

**Distribution of decision power in  
matrix organizations: A qualitative  
survey**

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## **Abstract:**

Matrix organizations were successfully pioneered in the U.S. aerospace industry in the 1960s, which motivated many multinational corporations (MNCs) to implement matrices as a response to a more complex business environment. A vast number of research studies were conducted primarily seeking a single relationship between the strategy and the structure of the MNCs. The approach was mainly quantitative and consisted of studying large samples of MNCs that operated in different industries and countries. Since the late 1980s researchers have lost interest in matrix organizations of MNCs despite the fact that today most MNCs use a matrix organization.

This thesis proposes to breach gaps of the present literature and addresses the questions of 'how' and 'why' German technology MNCs distribute the decision power between headquarters and local subsidiaries. The present study follows a qualitative approach. 31 semi-structured interviews were conducted with experienced managers in order to gain deep understanding of the challenges faced and to reveal recommendations and conclusions with regard to the ideal fit between strategy and structure. As conclusion the thesis suggests the following six answers to the research questions.

First this thesis shows that contemporary MNCs employ various kinds of matrix organizations simultaneously in different parts of the organization because matrices offer a flexible and effective way of concurrently balancing various competing interests. Management and staff are better prepared to mitigate the ambiguity and stress caused by matrix organizations. Both conditions were viewed as primary weaknesses of matrix organizations since its appearance in the 1960s.

Second there is no permanent and universally applicable point of decision power distribution, but rather a constantly changing continuum. Decision power depends on many factors such as maturity of the product, capabilities of the local subsidiary, the national historic heritage of the MNC and the general market environment. There is always a matrix and all matrix dimensions are important because of legal, tax and national regulations or because of customers' requests.

Third this study reveals that the distribution of power is primarily applied to decisions regarding financial investments, human resources and customer strategy. These elements represent the three most important stakeholders of MNCs namely shareholders, employees and customers.

The fourth assertion of this thesis suggests that MNCs implement the strategy-structure fit primarily in the matrix dimensions products, regions and customers. This is because these matrix dimensions can be run and measured with an own Profit & Loss (P&L) statement and therefore treated as quasi-independent companies within the MNCs.

The fifth premise of this thesis recommends that MNCs need to synchronize targets and incentive schemes for all matrix dimension and at the same time establish a culture of collaboration and trust. In addition rules for final decision taking are needed in order to counteract the matrix flaws of delays, high costs and ambiguous accountability.

As sixth and final conclusion this study suggests that conflicts are an inherent feature due to the competing interests of the various matrix dimensions. For understanding conflict resolution and the decision making process in matrix organizations of MNCs both rational economic and power models have to be applied.

This thesis has limitations due to the focus on German technology MNCs and the selection of interviewees. However it proposes that the findings can be applied to other industry segments in other countries and other matrix structures. It recommends that further research should be performed regarding MNCs in specific industries with attention to given to one country of origin using a qualitative approach for instance by conducting interviews. The study in particular recommends that further studies shall investigate the use and dimensions of power for the resolution of conflict and decision making in matrix organizations of MNCs.

I declare that the work in this thesis was carried out in accordance with the regulations of the University of Gloucestershire and is original except where indicated by specific reference in the text. No part of the thesis has been submitted as part of any other academic award. The thesis has not been presented to any other education institution in the United Kingdom or overseas.

Any views expressed in the thesis are those of the author and in no way represent those of the University.

Signed: \_\_\_\_\_ Date \_\_\_\_\_

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## Abbreviations and key terms

CEO	Chief Executive Officer
CFO	Chief Executive Officer
CM	Contribution margin
CMO	Chief Marketing Officer
CTO	Chief Technology (Technical) Officer
EBIT	Earnings before Interest and taxes
GM	Gross margin
HQ	Headquarters
HR	Human Resources
IB	International Business
LC	Local Company (synonym for local subsidiary)
LoA	Limits of Authority
LS	Local subsidiary (synonym for local company)
MNC	Multinational Corporation
MNE	Multinational Enterprise
P&L	Profit & Loss (responsibility or statement)
R&D	Research & Development
SG&A	Selling, General and Administration

