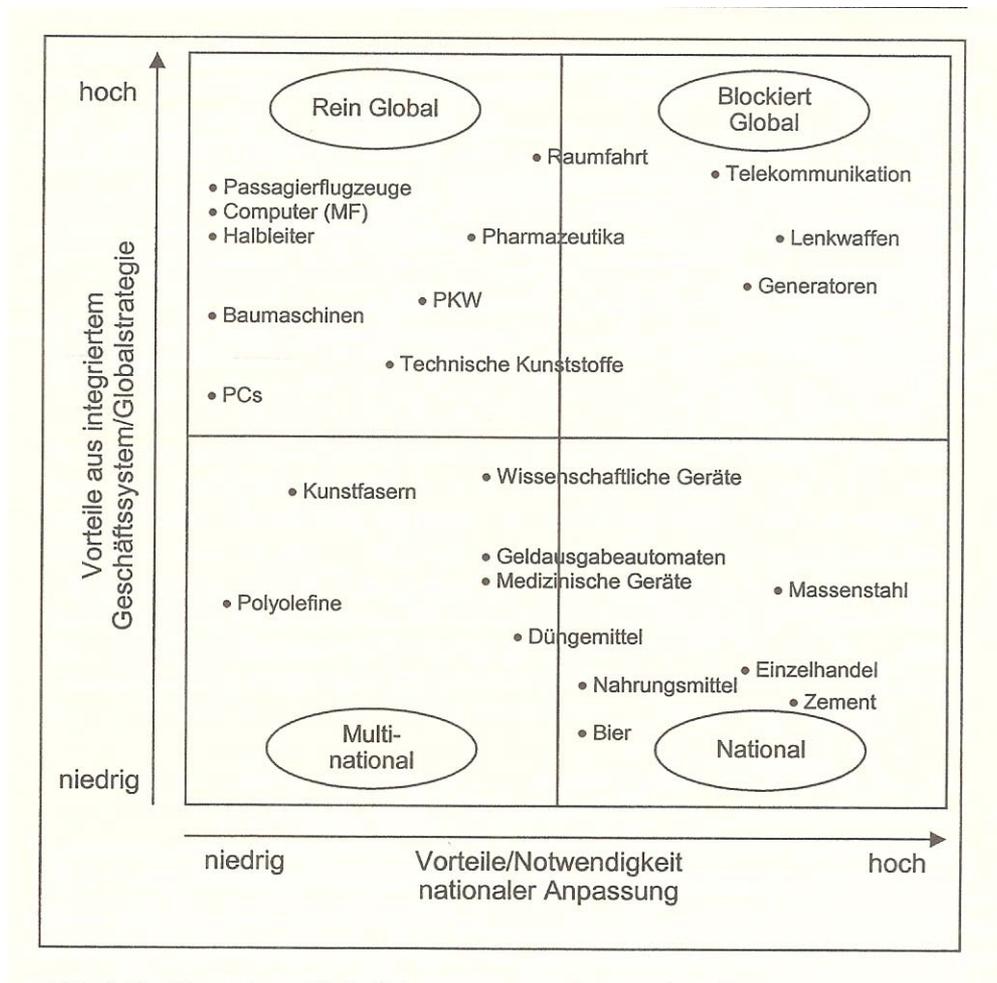
Source: Kutschker, M./Bauerle, I./Schmid, S, 1999, P. 103

Appendix 8: Patterns of Orientation in Multinational Corporations according to the EPRG-Scheme of Perlmutter

Orientierung Merkmale	ethno- zentrisch	poly- zentrisch	regio- zentrisch	geo- zentrisch
Organisationskomplexität	in der Muttergesellschaft hoch, in den Tochtergesellschaften gering	unterschiedlich und voneinander unabhängig	hohe gegenseitige Abhängigkeit auf regionaler Ebene	zunehmende Komplexität und weltweit hohe gegenseitige Abhängigkeit
Autorität und Entscheidungsfindung	in der Muttergesellschaft zentriert	weitgehend dezentralisiert	auf regionale <i>headquarters</i> übertragen; enge Zusammenarbeit zwischen den Tochtergesellschaften in einer Region	weltweite Zusammenarbeit zwischen der Muttergesellschaft und den Tochtergesellschaften
Steuerungs- und Kontrollgrößen	Standards des Heimatlandes	lokale Bestimmungen	regionale Bestimmungen	universale und lokale Standards
Anreize und Sanktionen	hoch in der Muttergesellschaft, gering in den Tochtergesellschaften	Tochtergesellschaften werden nach unterschiedlichen Kriterien belohnt	Belohnungen für das Erreichen regionaler Zielvorgaben	Belohnungen für das Erreichen internationaler und lokaler Zielvorgaben
Kommunikationsintensität und Informationsfluss	einseitig von der Muttergesellschaft an die Tochtergesellschaften	gering mit der Muttergesellschaft und den anderen Tochtergesellschaften	gering mit der Muttergesellschaft, hoch mit den regionalen <i>headquarters</i> und zwischen den einzelnen Tochtergesellschaften	hoch und reziprok sowohl mit der Muttergesellschaft als auch zwischen den Tochtergesellschaften
Geographische Identifikation	Nationalität der Muttergesellschaft	Nationalität des Gastlandes	regionale Unternehmung	Weltweite Unternehmung unter Wahrung nationaler Interessen
Besetzung von Führungspositionen	durch Stammhausdelegierte	durch Mitarbeiter des Gastlandes	Mitarbeiter aus der jeweiligen Region	<i>beyond passport</i>

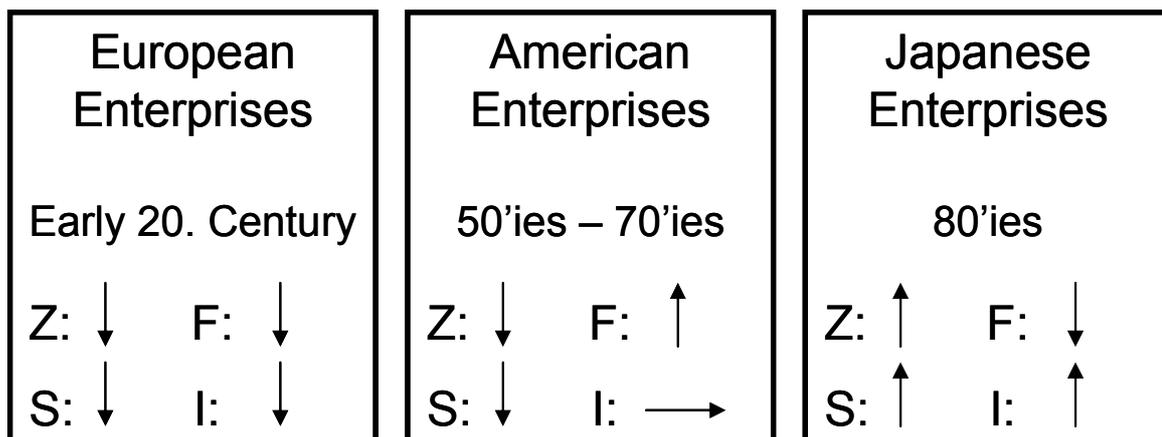
Source: Welge, M.K./Holtbrügge, D., 2003, P. 43

Appendix 9: An Industry Portfolio according to the Global Integration – Local Responsiveness-Approach



Source: Rall, W., 1986, P. 160

Appendix 10: The Relation between the Time of Internationalization and Coordination Patterns



Source: Own depiction

Appendix 11: An Analysis of Coordination Mechanisms according to international Strategies in the enlarged EPRG-Scheme

Advantage for Global Integration	high	Global Rationali- zation Strategy C: → F: ↑ S: ↑ I: ↑	Synergetic Strategy C: ? F: ? S: ? I: ↑
	low	C: ↑ F: ↓ S: ↓ I: ↓ Export Strategy	C: ↓ F: → S: ↓ I: ↓ Local Adaptata- tion Strategy
		low	high
		Advantage for Local Responsiveness	
C: Centralization of decision making F: Formalization of policies and systems S: Normative Integration of employees / Socialization I: Intensity of coordination overall			

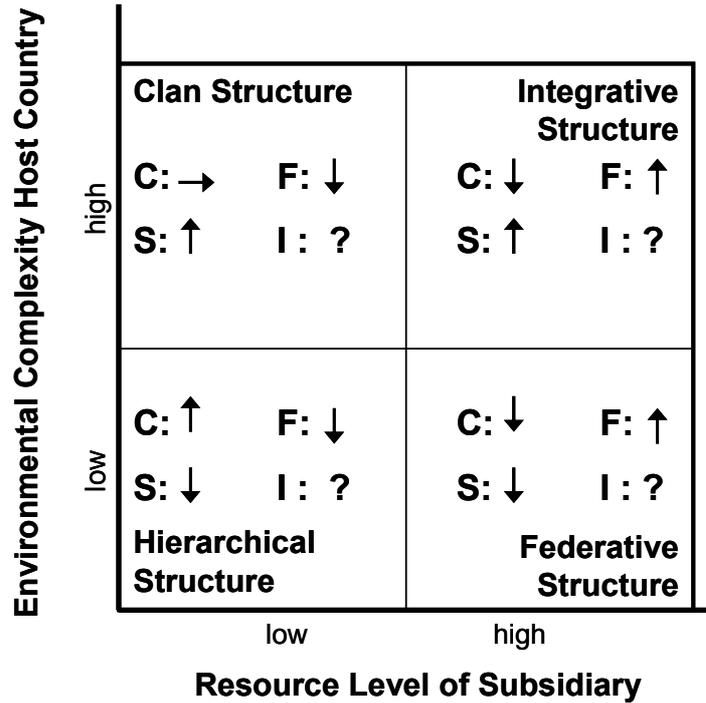
Source: Own depiction, Launer, M., 2004, P. 81

Appendix 12: An Analysis of Coordination Mechanisms according to international Structures in the enlarged EPRG-Scheme

Advantage for Global Integration	high	Global Product Division	Mixed Organization
		C: → F: ↑ S: ↑ I: ↑	C: ? F: ? S: ? I: ↑
	low	Export Division	Country Division
		C: ↑ F: ↓ S: ↓ I: ↓	C: ↓ F: → S: ↓ I: ↓
		low	high
Advantage for Local Responsiveness			
C: Centralization of decision making F: Formalization of policies and systems S: Normative Integration of employees / Socialization I: Intensity of coordination overall			

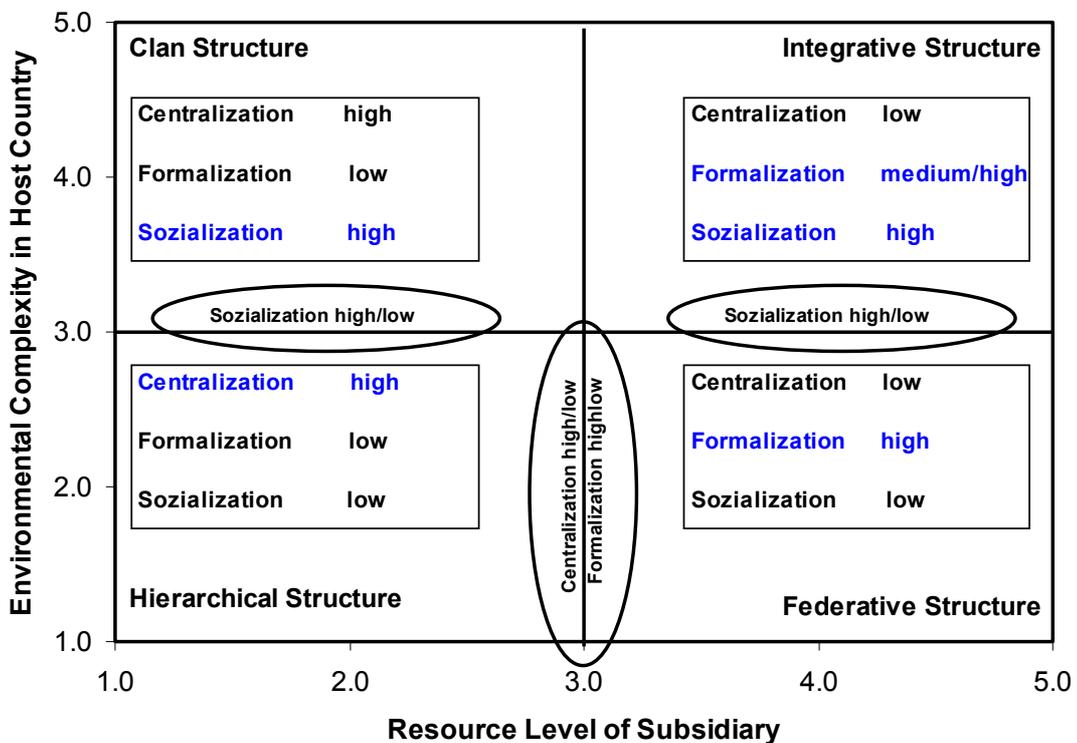
Source: Launer, M., 2004a, P. 85

Appendix 13: Coordination Strategies and Problem Areas according in the Theory Internal Differentiation



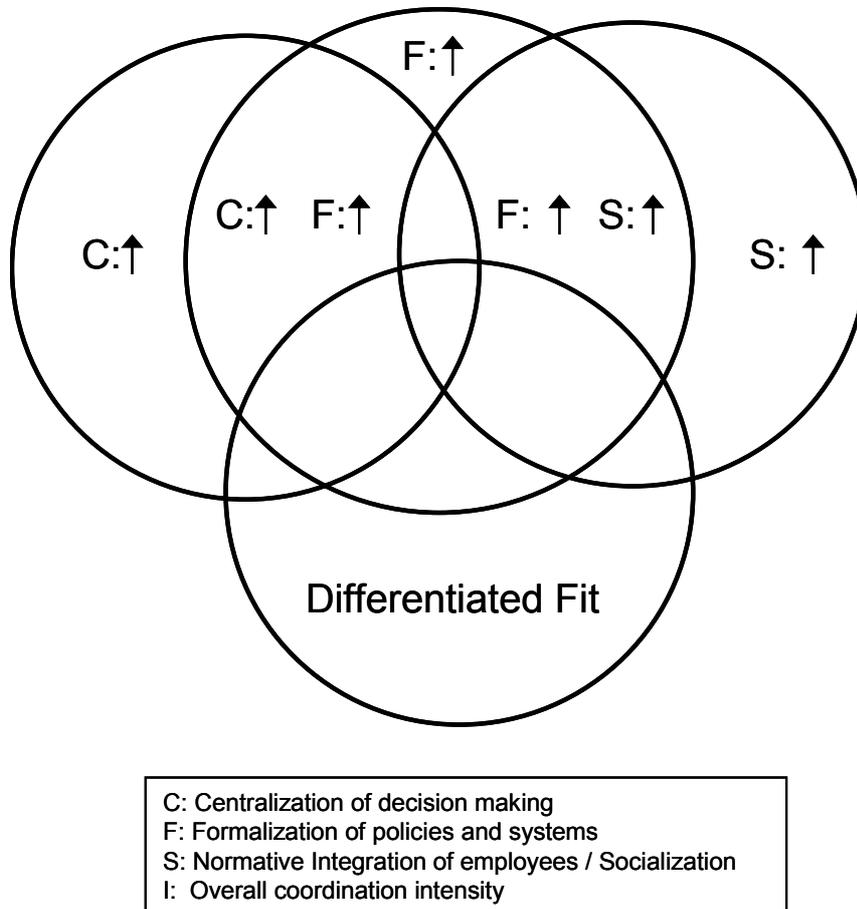
C: Centralization of decision making
 F: Formalization of policies and systems
 S: Normative Integration of employees / Socialization
 I: Intensity of coordination overall

Source: Launer, M., 2004a, P. 120, according to Nohria, N./Ghoshal, S., 1997, P. 103



Source: Own depiction

Appendix 14: The Combination Possibilities of Coordination Mechanisms on a Group-level in the Approach Requisite Complexity



Source: Launer, M., 2004a, P. 122, according to Nohria, N./Ghoshal, S., 1997, P. 182

Appendix 15: Coordination Strategies of the Concept
Requisite Complexity

		Structural Differentiation	
		low	high
Structural Integration	high	Structural Uniformity Diff: ↓ Int: ↑	Differentiated Network Diff: ↑ Int: ↑
	low	Diff: ↓ Int: ↓ Ad hoc Variation	Diff: ↑ Int: ↓ Differentiated Fit

Diff: Differentiated use of coordination mechanisms Int: Integrative coordination mechanisms

Source: Launer, M., 2004a, P. 124, according to Nohria, N./Ghoshal, S., 1997, P. 185

Appendix 16: The Coordination Strategies of Requisite Complexity in regard to the Environment of the Corporation

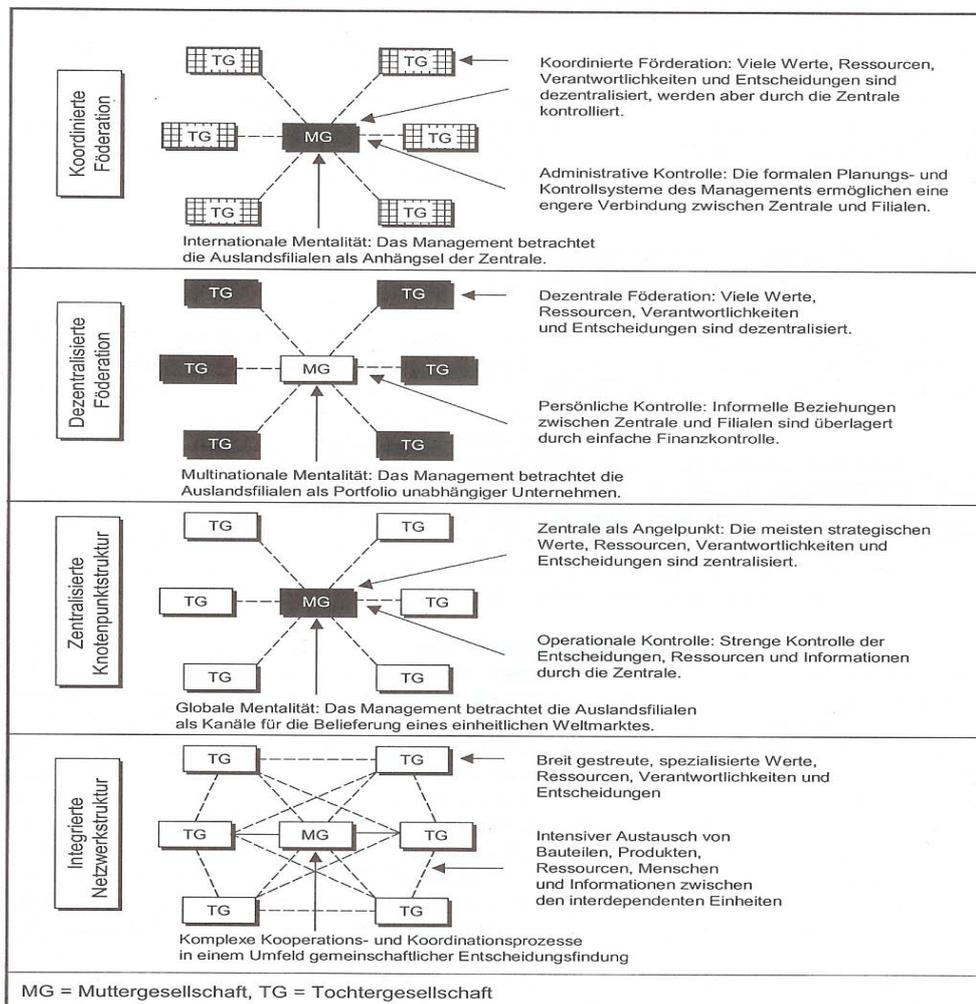
Corporate Structure on Group-Level	Differentiated Network				Diff: ↑ Int: ↑
	Structural Uniformity			Diff: ↓ Int: ↑	
	Differentiated Fit		Diff: ↑ Int: ↓		
	Ad hoc Variation	Diff: ↓ Int: ↓			
		International	Multi-domestic	Global	Transnational

Environment of the Worldwide Group

Diff: Differentiated use of coordination mechanisms Int: Integrative use of coordination mechanisms
--

Source: Launer, M., 2004a, P. 125, according to Nohria, N./Ghoshal, S., 1997, P. 188

Appendix 17: The strategic Orientations of Multinationals in the Theory Transnational Solution



Source: Kutschker, M./Schmid, S., 2004, P. 1035

Appendix 18: Network Models of the Theory Transnational Solution in an Overview

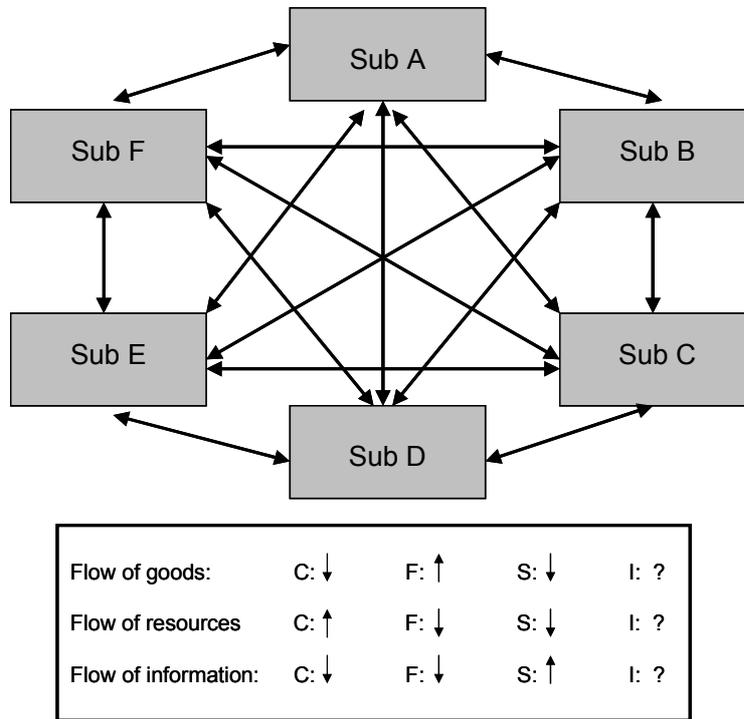
Advantage of Global Integration	high	Global Organization: Central Hub C: ↑ F: ↑ S: ↓ I: ↑	Transnational Organization: Integrated Network C: ↑ F: ↑ S: ↑ I: ↑
	low	C: ↑ F: ↑ S: ↓ I: ↓ International Organization: Coordinated Federation	C: ↓ F: ↓ S: → I: ↓ Multi-domestic Organization: Decentralized Federation
		low	high
		Advantage of Local Responsiveness	

<p>C: Centralization of decision making F: Formalization of policies and systems S: Normative Integration of employees / Socialization I: Intensity of coordination overall</p>
--

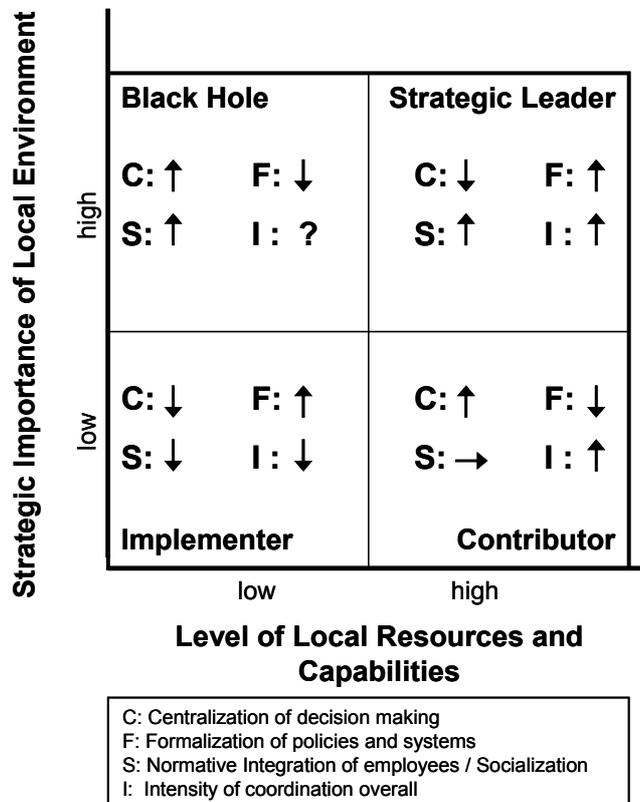
Source: Own depiction, Launer, M., 2004a, P. 101-106

Appendix 19: The Coordination Approach according to the Theory the Transnational Solution

The Theory of Flows of Goods, Resources- and Information in the Integrated Network of a Transnational Enterprise

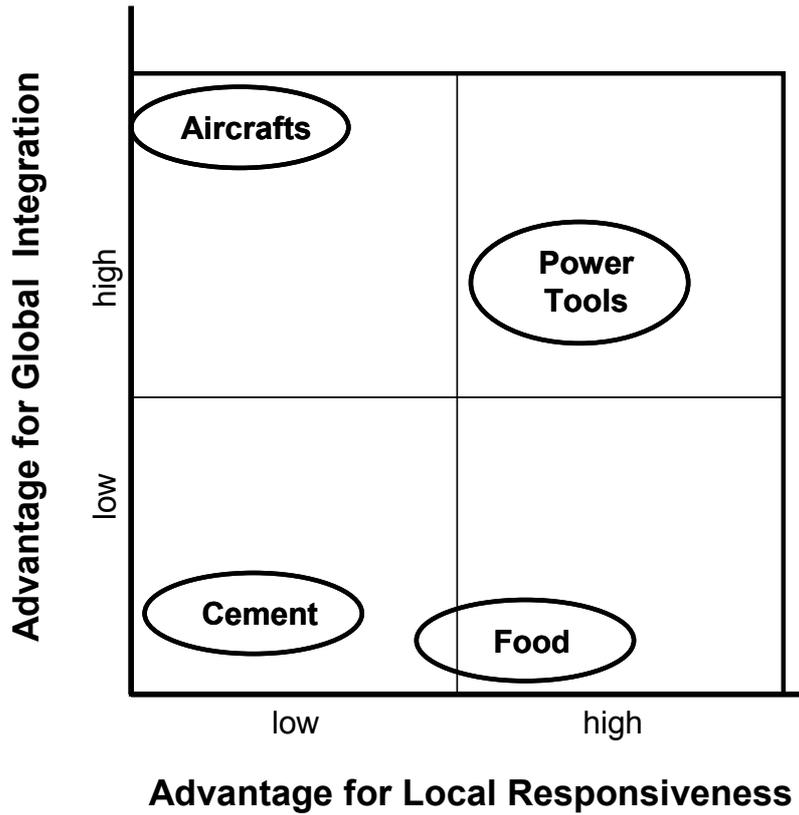


Source: Launer, M., 2004a, P. 108



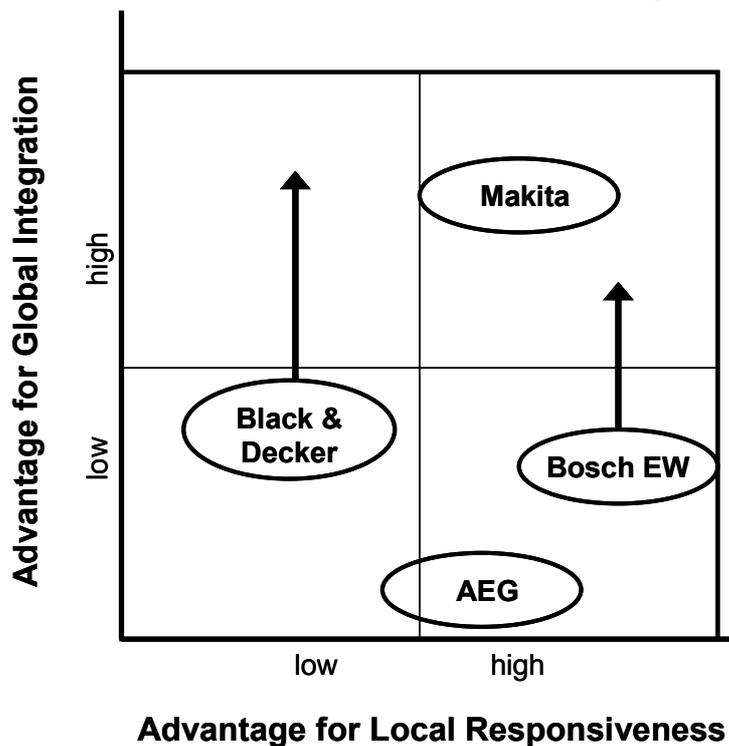
Source: Own depiction, Launer, M., 2004a, PP. 101-106

Appendix 20: Market Analysis for Bosch EW (1993)



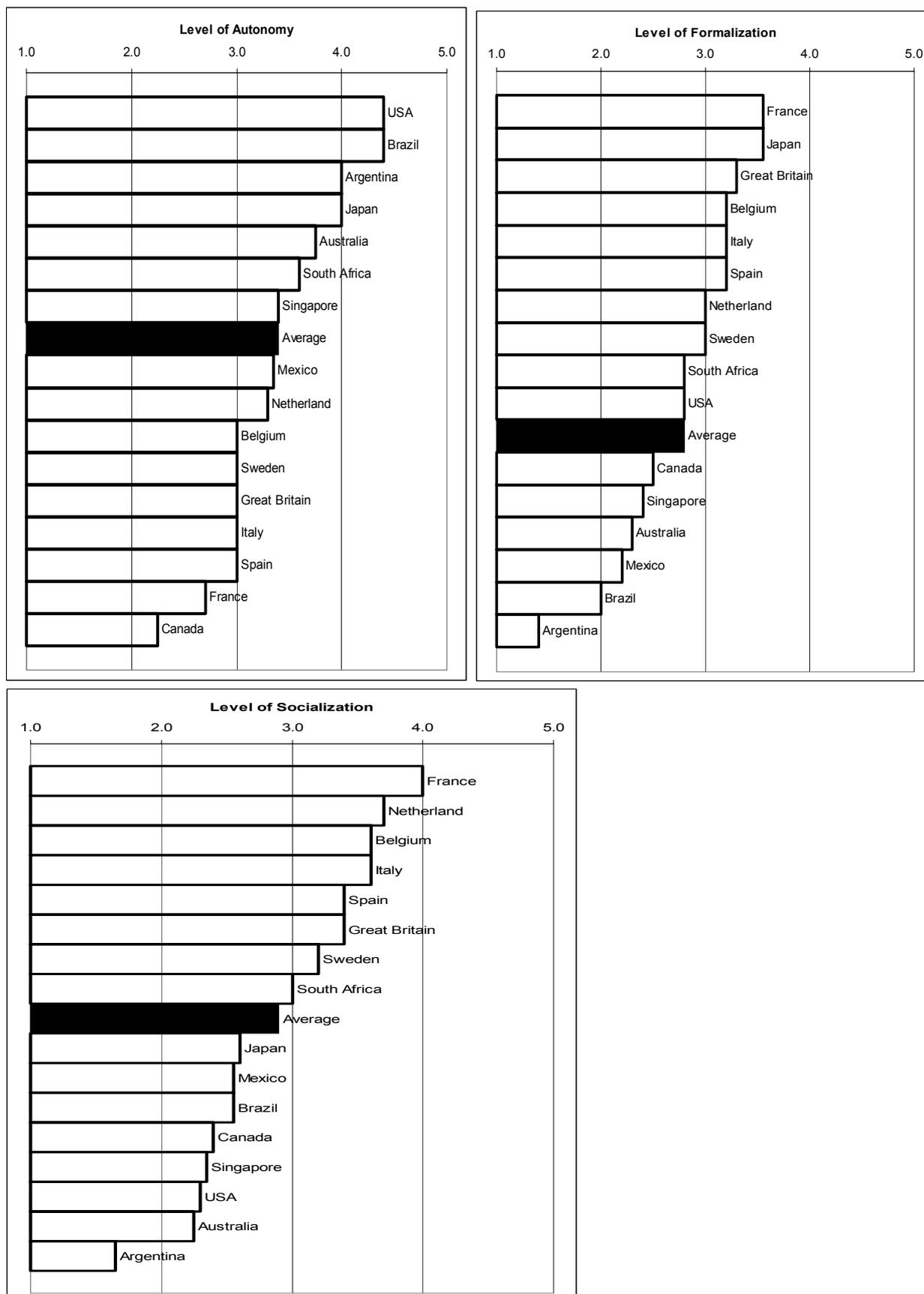
Source: Launer, M., 2004b, PP. 51, according to Henzler, H./Rall, W., 1985, P. 262; Bartlett, C.A., 1986, P. 371; Meffert, H., 1990, P. 98, Expert interviews

Alternative Internationalization Strategies



Source: Launer, M., 2004b, P. 56

Appendix 21: The Measurement of the Coordination Mechanisms of Bosch EW (1993)



Source: Launer, M., 1993, Appendix 13

Appendix 22: Coordination Analysis according to the EPRG-Scheme and the Network Configuration of Bosch EW (1993)

Analysis according to the EPRG-Scheme

	Autonomy		Formalization		Socialization	
Ethnocentric	1.0	2.3	1.0	2.3	1.0	2.3
Polycentric	1.0	2.3	2.4	3.6	1.0	2.3
Geocentric	2.4	3.6	3.7	5.0	3.7	5.0
Regio-centric						

Bosch EW 1993 **3.4** **2.8** **2.9**
 No assessment possible, since region-centric cluster is not described in theory

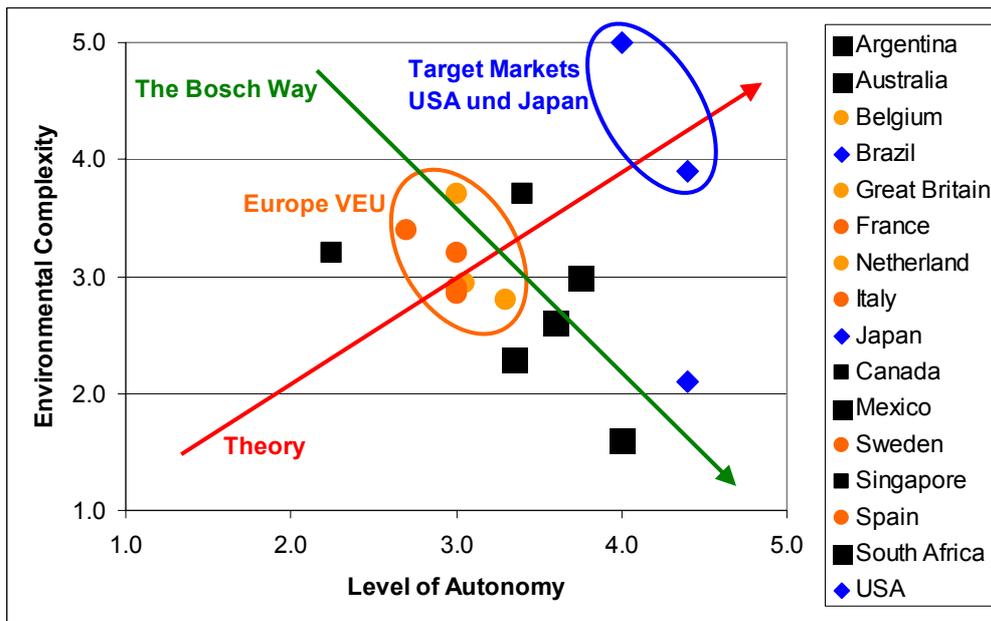
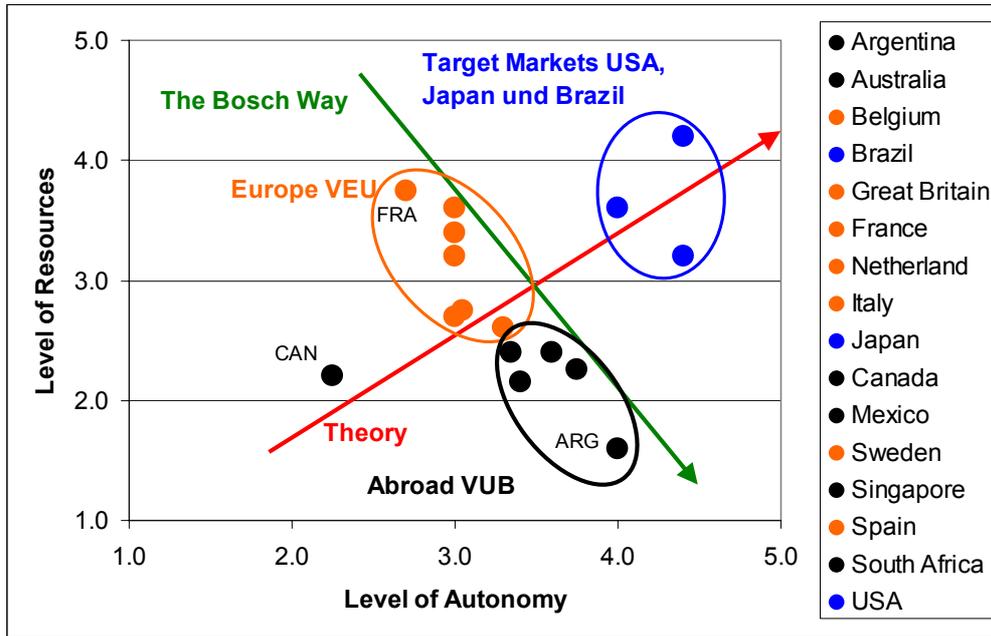
Analysis of Network Configuration

	Autonomy		Formalization		Socialization	
International	1.0	2.3	3.7	5.0	1.0	2.3
Multi-Domestic	3.7	5.0	1.0	2.3	2.4	3.6
Global	1.0	2.3	3.7	5.0	1.0	2.3
Transnational	1.0	2.3	3.7	5.0	3.7	5.0

Bosch EW **3.4** **2.8** **2.9**
1993 **Misfit** **Misfit** **Misfit**

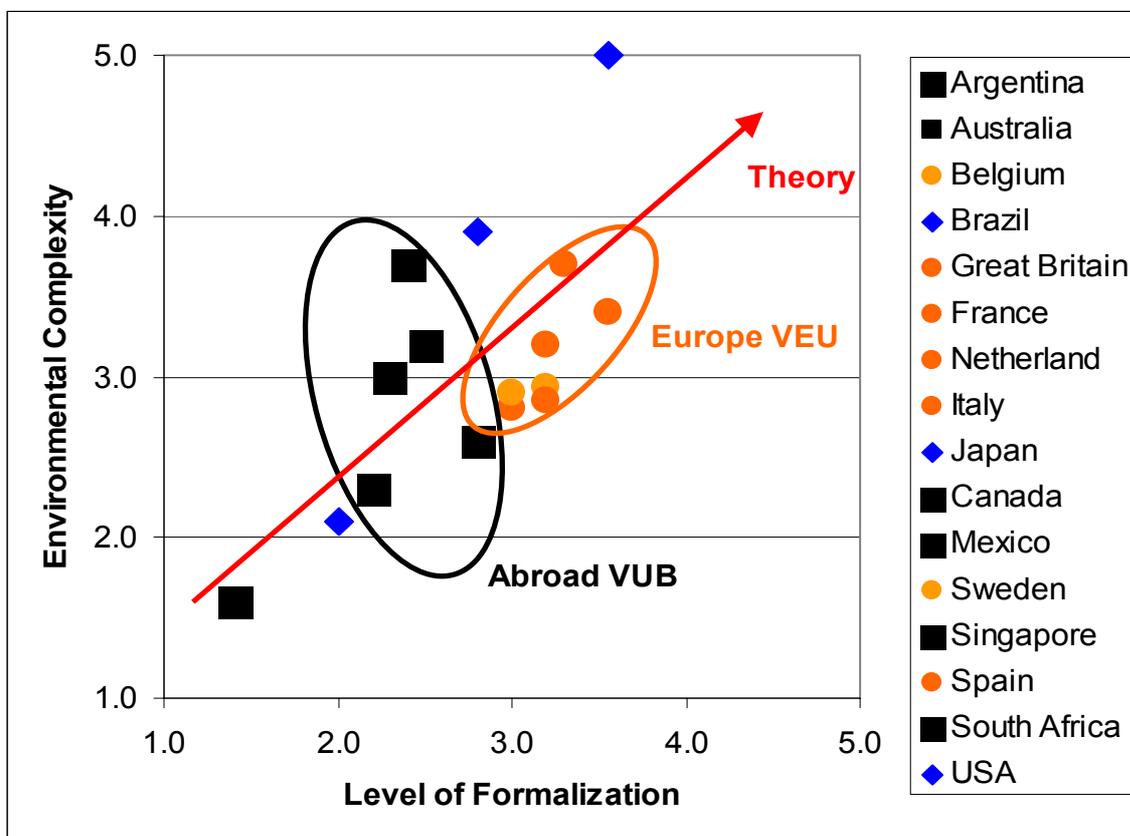
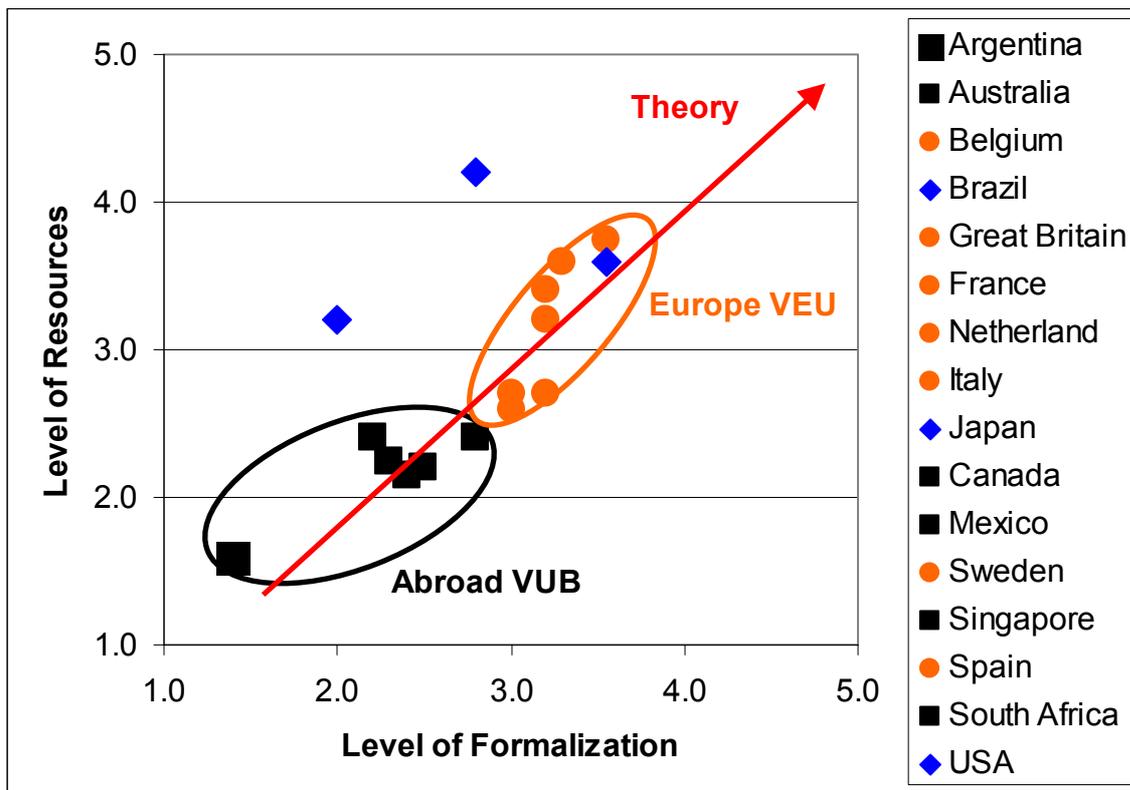
Source: Own depiction

Appendix 23: Correlation of Local Resources and Environmental Complexity with the Level of Autonomy of Bosch EW (1993)



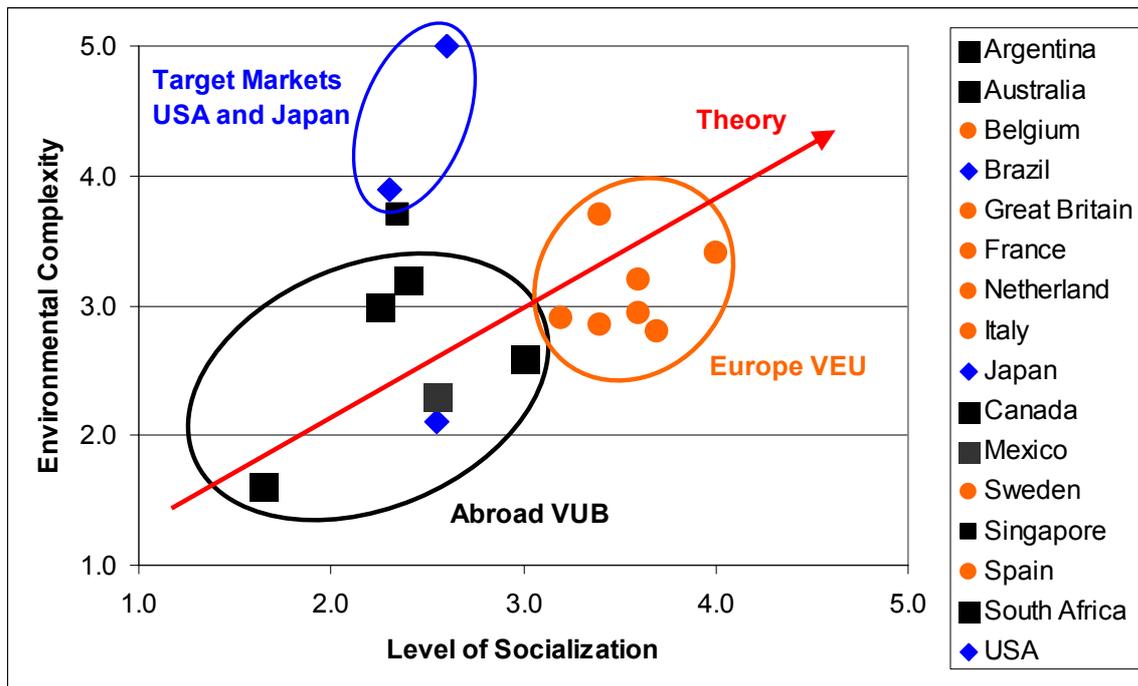
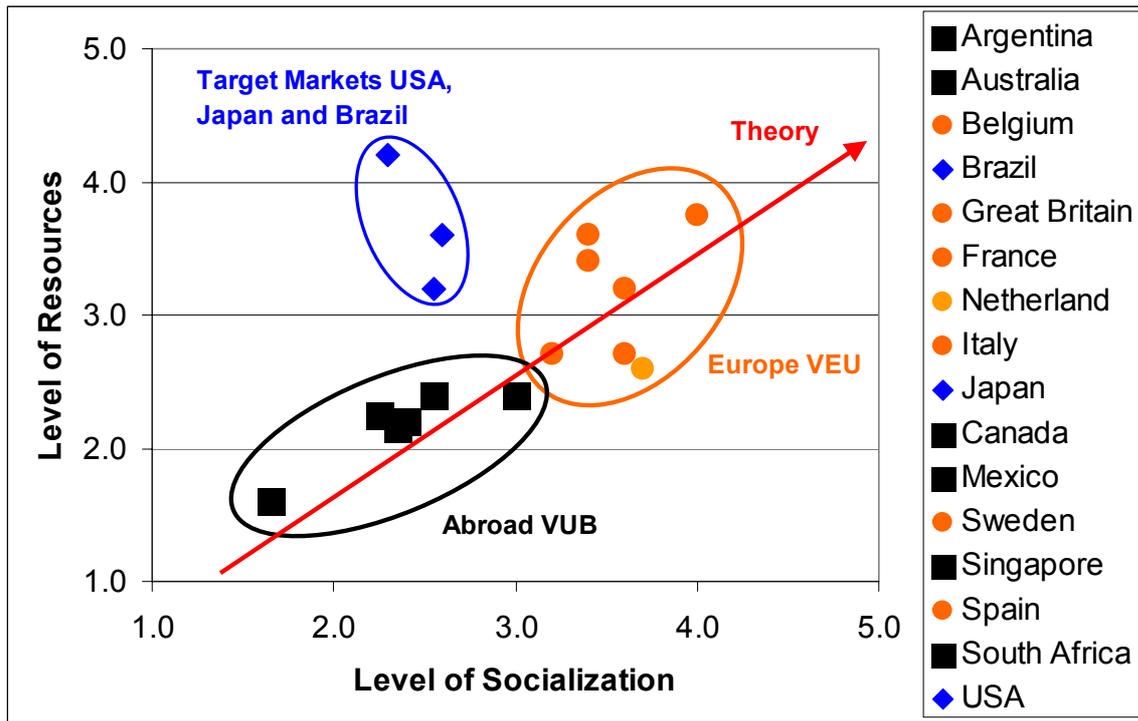
Source: Launer, M., 2004b, PP. 72 and 73

Appendix 24: Correlation of Local Resources and Environmental Complexity with the Level of Formalization of Bosch EW (1993)



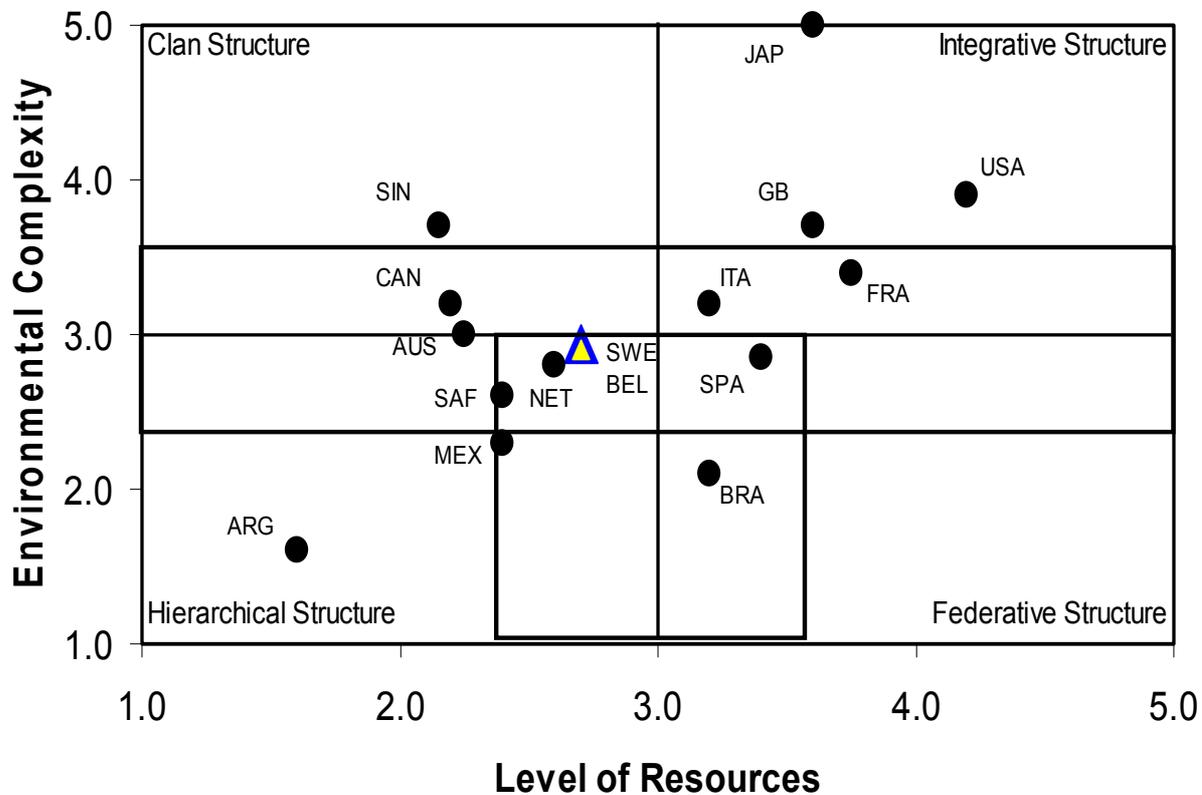
Source: Launer, M., 2004b, PP. 75 and 76

Appendix 25: Correlation of Local Resources and Environmental Complexity with the Level of Shared Values of Bosch EW (1993)



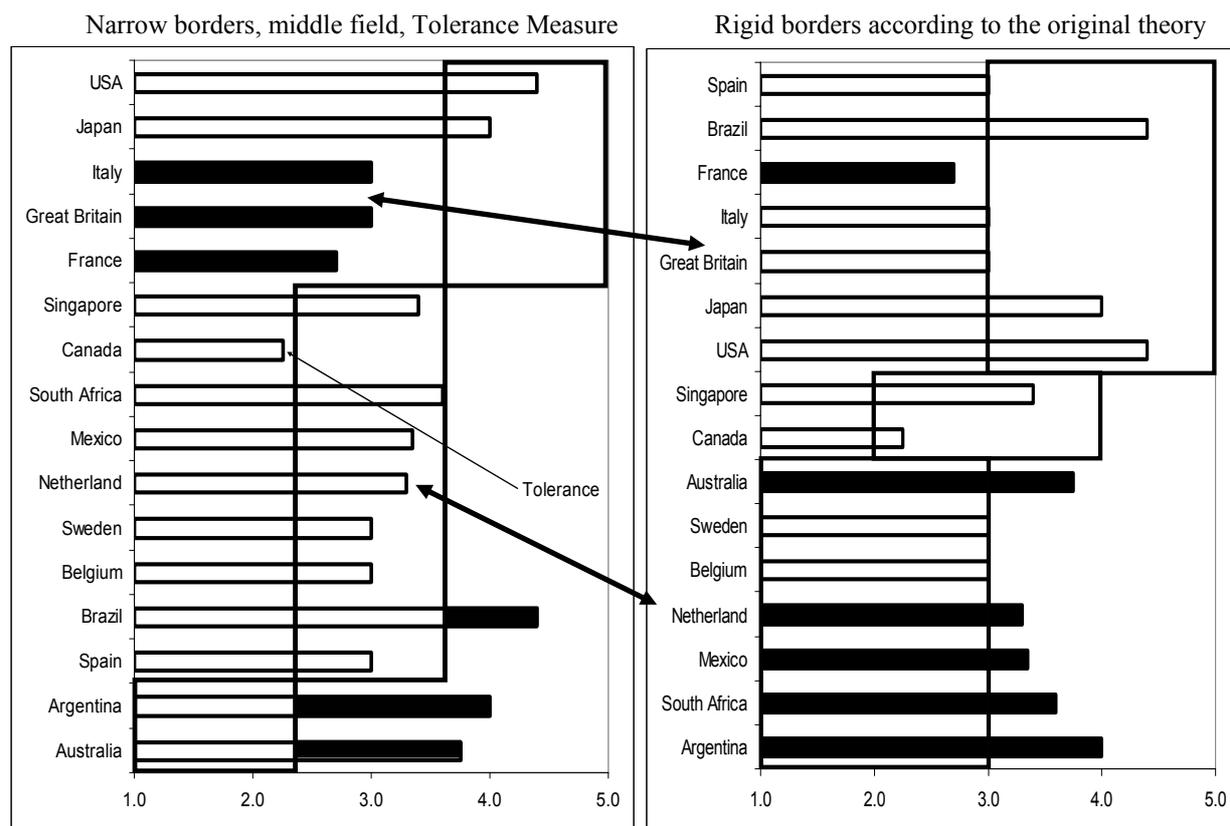
Source: Launer, M., 2004b, PP. 77 and 78

Appendix 26: Clustering of the Subsidiaries of Bosch EW (1993) according to the Theory Internal Differentiation



Source: Launer, M., 2004b, P. 80

Appendix 27: Centralization Measured with two Alternative Analysis Methods for the Internal Differentiation at Bosch EW (1993)



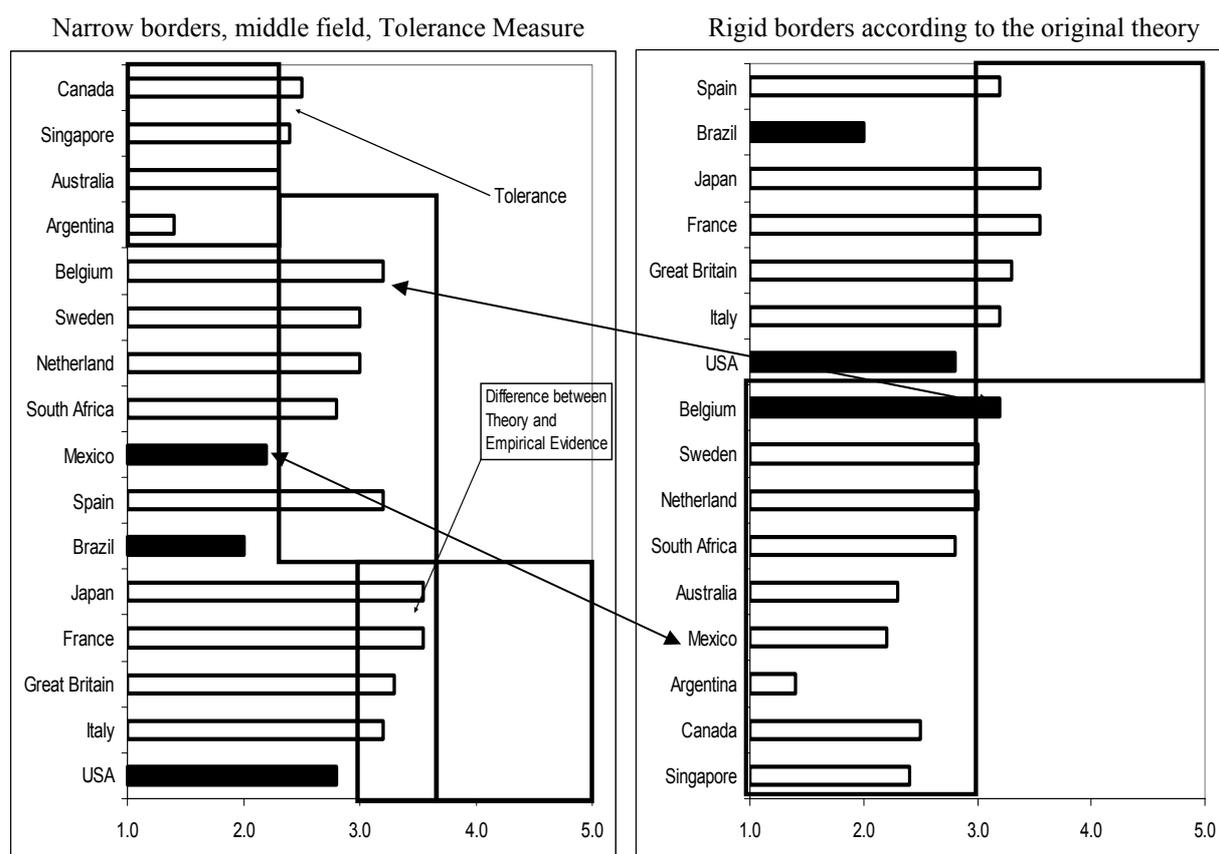
Black bar = Misfit Square = Should cluster

Data Analysis for the advanced, modified method:

Country	Act.	Should		Should-Structure	Fit/Misfit
		from	to		
Australia	3.8	1.0	2.3	Hierarchical Structure	Misfit
Argentina	4.0	1.0	2.3	Hierarchical Structure	Misfit
Spain	3.0	2.4	3.6	Integrative Federation	Fit
Brazil	4.4	2.4	3.6	Integrative Federation	Misfit
Belgium	3.0	2.4	3.6	Federative Hierarchy	Fit
Sweden	3.0	2.4	3.6	Federative Hierarchy	Fit
Netherlands	3.3	2.4	3.6	Federative Hierarchy	Fit
Mexico	3.4	2.4	3.6	Federative Hierarchy	Fit
South Africa	3.6	2.4	3.6	Federative Hierarchy	Fit
Canada	2.3	2.4	3.6	Clan Structure	Fit
Singapore	3.4	2.4	3.6	Clan Structure	Fit
France	2.7	3.7	5.0	Integrative Structure	Misfit
Great Brit.	3.0	3.7	5.0	Integrative Structure	Misfit
Italy	3.0	3.7	5.0	Integrative Structure	Misfit
Japan	4.0	3.7	5.0	Integrative Structure	Fit
USA	4.4	3.7	5.0	Integrative Structure	Fit
Average	3.4				

Source: Own depiction, Launer, M., 2004b, PP. 81-82

Appendix 28: Formalization Measured with two Alternative Analysis Methods for the Internal Differentiation at Bosch EW (1993)



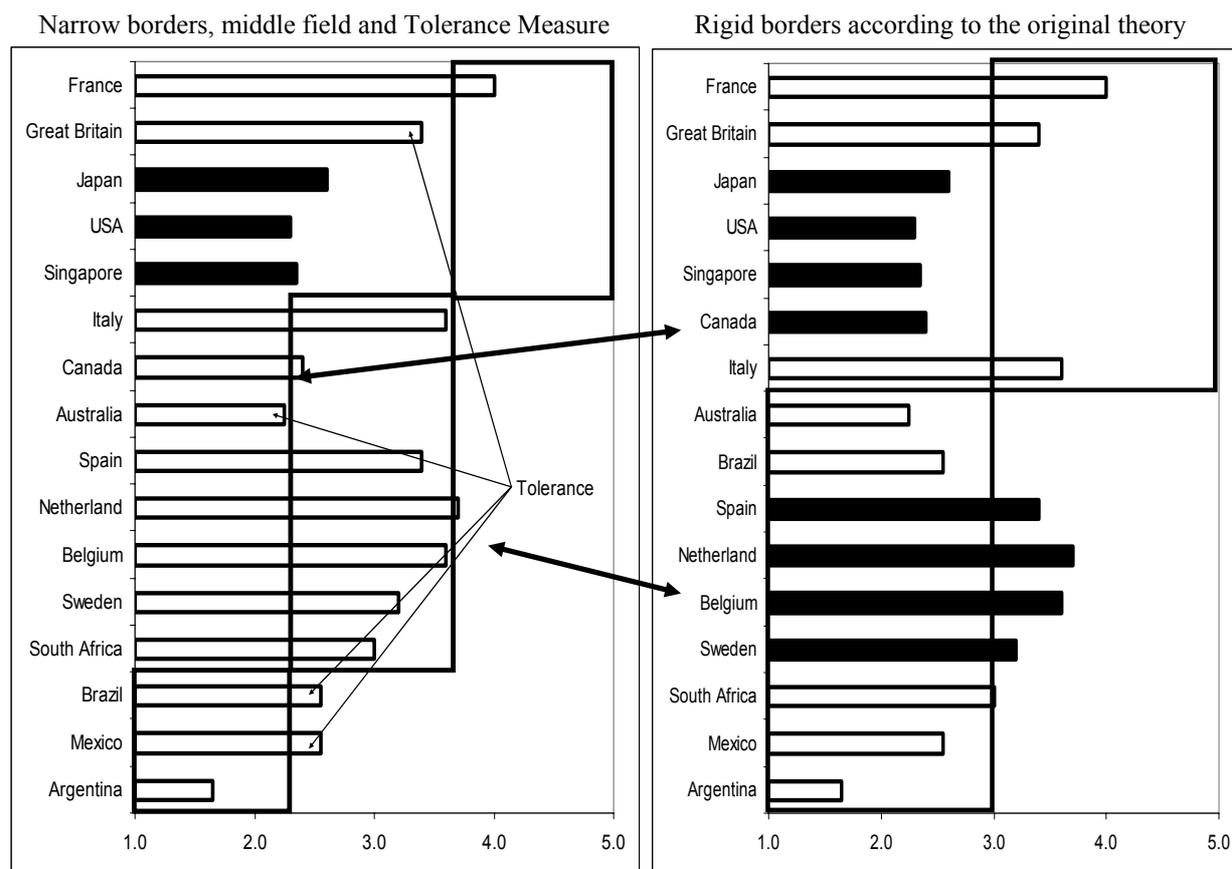
Black bar = Misfit Square = Should cluster

Data analysis for the advanced, modified method:

Country	Act.	Should		Should-Structure	Fit/Misfit
		from	to		
USA	2.8	3.0	5.0	Integrative Structure (Theory Problem)	Misfit
Italy	3.2	3.0	5.0	Integrative Structure (Theory Problem)	Fit
Great Britain	3.3	3.0	5.0	Integrative Structure (Theory Problem)	Fit
France	3.6	3.0	5.0	Integrative Structure (Theory Problem)	Fit
Japan	3.6	3.0	5.0	Integrative Structure (Theory Problem)	Fit
Brazil	2.0	2.4	3.6	Hierarchical Federation	Misfit
Spain	3.2	2.4	3.6	Hierarchical Federation	Fit
Mexico	2.2	2.4	3.6	Federative Hierarchy	Tolerance
South Africa	2.8	2.4	3.6	Federative Hierarchy	Fit
Netherlands	3.0	2.4	3.6	Federative Hierarchy	Fit
Sweden	3.0	2.4	3.6	Federative Hierarchy	Fit
Belgium	3.2	2.4	3.6	Federative Hierarchy	Fit
Argentina	1.4	1.0	2.3	Hierarchical Structure	Fit
Australia	2.3	1.0	2.3	Hierarchical Structure	Fit
Singapore	2.4	1.0	2.3	Clan Structure	Tolerance
Canada	2.5	1.0	2.3	Clan Structure	Tolerance
Average	2.8				

Source: Launer, M., 2004b, P. 66

Appendix 29: Socialization Measured with two Alternative Analysis Methods for the Internal Differentiation at Bosch EW (1993)



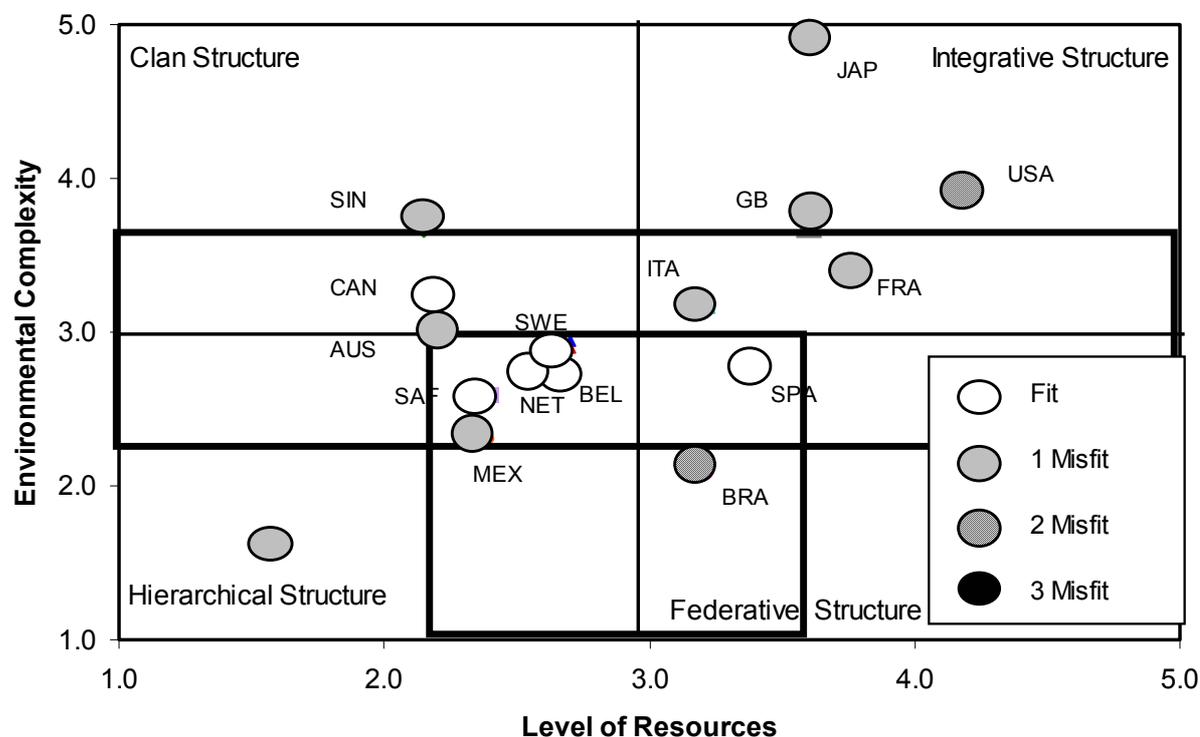
Black bar = Misfit Square = Should cluster

Data analysis for the advanced, modified method:

Country	Act.	Should from	Should to	Should-Structure	Fit/Misfit
Argentina	1.7	1.0	2.3	Hierarchical Structure	Fit
Mexico	2.6	1.0	2.3	Hierarchical Structure	Tolerance
Brazil	2.6	1.0	2.3	Federative Structure	Tolerance
South Africa	3.0	2.4	3.6	Hierarchy/Clan-Structure	Fit
Sweden	3.2	2.4	3.6	Hierarchy/Clan-Structure	Fit
Belgium	3.6	2.4	3.6	Hierarchy/Clan-Structure	Fit
Netherlands	3.7	2.4	3.6	Hierarchy/Clan-Structure	Fit
Spain	3.4	2.4	3.6	Federative Structure	Fit
Australia	2.3	2.4	3.6	Hierarchy/Clan Structure	Tolerance
Canada	2.4	2.4	3.6	Hierarchy/Clan-Structure	Fit
Italy	3.6	2.4	3.6	Integrative Structure	Fit
Singapore	2.4	3.7	5.0	Clan-Structure	Misfit
USA	2.3	3.7	5.0	Integrative Structure	Misfit
Japan	2.6	3.7	5.0	Integrative Structure	Misfit
Great Brit.	3.4	3.7	5.0	Integrative Structure	Tolerance
France	4.0	3.7	5.0	Integrative Structure	Fit
Average	2.9				

Source: Launer, M., 2004b, P. 69

Appendix 30: Analysis of Bosch EW (1993) according to the Theory Internal Differentiation



The measurement of the Difference Measure:

Autonomy	
Argentina	1.7
Brazil	0.8
Australia	1.5
Great Brit.	0.7
Italy	0.7
France	1.0
Sum	6.4
Average	1.1

Formalization	
Argentina	1.0
USA	0.2
Brazil	0.4
Sum	1.6
Average	0.5

Socialization	
Japan	1.1
USA	1.4
Singapore	1.4
Sum	3.9
Average	1.3

Total Deviation	11.8
Total Average	1.0

Source: Launer, M., 2004b, P. 87

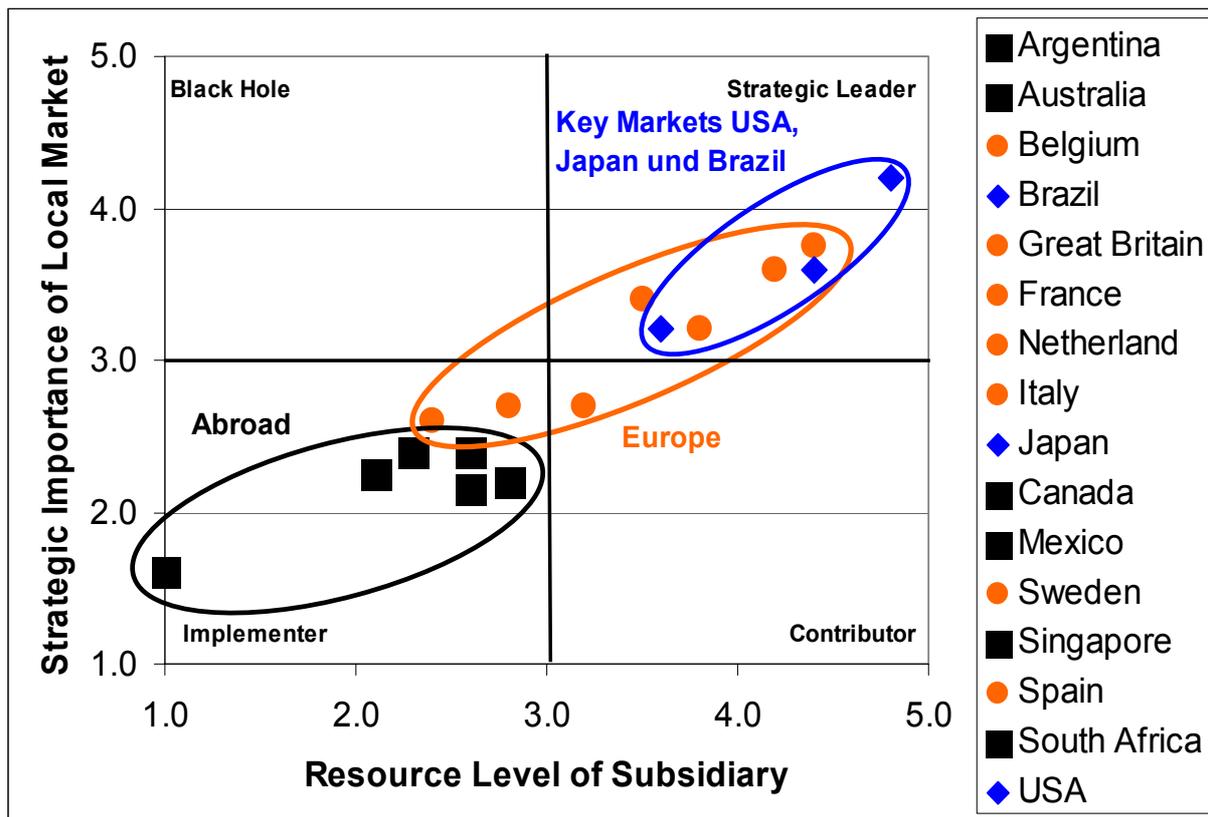
Appendix 31: Analysis of the Requisite Complexity at Bosch EW (1993)

Differentiated Network				Differentiated & Integrated
Structural Uniformity			Integrated	
Differentiated Fit		Differentiated		?
Ad hoc Variation	No Coord. Strategy			Bosch EW
	International	Multinational	Global	Transnational

Source: Own depiction

25% Misfit-rate to the theory Internal Differentiation

Appendix 32: Analysis of Specified Roles at Bosch EW (1993)



Source: Launer, M., 2004b, P. 105, according to Bartlett, C.A./Ghoshal, S., 1987, PP. 55 and 2002, PP. 327-331

Appendix 33: Analysis of the Coordination of Bosch EW (1993) according to the Specified Roles of their Subsidiaries

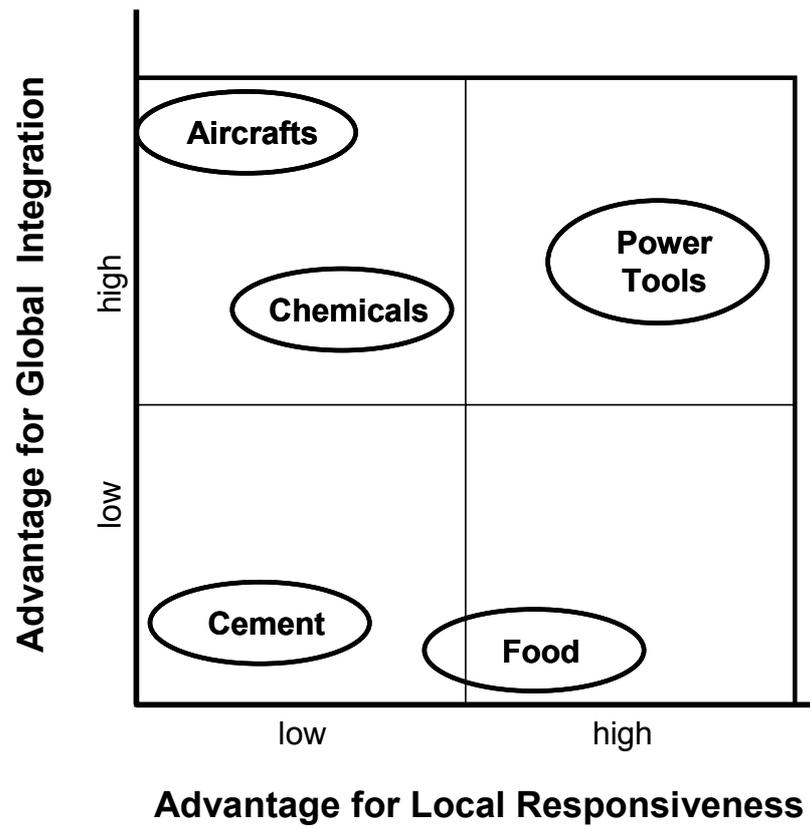
		Autonomy				Formalization				Socialization			
		3	5			3	5			3	5		
Strategic Leader		3	5			3	5			3	5		
Contributor		1	3			3	5			1	3		
Implementer		1	3			1	3			2	4		
Black Hole		1	3			1	3			3	5		
		Fr.	to	Ac.	Fits	Fr.	to	Ac.	Fits	Fr.	to	Ac.	Fits
Argentina	Contributor	1.0	3.0	4.0	Misfit	3.0	5.0	1.4	Misfit	1.0	3.0	1.7	Fit
Australia	Contributor	1.0	3.0	3.8	Misfit	3.0	5.0	2.3	Misfit	1.0	3.0	2.3	Fit
Belgium	Implementer	1.0	3.0	3.0	Fit	1.0	3.0	3.2	Misfit	2.0	4.0	3.6	Fit
Brazil	Strategic Leader	3.0	5.0	4.4	Fit	3.0	5.0	2.0	Misfit	3.0	5.0	2.6	Fit
Great Britain	Strategic Leader	3.0	5.0	3.0	Fit	3.0	5.0	3.3	Fit	3.0	5.0	3.4	Fit
France	Strategic Leader	3.0	5.0	2.7	Misfit	3.0	5.0	3.6	Fit	3.0	5.0	4.0	Fit
Netherlands	Contributor	1.0	3.0	3.3	Misfit	3.0	5.0	3.0	Fit	1.0	3.0	3.7	Misfit
Italy	Strategic Leader	3.0	5.0	3.0	Fit	3.0	5.0	3.2	Fit	3.0	5.0	3.6	Fit
Japan	Strategic Leader	3.0	5.0	4.0	Fit	3.0	5.0	3.6	Fit	3.0	5.0	2.6	Misfit
Canada	Contributor	1.0	3.0	2.3	Fit	3.0	5.0	2.5	Misfit	1.0	3.0	2.4	Fit
Mexico	Contributor	1.0	3.0	3.4	Misfit	3.0	5.0	2.2	Misfit	1.0	3.0	2.6	Fit
Sweden	Contributor	1.0	3.0	3.0	Fit	3.0	5.0	3.0	Fit	1.0	3.0	3.2	Misfit
Singapore	Contributor	1.0	3.0	3.4	Misfit	3.0	5.0	2.4	Misfit	1.0	3.0	2.4	Fit
Spain	Strategic Leader	3.0	5.0	3.0	Fit	3.0	5.0	3.2	Fit	3.0	5.0	3.4	Fit
South Africa	Contributor	1.0	3.0	3.6	Misfit	3.0	5.0	2.8	Misfit	1.0	3.0	3.0	Fit
USA	Strategic Leader	3.0	5.0	4.4	Fit	3.0	5.0	2.8	Misfit	3.0	5.0	2.3	Misfit

Misfits 20

42%

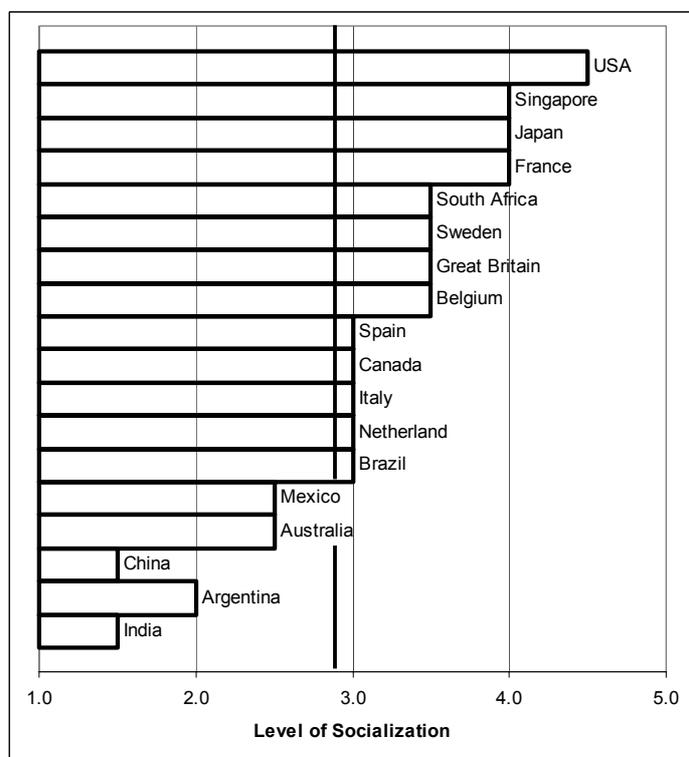
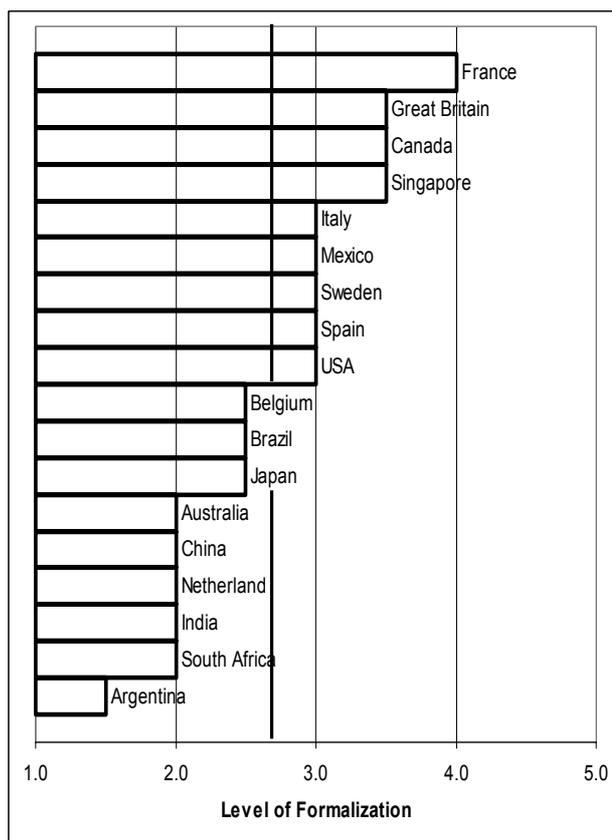
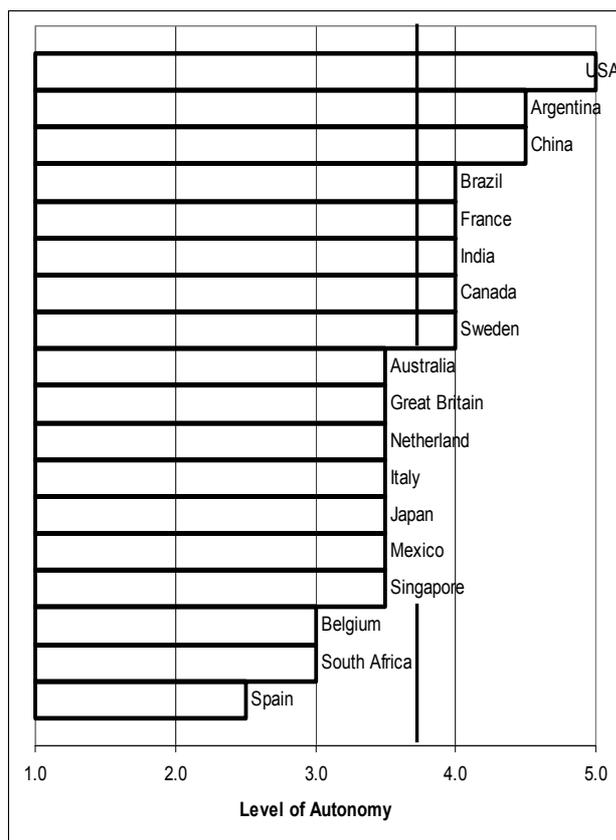
Source: Own depiction

Appendix 34: Market Analysis for Hoechst Chemicals (1994)



Source: Own depiction

Appendix 35: The Measurement of the Coordination Mechanisms of Hoechst Chemicals (1994)



Source: Own depiction

Appendix 36: Coordination Analysis by means of the EPRG-Scheme and the Network Configuration of Hoechst Chemicals (1994)

Analysis according to the EPRG-Scheme

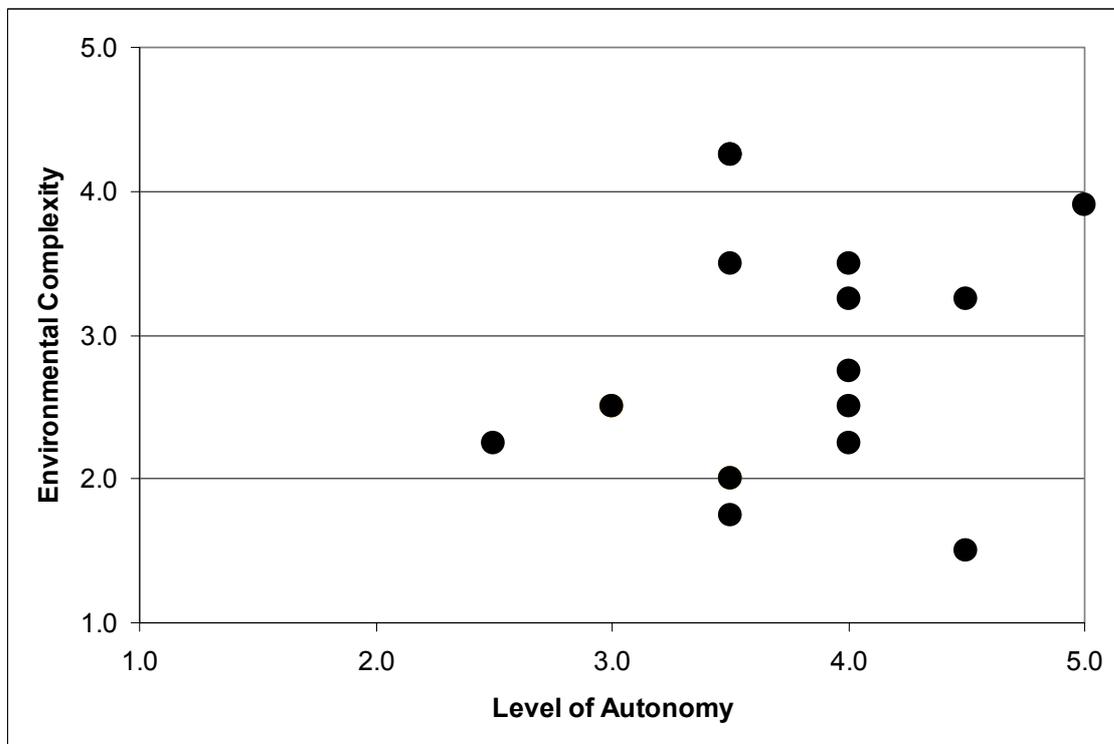
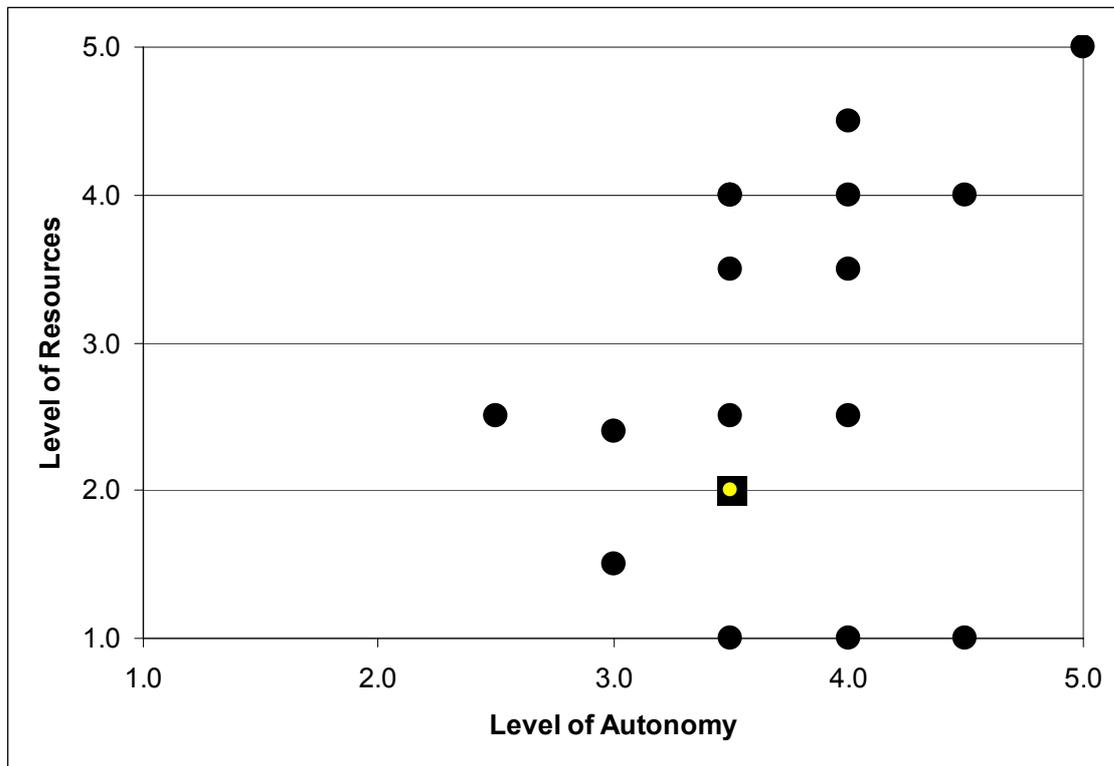
	Autonomy		Formalization		Socialization	
Ethnocentric	1.0	2.3	1.0	2.3	1.0	2.3
Polycentric	1.0	2.3	2.4	3.7	1.0	2.3
Geocentric	2.4	3.7	3.7	5.0	3.7	5.0
Regio-centric						
Hoechst Chemicals	3.7		2.7		2.9	
	Fit		Misfit		Misfit	

Analysis of Network Configuration

	Autonomy		Formalization		Socialization	
International	1.0	2.3	3.7	5.0	1.0	2.3
Multi-Domestic	3.7	5.0	1.0	2.3	2.4	3.6
Global	1.0	2.3	3.7	5.0	1.0	2.3
Transnational	1.0	2.3	3.7	5.0	3.7	5.0
Hoechst Chemicals	3.7		2.7		2.9	
	Misfit		Misfit		Misfit	