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January 2014

Andreas Schröter

For Gonzalo Castellanos Morris



# 1 Introduction

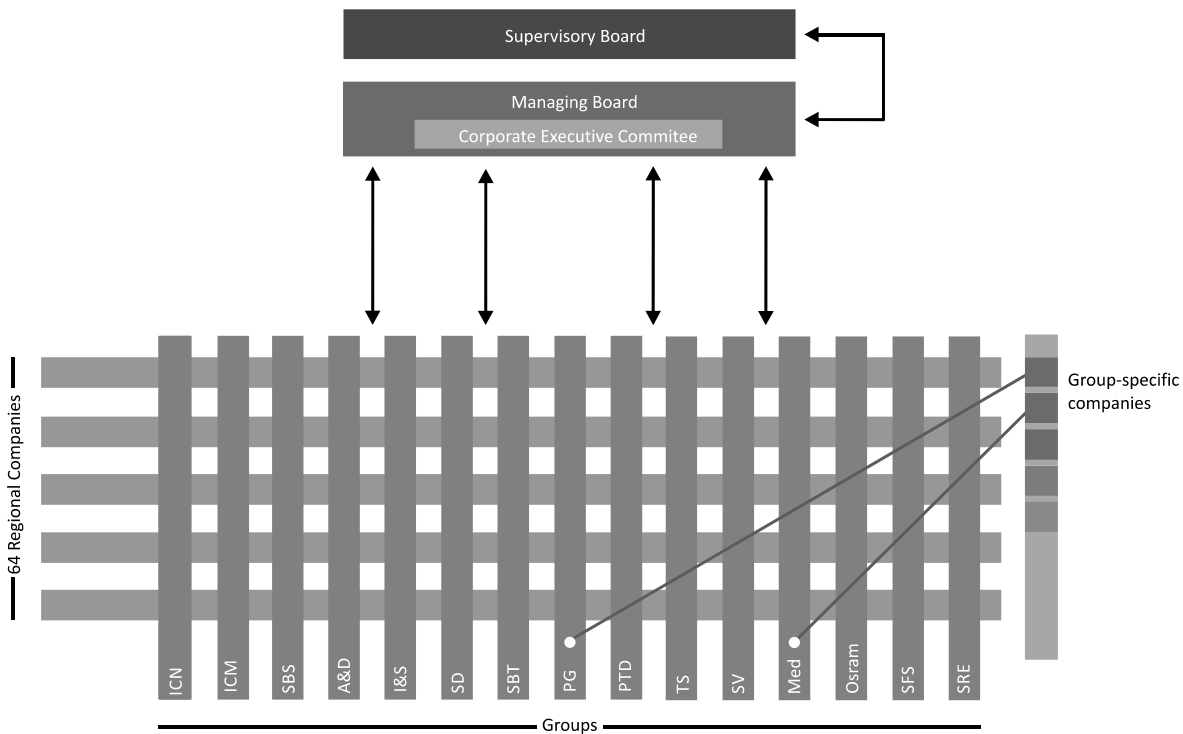
This chapter provides an introduction into the context of this study, my research journey and a summary of the structure of this thesis. It will describe how this doctoral study fit in the context of large German Multinational Corporations (MNCs) using matrix organizations. It will explain when and how the doctoral journey started, how the decision to pursue a doctoral degree was taken and why the specific topic of this thesis was selected. Finally this chapter will provide an outline about the structure of this thesis.