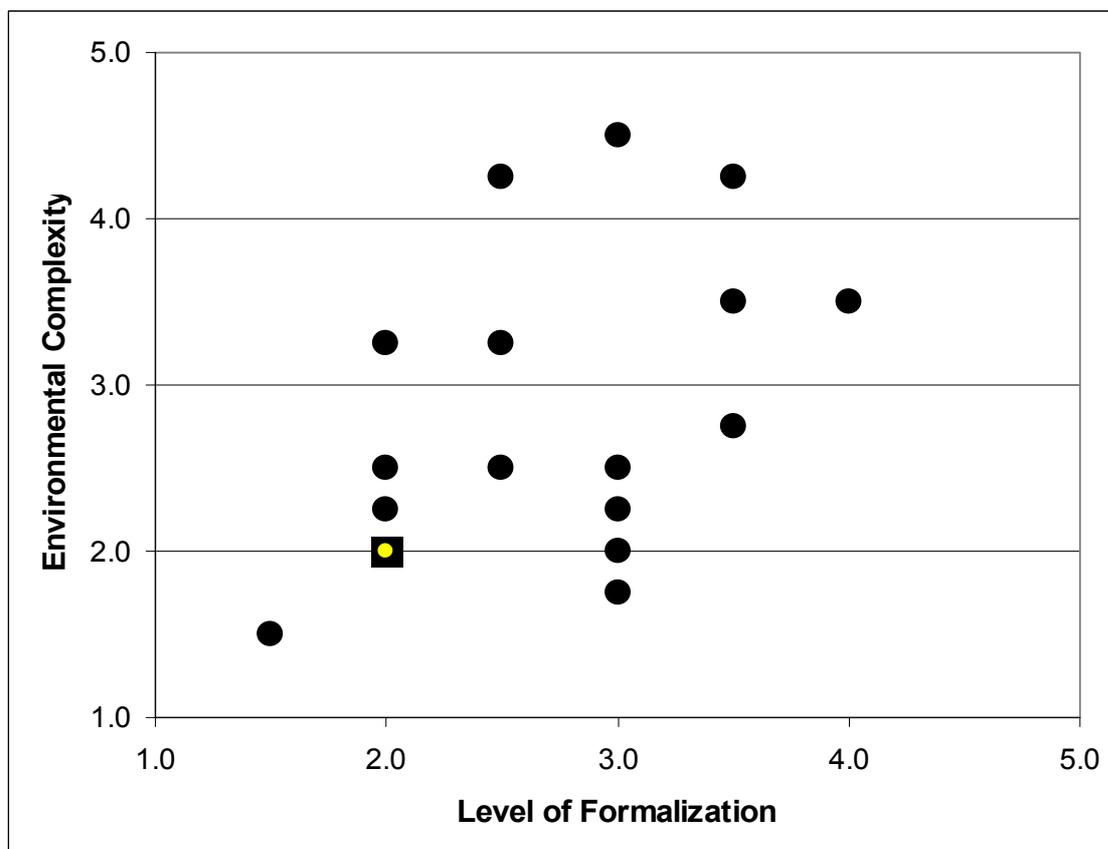
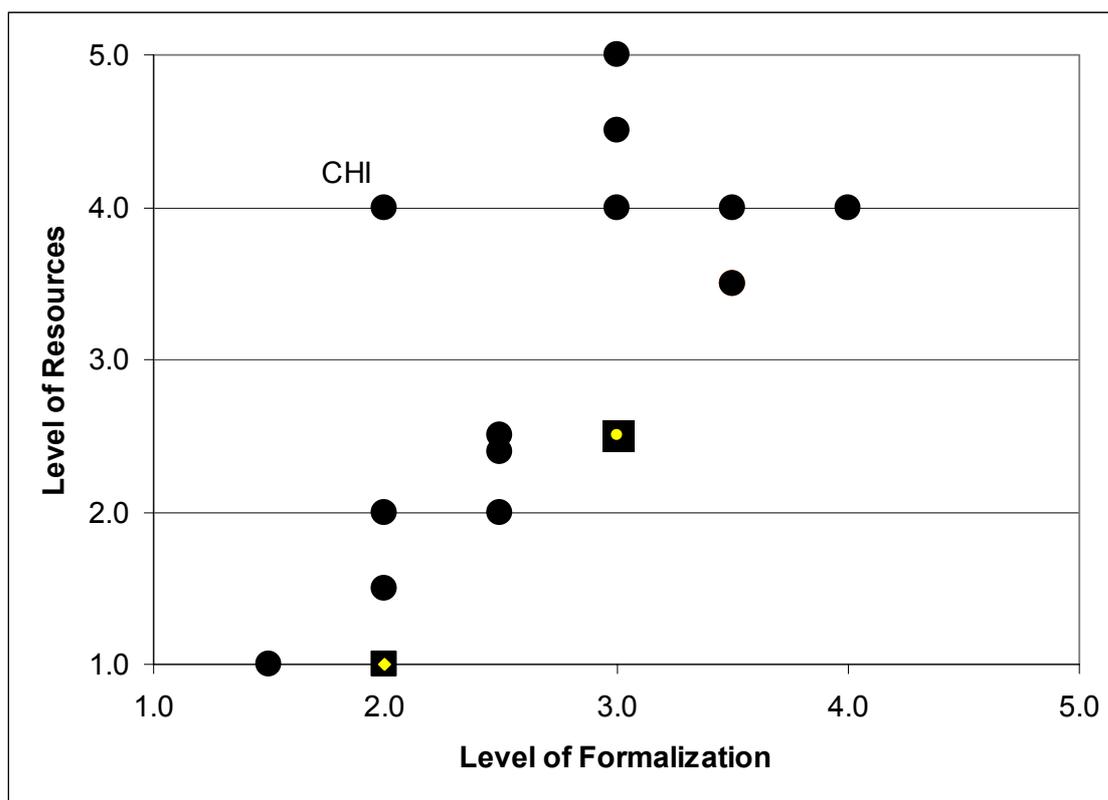
Source: Own depiction

Appendix 37: Correlation of Local Resources and Environmental Complexity with the Level of Autonomy of Hoechst Chemicals (1994)



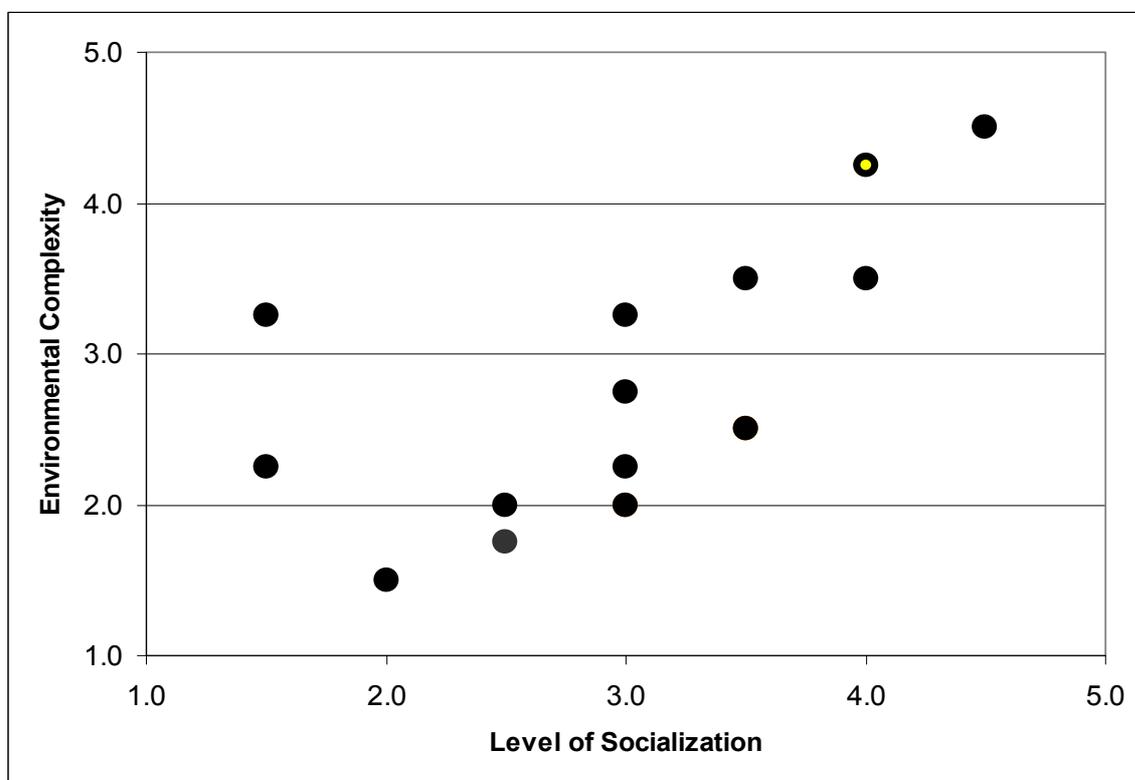
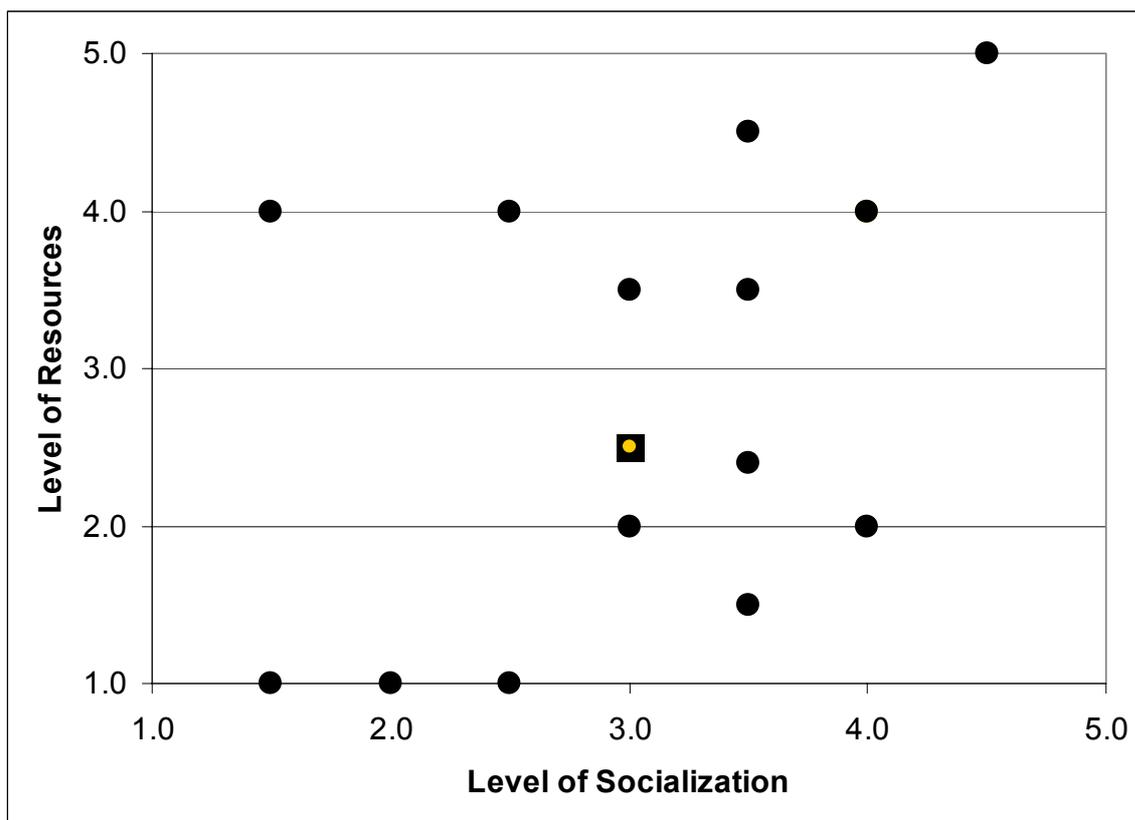
Source: Own depiction

Appendix 38: Correlation of Local Resources and Environmental Complexity with the Level of Formalization of Hoechst Chemicals (1994)



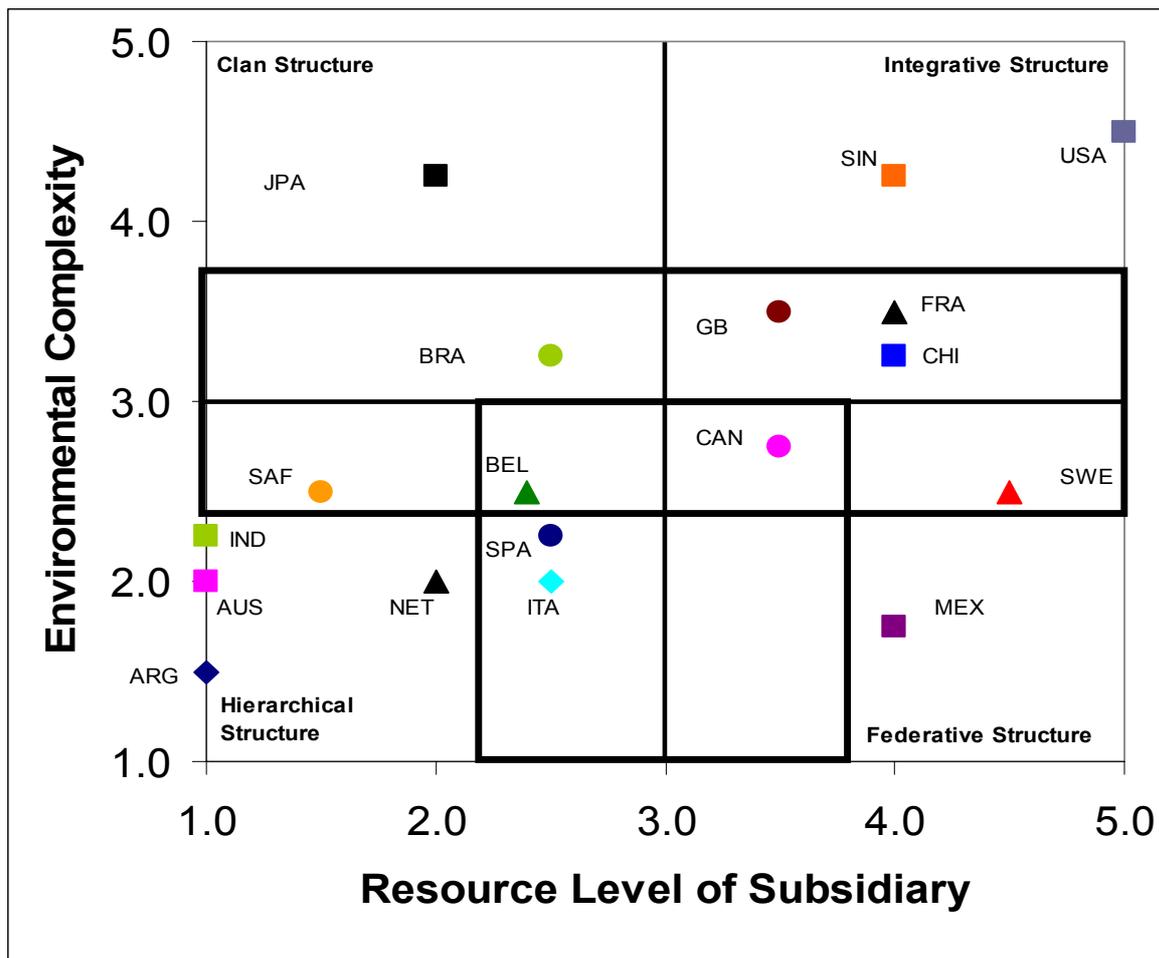
Source: Own depiction

Appendix 39: Correlation of Local Resources and Environmental Complexity with the Level of Shared Values of Hoechst Chemicals (1994)



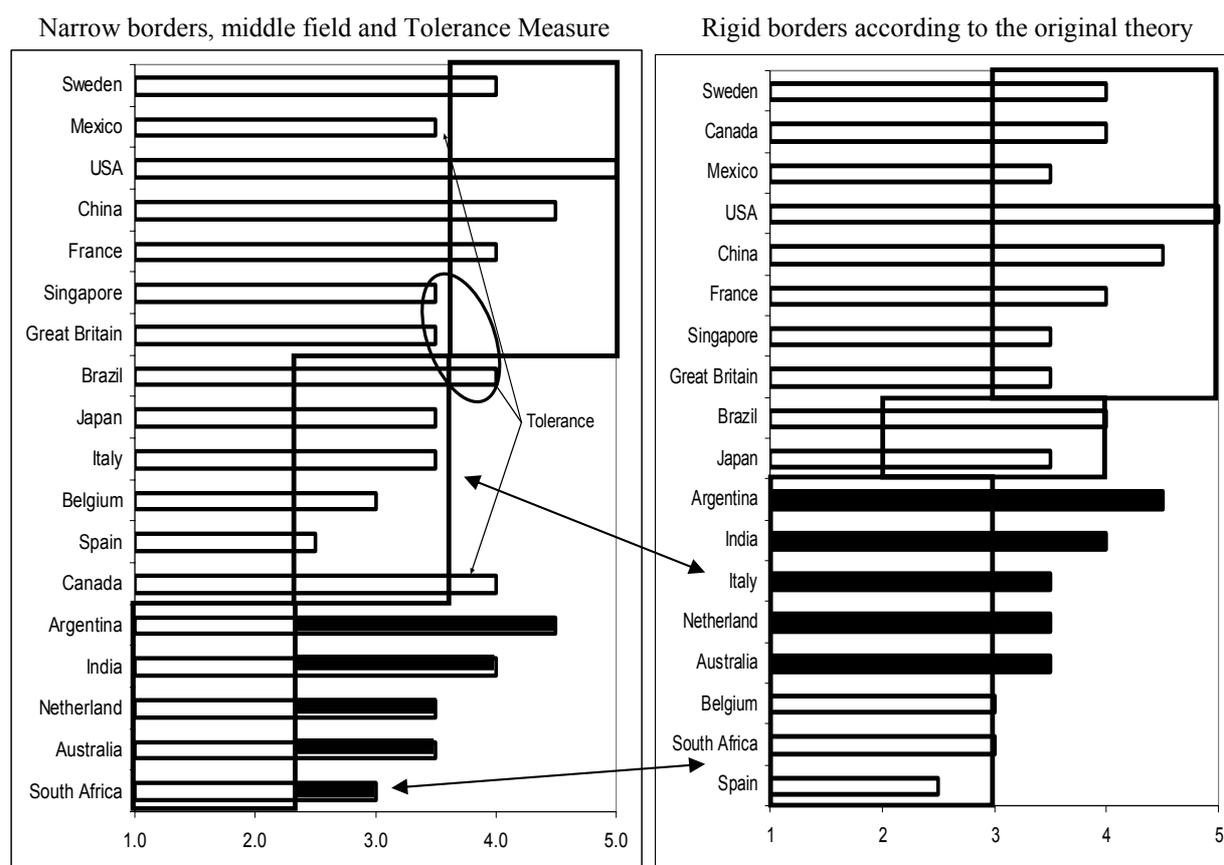
Source: Own depiction

Appendix 40: Clustering of the Subsidiaries of Hoechst Chemicals (1994) according to the Theory Internal Differentiation



Source: Own depiction

Appendix 41: Centralization Measured with two Alternative Analysis Methods for the Internal Differentiation at Hoechst Chemicals (1994)

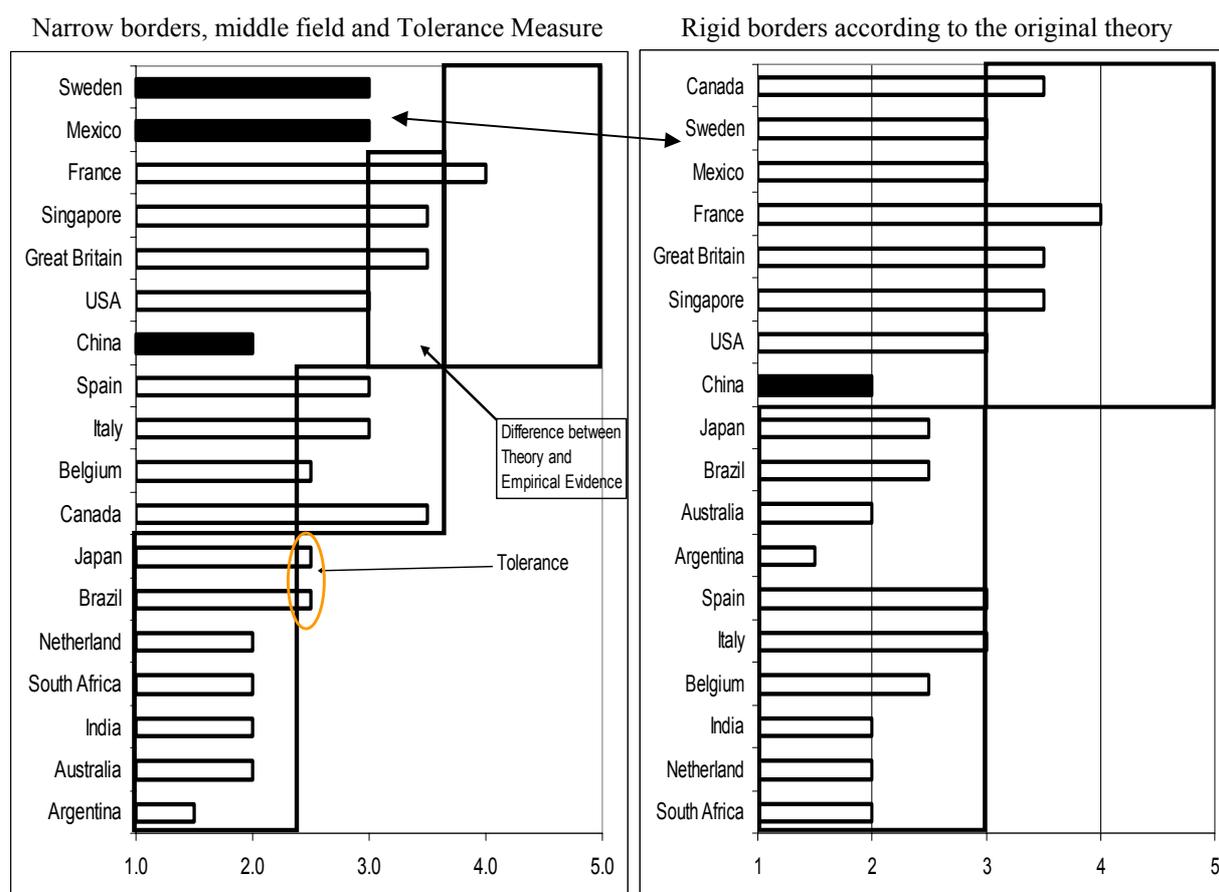


Black bar = Misfit Square = Should cluster

Country	Act.	Should		Should-Structure	Fit/Misfit
		from	to		
South Africa	3.0	1.0	2.3	Hierarchical Structure	Misfit
Australia	3.5	1.0	2.3	Hierarchical Structure	Misfit
Netherlands	3.5	1.0	2.3	Hierarchical Structure	Misfit
India	4.0	1.0	2.3	Hierarchical Structure	Misfit
Argentina	4.5	1.0	2.3	Hierarchical Structure	Misfit
Canada	4.0	2.4	3.6	Hierarchical Federation	Tolerance
Spain	2.5	2.4	3.6	Federative Hierarchy	Fit
Belgium	3.0	2.4	3.6	Federative Hierarchy	Fit
Italy	3.5	2.4	3.6	Federative Hierarchy	Fit
Japan	3.5	2.4	3.6	Clan Structure	Fit
Brazil	4.0	2.4	3.6	Clan Structure	Tolerance
Great Brit.	3.5	3.7	5.0	Integrative Structure	Tolerance
Singapore	3.5	3.7	5.0	Integrative Structure	Tolerance
France	4.0	3.7	5.0	Integrative Structure	Fit
China	4.5	3.7	5.0	Integrative Structure	Fit
USA	5.0	3.7	5.0	Integrative Structure	Fit
Mexico	3.5	3.7	5.0	Federative Structure	Tolerance
Sweden	4.0	3.7	5.0	Federative Structure	Fit
Average	3.7				

Source: Own depiction

Appendix 42: Formalization Measured with two Alternative Analysis Methods for the Internal Differentiation at Hoechst Chemicals (1994)



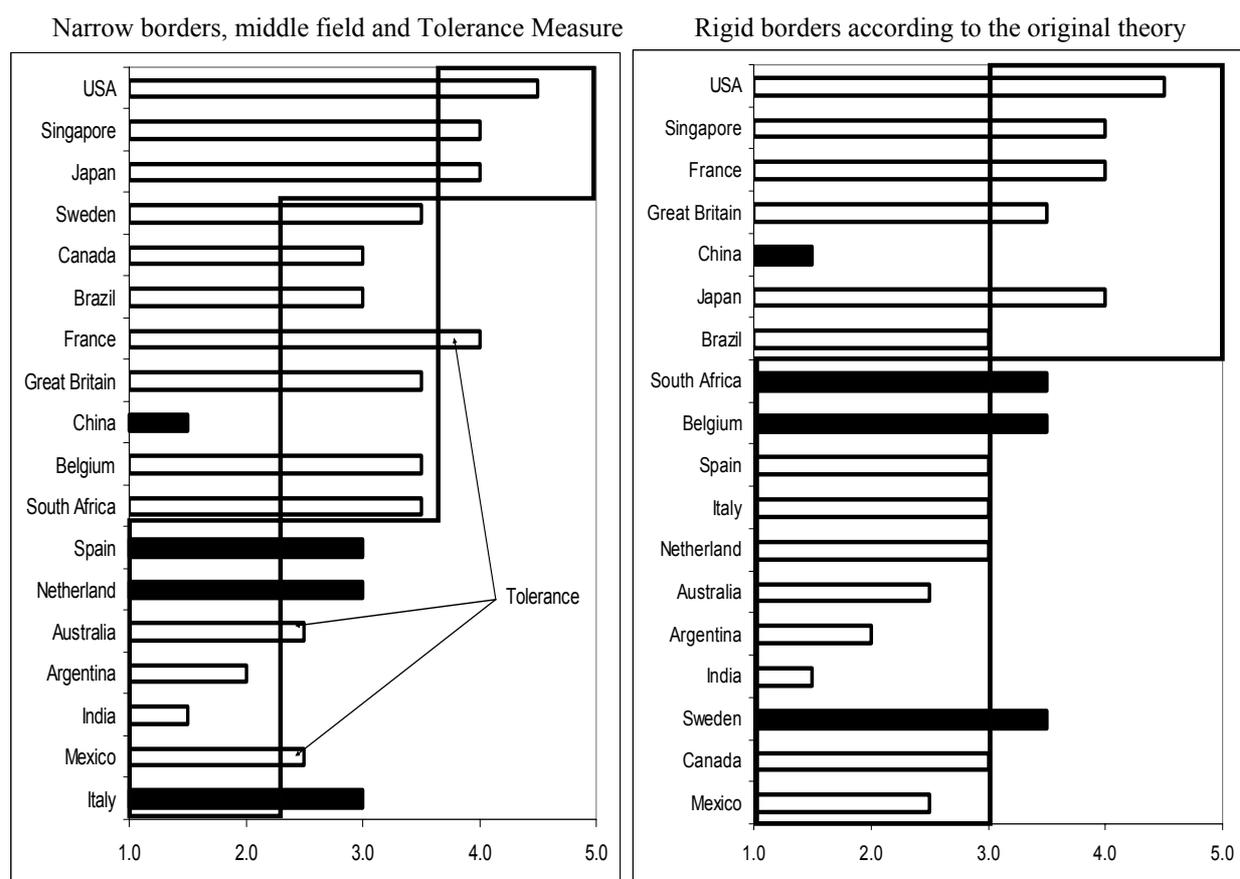
Black bar = Misfit Square = Should cluster

Data analysis for the advanced, modified method:

Country	Act.	Should		Should-Structure	Fit/Misfit
		from	to		
Argentina	1.5	1.0	2.3	Hierarchical Structure	Fit
Australia	2.0	1.0	2.3	Hierarchical Structure	Fit
India	2.0	1.0	2.3	Hierarchical Structure	Fit
South Africa	2.0	1.0	2.3	Hierarchical Structure	Fit
Netherlands	2.0	1.0	2.3	Hierarchical Structure	Fit
Brazil	2.5	1.0	2.3	Clan Structure	Tolerance
Japan	2.5	1.0	2.3	Clan Structure	Tolerance
Canada	3.5	2.4	3.6	Hierarchical Federation	Fit
Belgium	2.5	2.4	3.6	Federative Hierarchy	Fit
Italy	3.0	2.4	3.6	Federative Hierarchy	Fit
Spain	3.0	2.4	3.6	Federative Hierarchy	Fit
China	2.0	3.0	5.0	Integrative Structure (Theory Problem)	Misfit
USA	3.0	3.0	5.0	Integrative Structure (Theory Problem)	Fit
Great Brit.	3.5	3.0	5.0	Integrative Structure (Theory Problem)	Fit
Singapore	3.5	3.0	5.0	Integrative Structure (Theory Problem)	Fit
France	4.0	3.0	5.0	Integrative Structure (Theory Problem)	Fit
Mexico	3.0	3.7	5.0	Federative Structure	Misfit
Sweden	3.0	3.7	5.0	Federative Structure	Misfit
Average	2.7				

Source: Own depiction

Appendix 43: Socialization Measured with two Alternative Analysis Methods for the Internal Differentiation at Hoechst Chemicals (1994)



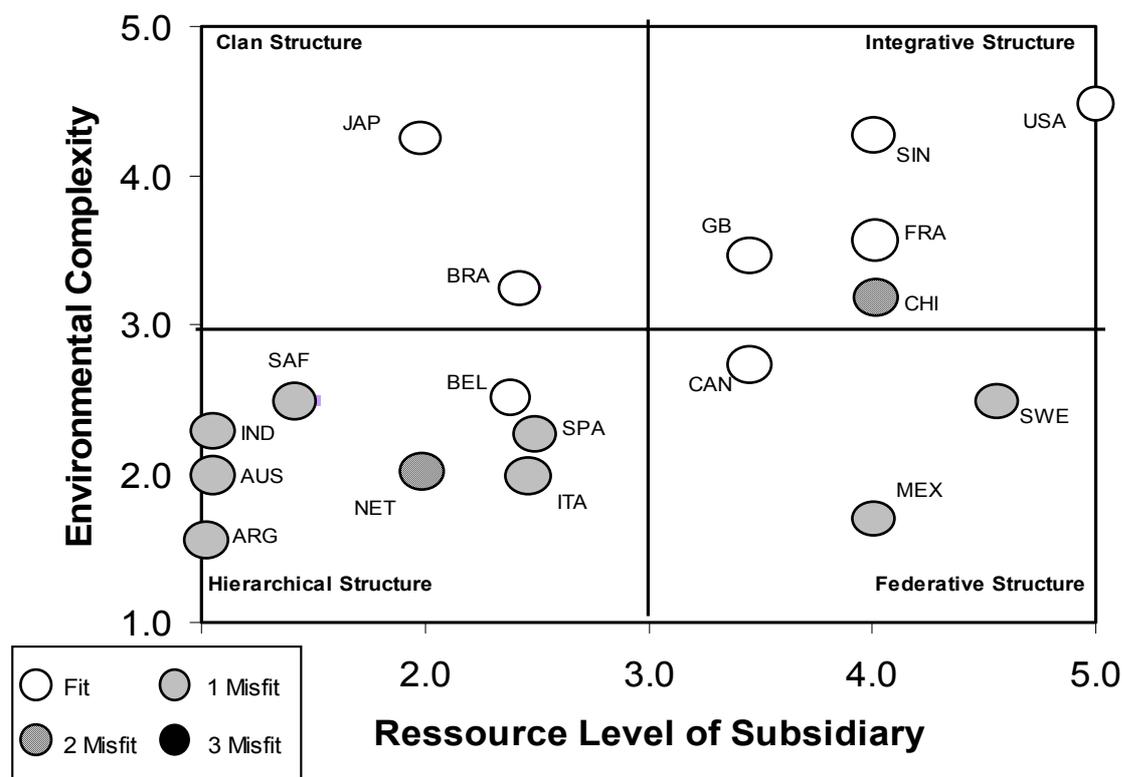
Black bar = Misfit Square = Should cluster

Data analysis for the advanced, modified method:

Country	Act.	Should from	to	Should-Structure	Fit/Misfit
Italy	3.0	1.0	2.3	Federative Hierarchy	Misfit
Mexico	2.5	1.0	2.3	Federative Structure	Tolerance
India	1.5	1.0	2.3	Hierarchical Structure	Fit
Argentina	2.0	1.0	2.3	Hierarchical Structure	Fit
Australia	2.5	1.0	2.3	Hierarchical Structure	Tolerance
Netherlands	3.0	1.0	2.3	Hierarchical Structure	Misfit
Spain	3.0	1.0	2.3	Hierarchical Structure	Misfit
South Africa	3.5	2.4	3.6	Clan Hierarchy	Fit
Belgium	3.5	2.4	3.6	Clan Hierarchy	Fit
China	1.5	2.4	3.6	Federative Integration	Misfit
Great Brit.	3.5	2.4	3.6	Federative Integration	Fit
France	4.0	2.4	3.6	Federative Integration	Tolerance
Brazil	3.0	2.4	3.6	Hierarchical Clan	Fit
Canada	3.0	2.4	3.6	Integrative Federation	Fit
Sweden	3.5	2.4	3.6	Integrative Federation	Fit
Japan	4.0	3.7	5.0	Clan Structure	Fit
Singapore	4.0	3.7	5.0	Integrative Structure	Fit
USA	4.5	3.7	5.0	Integrative Structure	Fit
Average	2.9				

Source: Own depiction

Appendix 44: Analysis of Hoechst Chemicals (1994) according to the Theory Internal Differentiation



The measurement of the Difference Measure for Hoechst AG (1994)

Autonomy	
South Africa	0.7
Australia	1.2
Netherlands	1.2
India	1.7
Argentina	2.2
Sum	7
Average	1.4

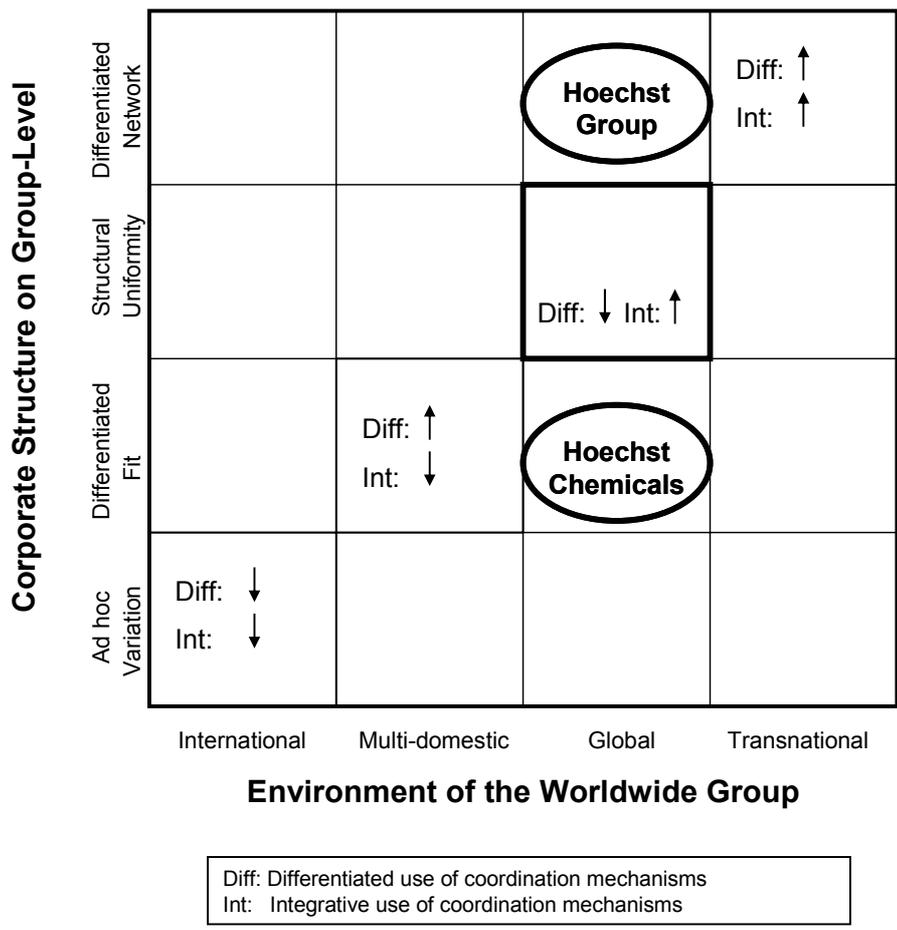
Formalization	
China	1
Mexico	0.7
Sweden	0.7
Sum	2.4
Average	0.8

Socialization	
Italy	0.7
Netherlands	0.7
Spain	0.7
China	0.9
Sum	3
Average	0.75

Total Deviation	12.4
Total Average	1.0

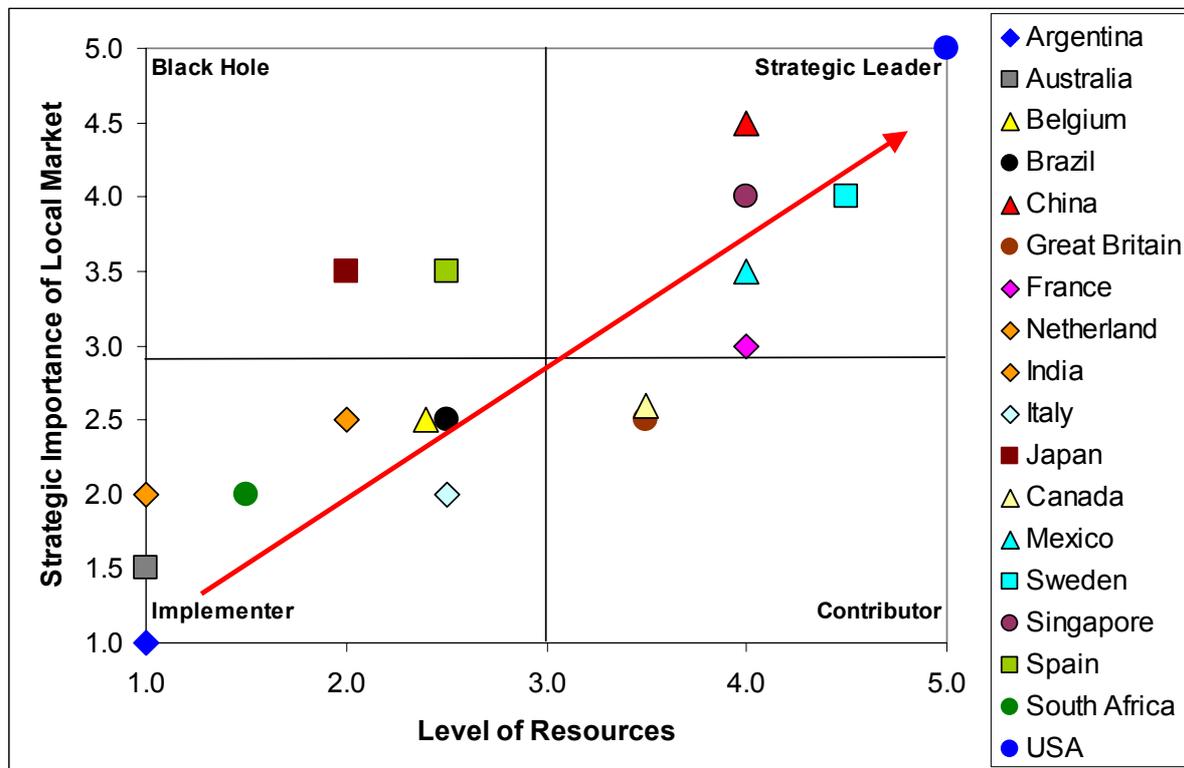
Source: Own depiction

Appendix 45: Analysis of the Requisite Complexity at Hoechst Chemicals (1994)



Source: Own depiction, according to Nohria, N./Ghoshal, S., 1997, P. 188

Appendix 46: Analysis of Specified Roles at Hoechst Chemicals (1994)



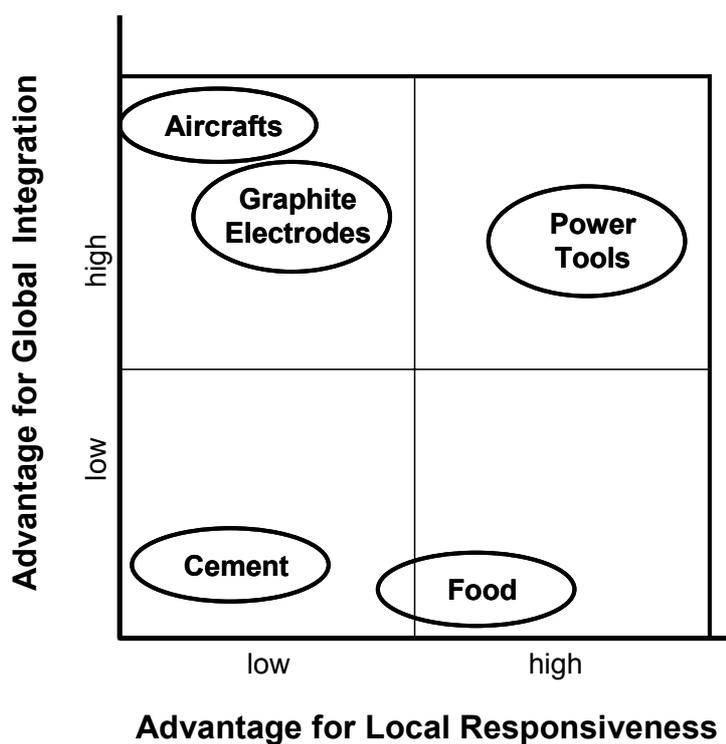
Source: Own depiction, according to Bartlett, C.A./Ghoshal, S., 1987, PP. 55 and 2002, PP. 327-331

Appendix 47: Analysis of the Coordination of the Subsidiaries of Hoechst Chemicals (1994) according to the Specified Roles of their Subsidiaries

		Autonomy				Formalization				Socialization			
Strategic		3	5			3	5			3	5		
Leader													
Contributor													
Implementer													
Black Hole													
		from	to	Act.	Fit	from	to	Act.	Fit	from	to	Act.	Fit
Argentina	Contributor	1.0	3.0	4.5	Misfit	3.0	5.0	1.5	Misfit	1.0	3.0	2.0	Fit
Australia	Contributor	1.0	3.0	3.5	Misfit	3.0	5.0	2.0	Misfit	1.0	3.0	2.5	Fit
Belgium	Contributor	1.0	3.0	3.0	Fit	3.0	5.0	2.5	Misfit	1.0	3.0	3.5	Misfit
Brazil	Contributor	1.0	3.0	4.0	Misfit	3.0	5.0	2.5	Misfit	1.0	3.0	3.0	Fit
China	Strategic Leader	3.0	5.0	4.5	Fit	3.0	5.0	2.0	Misfit	3.0	5.0	1.5	Misfit
Great Brit.	Implementer	1.0	3.0	3.5	Misfit	1.0	3.0	3.5	Misfit	2.0	4.0	3.5	Fit
France	Strategic Leader	3.0	5.0	4.0	Fit	3.0	5.0	4.0	Fit	3.0	5.0	4.0	Fit
Netherlands	Contributor	1.0	3.0	3.5	Misfit	3.0	5.0	2.0	Misfit	1.0	3.0	3.0	Fit
India	Contributor	1.0	3.0	4.0	Misfit	3.0	5.0	2.0	Misfit	1.0	3.0	1.5	Fit
Italy	Contributor	1.0	3.0	3.5	Misfit	3.0	5.0	3.0	Fit	1.0	3.0	3.0	Fit
Japan	Black Hole	1.0	3.0	3.5	Misfit	1.0	3.0	2.5	Fit	3.0	5.0	4.0	Fit
Canada	Implementer	1.0	3.0	4.0	Misfit	1.0	3.0	3.5	Misfit	2.0	4.0	3.0	Fit
Mexico	Strategic Leader	3.0	5.0	3.5	Fit	3.0	5.0	3.0	Fit	3.0	5.0	2.5	Misfit
Sweden	Strategic Leader	3.0	5.0	4.0	Fit	3.0	5.0	3.0	Fit	3.0	5.0	3.5	Fit
Singapore	Leader	3.0	5.0	3.5	Fit	3.0	5.0	3.5	Fit	3.0	5.0	4.0	Fit
Spain	Black Hole	1.0	3.0	2.5	Fit	1.0	3.0	3.0	Fit	3.0	5.0	3.0	Fit
South Africa	Contributor	1.0	3.0	3.0	Fit	3.0	5.0	2.0	Misfit	1.0	3.0	3.5	Misfit
USA	Strategic Leader	3.0	5.0	5.0	Fit	3.0	5.0	3.0	Fit	3.0	5.0	4.5	Fit
Misfits	23	43%											

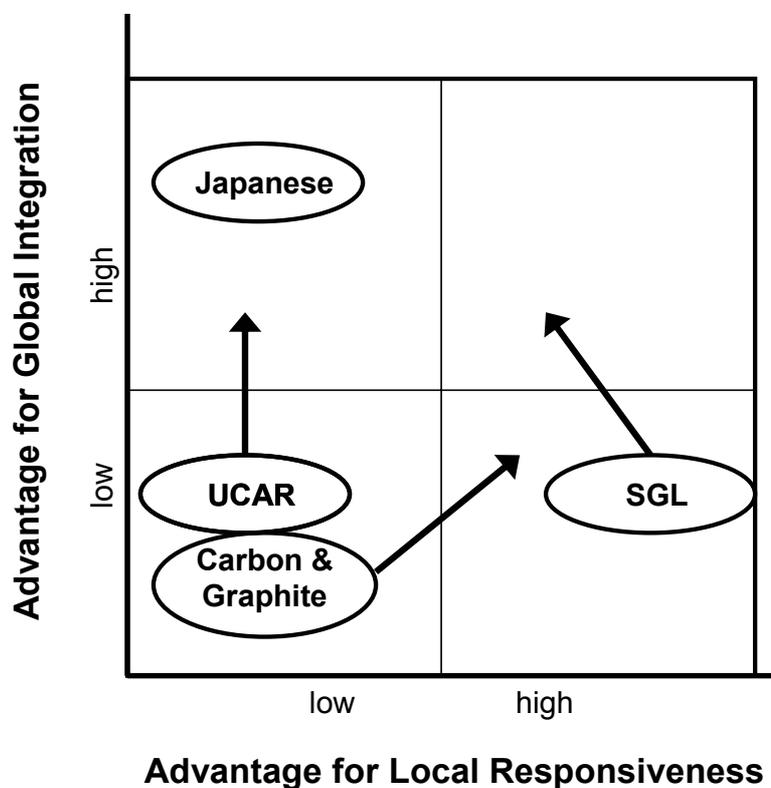
Source: Own depiction

Appendix 48: Market Analysis for SGL Carbon (1997)



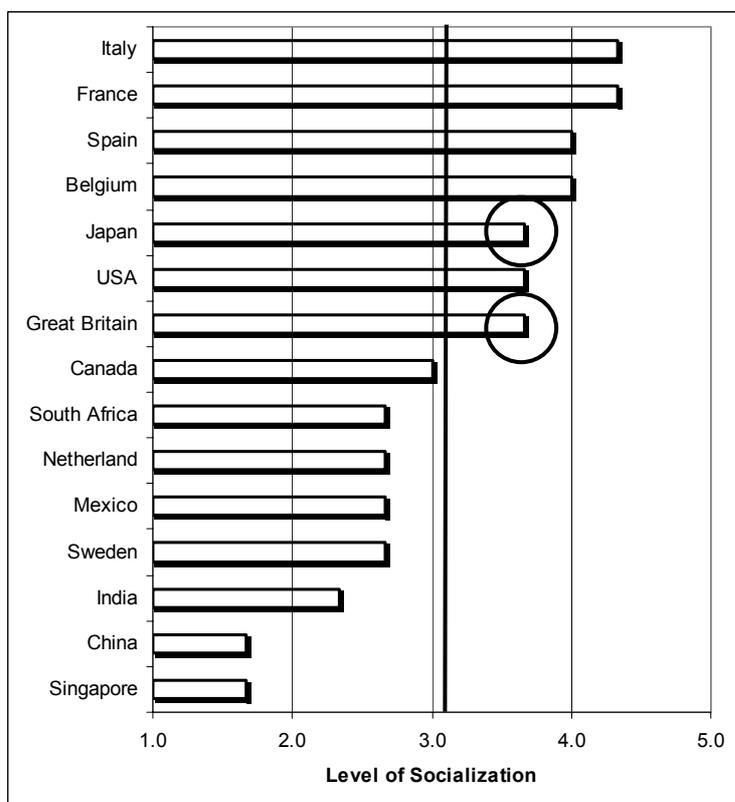
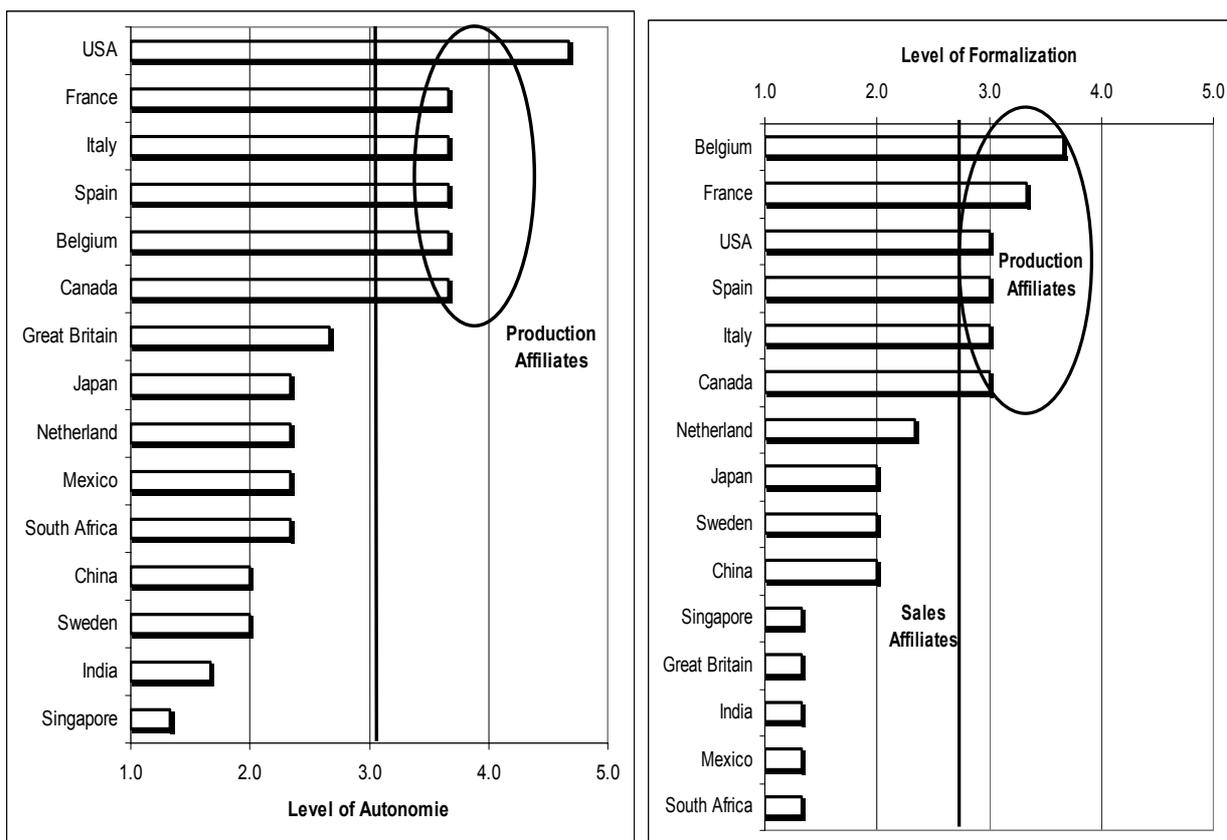
Source: Own depiction

Alternative coordination strategies by various competitors



Source: own depiction

Appendix 49: The Measurement of the Coordination Mechanisms of SGL Carbon (1997)



Source: Own depiction

Appendix 50: Coordination Analysis by means of the EPRG-Scheme and the Network Configuration of SGL Carbon (1997)

Analysis according to the EPRG-Scheme

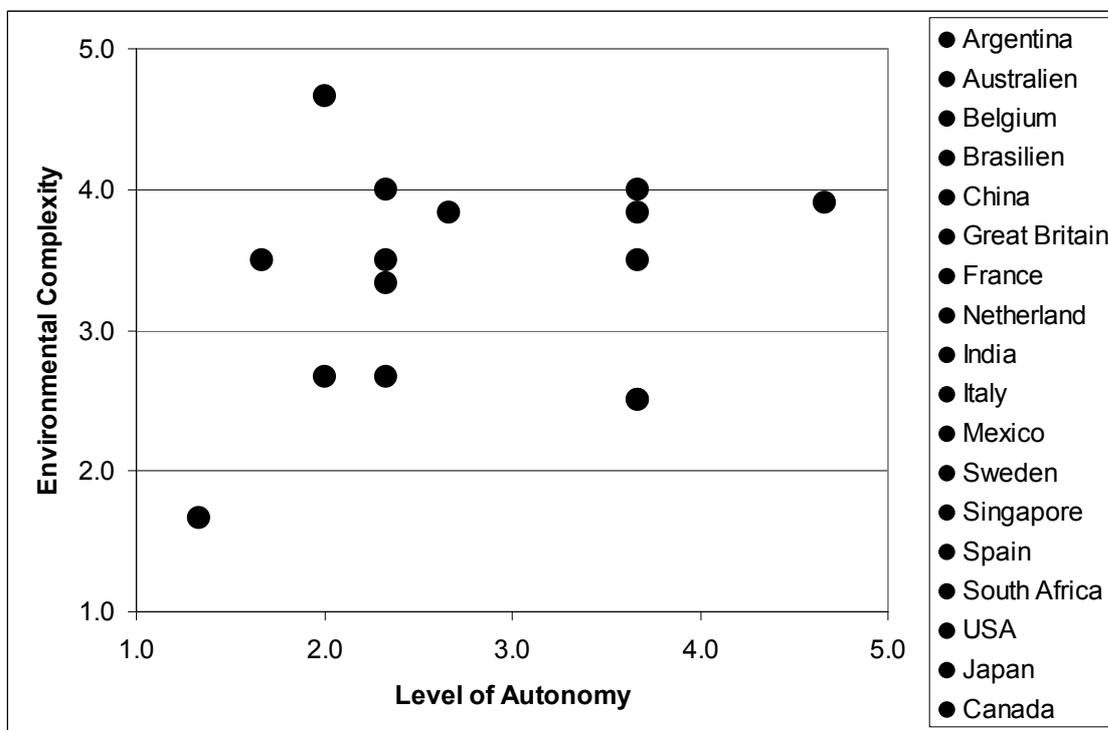
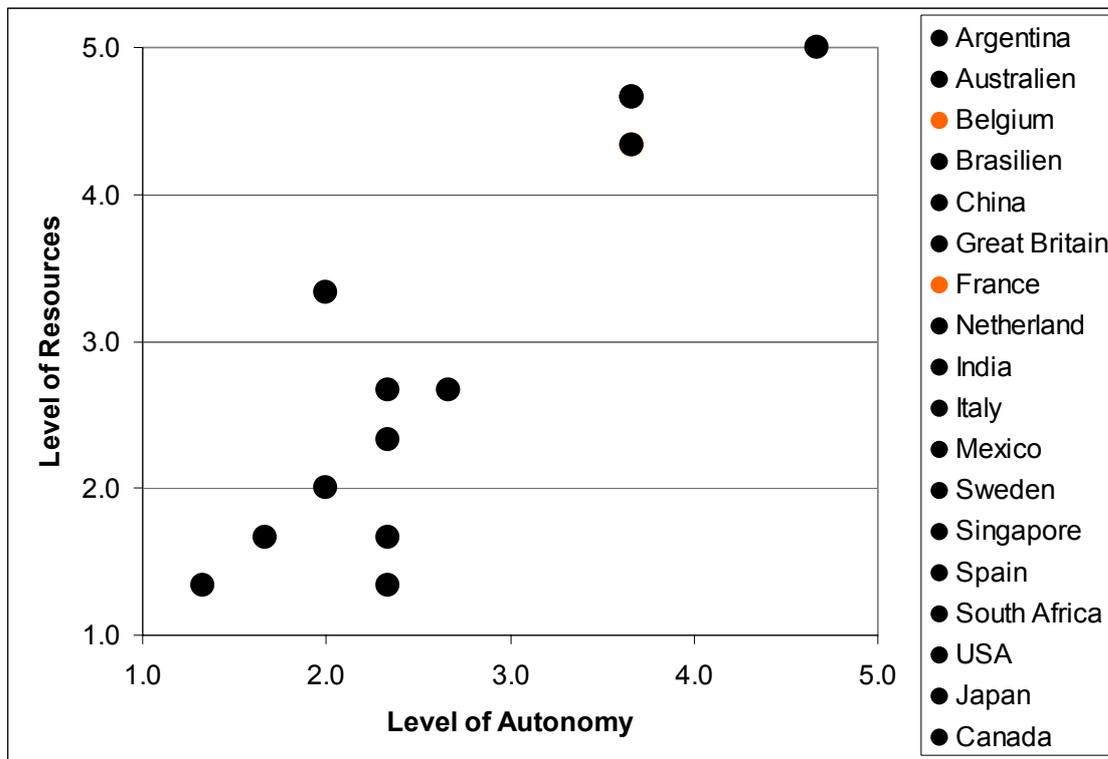
	Autonomy		Formalization		Socialization	
Ethnocentric	1.0	2.3	1.0	2.3	1.0	2.3
Polycentric	1.0	2.3	2.4	3.7	1.0	2.3
Geocentric	2.4	3.7	3.7	5.0	3.7	5.0
Regio-centric						
SGL Carbon 1997	2.8		2.3		3.1	
	Fit		Misfit		Misfit	

Analysis of Network Configuration

	Autonomy		Formalization		Socialization	
International	1.0	2.3	3.7	5.0	1.0	2.3
Multi-Domestic	3.7	5.0	1.0	2.3	2.4	3.6
Global	1.0	2.3	3.7	5.0	1.0	2.3
Transnational	1.0	2.3	3.7	5.0	3.7	5.0
SGL Carbon 1997	2.8		2.3		3.1	
	Misfit		Misfit		Misfit	

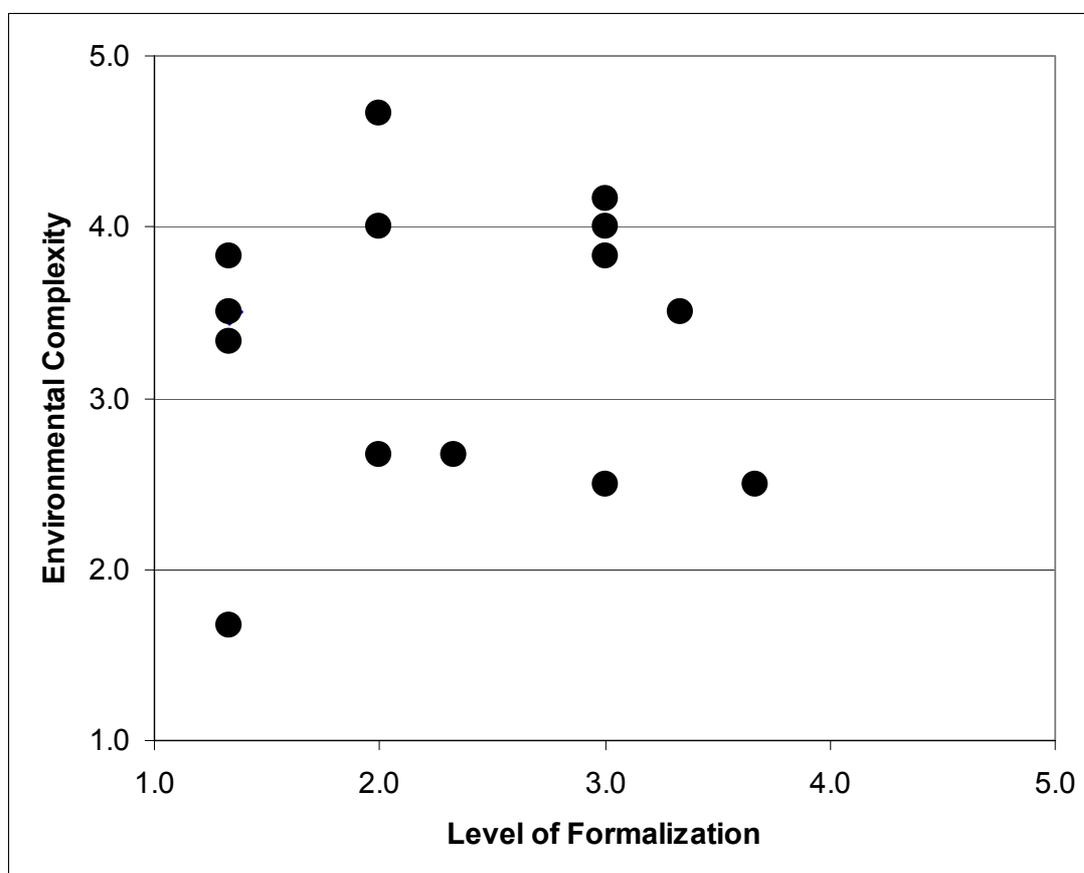
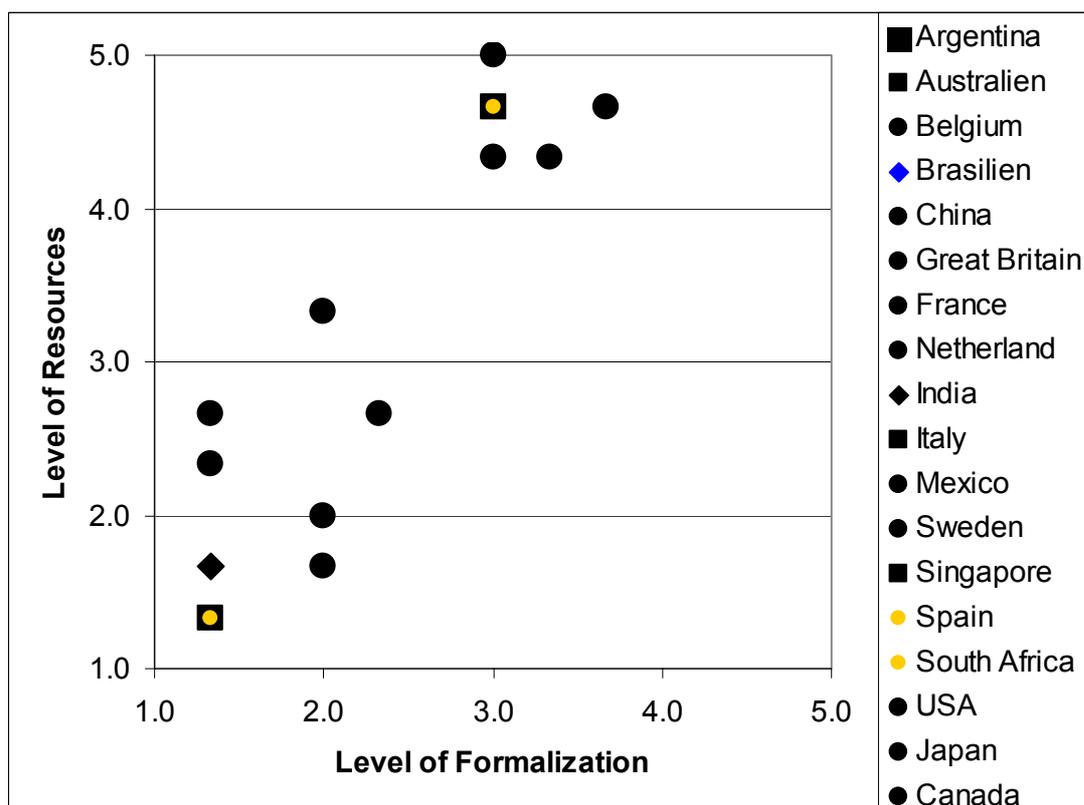
Source: Own depiction

Appendix 51: Correlation of Local Resources and Environmental Complexity with the Level of Autonomy of SGL Carbon (1997)



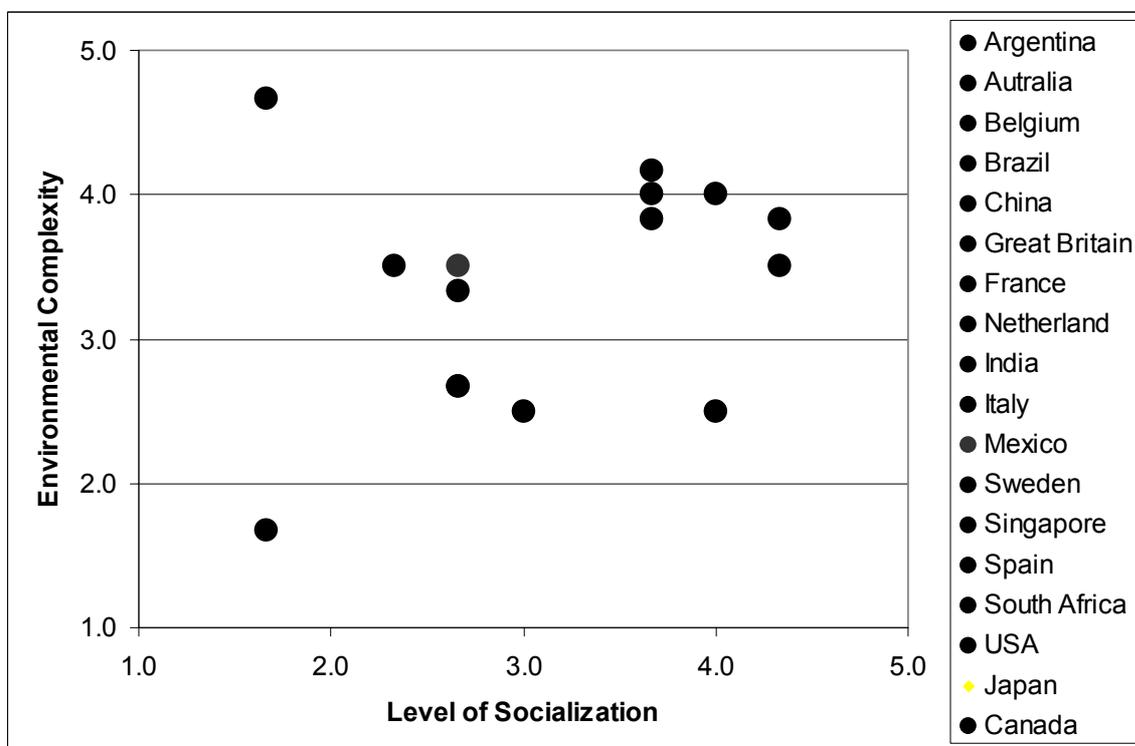
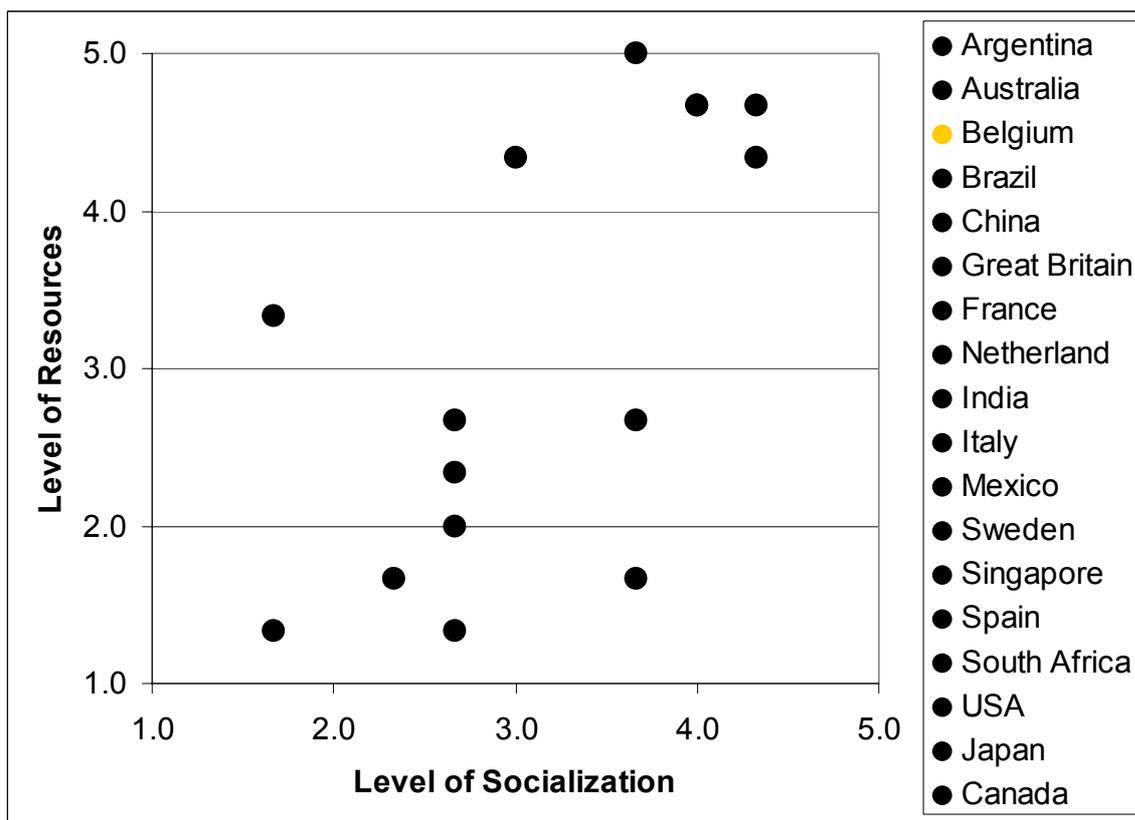
Source: Own depiction

Appendix 52: Correlation of Local Resources and Environmental Complexity with the Level of Formalization of SGL Carbon (1997)



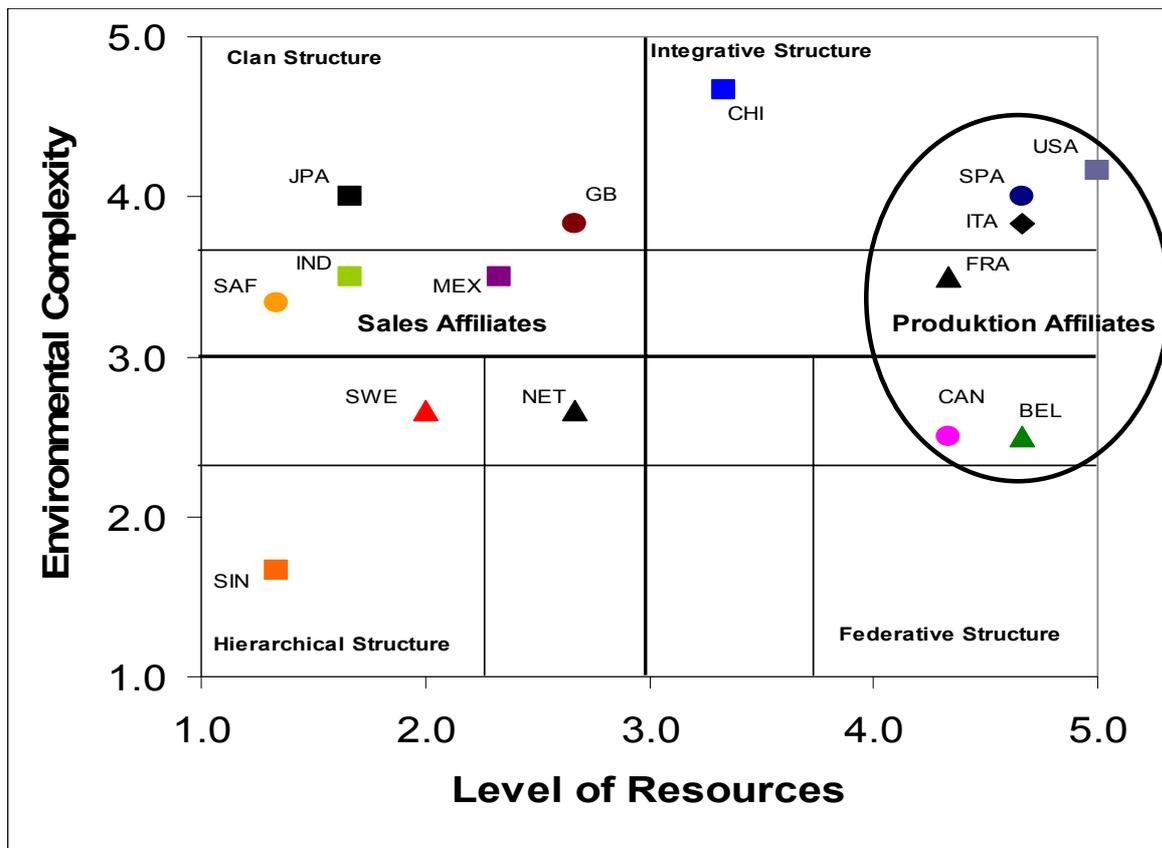
Source: Own depiction

Appendix 53: Correlation of Local Resources and Environmental Complexity with the Level of Shared Values of SGL Carbon (1997)



Source: Own depiction

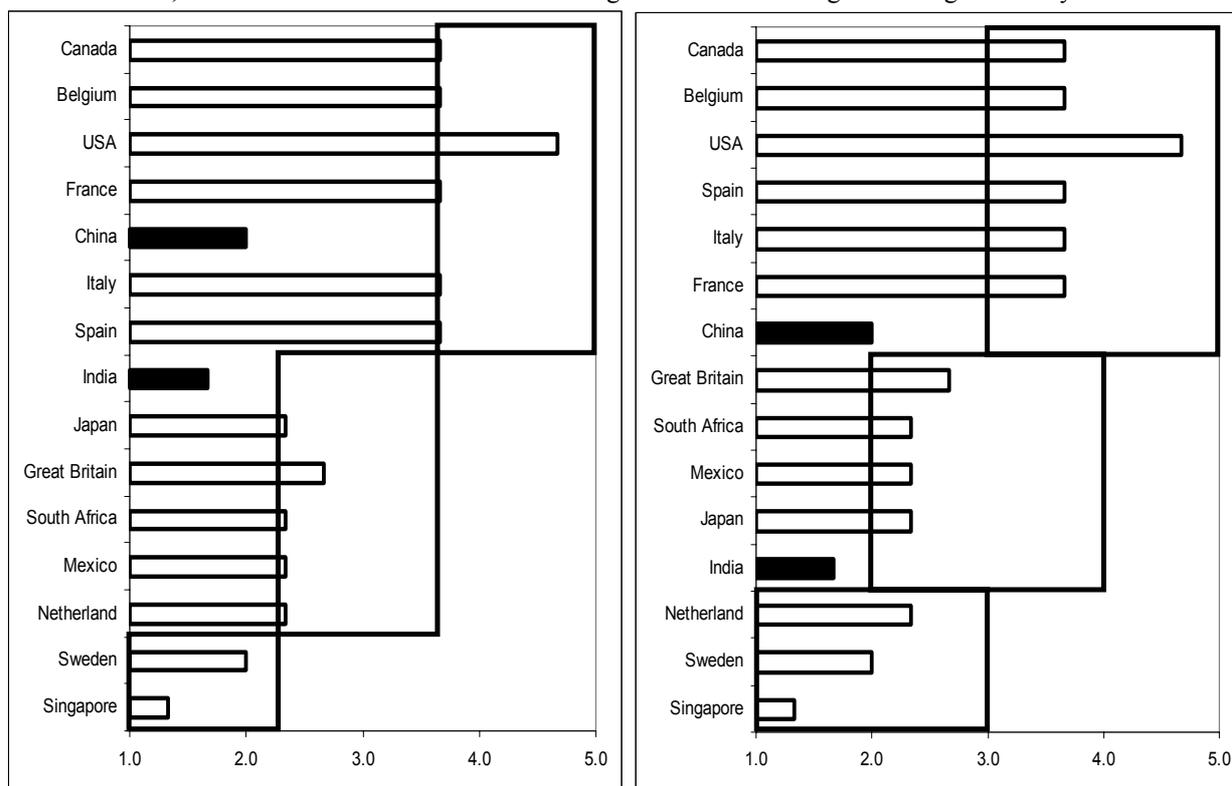
Appendix 54: Clustering of the Subsidiaries of SGL Carbon (1997) according to the Theory Internal Differentiation



Source: Own depiction

Appendix 55: Centralization Measured with two Alternative Analysis Methods for the Internal Differentiation at SGL Carbon (1997)

Narrow borders, middle field and Tolerance Measure Rigid borders according to the original theory



Black bar = Misfit Square = Should cluster

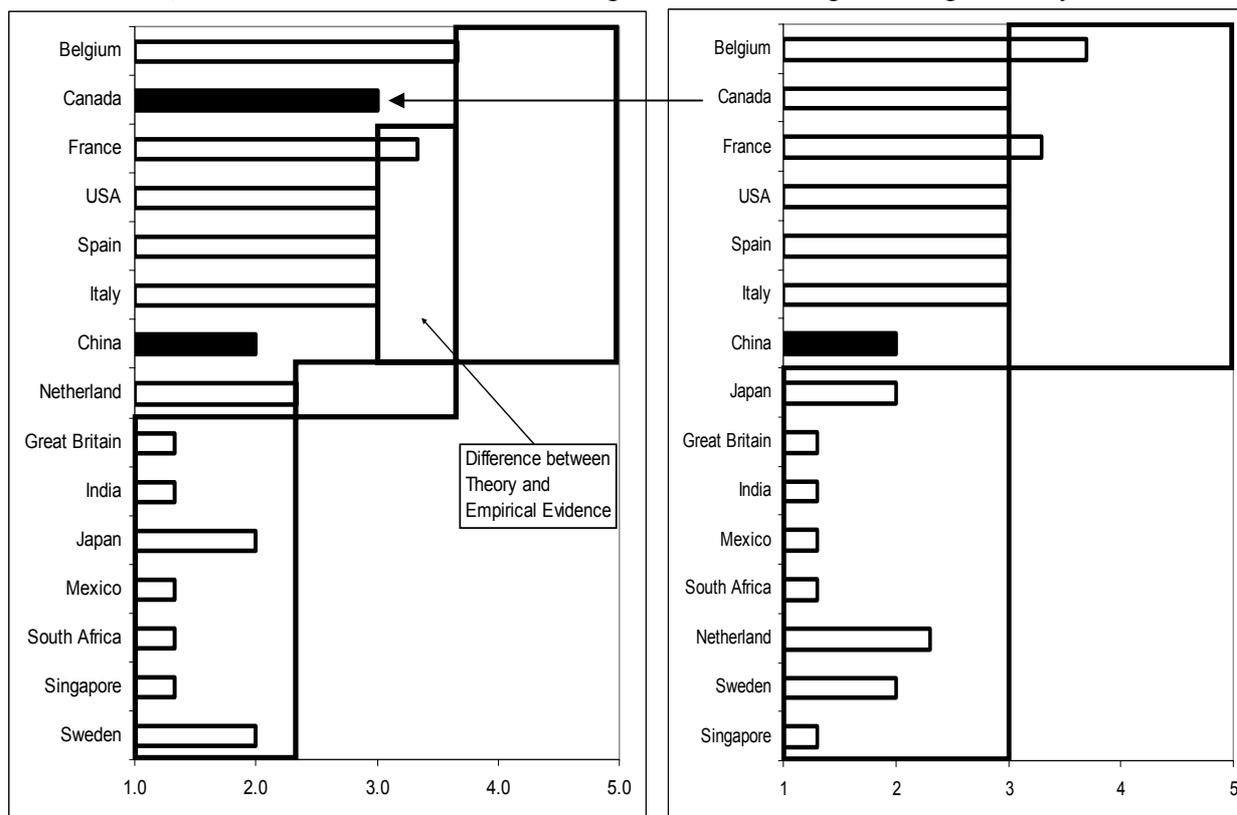
Data analysis for the advanced, modified method:

Country	Act.	Should from	Should to	Should-Structure	Fit/Misfit
Singapore	1.3	1.0	2.3	Hierarchical Structure	Fit
Sweden	2.0	1.0	2.3	Hierarchical Structure	Fit
Netherlands	2.3	2.4	3.6	Federative Hierarchy	Fit
Mexico	2.3	2.4	3.6	Clan Structure	Fit
South Africa	2.3	2.4	3.6	Clan Structure	Fit
Great Brit.	2.7	2.4	3.6	Clan Structure	Fit
Japan	2.3	2.4	3.6	Clan Structure	Fit
India	1.7	2.4	3.6	Clan Structure	Misfit
Spain	3.7	3.7	5.0	Integrative Structure	Fit
Italy	3.7	3.7	5.0	Integrative Structure	Fit
China	2.0	3.7	5.0	Integrative Structure	Misfit
France	3.7	3.7	5.0	Integrative Structure	Fit
USA	4.7	3.7	5.0	Integrative Structure	Fit
Belgium	3.7	3.7	5.0	Federative Structure	Fit
Canada	3.7	3.7	5.0	Federative Structure	Fit
Average	2.8				

Source: Own depiction

Appendix 56: Formalization Measured with two Alternative Analysis Methods for the Internal Differentiation at SGL Carbon (1997)

Narrow borders, middle field and Tolerance Measure Rigid borders according to the original theory



Black bar = Misfit Square = Should cluster

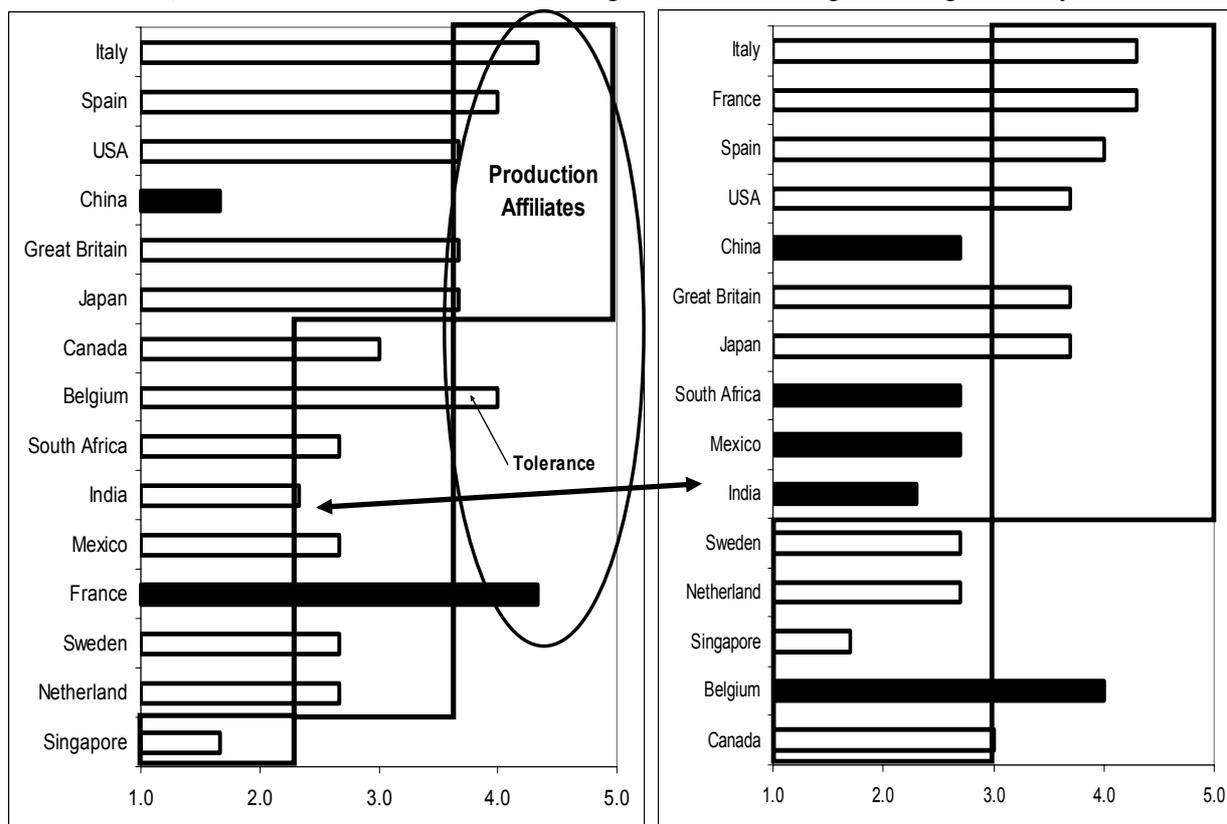
Data analysis for the advanced, modified method:

Country	Act.	Should from	Should to	Should-Structure	Fit/Misfit
Sweden	2.0	1.0	2.3	Hierarchical Structure	Fit
Singapore	1.3	1.0	2.3	Hierarchical Structure	Fit
South Africa	1.3	1.0	2.3	Clan Structure	Fit
Mexico	1.3	1.0	2.3	Clan Structure	Fit
Japan	2.0	1.0	2.3	Clan Structure	Fit
India	1.3	1.0	2.3	Clan Structure	Fit
Great Brit.	1.3	1.0	2.3	Clan Structure	Fit
Netherlands	2.3	2.4	3.6	Federative Hierarchy	Fit
China	2.0	3.0	5.0	Integrative Structure (Theory Problem)	Misfit
Italy	3.0	3.0	5.0	Integrative Structure (Theory Problem)	Fit
Spain	3.0	3.0	5.0	Integrative Structure (Theory Problem)	Fit
USA	3.0	3.0	5.0	Integrative Structure (Theory Problem)	Fit
France	3.3	3.0	5.0	Integrative Structure (Theory Problem)	Fit
Canada	3.0	3.7	5.0	Federative Structure	Misfit
Belgium	3.7	3.7	5.0	Federative Structure	Fit
Average	2.3				

Source: Own depiction

Appendix 57: Socialization Measured with two Alternative Analysis Methods for the Internal Differentiation at SGL Carbon (1997)

Narrow borders, middle field and Tolerance Measure Rigid borders according to the original theory



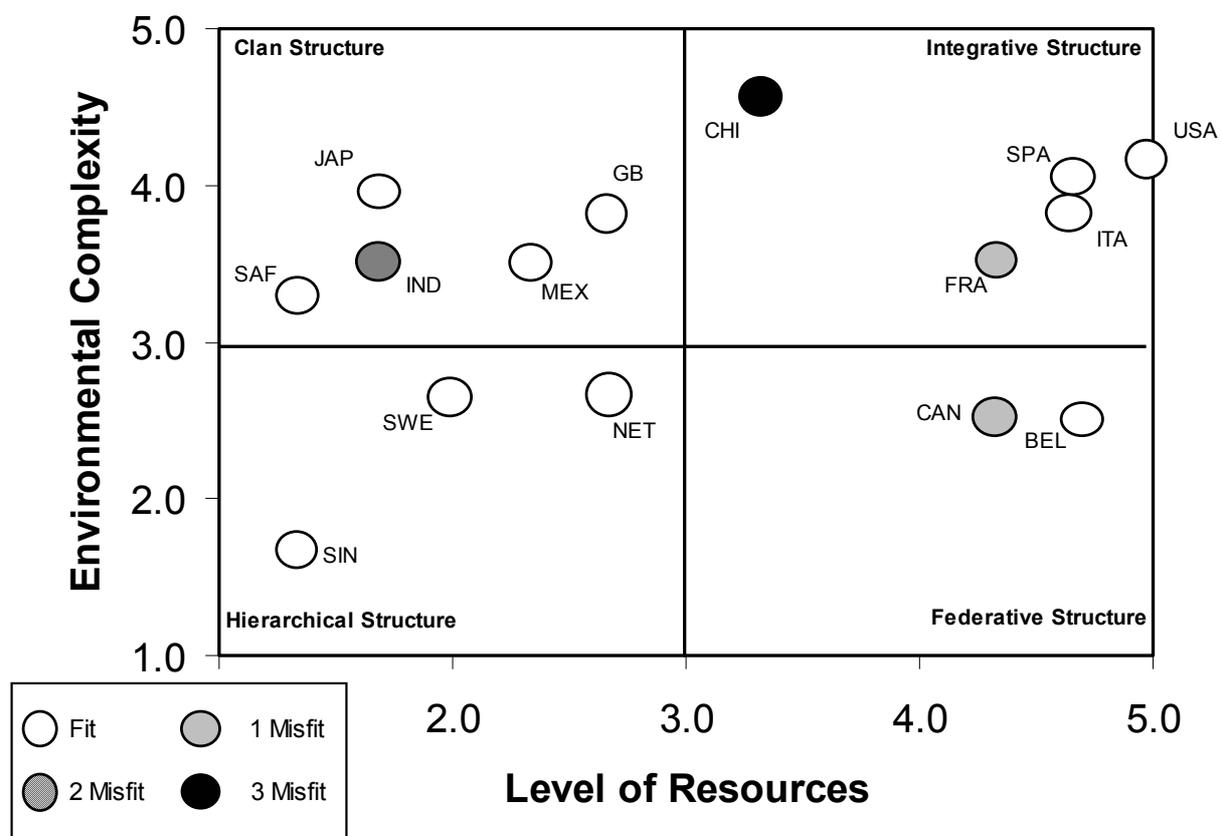
Black bar = Misfit Square = Should cluster

Data analysis for the advanced, modified method:

Country	Actual	Should		Should-Structure	Fit/Misfit
		from	to		
Singapore	1.7	1.0	2.3	Hierarchical Structure	Fit
Netherlands	2.7	2.4	3.6	Clan Hierarchy	Fit
Sweden	2.7	2.4	3.6	Clan Hierarchy	Fit
France	4.3	2.4	3.6	Federative Integration	Misfit
Mexico	2.7	2.4	3.6	Hierarchical Clan	Fit
India	2.3	2.4	3.6	Hierarchical Clan	Fit
South Africa	2.7	2.4	3.6	Hierarchical Clan	Fit
Belgium	4.0	2.4	3.6	Integrative Federation	Tolerance
Canada	3.0	2.4	3.6	Integrative Federation	Fit
Japan	3.7	3.7	5.0	Clan Structure	Fit
Great Brit.	3.7	3.7	5.0	Clan-Structure	Fit
China	1.7	3.7	5.0	Integrative Structure	Misfit
USA	3.7	3.7	5.0	Integrative Structure	Fit
Spain	4.0	3.7	5.0	Integrative Structure	Fit
Italy	4.3	3.7	5.0	Integrative Structure	Fit
Average	3.1				

Source: Own depiction

Appendix 58: Analysis of SGL Carbon (1997) according to the Theory Internal Differentiation



The measurement of the Difference Measure for SGL Carbon (1997)

Autonomy	
China	1.0
Canada	0.7
Sum	1.7
Average	0.9

Formalization	
China	1.0
Singapore	0.7
Sum	1.7
Average	0.9

Socialization	
France	0.7
China	2.0
Sum	2.8
Average	1.4

Total Deviation	6.2
Total Average	1.0

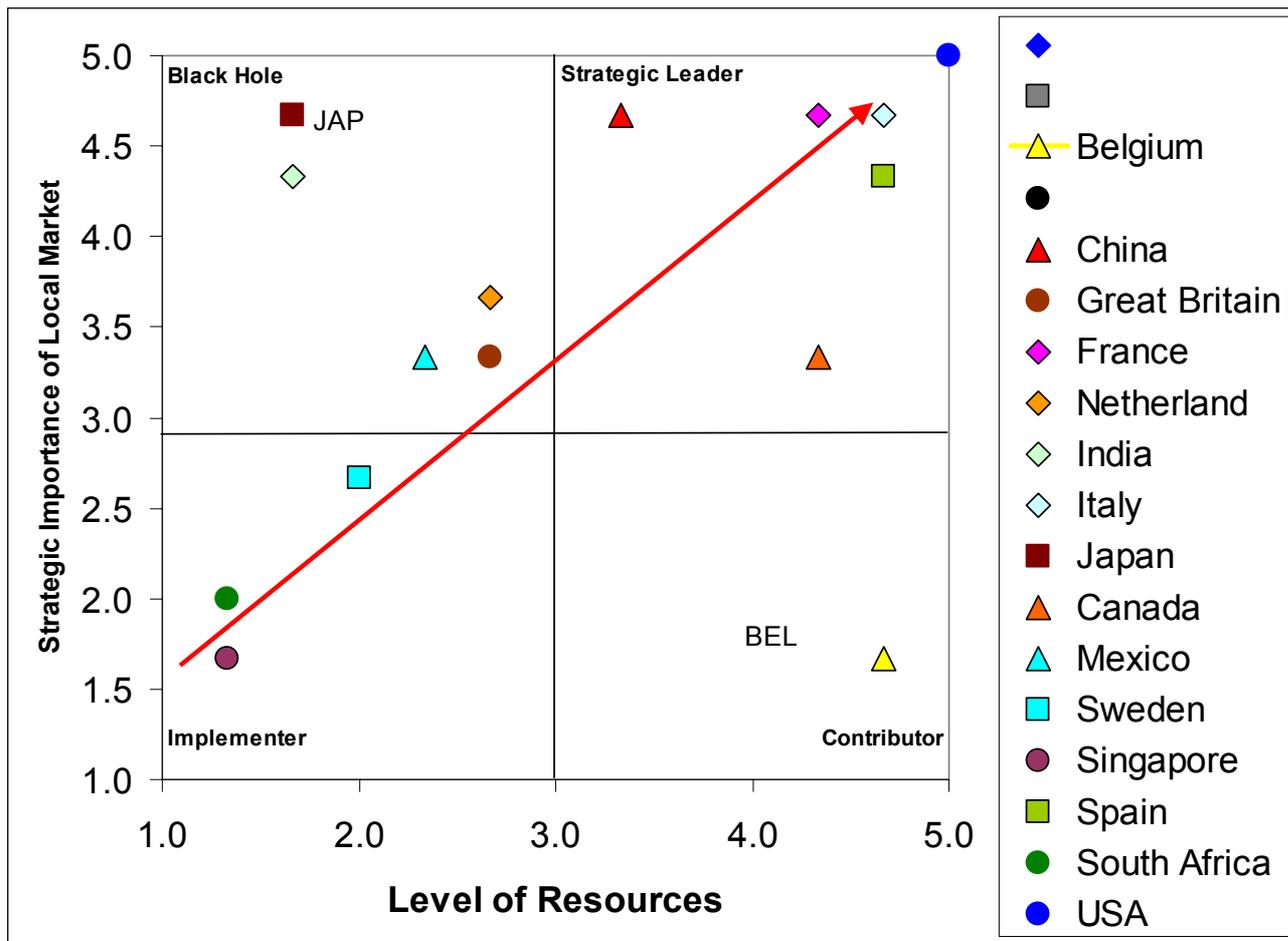
Source: Own depiction

Appendix 59: Analysis of the Requisite Complexity at SGL Carbon (1997)