## 1.1 Contextualization and aim of research

Matrices are common in most organizations but particularly in MNCs, however matrices are also present in small and medium sized businesses and a variety of other entities such as not-for-profit organizations, hospitals and universities (K. Hall, 2013; Metcalfe, 2014). MNCs are gaining increased economic power and political influence in the countries they invest in (Brewer & Young, 2009; Czinkota, Ronkainen, Moffett, Marinova, & Marinov, 2009). There are “two distinct images about the nature of multinationals” (Collinson & Morgan, 2009, p. 5) one that views MNCs positively in global and local terms promoting “economic development” (Collinson, 2009) and innovation (Cantwell & Zhang, 2009). The other images are portraying MNCs as “invasive species” (Westney, 2009b, p. 117) exploiting societies and companies of their host countries (Mir & Sharpe, 2009), fostering “uneven development” (Hymer, 1970, 1972a, 1972b) and even challenging the sovereignty of national states (Kobrin, 2009; Vernon, 1971). The German MNC Siemens AG explains in the annual report to its shareholders of 2002 the use of the two dimensional divisional-regional matrix structure shown in Figure 1 (Siemens, 2002, pp. 32-33).

Siemens is representative of many MNCs, which are characterized by both a high variety of product units and a high percentage of international sales (Heinecke, 2011; Hennart, 2009). Many of those MNCs are typically structured in a two dimensional product-regional matrix (Egelhoff, Wolf, & Adzic, 2013; Qiu & Donaldson, 2012). The manager of a product unit in a specific country reports to both the regional manager of the country and also to the global head of the product unit (Burton, Obel, & DeSanctis, 2011). Such MNCs face the challenge of how to balance the interests between these two bosses of the regional-product unit manager (J. R. Galbraith, 2009; Wolf, Egelhoff, & Adzic, 2008).

Figure 1: Siemens matrix structure as reported in the 2002 annual report



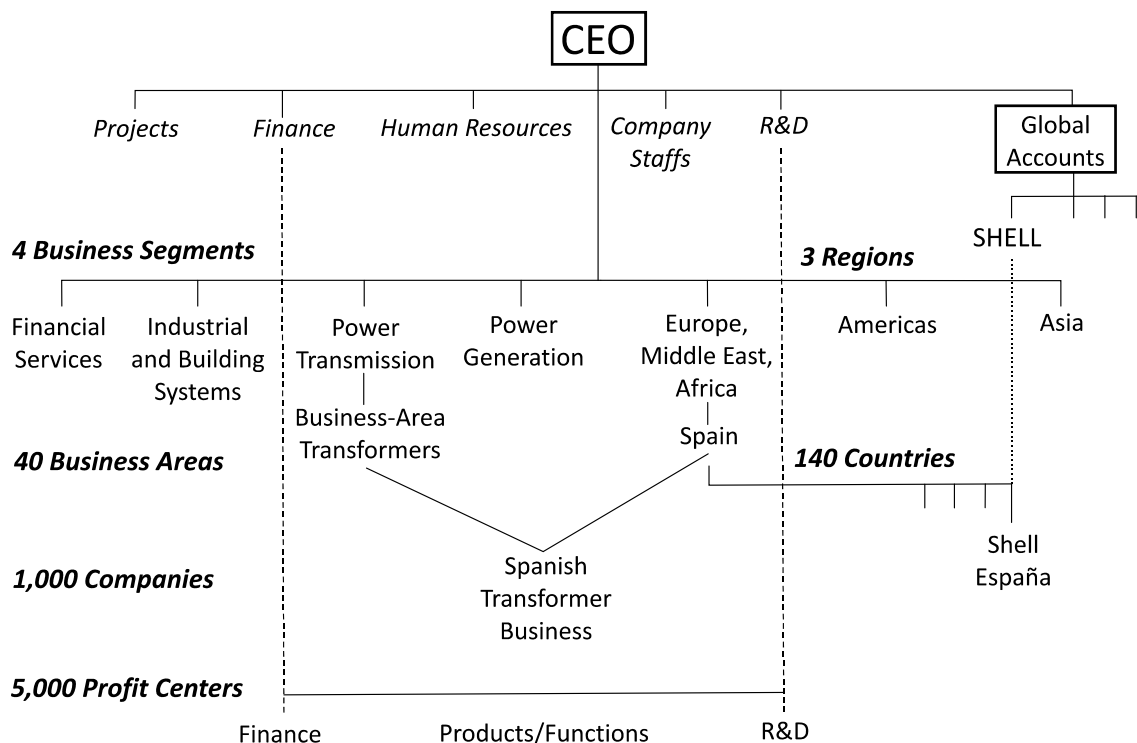
Source: (Siemens, 2002, pp. 32-33).