Differentiated Network				Differentiated & Integrated
Structural Uniformity			Integrated	
Differentiated Fit		Differentiated	SGL Carbon 1997	
Ad hoc Variation	No Coordination Strategy			
	International	Multinational	Global	Transnational

Source: Own depiction

Appendix 60: Analysis of Specified Roles at SGL Carbon (1997)



Source: Own depiction

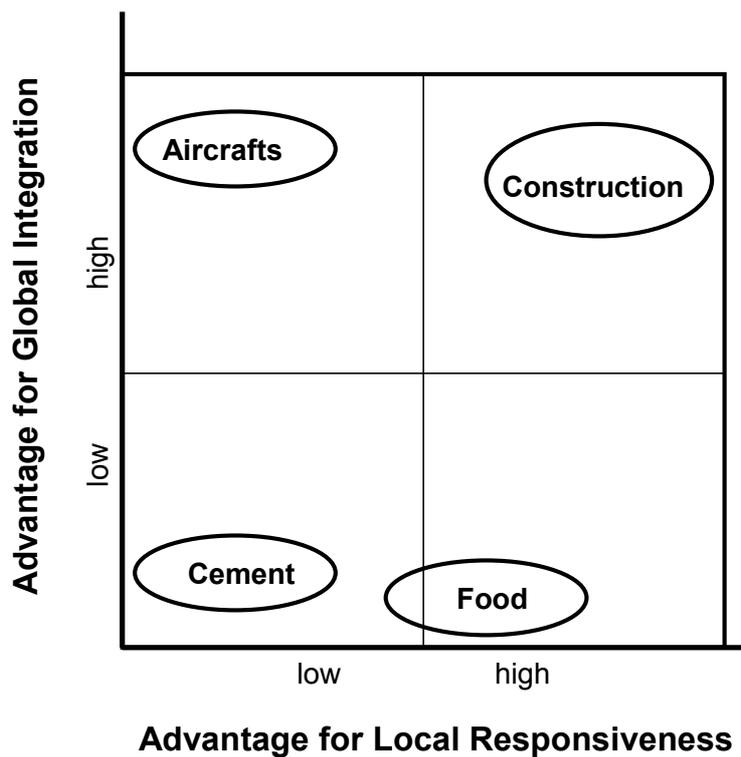
Appendix 61: Analysis of the Coordination of the Subsidiaries of SGL Carbon (1997) according to the Specified Roles of their Subsidiaries

		Autonomy				Formalization				Socialization			
Strategic		3	5			3	5			3	5		
Leader		1	3			3	5			1	3		
Contributor		1	3			1	3			2	4		
Implementer		1	3			1	3			3	5		
Black Hole													
		from	to	Act.	Fit	from	to	Act.	Fit	from	to	Act.	Fit
Belgium	Implementer	1	3	3.7	Misfit	1	3	3.7	Misfit	2	4	4.0	Fit
China	Strategic												
Great Britain	Leader	3	5	2.0	Misfit	3	5	2.0	Misfit	3	5	1.7	Fit
France	Black Hole	1	3	2.7	Fit	1	3	1.3	Fit	3	5	3.7	Fit
Netherlands	Strategic												
India	Leader	3	5	3.7	Fit	3	5	3.3	Fit	3	5	4.3	Fit
Italy	Black Hole	1	3	2.3	Fit	1	3	2.3	Fit	3	5	2.7	Fit
Japan	Strategic												
Canada	Leader	3	5	3.7	Fit	3	5	3.0	Fit	3	5	3.0	Fit
Mexico	Black Hole	1	3	2.3	Fit	1	3	1.3	Fit	3	5	2.7	Fit
Sweden	Contributor	1	3	2.0	Fit	3	5	2.0	Misfit	1	3	2.7	Fit
Singapore	Contributor	1	3	1.3	Fit	3	5	1.3	Misfit	1	3	1.7	Fit
Spain	Strategic												
South Africa	Leader	3	5	3.7	Fit	3	5	3.0	Fit	3	5	4.0	Fit
USA	Contributor	1	3	2.3	Fit	3	5	1.3	Misfit	1	3	2.7	Fit
	Strategic												
	Leader	3	5	4.7	Fit	3	5	3.0	Fit	3	5	3.7	Fit

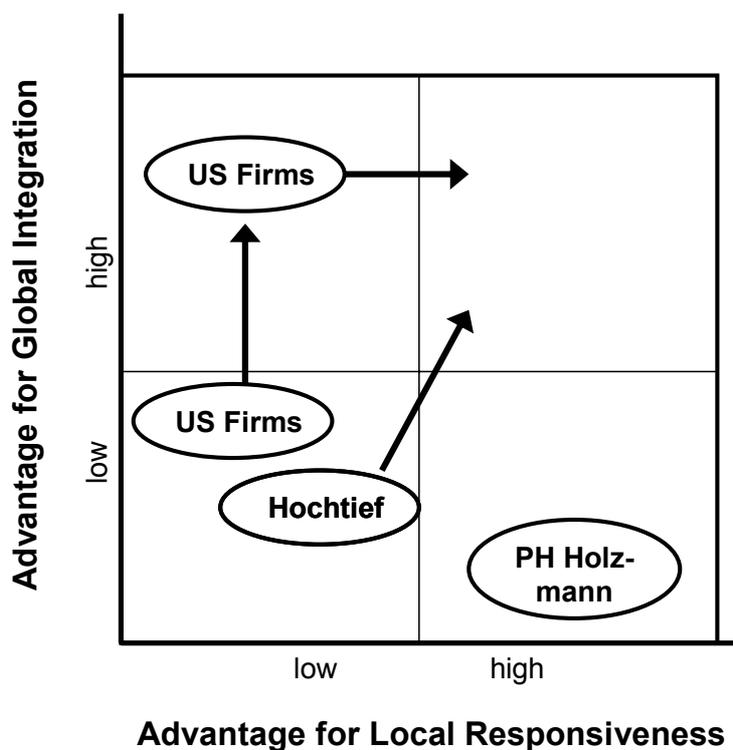
Amount of Misfits 7 16%

Source: Own depiction

Appendix 62: Market Analysis for Philipp Holzmann (2000)

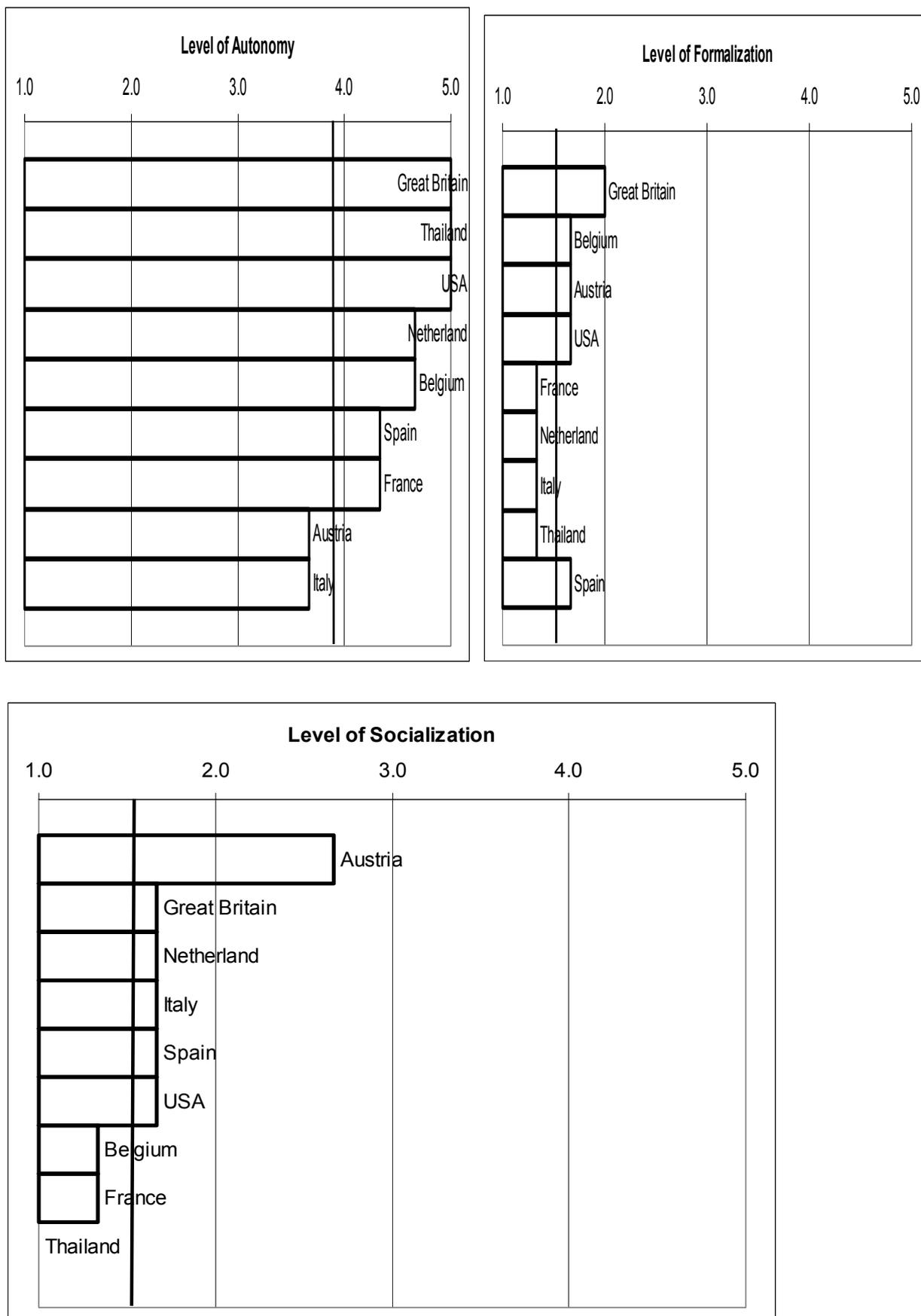


Source: Own depiction



Source: Own depiction

Appendix 63: The Measurement of the Coordination Mechanisms of Philipp Holzmann (2000)



Source: Own depiction

Appendix 64: Coordination Analysis by means of the EPRG-Scheme and the Network Configuration of Philipp Holzmann (2000)

Analysis according to the EPRG-Scheme

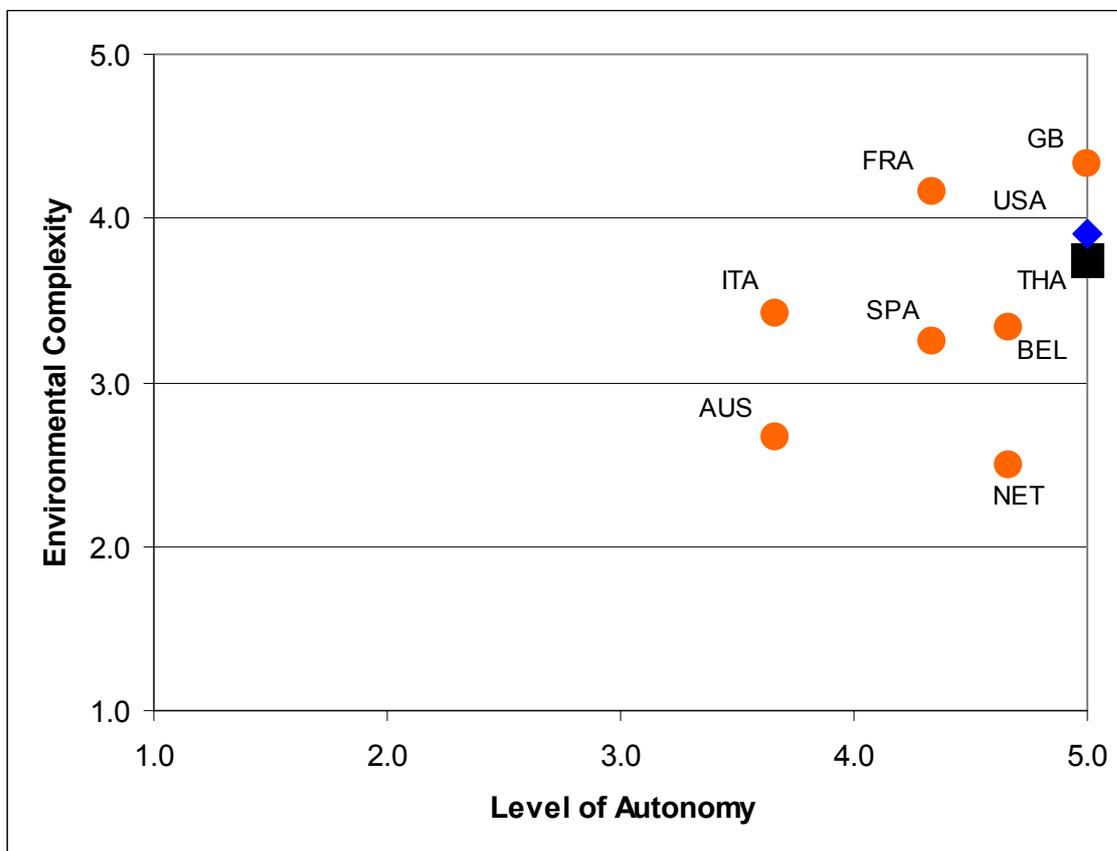
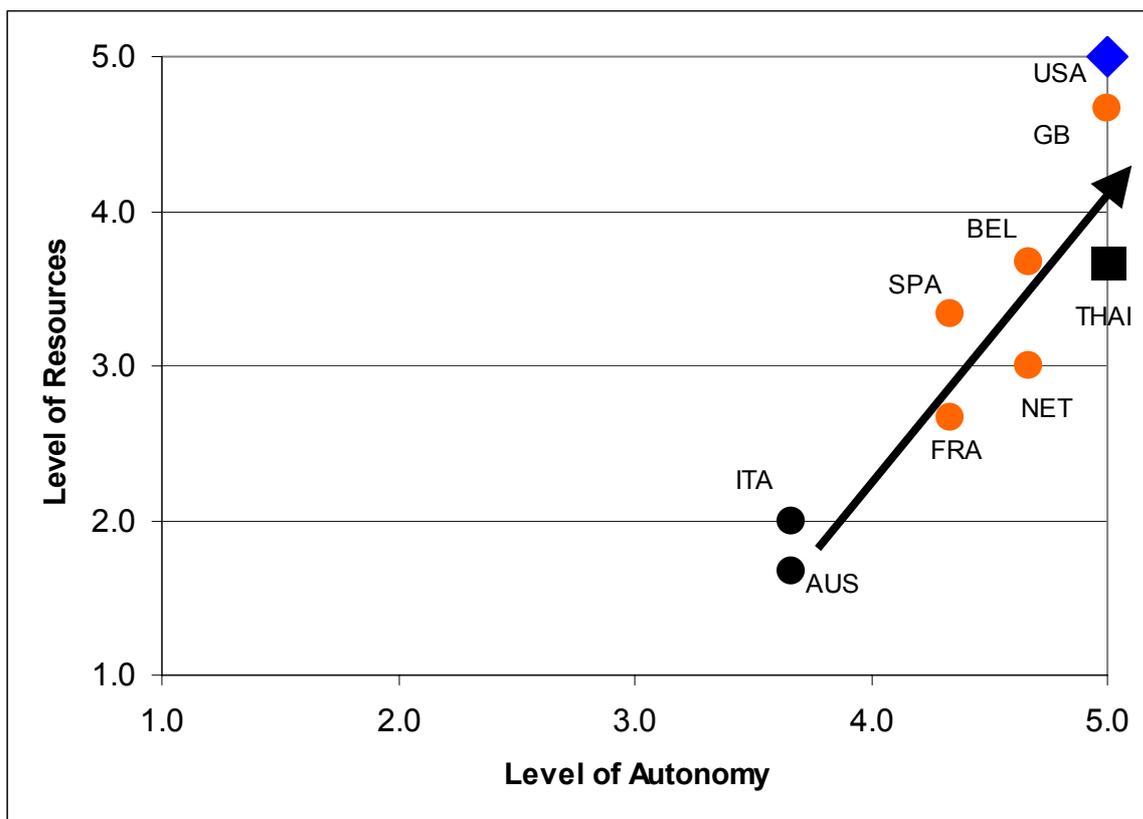
	Autonomy		Formalization		Socialization	
Ethnocentric	1.0	2.3	1.0	2.3	1.0	2.3
Polycentric	1.0	2.3	2.4	3.7	1.0	2.3
Geocentric	2.4	3.7	3.7	5.0	3.7	5.0
Regio-centric						
Holzmann 2000	3.9		1.6		1.6	

Analysis of Network Configuration

	Autonomy		Formalization		Socialization	
International	1.0	2.3	3.7	5.0	1.0	2.3
Multi-Domestic	3.7	5.0	1.0	2.3	2.4	3.6
Global	1.0	2.3	3.7	5.0	1.0	2.3
Transnational	1.0	2.3	3.7	5.0	3.7	5.0
Holzmann 2000	3.9		1.6		1.6	
	Misfit		Misfit		Misfit	

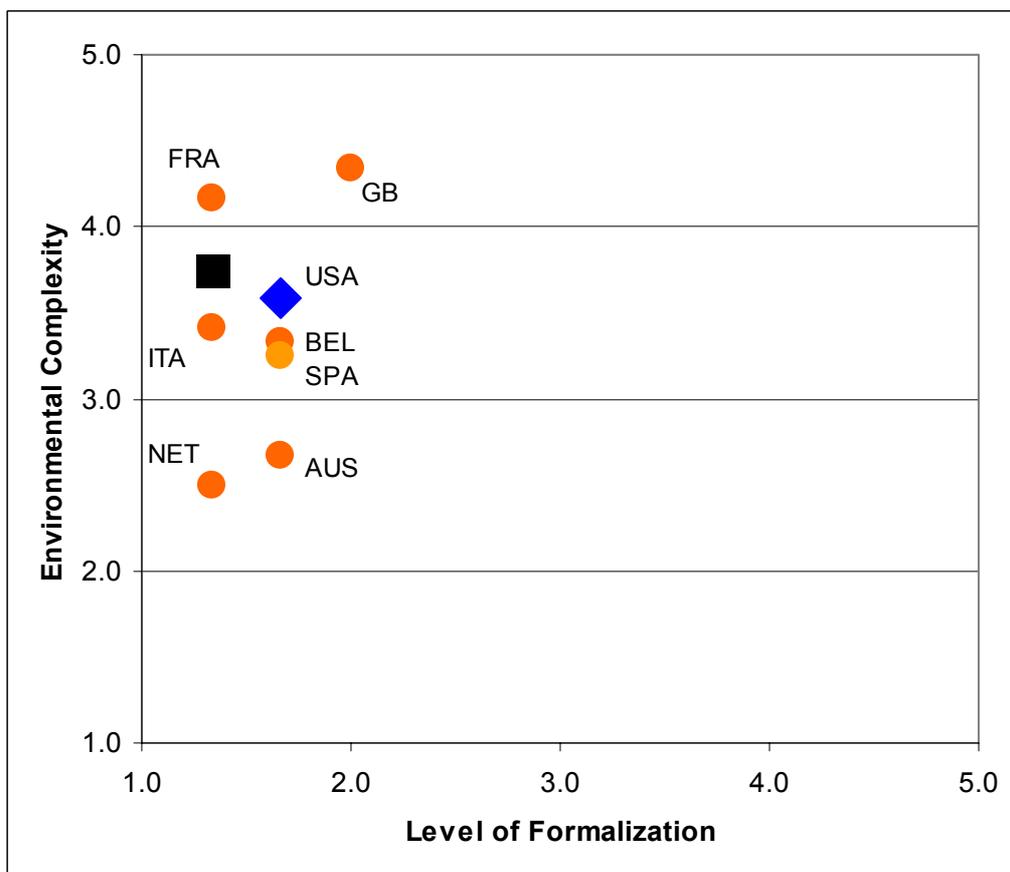
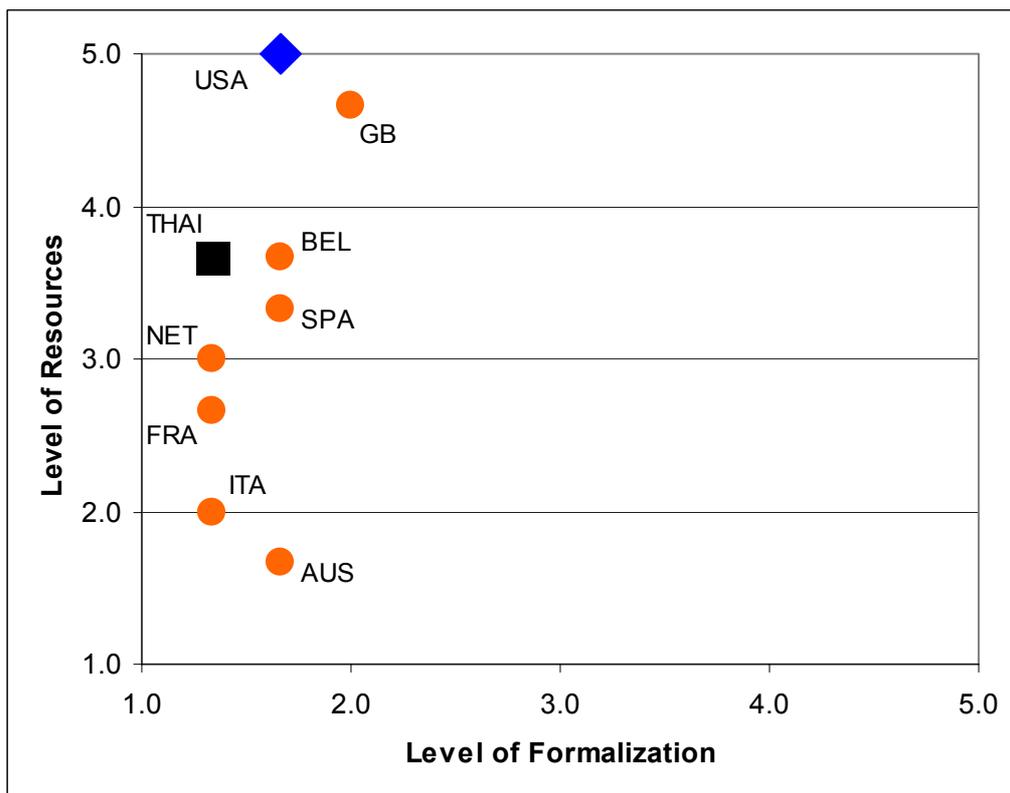
Source: Own depiction

Appendix 65: Correlation of Local Resources and Environmental Complexity with the Level of Autonomy of Philipp Holzmann (2000)



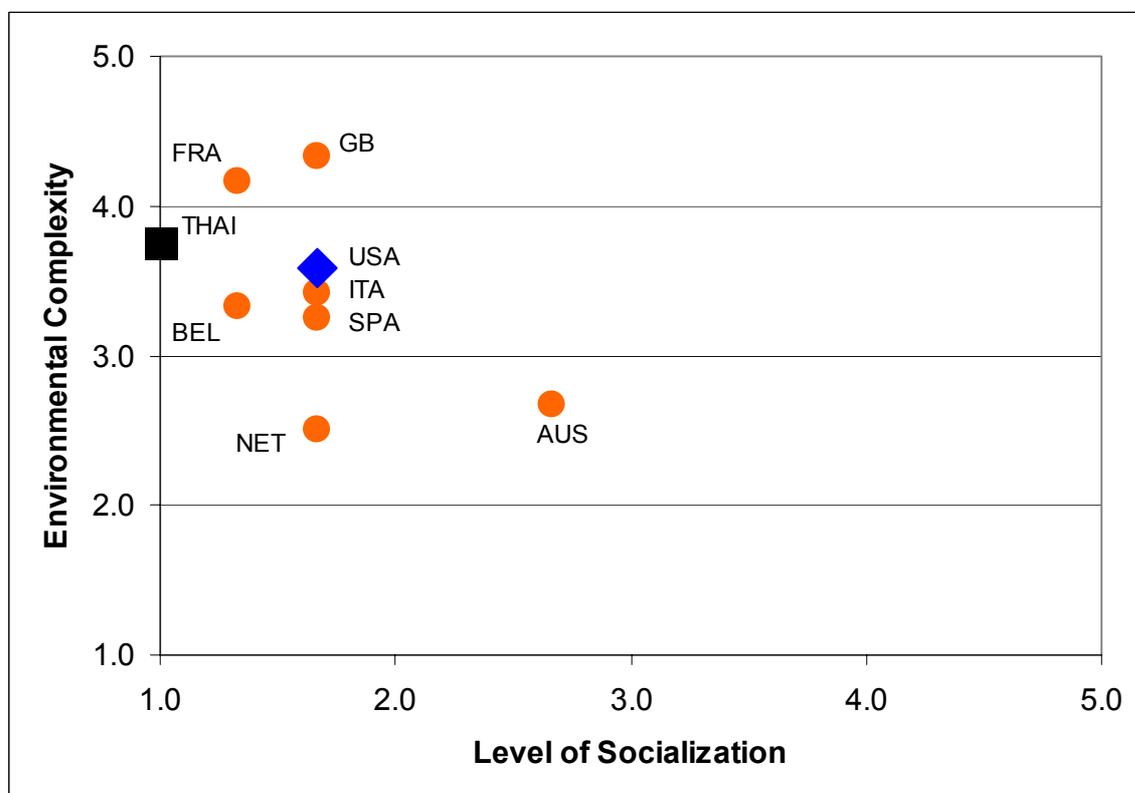
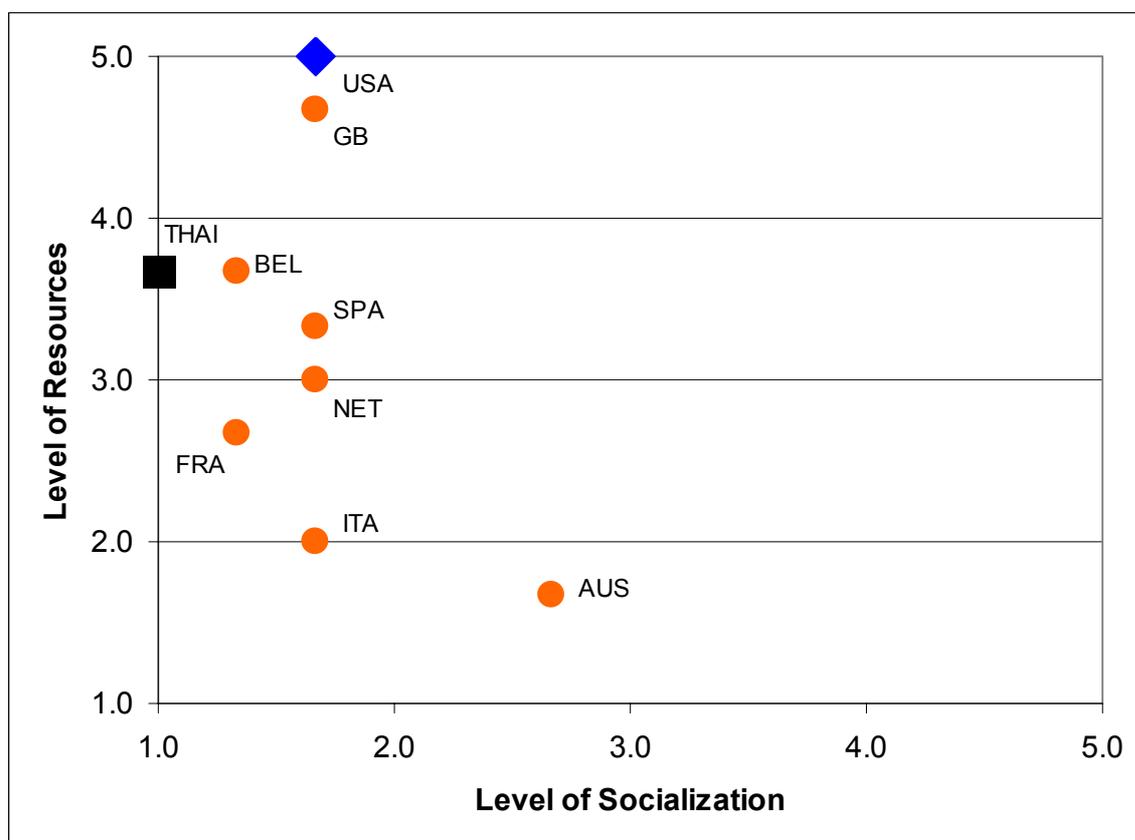
Source: Own depiction

Appendix 66: Correlation of Local Resources and Environmental Complexity with the Level of Formalization of Philipp Holzmann (2000)



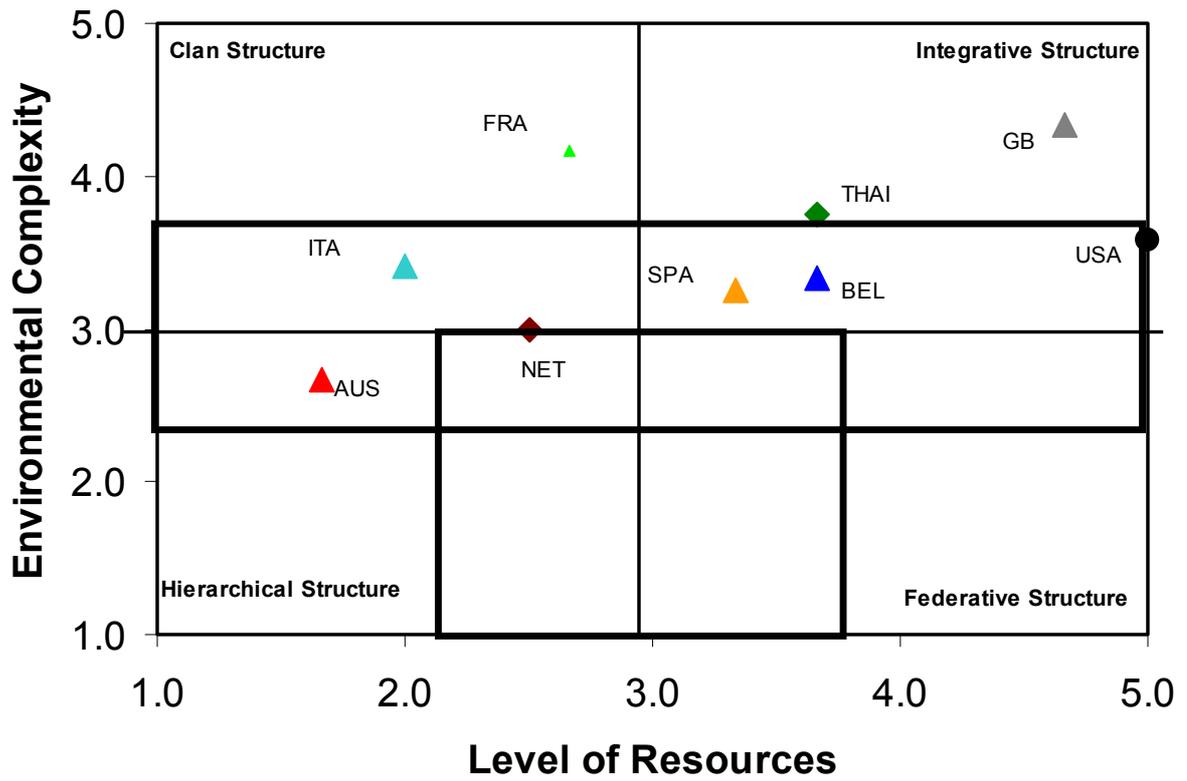
Source: Own depiction

Appendix 67: Correlation of Local Resources and Environmental Complexity with the Level of Shared Values of Philipp Holzmann (2000)



Source: Own depiction

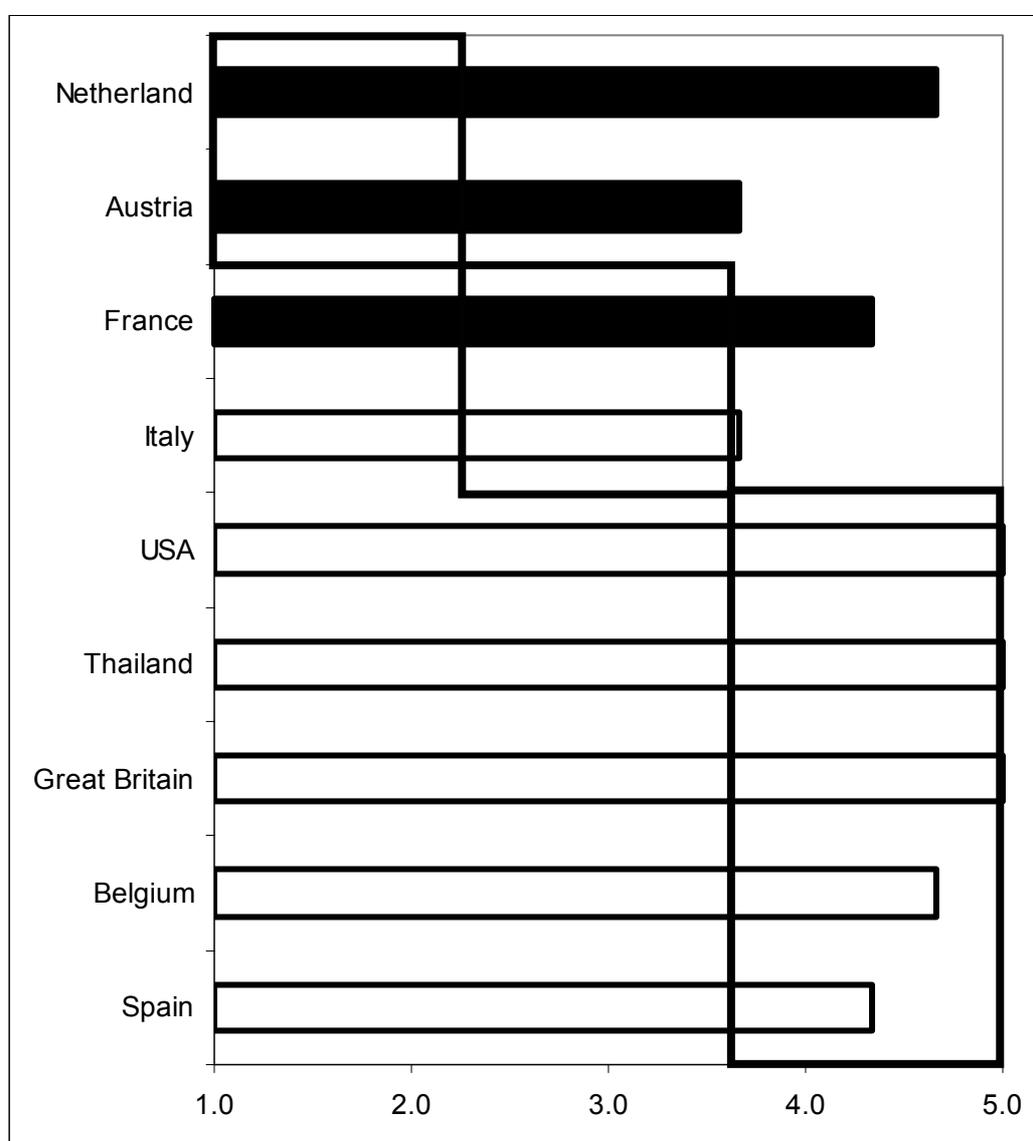
Appendix 68: Clustering of the Subsidiaries of Philipp Holzmann (2000) according to the Theory Internal Differentiation



Source: Own depiction

Appendix 69: Analysis of the Autonomy of Philipp Holzmann (2000) according to the Theory Internal Differentiation

Country	Actual	Should	Should-Structure	Fit/Misfit
Great Brit.	5.0	3.7	5.0	Integrative Structure Fit
Thailand	5.0	3.7	5.0	Integrative Structure Fit
Spain	4.3	3.7	5.0	Integrative Structure Fit
USA	5.0	3.7	5.0	Integrative Structure Fit
Belgium	4.7	3.7	5.0	Integrative Structure Fit
Netherlands	4.7	1.0	2.3	Federative Hierarchy Misfit
Austria	3.7	1.0	2.3	Hierarchical Structure Misfit
France	4.3	2.4	3.6	Clan Structure Misfit
Italy	3.7	2.4	3.6	Clan Structure Fit
Average	3.9			

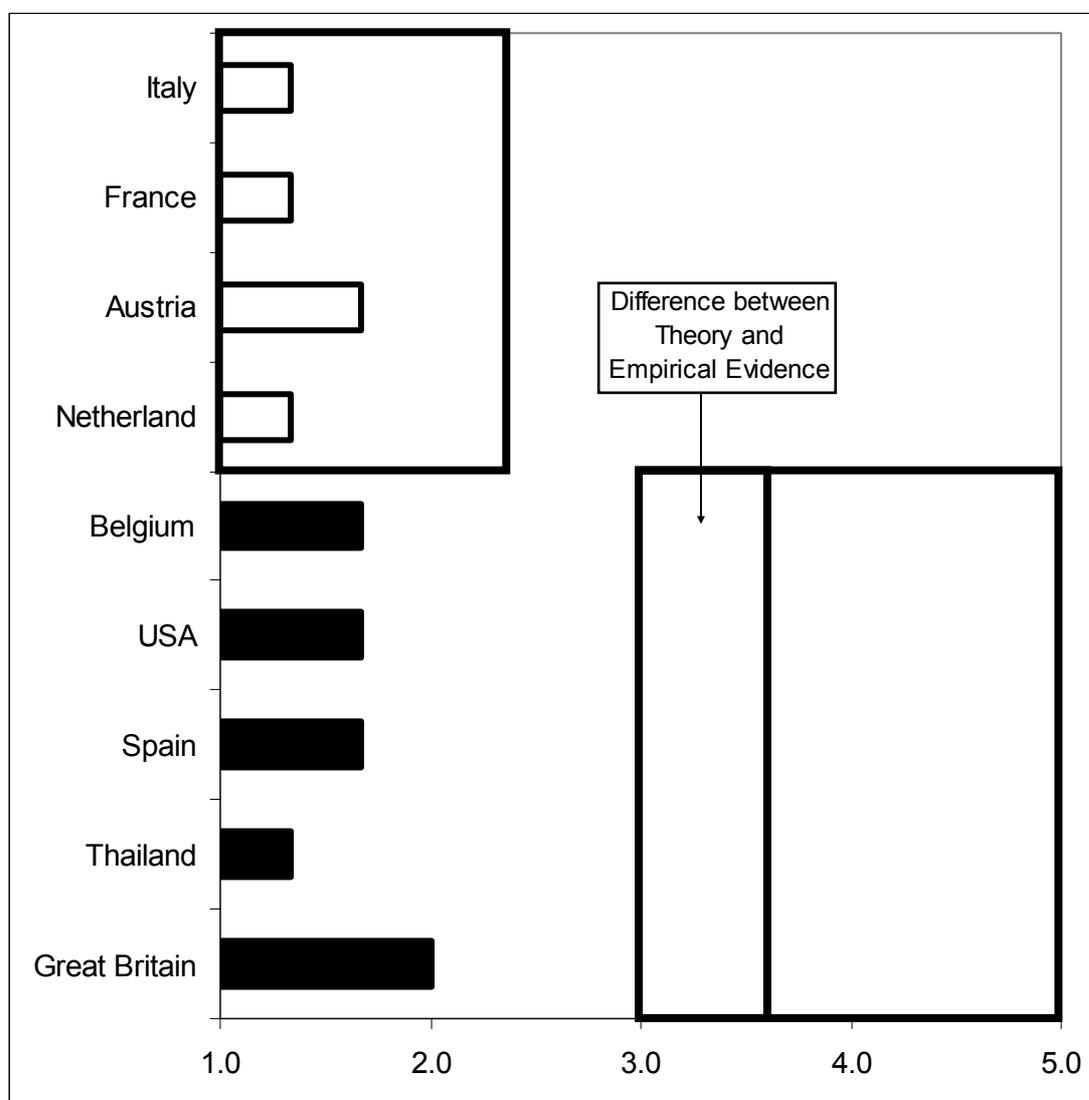


Black bar = Misfit Square = Should cluster

Source: Own depiction

Appendix 70: Analysis of Formalization at Philipp Holzmann (2000) according to the Theory Internal Differentiation

Country	Actual	Should		Should-Structure	Fit/Misfit
		from	to		
Great Brit.	2.0	3.0	5.0	Integrative Structure	Misfit
Thailand	1.3	3.0	5.0	Integrative Structure	Misfit
Spain	1.7	3.0	5.0	Integrative Structure	Misfit
USA	1.7	3.0	5.0	Integrative Structure	Misfit
Belgium	1.7	3.7	5.0	Integrative Structure	Misfit
Netherland	1.3	2.4	3.6	Federative Hierarchy	Misfit
Austria	1.7	1.0	2.3	Hierarchical Structure	Fit
France	1.3	1.0	2.3	Clan Structure	Fit
Italy	1.3	1.0	2.3	Clan Structure	Fit
Average	1.6				

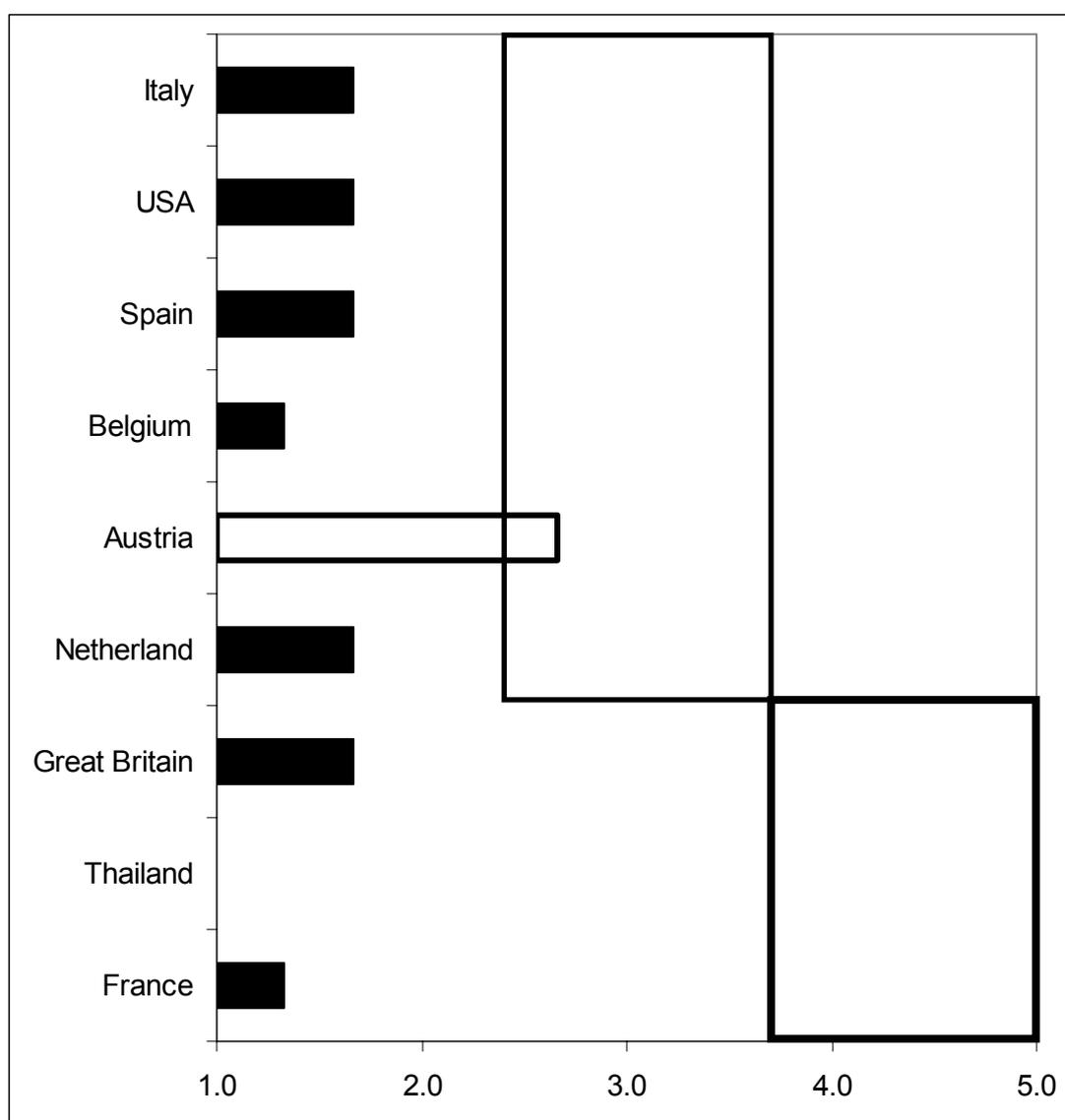


Black bar = Misfit Square = Should cluster

Source: Own depiction

Appendix 71: Analysis of the Shared Values at Philipp Holzmann (2000) according to the Theory Internal Differentiation

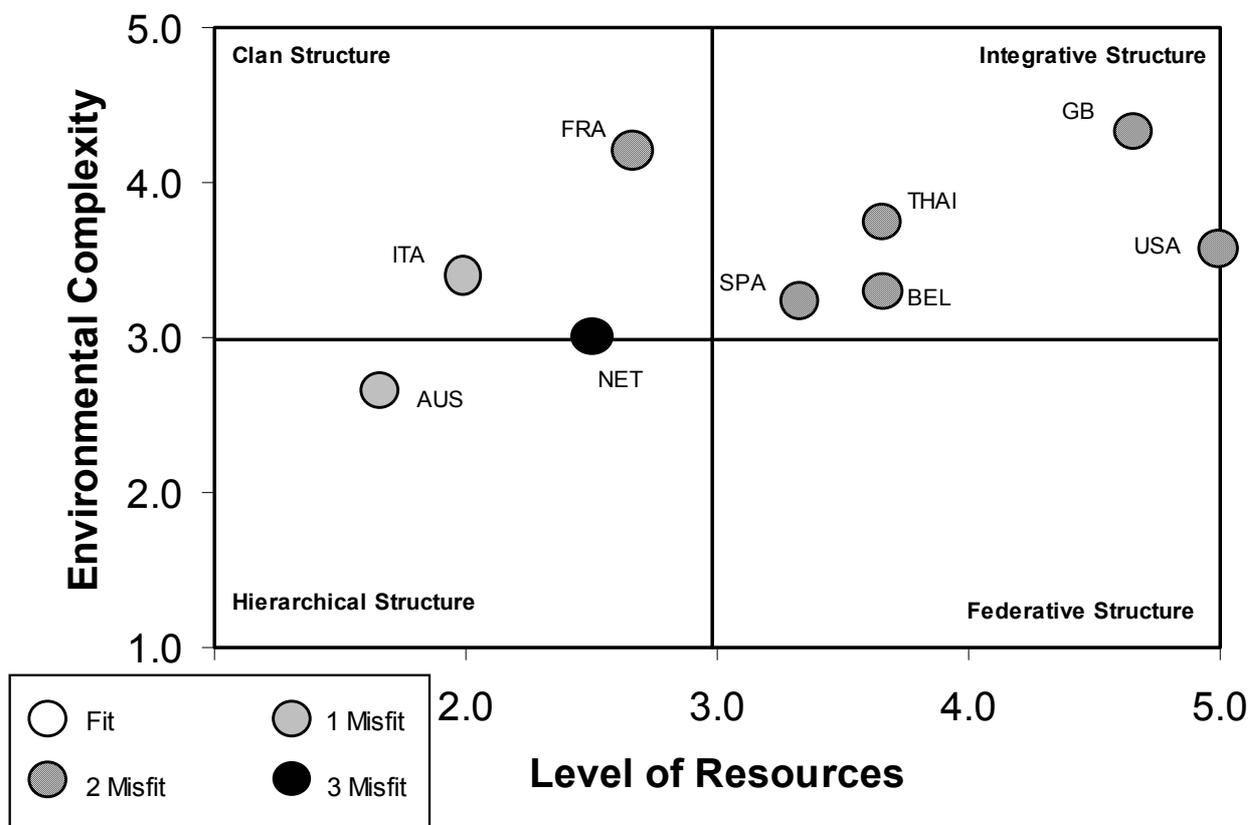
Country	Actual	Should		Should-Structure	Fit/Misfit
		from	to		
France	1.3	3.7	5.0	Clan Structure	Misfit
Thailand	1.0	3.7	5.0	Integrative Structure	Misfit
Great Brit.	1.7	3.7	5.0	Integrative Structure	Misfit
Netherlands	1.7	2.4	3.6	Clan Hierarchy	Misfit
Austria	2.7	2.4	3.6	Clan Hierarchy	Fit
Belgium	1.3	2.4	3.6	Federative Integration	Misfit
Spain	1.7	2.4	3.6	Federative Integration	Misfit
USA	1.7	2.4	3.6	Federative Integration	Misfit
Italy	1.7	2.4	3.6	Hierarchical Clan	Misfit
Average	1.6				



Black bar = Misfit Square = Should cluster

Source: Own depiction

Appendix 72: Analysis of Philipp Holzmann (2000) according to the Theory Internal Differentiation



The measurement of the Difference Measure for Philipp Holzmann (2000)

Autonomy		Formalization		Socialization	
Netherlands	2.4	Great Brit.	1.0	France	2.4
Austria	1.4	Thailand	1.7	Thailand	2.7
France	0.7	Spain	1.3	Great Britain	2.0
		USA	1.3	Netherlands	0.7
		Netherlands	1.1	USA	0.7
		Belgium	2.0	Belgium	0.7
				Italy	0.7
Sum	4.5	Sum	8.4	Sum	10.0
Average	1.5	Average	1.4	Average	1.4
Total Deviation	22,9	Total Average	1.3		

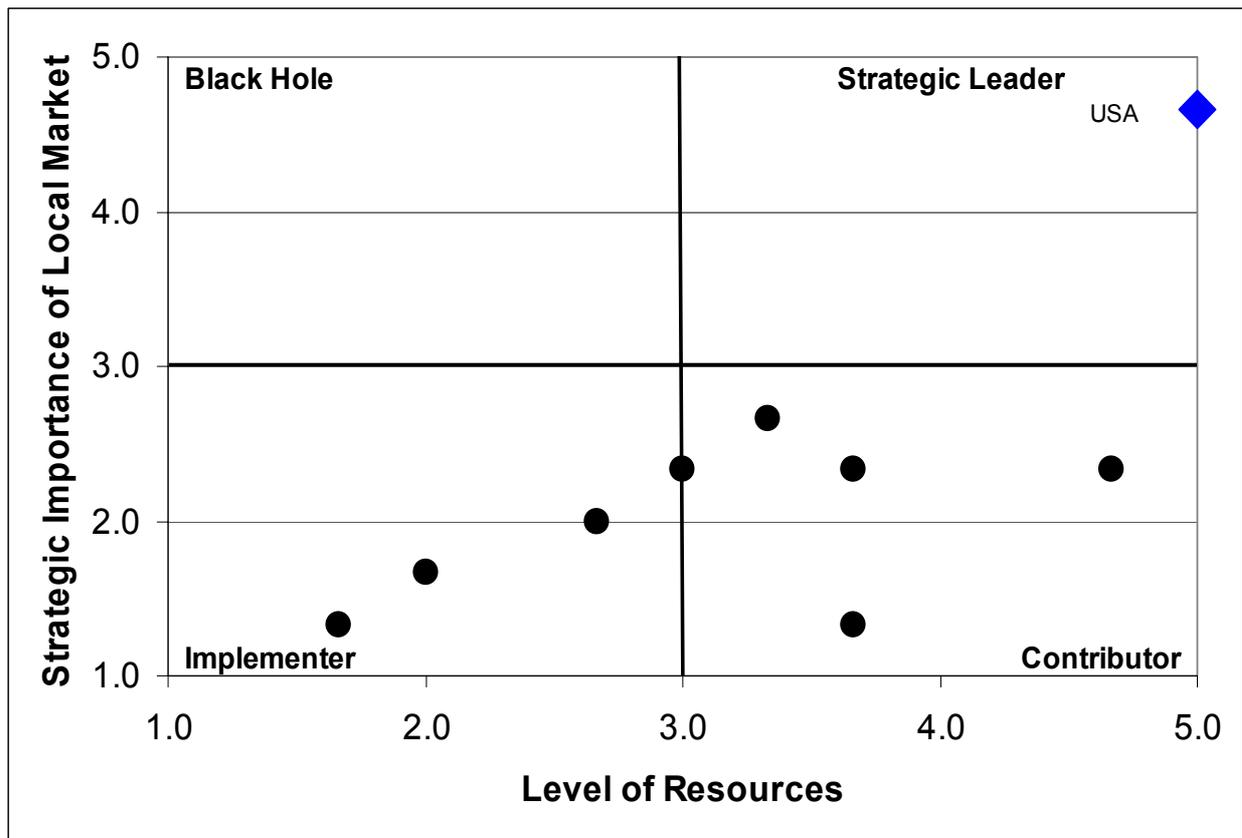
Source: Own depiction

Appendix 73: Analysis of the Requisite Complexity at Philipp Holzmann (2000)

Differentiated Network				Differentiated & Integrated
Structural Uniformity			Integrated	
Differentiated Fit		Differentiated		
Ad hoc Variation	No Coord. Strategy			Philipp Holzmann
	International	Multinational	Global	Transnational

Source: Own depiction

Appendix 74: Analysis of Specified Roles at Philipp Holzmann (2000)



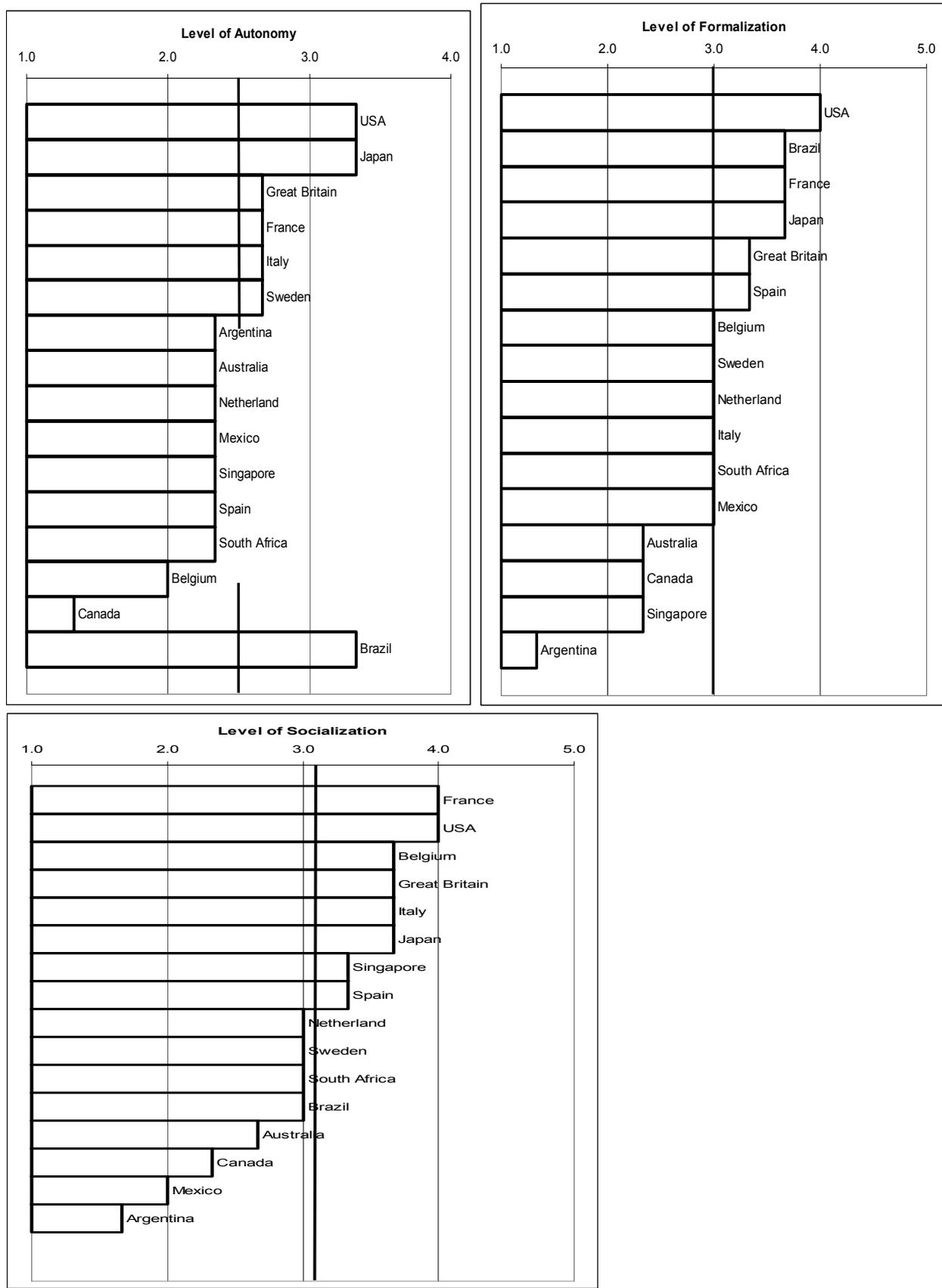
Source: Own depiction

Appendix 75: Analysis of the Coordination of Philipp Holzmann (2000)
according to the Specified Roles of their Subsidiaries

		Autonomy				Formalization				Socialization			
		from	to	Act.	Fit	from	to	Act.	Fit	from	to	Act.	Fit
	Strategic Leader	3	5			3	5			3	5		
	Contributor	1	3			3	5			1	3		
	Implementer	1	3			1	3			2	4		
	Black Hole	1	3			1	3			3	5		
Belgium	Implementer	1	3	4.7	Misfit	1	3	1.7	Fit	2	4	1.3	Misfit
Great Britain	Implementer	1	3	5.0	Misfit	1	3	2.0	Fit	2	4	1.7	Misfit
France	Contributor	1	3	4.3	Misfit	3	5	1.3	Misfit	1	3	1.3	Fit
Netherlands	Contributor	1	3	4.7	Misfit	3	5	1.3	Misfit	1	3	1.7	Fit
Italy	Contributor	1	3	3.7	Misfit	3	5	1.3	Misfit	1	3	1.7	Fit
Austria	Contributor	1	3	3.7	Misfit	3	5	1.7	Misfit	1	3	2.7	Fit
Thailand	Implementer	1	3	5.0	Misfit	1	3	1.3	Fit	2	4	1.0	Misfit
Spain	Implementer	1	3	4.3	Misfit	1	3	1.7	Fit	2	4	1.7	Misfit
USA	Strategic Leader	3	5	5.0	Fit	3	5	1.7	Misfit	3	5	1.7	Misfit
Misfits		18		67%									

Source: Own depiction

Appendix 76: The Measurement of the Coordination Mechanisms of Bosch EW (2004)



Source: Own depiction

Appendix 77: Coordination Analysis by means of the EPRG-Scheme and the Network Configuration of Bosch EW (2004)

Analysis according to the EPRG-Scheme

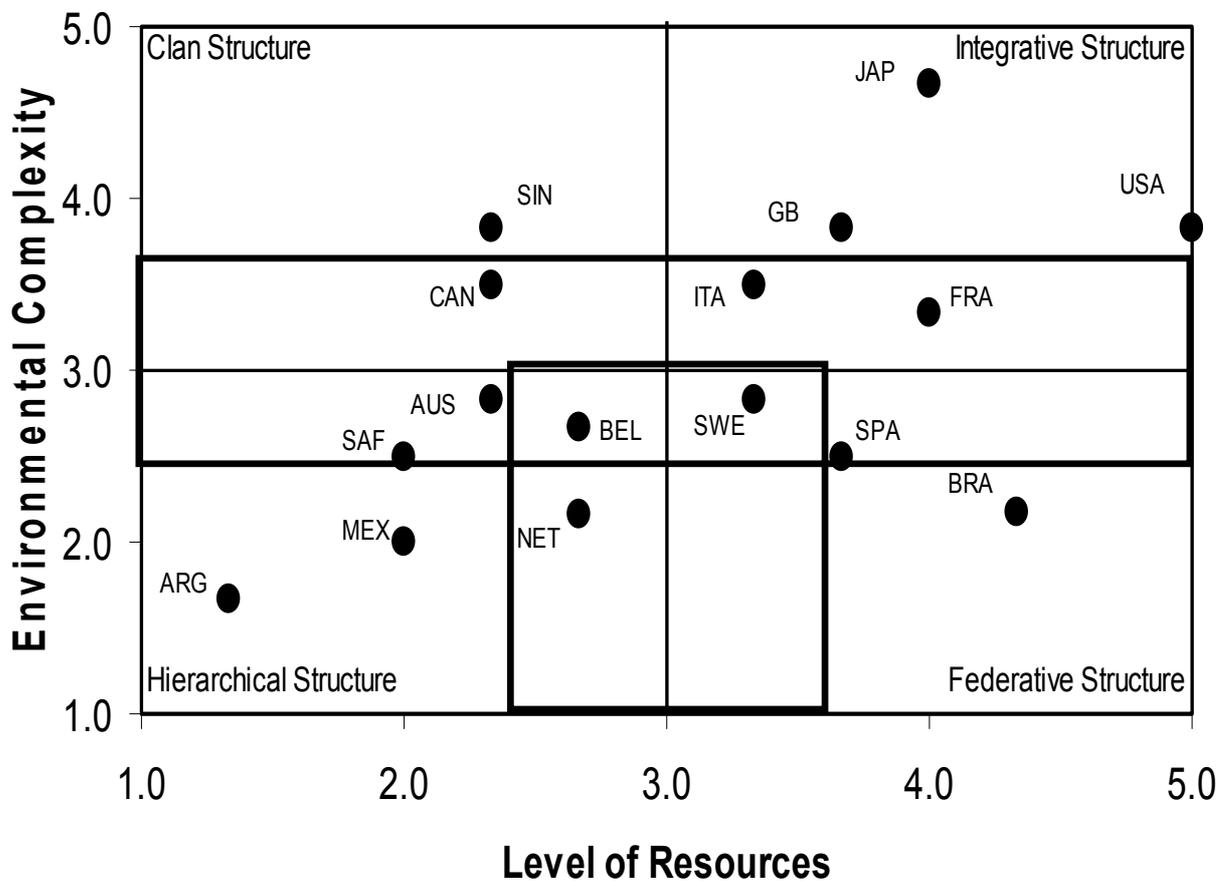
	Autonomy		Formalization		Socialization	
Ethnocentric	1.0	2.3	1.0	2.3	1.0	2.3
Polycentric	1.0	2.3	2.4	3.7	1.0	2.3
Geocentric	2.4	3.7	3.7	5.0	3.7	5.0
Regio-centric	?	?	?	?	?	?
Bosch EW 2004	2.5		3.0		3.1	

Analysis of Network Configuration

	Autonomy		Formalization		Socialization	
International	1.0	2.3	3.7	5.0	1.0	2.3
Multi-Domestic	3.7	5	1.0	2.3	2.4	3.6
Global	1.0	2.3	3.7	5.0	1.0	2.3
Transnational	1.0	2.3	3.7	5.0	3.7	5.0
Bosch EW 2004	2.5		3.0		3.1	
	Misfit/Tolerance		Misfit		Misfit	

Source: Own depiction

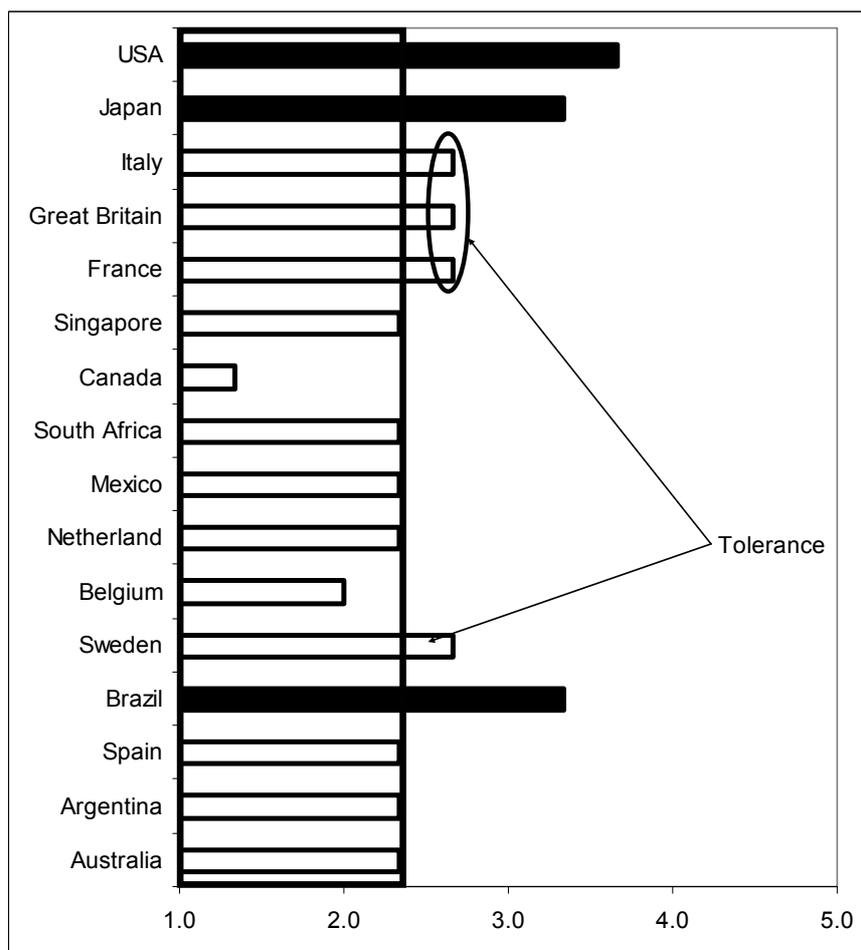
Appendix 78: Clustering of the Subsidiaries of Bosch EW (2004) according to the Theory Internal Differentiation



Source: Own depiction

Appendix 79: Analysis of the Autonomy of Bosch EW (2004) according to the Theory Internal Differentiation

Country	Actual	Should		Should-Structure	Fit/Misfit
		from	to		
Australia	2.3	1.0	2.3	Dominant Mechanism	Fit
Argentina	2.3	1.0	2.3	Dominant Mechanism	Fit
Spain	2.3	1.0	2.3	Dominant Mechanism	Fit
Brazil	3.3	1.0	2.3	Dominant Mechanism	Misfit
Sweden	2.7	1.0	2.3	Dominant Mechanism	Fit
Belgium	2.0	1.0	2.3	Dominant Mechanism	Fit
Netherlands	2.3	1.0	2.3	Dominant Mechanism	Fit
Mexico	2.3	1.0	2.3	Dominant Mechanism	Fit
South Africa	2.3	1.0	2.3	Dominant Mechanism	Fit
Canada	1.3	1.0	2.3	Dominant Mechanism	Fit
Singapore	2.3	1.0	2.3	Dominant Mechanism	Fit
France	2.7	1.0	2.3	Dominant Mechanism	Tolerance
Great Brit.	2.7	1.0	2.3	Dominant Mechanism	Tolerance
Italy	2.7	1.0	2.3	Dominant Mechanism	Tolerance
Japan	3.3	1.0	2.3	Dominant Mechanism	Misfit
USA	3.7	1.0	2.3	Dominant Mechanism	Misfit
Average	2.5				

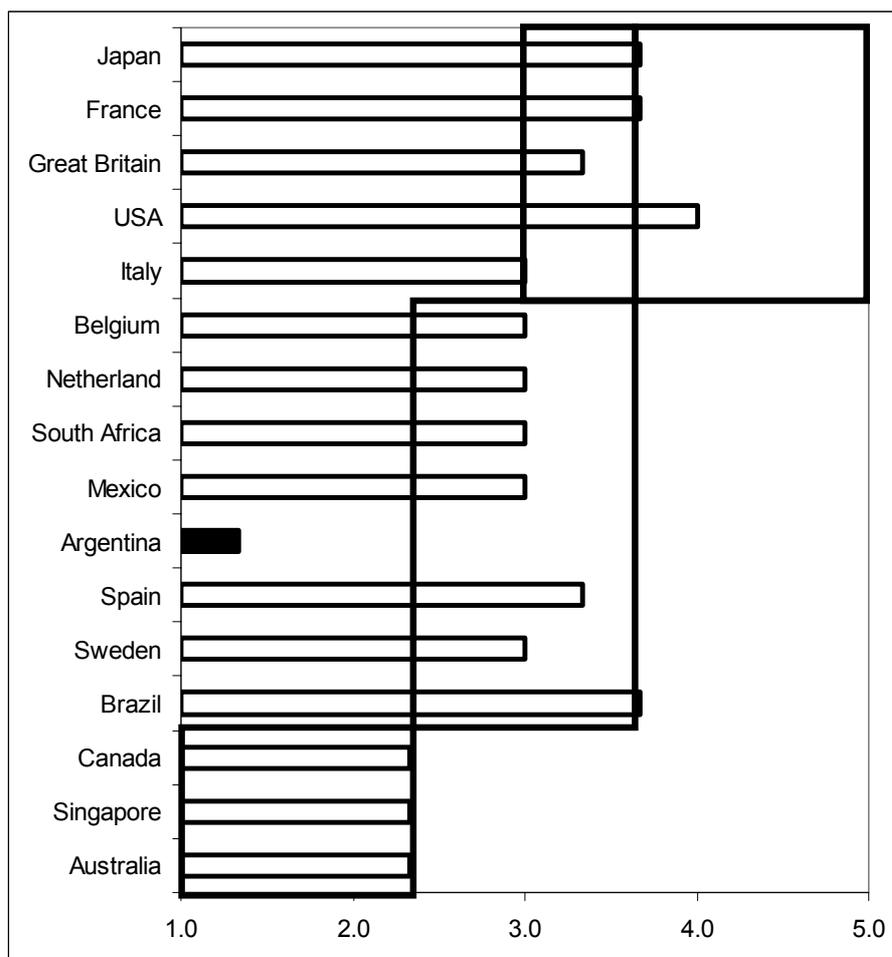


Black bar = Misfit Square = Should structure

Source: Own depiction

Appendix 80: Analysis of Formalization at Bosch EW (2004) according to the Theory Internal Differentiation

Country	Actual	Should		Should-Structure	Fit/Misfit
		from	to		
Australia	2.3	1.0	2.3	Hierarchical Structure	Fit
Singapore	2.3	1.0	2.3	Clan Structure	Fit
Canada	2.3	1.0	2.3	Clan Structure	Fit
Brazil	3.7	2.4	3.6	Hierarchical Federation	Fit
Sweden	3.0	2.4	3.6	Hierarchical Federation	Fit
Spain	3.3	2.4	3.6	Hierarchical Federation	Fit
Argentina	1.3	2.4	3.6	Federative Hierarchy	Misfit
Mexico	3.0	2.4	3.6	Federative Hierarchy	Fit
South Africa	3.0	2.4	3.6	Federative Hierarchy	Fit
Netherlands	3.0	2.4	3.6	Federative Hierarchy	Fit
Belgium	3.0	2.4	3.6	Federative Hierarchy	Fit
Italy	3.0	3.0	5.0	Integrative Structure	Fit
USA	4.0	3.0	5.0	Integrative Structure	Fit
Great Brit.	3.3	3.0	5.0	Integrative Structure	Fit
France	3.7	3.0	5.0	Integrative Structure	Fit
Japan	3.7	3.0	5.0	Integrative Structure	Fit
Average	3.0				

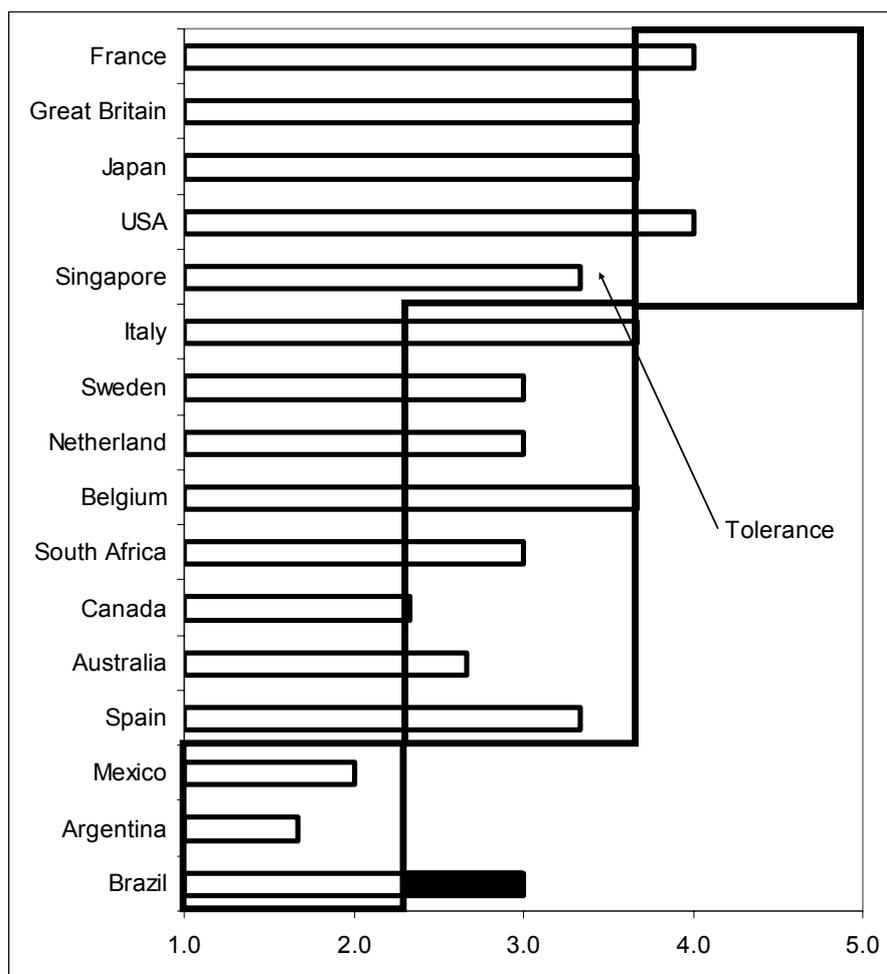


Black bar = Misfit Square = Should structure

Source: Own depiction

Appendix 81: Analysis of the Shared Values at Bosch EW (2004) according to the Theory Internal Differentiation

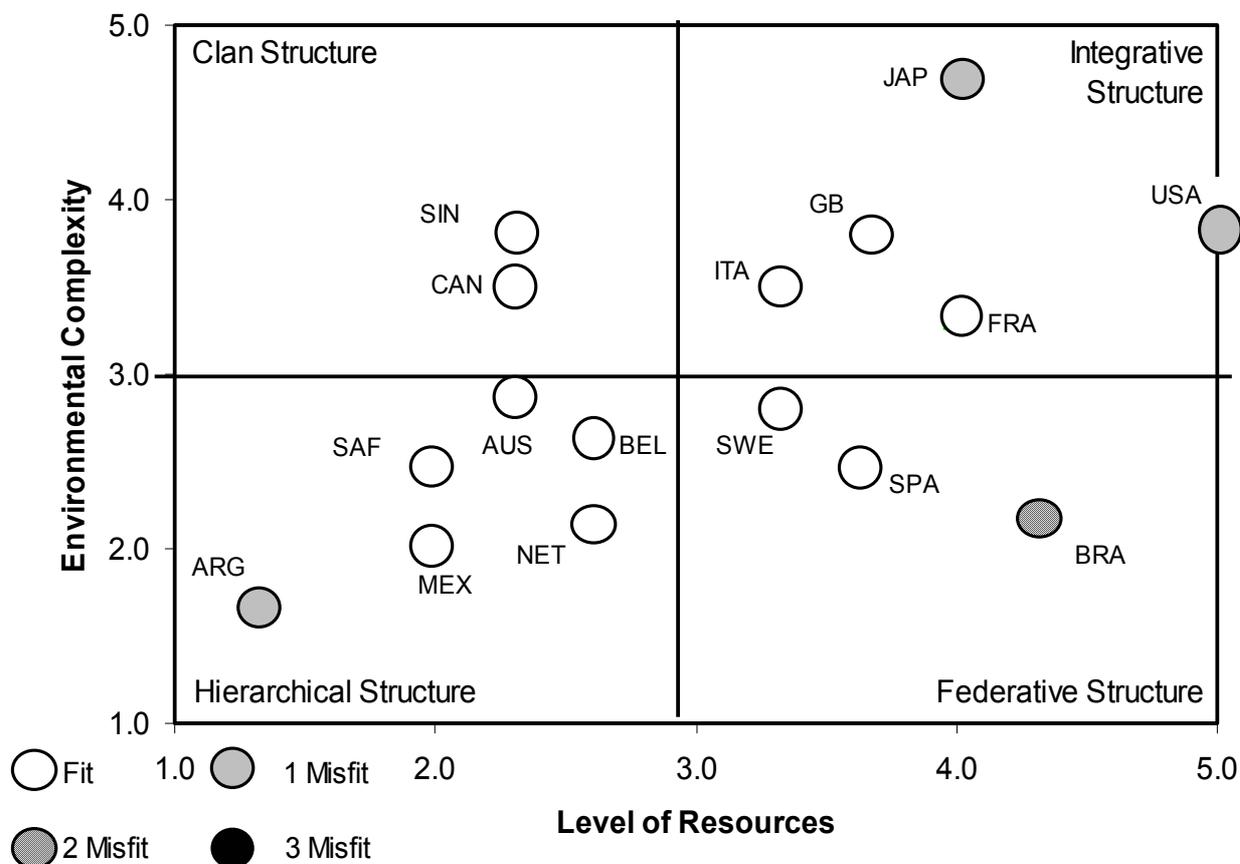
Country	Actual	Should from	Should to	Should-Structure	Fit/Misfit
Brazil	3.0	1.0	2.3	Federative Structure	Misfit
Argentina	1.7	1.0	2.3	Hierarchical Structure	Fit
Mexico	2.0	1.0	2.3	Hierarchical Structure	Fit
Spain	3.3	2.4	3.6	Federative Structure	Fit
Australia	2.7	2.4	3.6	Hierarchy/Clan Structure	Fit
Canada	2.3	2.4	3.6	Hierarchy/Clan-Structure	Fit
South Africa	3.0	2.4	3.6	Hierarchy/Clan-Structure	Fit
Belgium	3.7	2.4	3.6	Hierarchy/Clan-Structure	Fit
Netherlands	3.0	2.4	3.6	Hierarchy/Clan-Structure	Fit
Sweden	3.0	2.4	3.6	Integrative Federation	Fit
Italy	3.7	2.4	3.6	Integrative Structure	Fit
Singapore	3.3	3.7	5.0	Clan-Structure	Tolerance
USA	4.0	3.7	5.0	Integrative Structure	Fit
Japan	3.7	3.7	5.0	Integrative Structure	Fit
Great Brit.	3.7	3.7	5.0	Integrative Structure	Fit
France	4.0	3.7	5.0	Integrative Structure	Fit
Average	3.1				



Black bar = Misfit Square = Should structure

Source: Own depiction

Appendix 82: Analysis of Bosch EW (2004) according to the Theory Internal Differentiation



The measurement of the Difference Measure for Bosch EW (2004)

Autonomy		Formalization		Socialization	
USA	1.4	Argentina	1.1	Brazil	0.7
Japan	1.0				
Brazil	1.0				
Sum	3.4	Sum	1.1	Sum	0.7
Average	1.1	Average	1.1	Average	0.7

Total Deviation	5.2
Total Average	0.4

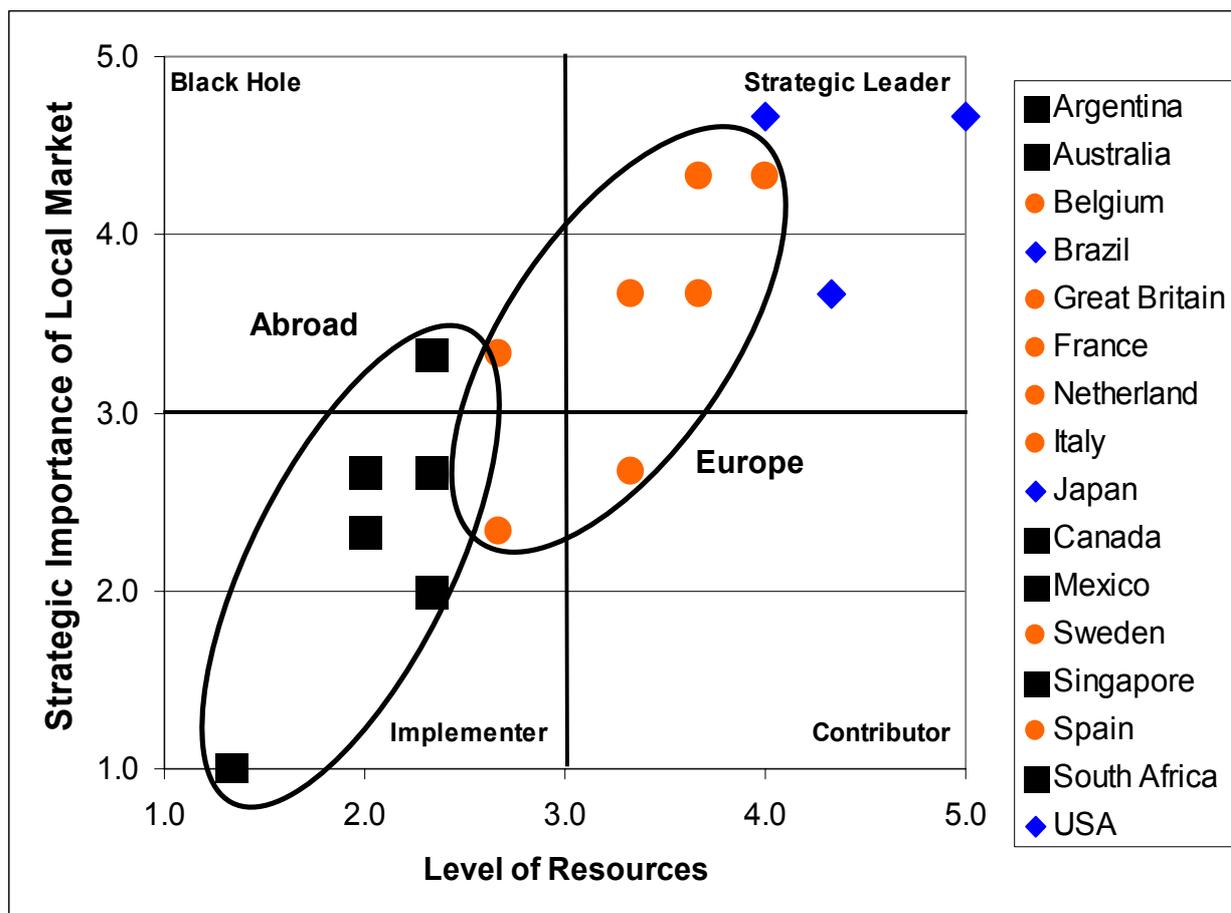
Source: Own depiction

Appendix 83: Analysis of the Requisite Complexity at Bosch EW (2004)

Differentiated Network				Bosch EW 04 Differentiated & Integrated
Structural Uniformity			Integrated	
Differentiated Fit		Differentiated		
Ad hoc Variation	No Coord. Strategy			
	International	Multinational	Global	Transnational

Source: Own depiction

Appendix 84: Analysis of Specified Roles at Bosch EW (2004)



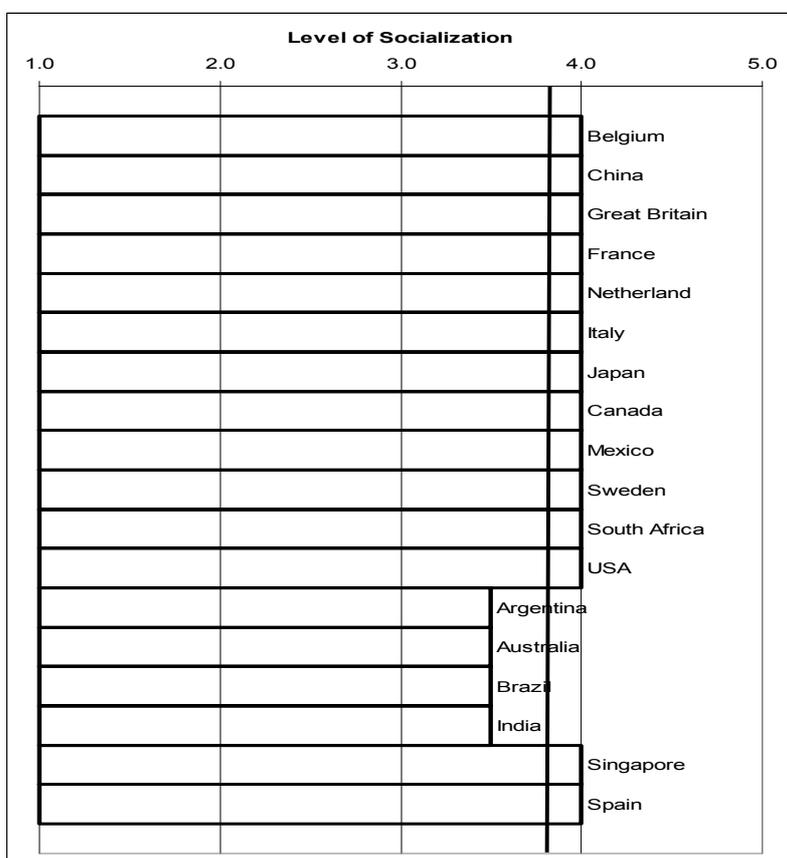
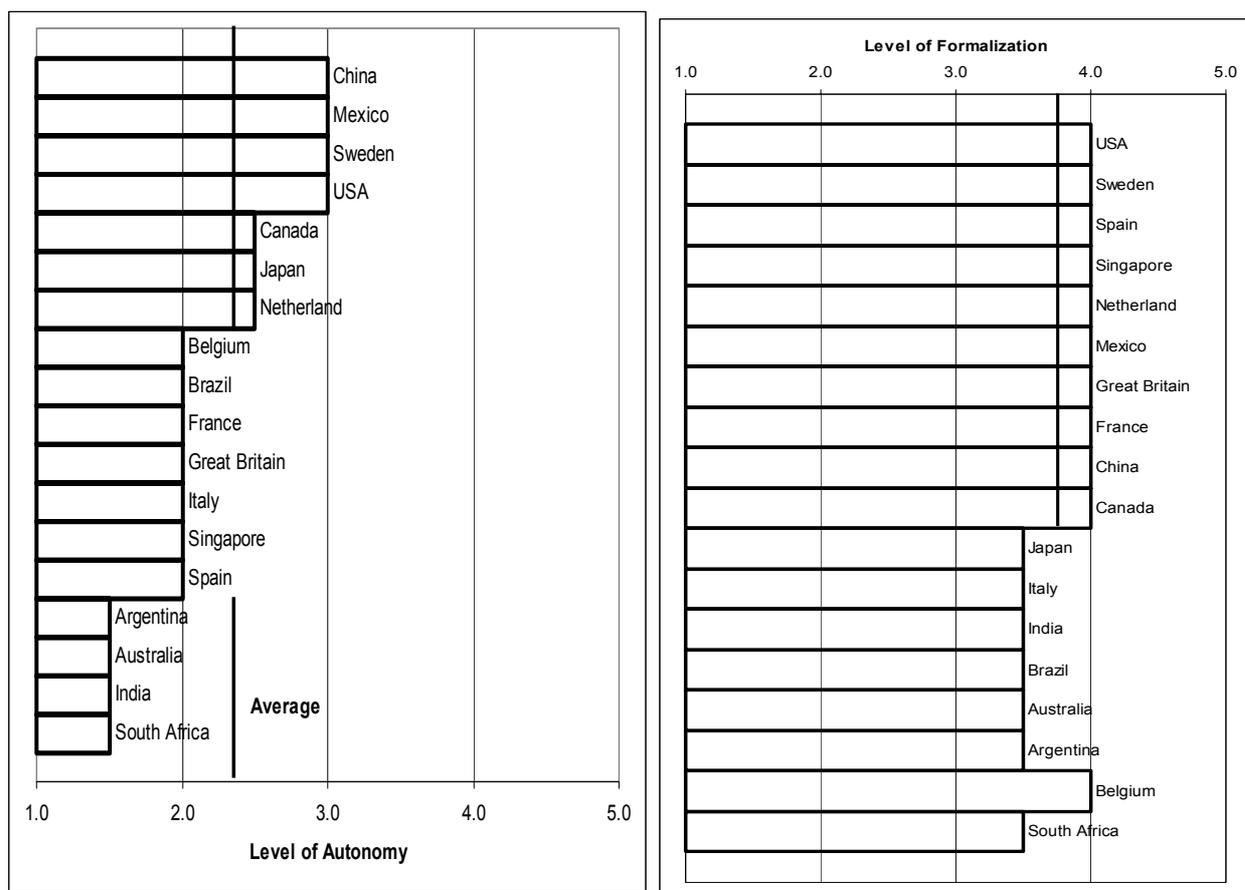
Source: Own depiction

Appendix 85: Analysis of the Coordination of the Subsidiaries of Bosch EW (2004) according to the Specified Roles of their Subsidiaries

		Autonomy				Formalization				Socialization			
		from	to	Act.	Fit	from	to	Act.	Fit	from	to	Act.	Fit
	Strategic Leader	3	5			3	5			3	5		
	Contributor	1	3			3	5			1	3		
	Implementer	1	3			1	3			2	4		
	Black Hole	1	3			1	3			3	5		
Argentina	Contributor	1	3	2.3	Fit	3	5	1.3	Misfit	1	3	1.7	Fit
Australia	Contributor	1	3	2.3	Fit	3	5	2.3	Misfit	1	3	2.7	Fit
Belgium	Black Hole	1	3	2.0	Fit	1	3	3.0	Fit	3	5	3.7	Fit
Brazil	Strategic Leader	3	5	3.3	Fit	3	5	3.7	Fit	3	5	3.0	Fit
Great Britain	Strategic Leader	3	5	2.7	Misfit	3	5	3.3	Fit	3	5	3.7	Fit
France	Strategic Leader	3	5	2.7	Misfit	3	5	3.7	Fit	3	5	4.0	Fit
Netherlands	Contributor	1	3	2.3	Fit	3	5	3.0	Fit	1	3	3.0	Fit
Italy	Strategic Leader	3	5	2.7	Misfit	3	5	3.0	Fit	3	5	3.7	Fit
Japan	Strategic Leader	3	5	3.3	Fit	3	5	3.7	Fit	3	5	3.7	Fit
Canada	Contributor	1	3	1.3	Fit	3	5	2.3	Misfit	1	3	2.3	Fit
Mexico	Contributor	1	3	2.3	Fit	3	5	3.0	Fit	1	3	2.0	Fit
Sweden	Implementer	1	3	2.7	Fit	1	3	3.0	Fit	2	4	3.0	Fit
Singapore	Black Hole	1	3	2.3	Fit	1	3	2.3	Fit	3	5	3.3	Fit
Spain	Strategic Leader	3	5	2.3	Misfit	3	5	3.3	Fit	3	5	3.3	Fit
South Africa	Contributor	1	3	2.3	Fit	3	5	3.0	Fit	1	3	3.0	Fit
USA	Strategic Leader	3	5	3.7	Fit	3	5	4.0	Fit	3	5	4.0	Fit

Source: Own depiction

Appendix 86: The Measurement of the Coordination Mechanisms of Celanese (2004)



Source: Own depiction

Appendix 87: Coordination Analysis by means of the EPRG-Scheme and the Network Configuration of Celanese (2004)

Analysis according to the EPRG-Scheme

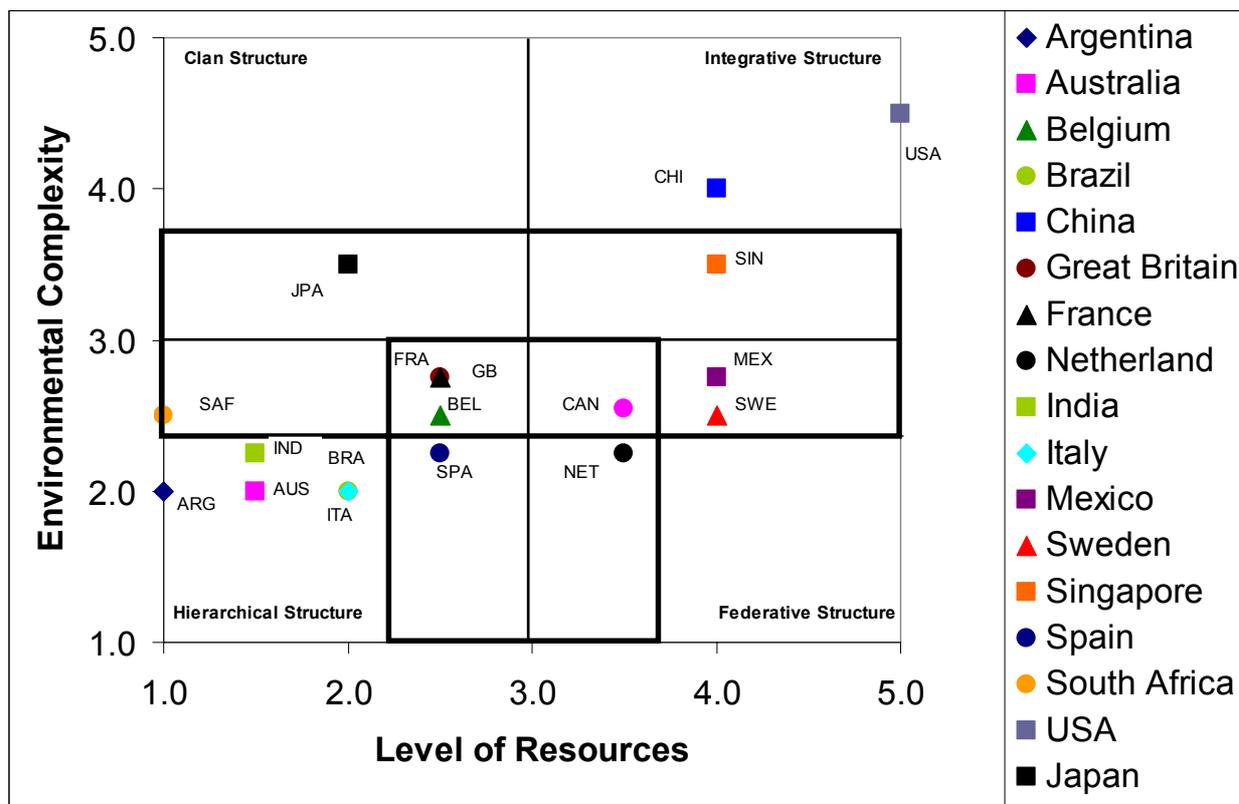
	Autonomy		Formalization		Socialization	
Ethnocentric	1.0	2.3	1.0	2.3	1.0	2.3
Polycentric	1.0	2.3	2.4	3.7	1.0	2.3
Geocentric	2.4	3.7	3.7	5.0	3.7	5.0
Regio-centric						
Celanese 2004	2.2		3.8		3.9	
	Tolerance		Fit		Fit	

Analysis of Network Configuration

	Autonomy		Formalization		Socialization	
International	1.0	2.3	3.7	5.0	1.0	2.3
Multi-Domestic	3.7	5.0	1.0	2.3	2.4	3.6
Global	1.0	2.3	3.7	5.0	1.0	2.3
Transnational	1.0	2.3	3.7	5.0	3.7	5.0
Celanese 2004	2.2		3.8		3.9	
	Fit		Fit		Misfit	

Source: Own depiction

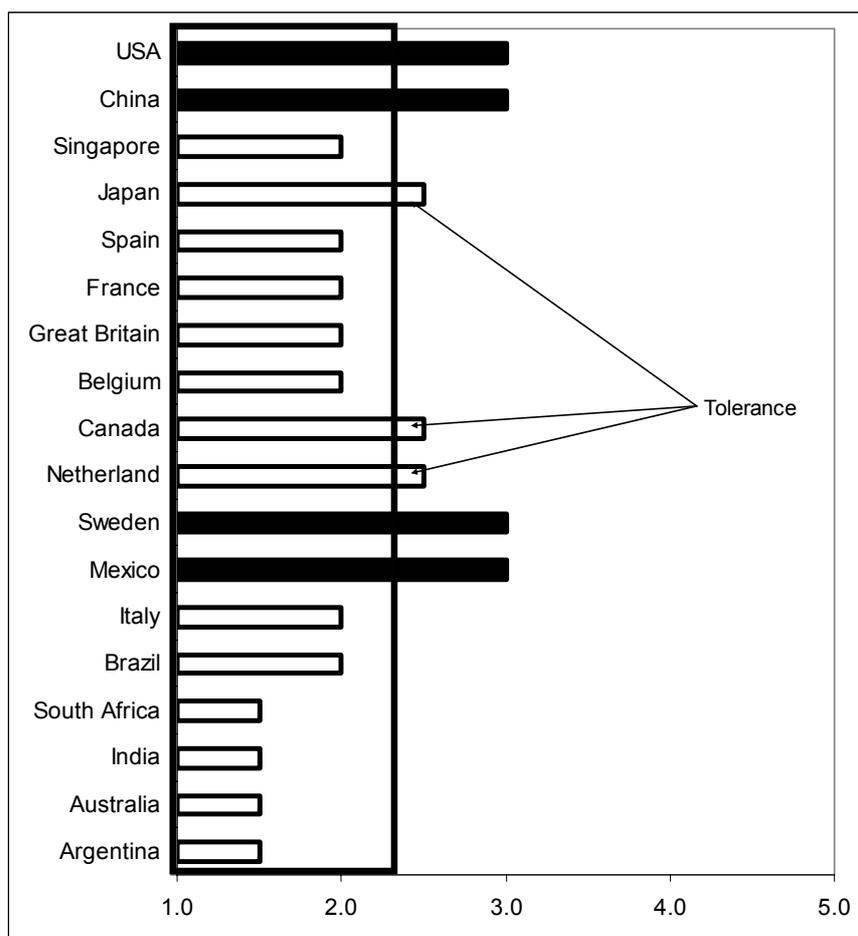
Appendix 88: Clustering of the Subsidiaries of Celanese (2004) according to the Theory Internal Differentiation



Source: Own depiction

Appendix 89: Analysis of the Autonomy of Celanese (2004) according to the Theory Internal Differentiation

Country	Act.	Should		Should-Structure	Fit/Misfit
		from	to		
Argentina	1.5	1.0	2.3	Dominant Mechanism	Fit
Australia	1.5	1.0	2.3	Dominant Mechanism	Fit
India	1.5	1.0	2.3	Dominant Mechanism	Fit
South Africa	1.5	1.0	2.3	Dominant Mechanism	Fit
Brazil	2.0	1.0	2.3	Dominant Mechanism	Fit
Italy	2.0	1.0	2.3	Dominant Mechanism	Fit
Mexico	3.0	1.0	2.3	Dominant Mechanism	Misfit
Sweden	3.0	1.0	2.3	Dominant Mechanism	Misfit
Netherlands	2.5	1.0	2.3	Dominant Mechanism	Tolerance
Canada	2.5	1.0	2.3	Dominant Mechanism	Tolerance
Belgium	2.0	1.0	2.3	Dominant Mechanism	Fit
Great Brit.	2.0	1.0	2.3	Dominant Mechanism	Fit
France	2.0	1.0	2.3	Dominant Mechanism	Fit
Spain	2.0	1.0	2.3	Dominant Mechanism	Fit
Japan	2.5	1.0	2.3	Dominant Mechanism	Tolerance
Singapore	2.0	1.0	2.3	Dominant Mechanism	Fit
China	3.0	1.0	2.3	Dominant Mechanism	Misfit
USA	3.0	1.0	2.3	Dominant Mechanism	Misfit
Average	2.2				

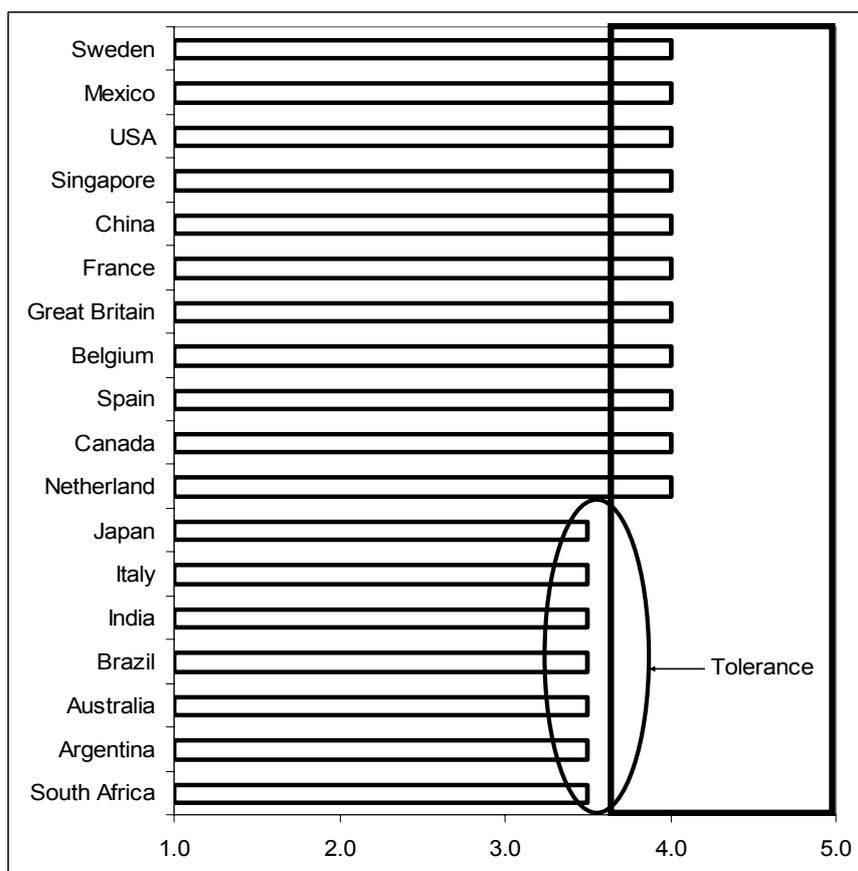


Black bar = Misfit Square = Should structure

Source: Own depiction

Appendix 90: Analysis of Formalization at Celanese (2004) according to the Theory Internal Differentiation

Country	Actual	Should		Should-Structure	Fit/Misfit
		from	to		
South Africa	3.5	1.0	2.3	Dominant Mechanism	Tolerance
Argentina	3.5	1.0	2.3	Dominant Mechanism	Tolerance
Australia	3.5	1.0	2.3	Dominant Mechanism	Tolerance
Brazil	3.5	1.0	2.3	Dominant Mechanism	Tolerance
India	3.5	1.0	2.3	Dominant Mechanism	Tolerance
Italy	3.5	1.0	2.3	Dominant Mechanism	Tolerance
Japan	3.5	1.0	2.3	Dominant Mechanism	Tolerance
Netherlands	4.0	2.4	3.6	Dominant Mechanism	Fit
Canada	4.0	2.4	3.6	Dominant Mechanism	Fit
Spain	4.0	2.4	3.6	Dominant Mechanism	Fit
Belgium	4.0	2.4	3.6	Dominant Mechanism	Fit
Great Brit.	4.0	2.4	3.6	Dominant Mechanism	Fit
France	4.0	2.4	3.6	Dominant Mechanism	Fit
China	4.0	3.0	5.0	Dominant Mechanism	Fit
Singapore	4.0	3.0	5.0	Dominant Mechanism	Fit
USA	4.0	3.0	5.0	Dominant Mechanism	Fit
Mexico	4.0	3.7	5.0	Dominant Mechanism	Fit
Sweden	4.0	3.7	5.0	Dominant Mechanism	Fit
Average	3.8				

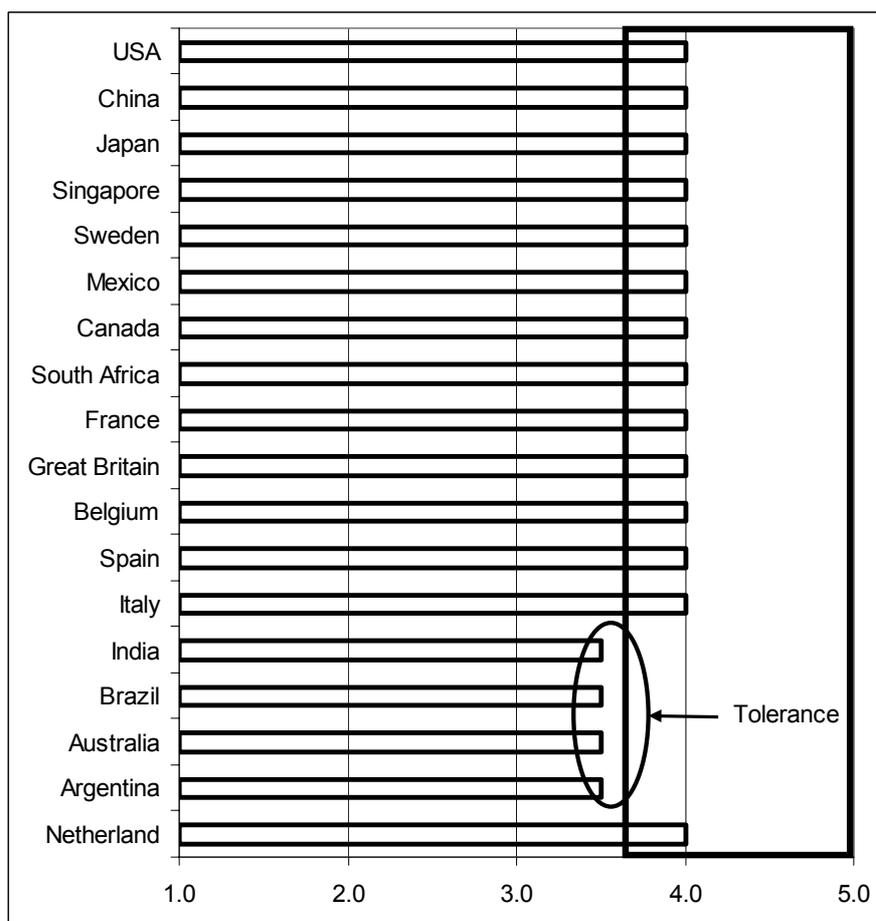


Black bar = Misfit Square = Should structure

Source: Own depiction

Appendix 91: Analysis of the Shared Values at Celanese (2004) according to the Theory Internal Differentiation

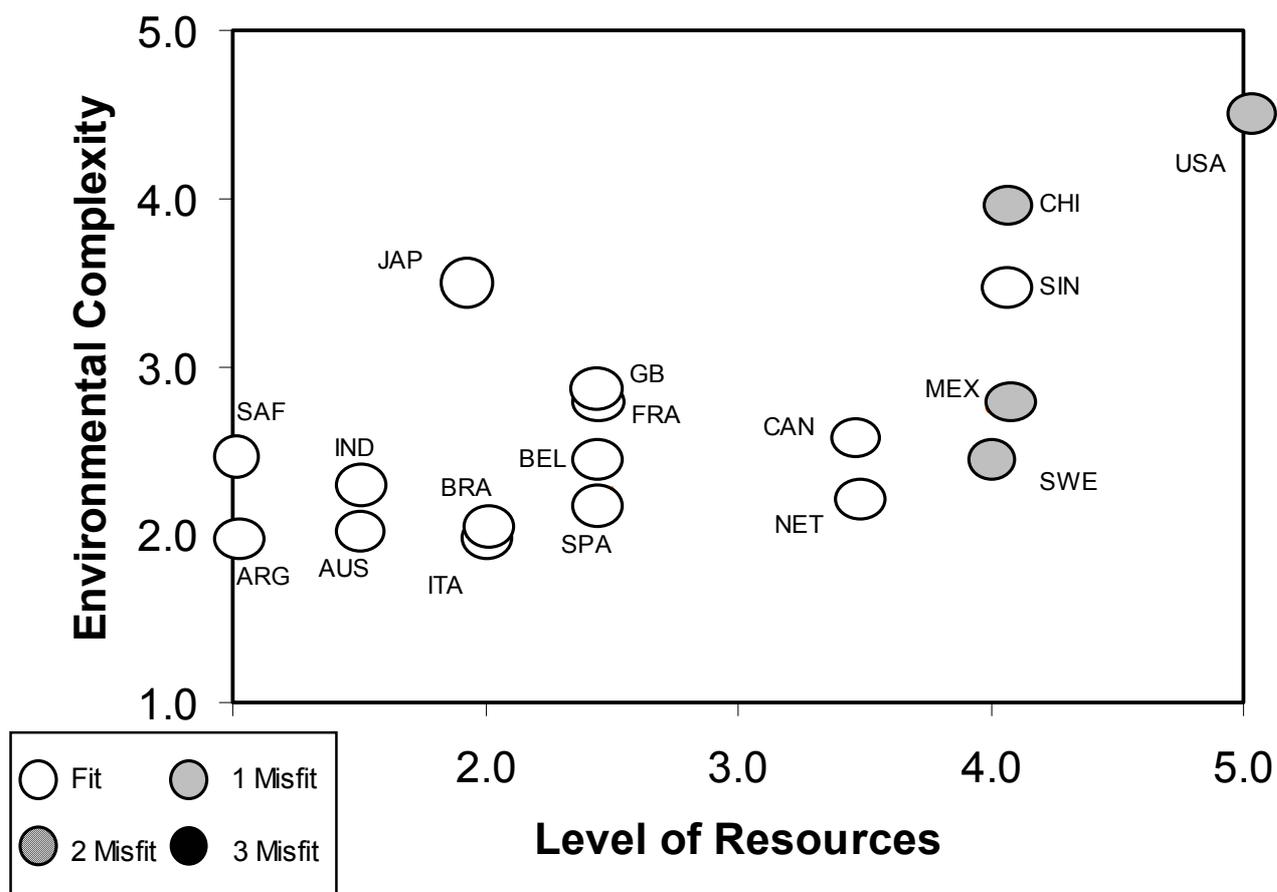
Country	Actual	Should		Should-Structure	Fit/Misfit
		from	to		
Netherlands	4.0	3.7	5.0	Dominant Mechanism	Fit
Argentina	3.5	3.7	5.0	Dominant Mechanism	Tolerance
Australia	3.5	3.7	5.0	Dominant Mechanism	Tolerance
Brazil	3.5	3.7	5.0	Dominant Mechanism	Tolerance
India	3.5	3.7	5.0	Dominant Mechanism	Tolerance
Italy	4.0	3.7	5.0	Dominant Mechanism	Fit
Spain	4.0	3.7	5.0	Dominant Mechanism	Fit
Belgium	4.0	3.7	5.0	Dominant Mechanism	Fit
Great Brit.	4.0	3.7	5.0	Dominant Mechanism	Fit
France	4.0	3.7	5.0	Dominant Mechanism	Fit
South Africa	4.0	3.7	5.0	Dominant Mechanism	Fit
Canada	4.0	3.7	5.0	Dominant Mechanism	Fit
Mexico	4.0	3.7	5.0	Dominant Mechanism	Fit
Sweden	4.0	3.7	5.0	Dominant Mechanism	Fit
Singapore	4.0	3.7	5.0	Dominant Mechanism	Fit
Japan	4.0	3.7	5.0	Dominant Mechanism	Fit
China	4.0	3.7	5.0	Dominant Mechanism	Fit
USA	4.0	3.7	5.0	Dominant Mechanism	Fit
Average	3.9				



Black bar = Misfit Square = Should structure

Source: Own depiction

Appendix 92: Analysis of Celanese (2004) according to the Theory Internal Differentiation



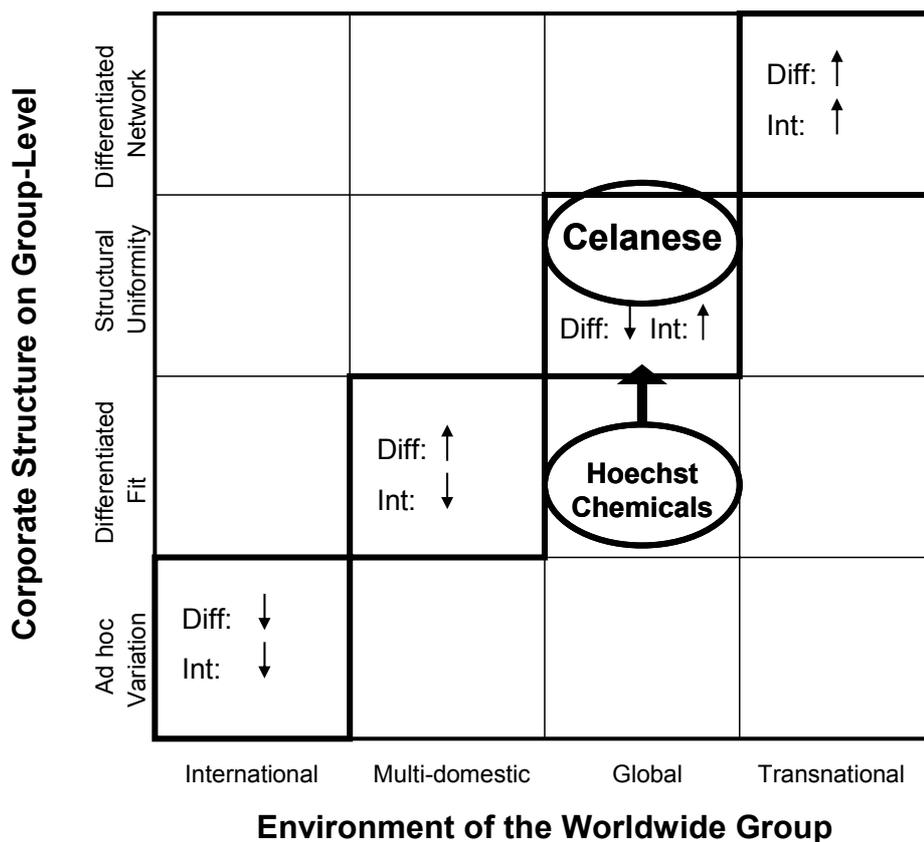
The measurement of the Difference Measure for Celanese (2004)

Autonomy	
Mexico	0.7
Sweden	0.7
Canada	0.2
China	0.7
USA	0.7
Sum	3.0
Average	0.6

Total Deviation	3.0
Total Average	0.6

Source: Own depiction

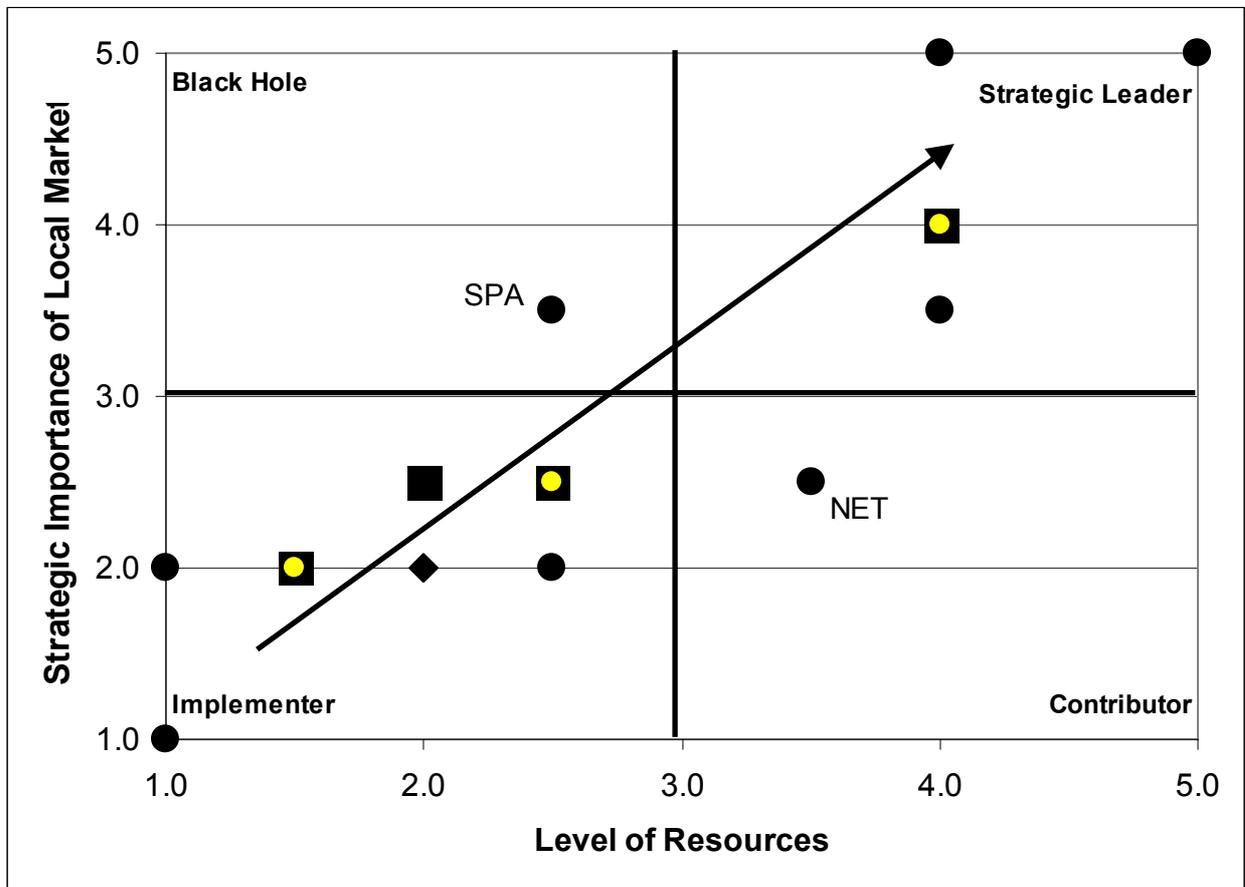
Appendix 93: Analysis of the Requisite Complexity at Celanese (2004)



Diff: Differentiated use of coordination mechanisms
Int: Integrative use of coordination mechanisms

Source: Own depiction

Appendix 94: Analysis of Specified Roles at Celanese (2004)



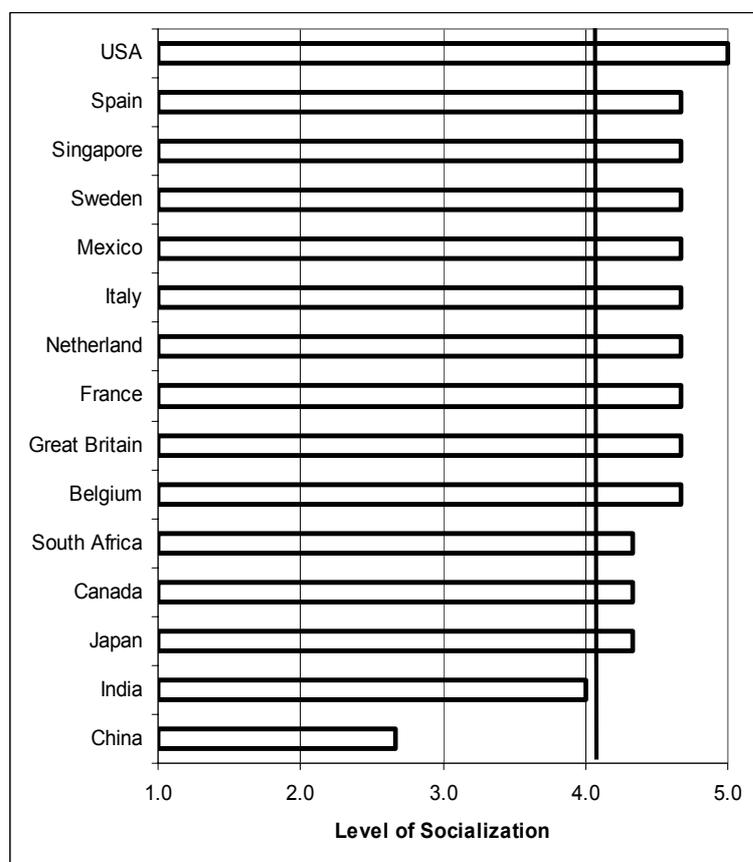
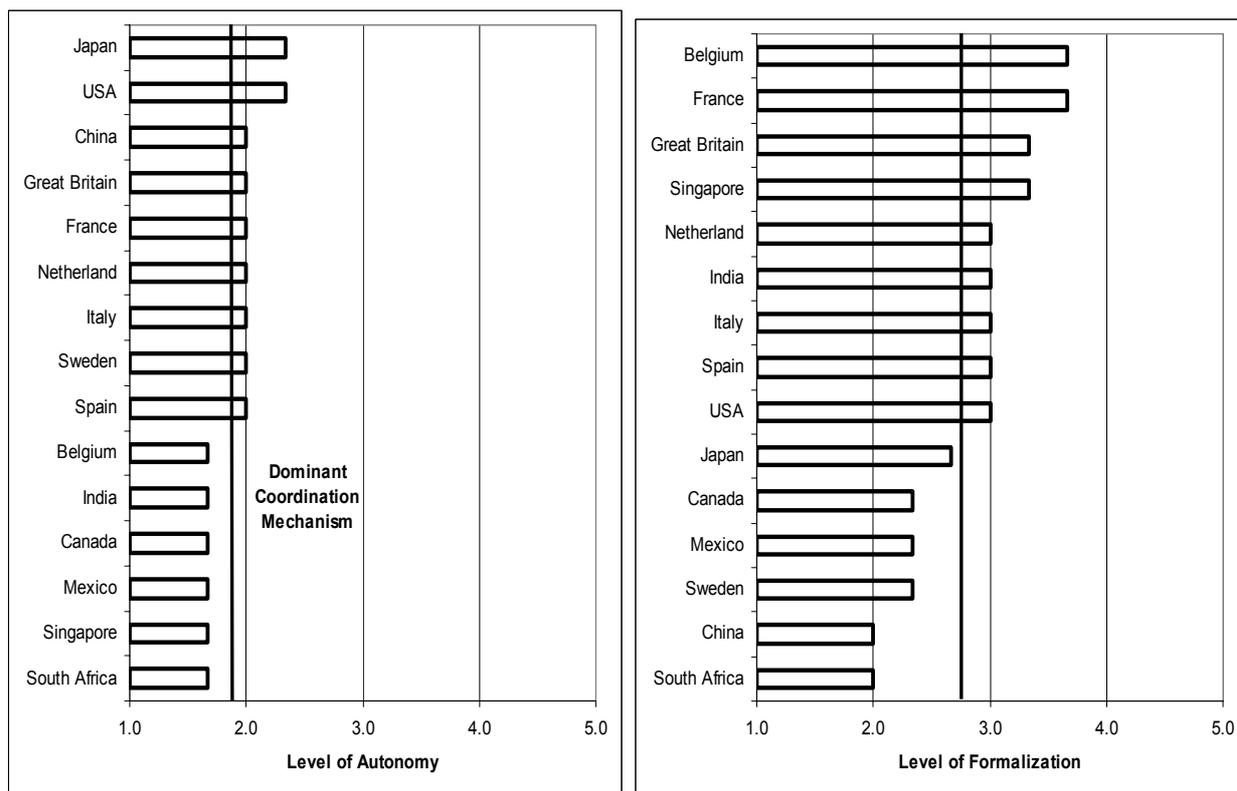
Source: Own depiction

Appendix 95: Analysis of the Coordination of the Subsidiaries of Celanese (2004)
according to the Specified Roles of their Subsidiaries

		Autonomy				Formalization				Socialization			
Strategic		3	5			3	5			3	5		
Leader													
Contributor													
Implementer													
Black Hole													
		from	to	Act.	Fit	from	to	Act.	Fit	from	to	Act.	Fit
Argentina	Contributor	1	3	1.5	Fit	3	5	3.5	Fit	1	3	3.5	Misfit
Australia	Contributor	1	3	1.5	Fit	3	5	3.5	Fit	1	3	3.5	Misfit
Belgium	Contributor	1	3	2.0	Fit	3	5	4.0	Fit	1	3	4.0	Misfit
Brazil	Contributor	1	3	2.0	Fit	3	5	3.5	Fit	1	3	3.5	Misfit
China	Strategic Leader	3	5	3.0	Fit	3	5	4.0	Fit	3	5	4.0	Fit
Great Britain	Contributor	1	3	2.0	Fit	3	5	4.0	Fit	1	3	4.0	Misfit
France	Contributor	1	3	2.0	Fit	3	5	4.0	Fit	1	3	4.0	Misfit
Netherlands	Implementer	1	3	2.5	Fit	1	3	4.0	Misfit	2	4	4.0	Fit
India	Contributor	1	3	1.5	Fit	3	5	3.5	Fit	1	3	3.5	Misfit
Italy	Contributor	1	3	2.0	Fit	3	5	3.5	Fit	1	3	4.0	Misfit
Mexico	Strategic Leader	3	5	2.5	Misfit	3	5	3.5	Fit	3	5	4.0	Fit
Sweden	Strategic Leader	3	5	2.5	Misfit	3	5	4.0	Fit	3	5	4.0	Fit
Singapore	Strategic Leader	3	5	3.0	Misfit	3	5	4.0	Fit	3	5	4.0	Fit
Spain	Black Hole	1	3	3.0	Fit	1	3	4.0	Misfit	3	5	4.0	Fit
South Africa	Contributor	1	3	2.0	Fit	3	5	4.0	Fit	1	3	4.0	Misfit
USA	Strategic Leader	3	5	2.0	Misfit	3	5	4.0	Fit	3	5	4.0	Fit
15 Misfits													

Source: Own depiction

Appendix 96: The Measurement of the Coordination Mechanisms of SGL Carbon (2004)



Source: Own depiction

Appendix 97: Coordination Analysis by means of the EPRG-Scheme and the Network Configuration of SGL Carbon (2004)

Analysis according to the EPRG-Scheme

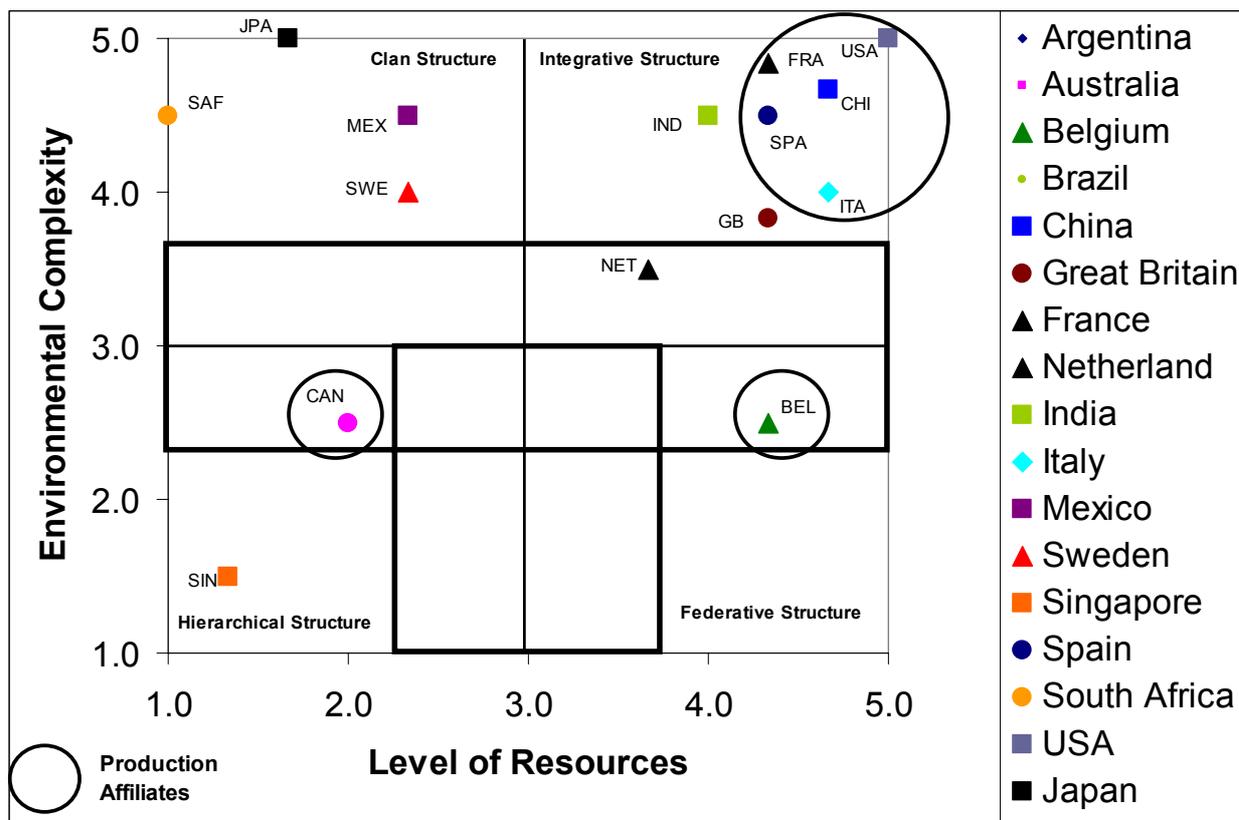
	Autonomy		Formalization		Socialization	
Ethnocentric	1.0	2.3	1.0	2.3	1.0	2.3
Polycentric	1.0	2.3	2.4	3.7	1.0	2.3
Geocentric	2.4	3.7	3.7	5.0	3.7	5.0
Regio-centric						
SGL Carbon 2004	1.9		2.8		4.1	
	Misfit		Misfit		Fit	

Analysis of Network Configuration

	Autonomy		Formalization		Socialization	
International	1.0	2.3	3.7	5.0	1.0	2.3
Multi-Domestic	3.7	5.0	1.0	2.3	2.4	3.6
Global	1.0	2.3	3.7	5.0	1.0	2.3
Transnational	1.0	2.3	3.7	5.0	3.7	5.0
SGL Carbon 2004	1.9		2.8		4.1	
	Fit		Misfit		Misfit	

Source: Own depiction

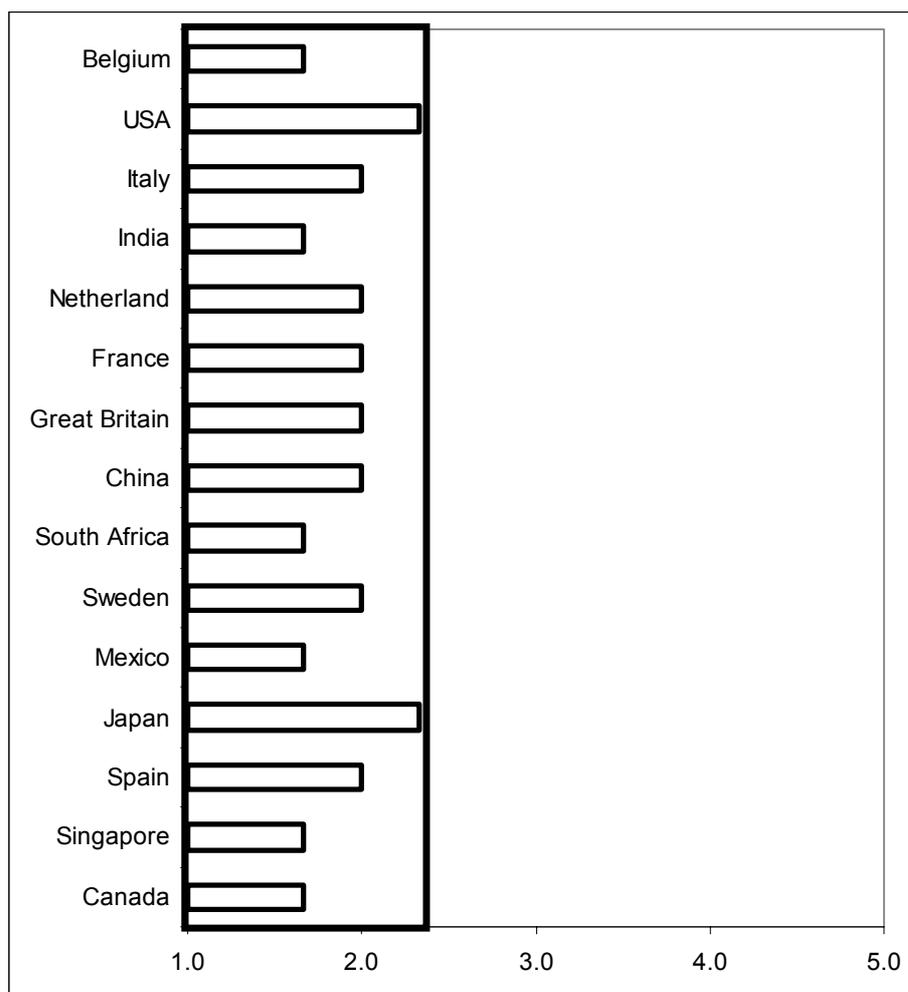
Appendix 98: Clustering of the Subsidiaries of SGL Carbon (2004) according to the Theory Internal Differentiation



Source: Own depiction

Appendix 99: Analysis of the Autonomy of SGL Carbon (2004) according to the Theory Internal Differentiation

Country	Actual	Should		Should-Structure	Fit/Misfit
		from	to		
Canada	1.7	1.0	2.3	Dominant Mechanism	Fit
Singapore	1.7	1.0	2.3	Dominant Mechanism	Fit
Spain	2.0	1.0	2.3	Dominant Mechanism	Fit
Japan	2.3	1.0	2.3	Dominant Mechanism	Fit
Mexico	1.7	1.0	2.3	Dominant Mechanism	Fit
Sweden	2.0	1.0	2.3	Dominant Mechanism	Fit
South Africa	1.7	1.0	2.3	Dominant Mechanism	Fit
China	2.0	1.0	2.3	Dominant Mechanism	Fit
Great Britain	2.0	1.0	2.3	Dominant Mechanism	Fit
France	2.0	1.0	2.3	Dominant Mechanism	Fit
Netherlands	2.0	1.0	2.3	Dominant Mechanism	Fit
India	1.7	1.0	2.3	Dominant Mechanism	Fit
Italy	2.0	1.0	2.3	Dominant Mechanism	Fit
USA	2.3	1.0	2.3	Dominant Mechanism	Fit
Belgium	1.7	1.0	2.3	Dominant Mechanism	Fit
Average	1.9				

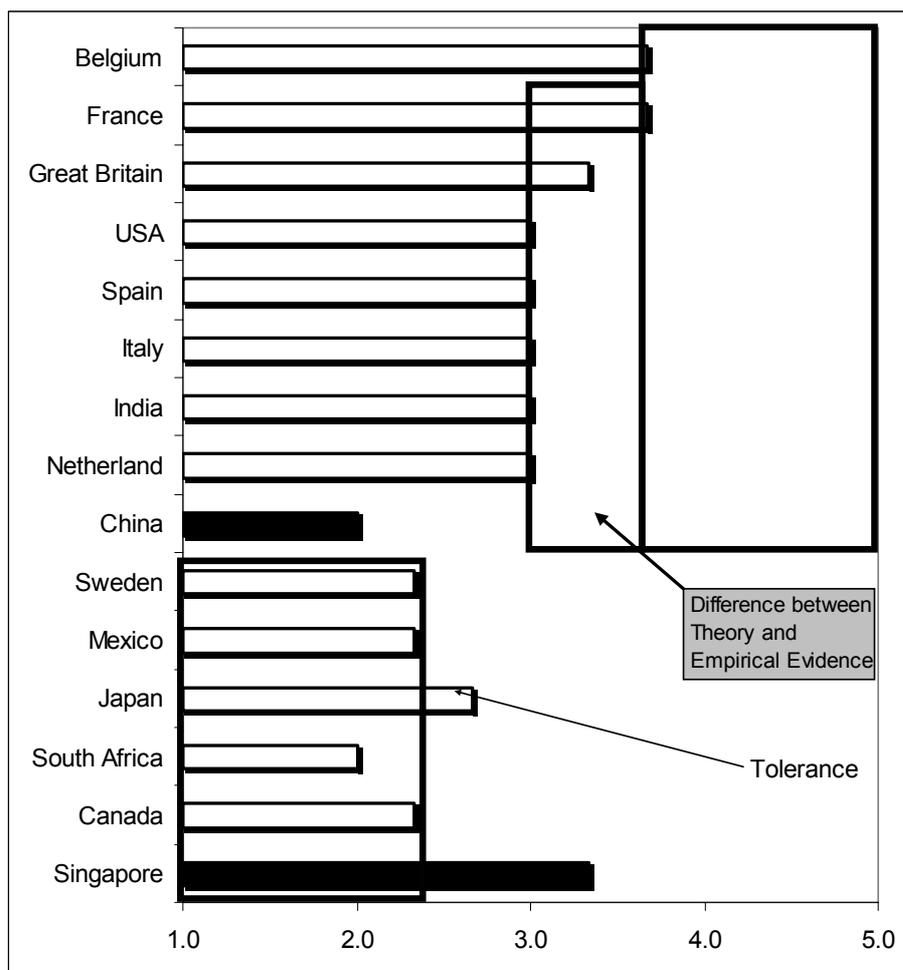


Black bar = Misfit Square = Should structure

Source: Own depiction

Appendix 100: Analysis of Formalization at SGL Carbon (2004) according to the Theory Internal Differentiation

Country	Actual	Should		Should-Structure	Fit/Misfit
		from	to		
Singapore	3.3	1.0	2.3	Hierarchical Structure	Misfit
Canada	2.3	1.0	2.3	Hierarchical Structure	Fit
South Africa	2.0	1.0	2.3	Clan Structure	Fit
Japan	2.7	1.0	2.3	Clan Structure	Tolerance
Mexico	2.3	1.0	2.3	Clan Structure	Fit
Sweden	2.3	1.0	2.3	Clan Structure	Fit
China	2.0	3.0	5.0	Integrative Structure (Theory Problem)	Misfit
Netherlands	3.0	3.0	5.0	Integrative Structure (Theory Problem)	Fit
India	3.0	3.0	5.0	Integrative Structure (Theory Problem)	Fit
Italy	3.0	3.0	5.0	Integrative Structure (Theory Problem)	Fit
Spain	3.0	3.0	5.0	Integrative Structure (Theory Problem)	Fit
USA	3.0	3.0	5.0	Integrative Structure (Theory Problem)	Fit
Great Britain	3.3	3.0	5.0	Integrative Structure (Theory Problem)	Fit
France	3.7	3.0	5.0	Integrative Structure (Theory Problem)	Fit
Belgium	3.7	3.7	5.0	Federative Structure	Fit
Average	2.8				

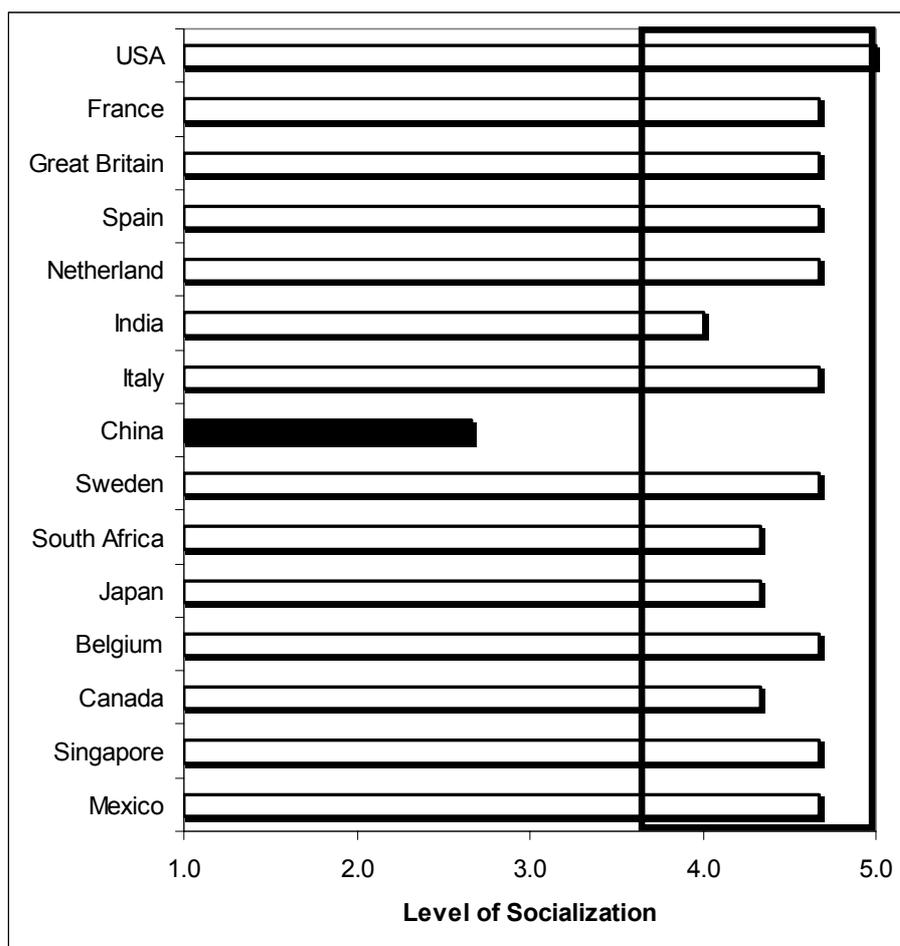


Black bar = Misfit Square = Should structure

Source: Own depiction

Appendix 101: Analysis of the Shared Values at SGL Carbon (2004) according to the Theory Internal Differentiation

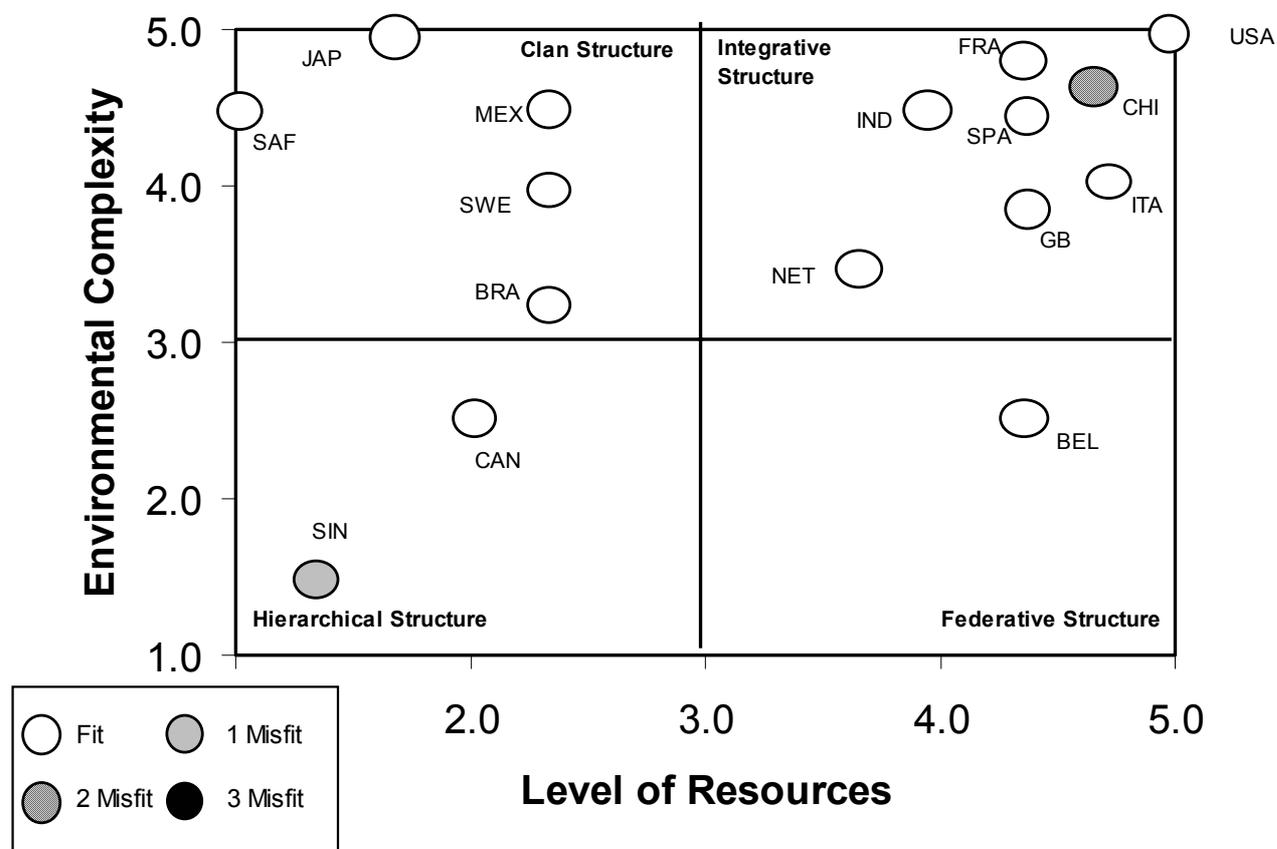
Country	Actual	Should		Should-Structure	Fit/Misfit
		from	to		
Mexico	4.7	1.0	2.3	Dominant Mechanism	Fit
Singapore	4.7	1.0	2.3	Dominant Mechanism	Fit
Canada	4.3	1.0	2.3	Dominant Mechanism	Fit
Belgium	4.7	1.0	2.3	Dominant Mechanism	Fit
Japan	4.3	1.0	2.3	Dominant Mechanism	Fit
South Africa	4.3	1.0	2.3	Dominant Mechanism	Fit
Sweden	4.7	1.0	2.3	Dominant Mechanism	Fit
China	2.7	1.0	2.3	Dominant Mechanism	Misfit
Italy	4.7	1.0	2.3	Dominant Mechanism	Fit
India	4.0	1.0	2.3	Dominant Mechanism	Fit
Netherlands	4.7	1.0	2.3	Dominant Mechanism	Fit
Spain	4.7	1.0	2.3	Dominant Mechanism	Fit
Great Britain	4.7	1.0	2.3	Dominant Mechanism	Fit
France	4.7	1.0	2.3	Dominant Mechanism	Fit
USA	5.0	1.0	2.3	Dominant Mechanism	Fit
Average	4.1				



Black bar = Misfit Square = Should structure

Source: Own depiction

Appendix 102: Analysis of SGL Carbon (2004) according to the Theory Internal Differentiation



The measurement of the Difference Measure for SGL Carbon (2004)

Autonomy	Formalization	Socialization				
	China 1.0	China 1				
	Singapore 1.0					
	Sum 2.0	Sum 1.0				
	Average 1.0	Average 1.0				
<table border="1"> <tbody> <tr> <td>Total Deviation</td> <td>3.0</td> </tr> <tr> <td>Total Average</td> <td>1.0</td> </tr> </tbody> </table>			Total Deviation	3.0	Total Average	1.0
Total Deviation	3.0					
Total Average	1.0					

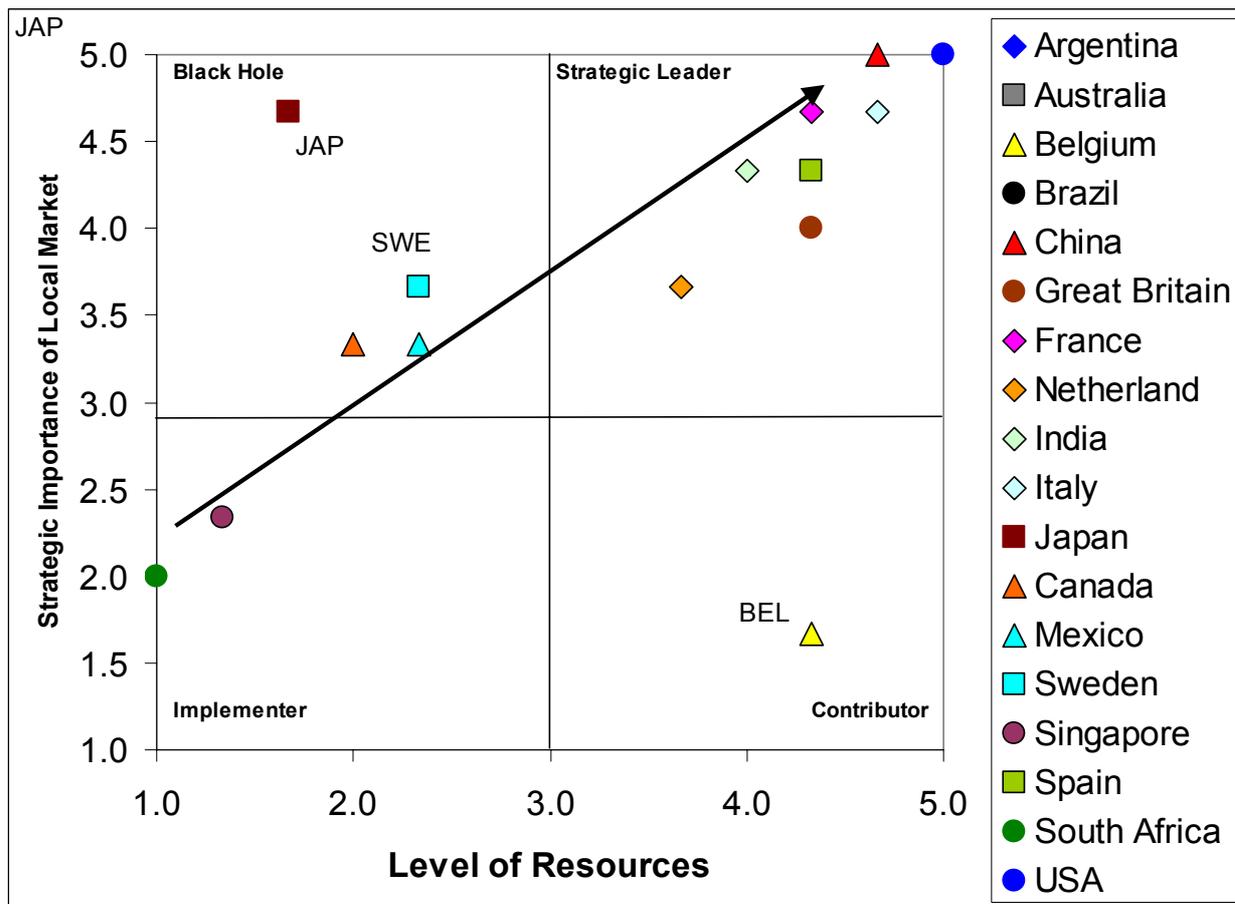
Source: Own depiction

Appendix 103: Analysis of the Requisite Complexity at SGL Carbon (2004)

Differentiated Network			SGL 2004	Differentiated & Integrated
Structural Uniformity			Integrated	
Differentiated Fit		Differentiated		
Ad hoc Variation	No Coord. Strategy			
	International	Multinational	Global	Transnational

Source: Own depiction

Appendix 104: Analysis of Specified Roles at SGL Carbon (2004)



Source: Own depiction

Appendix 105: Analysis of the Coordination of SGL Carbon (2004)
according to the Specified Roles of their Subsidiaries

		Autonomy				Formalization				Socialization			
		from	to	Act.	Fit	from	to	Act.	Fit	from	to	Act.	Fit
	Strategic Leader	3	5			3	5			3	5		
	Contributor	1	3			3	5			1	3		
	Implementer	1	3			1	3			2	4		
	Black Hole	1	3			1	3			3	5		
Belgium	Implementer	1	3	1.7	Fit	1	3	3.7	Misfit	2	4	4.7	Misfit
China	Strategic Leader	3	5	2.0	Misfit	3	5	2.0	Misfit	3	5	2.7	Misfit
Great Britain	Strategic Leader	3	5	2.0	Misfit	3	5	3.3	Fit	3	5	4.7	Fit
France	Strategic Leader	3	5	2.0	Misfit	3	5	3.7	Fit	3	5	4.7	Fit
Netherlands	Strategic Leader	3	5	2.0	Misfit	3	5	3.0	Fit	3	5	4.7	Fit
India	Strategic Leader	3	5	1.7	Misfit	3	5	3.0	Fit	3	5	4.0	Fit
Italy	Strategic Leader	3	5	2.0	Misfit	3	5	3.0	Fit	3	5	4.7	Fit
Japan	Black Hole	1	3	2.3	Fit	1	3	2.7	Fit	3	5	4.3	Fit
Canada	Black Hole	1	3	1.7	Fit	1	3	2.3	Fit	3	5	4.3	Fit
Mexico	Black Hole	1	3	1.7	Fit	1	3	2.3	Fit	3	5	4.7	Fit
Sweden	Black Hole	1	3	2.0	Fit	1	3	2.3	Fit	3	5	4.7	Fit
Singapore	Contributor	1	3	1.7	Fit	3	5	3.3	Fit	1	3	4.7	Fit
Spain	Strategic Leader	3	5	2.0	Misfit	3	5	3.0	Fit	3.0	5.0	4.7	Fit
South Africa	Contributor	1	3	1.7	Fit	3	5	2.0	Misfit	1.0	3.0	4.3	Misfit
USA	Strategic Leader	3	5	2.3	Misfit	3	5	3.0	Fit	3.0	5.0	5.0	Fit
Amount Misfits	14	31%											

Source: Own depiction

Appendix 106: Statistical Evaluation of Coordination by Company

Statistical Evaluation of Bosch EW (1993)

	Socialization	Autonomy	Formalization	Environ. Complexity	Resources	Strategic Importance
Socialization	1.0					
Autonomy	-0.6	1.0				
Formalization	0.8	-0.4	1.0			
Env. Complex.	0.16	-0.05	0.68	1.00		
Resources	0.44	0.11	0.68	0.58	1.00	
Strat. Import.	0.43	0.00	0.72	0.70	0.96	1.00

Statistical Evaluation of Hoechst (1994)

	Socialization	Autonomy	Formalization	Env. Complex.	Resources	Strategic Importance
Socialization	1.00					
Autonomy	-0.13	1.00				
Formalization	0.60	-0.08	1.00			
Env. Complex.	0.64	0.29	0.46	1.00		
Resources	0.45	0.35	0.71	0.54	1.00	
Strat. Import.	0.39	0.25	0.42	0.65	0.83	1.00

Statistical Evaluation of SGL Carbon (1997)

	Socialization	Autonomy	Formalization	Env. Complex.	Resources	Strategic Importance
Socialization	1.00					
Autonomy	0.79	1.00				
Formalization	0.68	0.83	1.00			
Env. Complex.	0.27	0.26	0.03	1.00		
Resources	0.65	0.91	0.89	0.26	1.00	
Strat. Import.	0.33	0.35	0.25	0.78	0.39	1.00

Statistical Evaluation of Philipp Holzmann (2000)

	Socialization	Autonomy	Formalization	Env. Complex.	Resources	Strategic Importance
Socialization	1.00					
Autonomy	-0.61	1.00				
Formalization	0.35	0.26	1.00			
Env. Complex.	-0.53	0.42	0.24	1.00		
Resources	-0.44	0.91	0.51	0.49	1.00	
Strat. Import.	-0.06	0.48	0.33	0.10	0.71	1.00

Statistical Evaluation of Bosch EW (2004)

	Socialization	Autonomy	Formalization	Env. Complex.	Resources	Strategic Importance
Socialization	1.0					
Autonomy	0.5	1.0				
Formalization	0.7	0.7	1.0			
Env. Complex.	0.65	0.30	0.38	1.00		
Resources	0.76	0.76	0.87	0.50	1.00	
Strat. Import.	0.88	0.59	0.84	0.73	0.87	1.00

Statistical Evaluation of Celanese (2004)

	Socialization	Autonomy	Formalization	Env. Complex.	Resources	Strategic Importance
Socialization	1.0					
Autonomy	0.6	1.0				
Formalization	0.7	0.6	1.0			
Env. Complex.	0.48	0.61	0.43	1.00		
Resource Level	0.57	0.87	0.80	0.66	1.00	
Strat. Importance	0.57	0.80	0.61	0.80	0.87	1.00

Statistical Evaluation of SGL Carbon (2004)

	Socialization	Autonomy	Formalization	Umweltkompl	Resources	Strategic Importance
Socialization	1.00					
Autonomy	0.08	1.00				
Formalization	0.52	0.07	1.00			
Env. Complex.	-0.19	0.57	-0.28	1.00		
Resources	-0.07	0.37	0.45	0.30	1.00	
Strat. Import.	-0.24	0.74	-0.04	0.68	0.55	1.00

Source: Own depiction

Appendix 107: Statistical Evaluation of the Coordination regarding Groups

	Socialization	Autonomy	Formalization	Env. Complex.	Resources	Strategic Importance
All Case Studies						
Socialization	1.000					
Autonomy	-0.260	1.000				
Formalization	0.584	-0.036	1.000			
Env. Complex.	0.377	0.020	0.050	1.000		
Resources	0.377	0.339	0.486	0.468	1.000	
Strat. Import.	0.347	0.152	0.225	0.736	0.712	1.000
Case Studies 1993-1997 Initial Study						
Socialization	1.000					
Autonomy	0.141	1.000				
Formalization	0.614	0.352	1.000			
Env. Complex.	0.387	0.029	0.273	1.000		
Resources	0.526	0.446	0.704	0.445	1.000	
Strat. Import.	0.370	0.067	0.327	0.719	0.664	1.000
Case Studies 2004 Follow-up Study						
Socialization	1.000					
Autonomy	-0.129	1.000				
Formalization	0.325	0.330	1.000			
Env. Complex.	0.402	0.147	-0.207	1.000		
Resources	0.277	0.536	0.330	0.487	1.000	
Strat. Import.	0.379	0.470	0.133	0.754	0.758	1.000

Source: Own depiction

Appendix 108: Evaluation of Measurements according to the EPRG-Scheme
and according to the Network Configuration

Analysis according to the EPRG-Scheme

Initial Study	
Bosch EW	No statement, because transnational segment not described
Hoechst 1994	Centralization: Fit, Misfit at Formalization and Normative Integration Evaluation: Right
SGL Carbon 1997	Centralization: Fit, Misfit at Formalization and Normative Integration Evaluation: Wrong, Centralization as Fit despite in Reality criticized
Holzmann 2000	No statement, because transnational segment not described
Follow-up Study	
Bosch EW 2004	2 Misfit and one tolerance measure (Centralization)
Celanese	Fit at Formalization und Normative Integration, Tolerance at Centralization
SGL Carbon 2004	Fit at Normative Integration, Misfit at Centralization and Formalization

Analysis according to the Network Configuration

Initial Study	
Bosch EW	Misfit at all mechanisms Evaluation: Right
Hoechst 1994	Misfit at all instruments Evaluation: Right
SGL Carbon 1997	Centralization: Fit, Misfit at Formalization und Normative Integration Evaluation: Right
Holzmann 2000	No statement, because transnational segment not described Evaluation: Right
Follow-up Study	
Bosch EW 2004	No statement, because transnational segment not described
Celanese	Fit at Formalization und Normative Integration, Tolerance at Centralization
SGL Carbon 2004	Fit at Normative Integration, Misfit at Centralization and Formalization

Source: Own depiction

Appendix 109: Comparison of Correlations to Situational Approaches compared to Nohria und Ghoshal (Internal Differentiation)

Nohria and Ghoshal are the authors' of the original study and theory

Initial Study 1993-2000

	Socialization		Centralization		Formalization	
	Launer	Nohria/ Ghoshal	Launer 1)	Nohria/ Ghoshal	Launer	Nohria/ Ghoshal
Env. Complex Resources	0.39	0.26	-0.03	-0.27	0.27	0.31
	0.53	0.51	0.45	-0.48	0.70	0.50

Follow-up Study 2004

	Socialization		Centralization		Formalization	
	Launer	Nohria/ Ghoshal	Launer 1)	Nohria/ Ghoshal	Launer	Nohria/ Ghoshal
Env. Complex Resources	0.40	0.26	-0.15	-0.27	-0.21	0.31
	0.28	0.51	-0.54	-0.48	0.33	0.50

Total Study

	Socialization		Centralization		Formalization	
	Launer	Nohria/ Ghoshal	Launer 1)	Nohria/ Ghoshal	Launer	Nohria/ Ghoshal
Env. Complex Resources	0.38	0.26	-0.02	-0.27	0.05	0.31
	0.38	0.51	-0.34	-0.48	0.49	0.50

1) The values for autonomy have been converted by multiplying with -1.

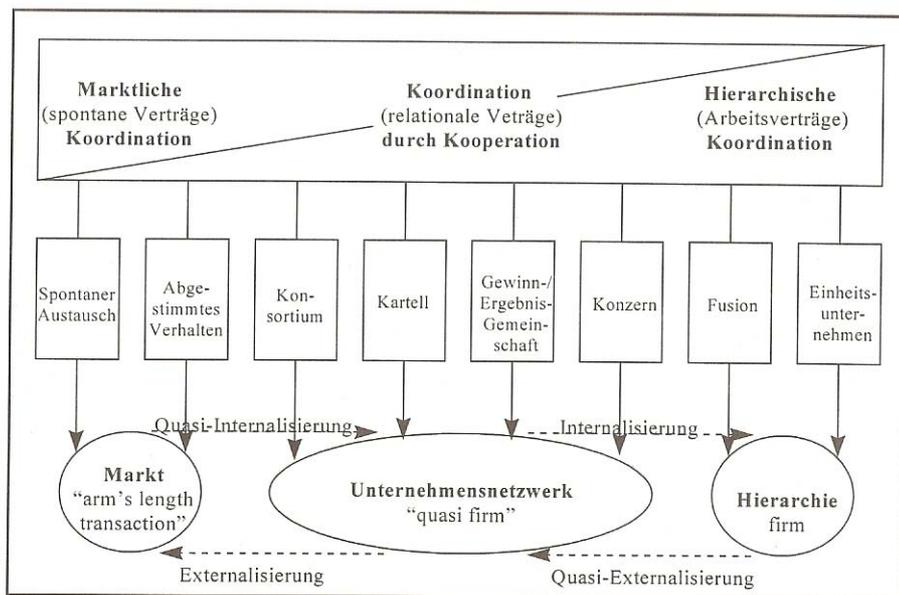
Source: Own depiction

Appendix 110: Evaluation of the Measurement of the Tolerance Measure
(Internal Differentiation)

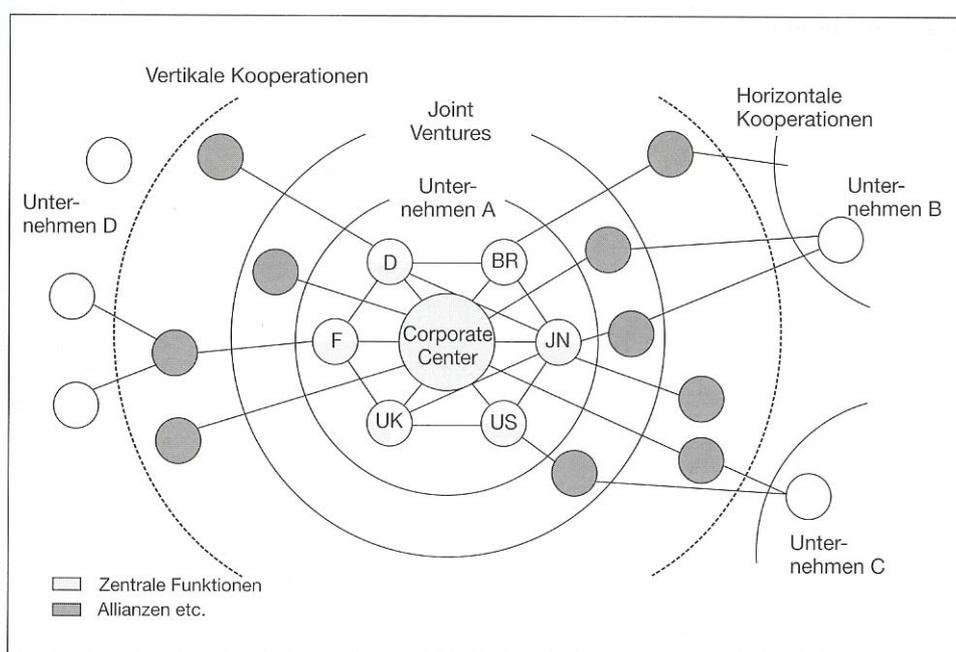
Initial Study	Total Deviation	Average
Bosch EW 1993	11.8	1.0
Hoechst Chemie 1994	12.4	1.0
SGL Carbon 1997	6.2	1.0
Philipp Holzmann 2000	23.7	1.4
Follow-up Study		
Bosch EW 2004	5.2	0.4
Celanese 2004	3.0	0.6
SGL Carbon 2004	3.0	1.0

Source: Own depiction

Appendix 111: Inter-Organizational Approaches in Coordination Research



Source: Sydow, J., 1991, P. 15



Source: Rall, W., 2002, P. 769

11. Expert Interviews Initial- and Follow-up Study

Robert Bosch Power Tools (Bosch EW)

Domestic	Chur, W.	Managing Director Marketing and Sales
	Diehl, G.	Country Referent, Sales International
	Dobelmann, P.	Country Referent, Sales Europe
	Hardsee, S.G.	Sales Europe
	Klene, M.	VAD Head of Sales Germany
	Raschke, U.	Head of Sales Germany
	Scheuer, P.	Head of Sales Europe
	Streitberg, H.	Export Group Leader, Sales International
	Thumm, T.	Head of Controlling and Accounting
	Rose, G.	Head of Controlling and EW/SEE, -/P-SE
	Loehn, M.	Head of Accounting
	Gehri, M.	EW/SEE, -/P-SE
	Walz, T.	EW/SEE, -/P-SE
RG Australia	Mills, G.W.	Divisional General Manager
	Retalack, K.J.	National Sales Manager
RG Belgium	Seidel, B.	Marketing Service Manager
	Verdoonkt, T.	Assistant to Managing Director
	Peters, M.	Division Manager
RG Great Britain	Merrett, T.	Marketing Manager EW
	MacDonald, A.R.	Marketing Manager Consumer Products
RG Japan	Becker, M.	Managing Director
	Mizoguchi, H.	Division Manager EW
RG Canada	Wilson, M.S.	Division Manager EW
RG Sweden	Öhrn, Ch.	Head of Service Bosch & Blaupunkt
	Linne, S.	Head of Finance
	Tornheimer, C.	Marketing Director
	Björelind, T.	Product Manager
RG South Africa	Dreyer, D.	Director EW
	Wright, G.	Managing Director

Siemens AG

Headquarters	Conradi, W.	Central Personnel Dept.
GB KWU	Holfeld, H.	Business Development, Policy Planning
GB ANL	Mündler, H.	Chief Engineer and Deputy Director

BASF AG

Headquarters	Kirch, M.	Central Personnel Dept.
	Hoppe, M.	Marketing Services
	Mandt, S.	Corporate Identity BASF International
	Mühling, T.	Director Logistics

Hoechst AG

Headquarters	Keidtel, V.	Head of Marketing and Sales
	Bogner, M.	Sales Coordination International
	Meier, A.	Head of BU Chemical
	Urbanczyk, A.	Corporate Controlling
	Jakobsmeier, J.	Head of Corporate Controlling
	Luhmann, M.	Head of Accounting
	Eisenächer, S.	Personnel International
	Spannuth, H.	Head of Controlling GB Chemicals

SGL Carbon Group

Headquarters	Koehler, R.	CEO & Chairman
	Toniolo, B.	CFO, Head of Finance & Accounting
	Heins-Bunde, H.	Head of Corporate Planning & Coordination
	Denhof, S.	Head of Personnel, Managing Director BU GB Carbon & Graphite
	Schull, J.	Director Marketing
	Harenberg, R.	Head of Investor Relations
	Dietz, P.	Head of Public Relations
USA	Hofman, P.	SVP, Head of Personnel
	Breier, T.	Head of BU Graphite Electrodes USA
	Bower, S.	Head of Controlling and Accounting
	Baia, B.	Head of Personnel Niagara Falls

Philipp Holzmann AG

Headquarters	Binder, M.	CEO & Chairman
	Lütkestratkötter, J.	Member of the Board of Management International
	Michalke, A.	Head of Corporate Strategy & Planning
	Hochgrebe, C.	Head of Mergers & Acquisitions
	Gies, G.	Corporate Controlling
	Harmening, G.	Head of Operations Germany
	Hansen, B.	Head of Sales Germany
	Marcour, H.-J.	Head of IT
	Ernst, M.	Head of Personnel
	Schwake, J.	Head of Purchasing

Celanese AG

Headquarters	Dr. Pohlmann, A.	Member of the Board of Management and Chief Operating Officer (COO)
	Henschel, A.	Corporate Controlling
	Jakobsmeier, J.	Head of Controlling & Accounting
	Schulz, T.	Head of Sales
	Stine, A.	Head of Investor Relations

McKinsey & Co.

Office Stuttgart	Rall, W. Dr.	Principal
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Boston Consulting Group

Office München	Herp, Th. Dr.	Managing Director
	Grebe, M.	Senior Consultant

BAIN & Co.

Office München	Jorquera, M.	Senior Consultant
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INSEAD

Chair	Ghoshal, S. Prof.	Chair Corporate Policy
	Korine, Harry	Assistant, Chair Corporate Policy.

University Mannheim

Chair	Raffée, H.	Chair BA and Marketing II
Assistant	Wiedmann, K.-P.	Chair BA and Marketing II
Chair	Perlitz, M.	Chair International Management
Assistant	Schnauffer, R.	Chair International Management
Assistant	Bufka, J.	Chair International Management

University Indiana, USA

Chair	Kroener, P.	International Management
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Company interviews in New York 2002-2004

Deutsche Bank	Winter, W.	Managing Director
Deutsche Bank	Dostmann, W.	Managing Director
Deutsche Telekom	Grosse, P.	CEO & President
EON USA, Inc.	Budenbender, G.	CEO & President
BMW USA, Inc.	Purves, T.	CEO BMW North America
BASF USA, Inc.	Engel, H.	CFO, Head of Finance
KPMG USA	Fischer, B.	Head of Audit, German Practice
Deutsche Botschaft	Fischer, K.	Minister of Economics
Stinnes USA, Inc.	Maier, H.	CEO & President
KPMG USA	Nuernberger, E.	Head of Taxes, German Practice
Consulate New York	Schlüter, S.	Head of Economics Department
Festo USA, Inc.	Zobel, H.-J.	CEO & President
Paramount Group	Behler, A.	President & CEO
Latham & Watkins	Thal, S.H.	Partner Law Firm
Cap Gemini	Schulz, M.	Partner, Business Consultant
Gruner & Jahr USA	Fahrbach, P.	EVP, Managing Director
Lufthansa USA	Kuhnke, J.	Director of Finance
HypoVereinsbank	Bub, S.	CEO & General Manager

Interviews with German American organizations in New York 2002-2004

German American Chamber of Commerce, Inc.	Walbroel, W.	CEO & President
American Council on Germany	Hamilton, H.G.	President
German American Roundtable	Lutringer, R. E.	Founder
European-American Business Org.	Oehme, S.	CEO & President
German Executive Club	von Hardtmuth, M.	Vice President
CEO Roundtable, New York	Dostmann, W.	Co-President
CFO Roundtable, New York	Kroener, P.	Co-President

Questionnaire

12. Questionnaire for the Headquarters

1. General questions

- a. Name _____
- b. Function or title _____
- c. Name of the company _____
- d. Business Unit _____

e) Please indicate whether you work on a Group level (holding, board of management) or on a business unit level.

Group level _____

Business Unit _____

Name of Business Unit _____

f. Please indicate the function you are working in.

- General Management _____
- Marketing, Product Mgmt., Sales _____
- Purchasing _____
- Production _____
- Research & Development _____
- Finance _____
- Accounting/Controlling _____
- Management Information Systems _____
- Planning _____
- Human Resources _____
- Legal Department _____
- Other _____

g) What kind of organizational structure does your company or business unit have?

- Functional structure _____
- Divisional Structure (by products) _____
- Regional Structure (by countries) _____
- Global Matrix structure _____
- Mixed structure _____
- Business Units _____
- Other _____

2. In some countries, in which your Group is active, the local position of your subsidiary has a strong impact on the global position of the Group. Others could have a lesser **impact on the global position** of the Group. A high impact of a subsidiary in a specific market could be founded on the large size of the country, the high technological level, the importance as a source for raw materials or a strong competition.

Please indicate on a scale from 1 (no impact on global position of the Group) to 5 (high impact on the position of the global Group) the strategic importance of each of the markets listed below.

(Please mark the number with a circle that represents your answer)

	No impact on global position of the Group			high impact on the global position of the Group			No subsidiary
Argentina	1	2	3	4	5	_____	
Australia	1	2	3	4	5	_____	
Belgium	1	2	3	4	5	_____	
Brazil	1	2	3	4	5	_____	
China	1	2	3	4	5	_____	
Great Britain	1	2	3	4	5	_____	
France	1	2	3	4	5	_____	
Netherlands	1	2	3	4	5	_____	
India	1	2	3	4	5	_____	
Italy	1	2	3	4	5	_____	
Japan	1	2	3	4	5	_____	
Canada	1	2	3	4	5	_____	
Mexico	1	2	3	4	5	_____	
Sweden	1	2	3	4	5	_____	
Singapore	1	2	3	4	5	_____	
Spain	1	2	3	4	5	_____	
South Africa	1	2	3	4	5	_____	
USA	1	2	3	4	5	_____	

3. Please rate on the scale from 1 (little governmental regulations) to 5 (high governmental regulations) the extend of **governmental regulations** in each of the following countries that your company faces in your market.

(Please mark the number with a circle that represents your answer)

	No governmental regulations			Very high governmental regulations			No subsidiary
	1	2	3	4	5		___
Argentina	1	2	3	4	5		___
Australia	1	2	3	4	5		___
Belgium	1	2	3	4	5		___
Brazil	1	2	3	4	5		___
China	1	2	3	4	5		___
Great Britain	1	2	3	4	5		___
France	1	2	3	4	5		___
Netherlands	1	2	3	4	5		___
India	1	2	3	4	5		___
Italy	1	2	3	4	5		___
Japan	1	2	3	4	5		___
Canada	1	2	3	4	5		___
Mexico	1	2	3	4	5		___
Sweden	1	2	3	4	5		___
Singapore	1	2	3	4	5		___
Spain	1	2	3	4	5		___
South Africa	1	2	3	4	5		___
USA	1	2	3	4	5		___

4. Please rate on a scale from 1 (not much competition) to 5 (extremely intense competition), the intensity of **competition** your company faces in each of the following markets

(Please mark the number with a circle that represents your answer)

	Not much competition		Extremely intense competition			No subsidiary
	1	2	3	4	5	_____
Argentina	1	2	3	4	5	_____
Australia	1	2	3	4	5	_____
Belgium	1	2	3	4	5	_____
Brazil	1	2	3	4	5	_____
China	1	2	3	4	5	_____
Great Britain	1	2	3	4	5	_____
France	1	2	3	4	5	_____
Netherlands	1	2	3	4	5	_____
India	1	2	3	4	5	_____
Italy	1	2	3	4	5	_____
Japan	1	2	3	4	5	_____
Canada	1	2	3	4	5	_____
Mexico	1	2	3	4	5	_____
Sweden	1	2	3	4	5	_____
Singapore	1	2	3	4	5	_____
Spain	1	2	3	4	5	_____
South Africa	1	2	3	4	5	_____
USA	1	2	3	4	5	_____

5. On a scale of 1 (very slow) to 5 (very high), please indicate the **relative rate of product and process innovations** (for the industry as a whole) that characterizes each of the following markets of the following subsidiary.

(Please mark the number with a circle that represents your answer)

	Very slow innovation rate				Very high innovation rate		No subsidiary
	1	2	3	4	5		___
Argentina	1	2	3	4	5		___
Australia	1	2	3	4	5		___
Belgium	1	2	3	4	5		___
Brazil	1	2	3	4	5		___
China	1	2	3	4	5		___
Great Britain	1	2	3	4	5		___
France	1	2	3	4	5		___
Netherlands	1	2	3	4	5		___
India	1	2	3	4	5		___
Italy	1	2	3	4	5		___
Japan	1	2	3	4	5		___
Canada	1	2	3	4	5		___
Mexico	1	2	3	4	5		___
Sweden	1	2	3	4	5		___
Singapore	1	2	3	4	5		___
Spain	1	2	3	4	5		___
South Africa	1	2	3	4	5		___
USA	1	2	3	4	5		___

6. Some of your organizations in your company may have relatively advanced physical resources (such as technology and capital) and managerial capabilities. Some others may not have such resources to the same extent. On a scale of 1 (low) to 5 (high), please rate the overall **level of resource** availability in your national organization in each of the following countries.

(Please mark the number with a circle that represents your answer)

	Low level of resources					High level of resources	No subsidiary
Argentina	1	2	3	4	5	___	
Australia	1	2	3	4	5	___	
Belgium	1	2	3	4	5	___	
Brazil	1	2	3	4	5	___	
China	1	2	3	4	5	___	
Great Britain	1	2	3	4	5	___	
France	1	2	3	4	5	___	
Netherlands	1	2	3	4	5	___	
India	1	2	3	4	5	___	
Italy	1	2	3	4	5	___	
Japan	1	2	3	4	5	___	
Canada	1	2	3	4	5	___	
Mexico	1	2	3	4	5	___	
Sweden	1	2	3	4	5	___	
Singapore	1	2	3	4	5	___	
Spain	1	2	3	4	5	___	
South Africa	1	2	3	4	5	___	
USA	1	2	3	4	5	___	

7. Different national organizations in your company may enjoy different **levels of autonomy** for deciding their own strategies and policies. On a scale of 1 (very low) to 5 (very high), please rate the extend of local autonomy enjoyed by each of the following national organizations.

(Please mark the number with a circle that represents your answer)

	Very low autonomy				Very high autonomy	No subsidiary
Argentina	1	2	3	4	5	___
Australia	1	2	3	4	5	___
Belgium	1	2	3	4	5	___
Brazil	1	2	3	4	5	___
China	1	2	3	4	5	___
Great Britain	1	2	3	4	5	___
France	1	2	3	4	5	___
Netherlands	1	2	3	4	5	___
India	1	2	3	4	5	___
Italy	1	2	3	4	5	___
Japan	1	2	3	4	5	___
Canada	1	2	3	4	5	___
Mexico	1	2	3	4	5	___
Sweden	1	2	3	4	5	___
Singapore	1	2	3	4	5	___
Spain	1	2	3	4	5	___
South Africa	1	2	3	4	5	___
USA	1	2	3	4	5	___

8. The extent to which policies and systems are formalized may vary within the company, being different for different national organizations. On a scale of 1 (low formalization) to 5 (high formalization), please rate the extent of **formalization of policies and systems** (through instruments such as manuals, standing orders, standard operating procedures, etc.) in each of the following national organizations.

(Please mark the number with a circle that represents your answer)

	Low formalization				High formalization		No subsidiary
Argentina	1	2	3	4	5	___	
Australia	1	2	3	4	5	___	
Belgium	1	2	3	4	5	___	
Brazil	1	2	3	4	5	___	
China	1	2	3	4	5	___	
Great Britain	1	2	3	4	5	___	
France	1	2	3	4	5	___	
Netherlands	1	2	3	4	5	___	
India	1	2	3	4	5	___	
Italy	1	2	3	4	5	___	
Japan	1	2	3	4	5	___	
Canada	1	2	3	4	5	___	
Mexico	1	2	3	4	5	___	
Sweden	1	2	3	4	5	___	
Singapore	1	2	3	4	5	___	
Spain	1	2	3	4	5	___	
South Africa	1	2	3	4	5	___	
USA	1	2	3	4	5	___	

9. Some of your national organizations, compared to others, may be relatively more in tune with the overall goals and management values of the parent company. Let us call this the extend of **shared values**. On a scale of 1 (low shared values) to 5 (high shared values), please rate each of the following national subsidiaries.

(Please mark the number with a circle that represents your answer)

	Low shared values					High shared values		No subsidiary
Argentina	1	2	3	4	5		___	
Australia	1	2	3	4	5		___	
Belgium	1	2	3	4	5		___	
Brazil	1	2	3	4	5		___	
China	1	2	3	4	5		___	
Great Britain	1	2	3	4	5		___	
France	1	2	3	4	5		___	
Netherlands	1	2	3	4	5		___	
India	1	2	3	4	5		___	
Italy	1	2	3	4	5		___	
Japan	1	2	3	4	5		___	
Canada	1	2	3	4	5		___	
Mexico	1	2	3	4	5		___	
Sweden	1	2	3	4	5		___	
Singapore	1	2	3	4	5		___	
Spain	1	2	3	4	5		___	
South Africa	1	2	3	4	5		___	
USA	1	2	3	4	5		___	

Declaration of Honor

13. Declaration of Honor

Herewith I declare that I wrote this doctoral thesis without help from third parties. I did not use any other sources and help than what I declared in the footnotes and the appendix.

This thesis has never before, neither in this nor in a similar way, been presented to any other examination administration.

New York, February 30th, 2005

Markus A. Launer

Publication List
PhD Student Markus A. Launer

1. **„Fallstudie zur differenzierten Koordination ausländischer Tochtergesellschaften multinationaler Unternehmen aus 1993“**
Reinhold Kolb Verlag, Mannheim, 180 pages, 2004
Reviewed and accepted by Reinhard Kolb
2. **„Eine Untersuchung von Lehrbuchtheorien des Internationalen Managements auf deren Aussagegehalt zur differenzierten Koordination ausländischer Tochtergesellschaften multinationaler Unternehmen“**
Reinhold Kolb Verlag, Mannheim, 200 pages, 2004
Reviewed and accepted by Reinhard Kolb
3. **„Die Entwicklung und Anwendung eines praxisorientierten Messinstrumentes zur differenzierten Koordination ausländischer Tochtergesellschaften deutscher multinationaler Unternehmen“**
Reinhold Kolb Verlag, Mannheim, 300 pages, 2004
Reviewed and accepted by Reinhard Kolb
4. **„A Principal Agent and Transaction Cost Perspective on the Coordination of Multinational Enterprises based on the Internal Differentiation Approach“**
Reinhold Kolb Verlag, Mannheim, 50 pages, 2005
Reviewed and accepted by Reinhard Kolb
5. **„A Theoretical Foundation for Various Approaches in Multinational Enterprises“**
Reinhold Kolb Verlag, Mannheim, 65 pages, 2005
Reviewed and accepted by Reinhard Kolb
6. **„Die Kalibrierung der theoretischen Konzepte Internal Differentiation and Specified Roles als Messinstrument“**, in: Prof. Dr. Ralf G. Anderegg: Kölner Studien, Wirtschafts- und Sozialwissenschaftliche Untersuchungen der Universität zu Köln
Verlag im Internet, Dissertationen.de
Reviewed and accepted by Prof. Dr. Ralf G. Anderegg, Wirtschaftspolitisches Seminar der Universität zu Köln
7. **„Ein praxisorientierter Managementansatz zur Koordination ausländischer Tochtergesellschaften“**, in: Prof. Dr. Thomas Hummel, Schriften zum Internationalen Management
Rainer Hampp Verlag, Mering, 300 Seiten, 2005 (print in progress)
Reviewed and accepted by Prof. Dr. Thomas Hummel, Fachhochschule Fulda
8. **„An Advanced Analysis Approach for the Coordination of Foreign Subsidiaries in Multinational Companies“**, in: Prof. Dr. Dr. h. c. Norbert Szyperski, Prof. Dr. Winfried Matthes, Prof. Dr. Udo Winand, Dr. Joachim Griese, Bern, PD Dr. Harald F. O. von Kortzfleisch, Prof. Dr. Ludwig Theuvsen, Prof. Dr. Andreas Al-Laham, Schriftenreihe Planning, Organization and Corporate Leadership
Eul Verlag, Lohmar, 100 pages, 2005 (print in progress)
Reviewed and accepted by Prof. Dr. Udo Winand, University of Kassel
9. **„The Coordination of Estonian Subsidiaries of Foreign Multinationals – An Ethical Perspective and Theoretical Discussion based on the Internal Differentiation Approach“**, Conference Paper by Prof. Dr. Maxim Saat and Markus Launer for the international EBEN Conference, Bonn, September 22-24, 2005
EBEN Conference, Bonn, 30 pages, 2005
Currently under review
10. **„The Coordination of Subsidiaries by differentiated Financial Control“**
Work in progress