The question about the balance of interests can be explicated as the uncertainty about the distribution of decision power between product units located in Headquarters (HQs) and local subsidiaries (Cleland, 1981a, 1984). The manager who is affected most by these distributions of decision power is the regional manager of a business unit (Tallman & Yip, 2009). In Figure 1 he is marked by the squares where the regional dimension – shown in the horizontal lines - meets the product line or business unit dimension represented by the vertical columns (J. R. Galbraith, 2000). This thesis focuses on the point where the interest and consequently the decisions power of the regional dimension of the matrix meets with the product dimension. The product and regional dimension can be operated as profit centres like semi-autonomous companies within the larger MNC and their General Managers being responsible for the Profit & Loss (P&L) statement (Agthe, 1990; Goggin, 1974). The Headquarters is used here as the synonym for the location of the worldwide product or business unit, which is still the case in most MNCs (Birkinshaw & Pedersen, 2009; Bowe, 2009). However, some studies suggest that selected MNCs also locate their product unit in local subsidiaries (for example Forsgren, Holm, & Johanson, 1995; Poynter & Rugman, 1982; Roth & Morrison, 1992).

In my experience as practitioner working in various MNCs the matrix organizational structures and the relationship and conflict between Headquarters and subsidiaries has been always a central topic in my day-to-day work. These experiences led me to the research objective of this doctoral study, which is to gain better understanding why and how German technology based MNCs distribute decision power between HQ and LCs. Using the example of Siemens AG as shown in Figure 1 one could also rephrase the questions that I was faced with into: Who is the boss of the regional manager for China of the business unit medical (Med), and why? In the example of Siemens AG, the manager of Siemens Medical in China reports to two different superiors, the manager of Siemens China and the worldwide manager of Siemens Medical (J. R. Galbraith, 2009; Siemens, 2002).

Jay R. Galbraith is one of the key advocates for the use of matrix organizations in MNCs. A typical matrix organizations of a MNCs is for instance ABB's Geography-Business Matrix as shown in Figure 2 where the four business segments, the three regions and all functions report to the CEO (J. R. Galbraith, 2009, p. 102). Another example is Nestlé's three-Dimensional Matrix where similarly two main business units, three units and all main functions report to the CEO (J. R. Galbraith, 2009, p. 100). These examples are considered as evidence that complex matrix organizations are nowadays widely used in major MNCs.

Figure 2: ABB's Geography-Business Matrix



Source: (J. R. Galbraith, 2009, p. 102).

The organizational behaviour scientist Jeffrey Pfeffer is a surprising and rare exception from the sociological and political science research strand by also suggesting the use of matrix organizations in MNCs because of the inherent conflict of interest from regions and business units (Pfeffer, 1981). Despite the widespread use of matrix organizations in contemporary MNCs (Kotler & Keller, 2006; Maier & Werres, 2013) recent international business and management textbooks however either see matrices as problematic (Burton et al., 2011; Czinkota et al., 2009) or associate matrices primarily to temporary projects (Boddy, 2012; Kerzner & Cleland, 1985). In addition recent reports about failed use of matrix organizations in prominent German MNCs (Hoefle, 2012) suggest that there is a continuous need of further research to gain better understanding of matrix organizations.

## **1.2 Structure of this thesis**

The following chapter 2 'Literature Review and theoretical frame of reference' will first provide an overview of the process of how the literature review has been conducted. It will then discuss the origins and current status of research about MNCs and matrix organizations. This will be followed by an overview of current research in the area of matrix structures in modern MNCs as well as allied key issues such as power, decisions making and culture. Chapter 2 finishes with a summary of the various gaps in the present literature which will be addressed by this study.

Chapter 3 'Research design and methodology' conveys the research objectives which led to the research questions and also provide a summary of choices by which this doctoral study is guided. Following it will explain the position followed in this study with regard to the paradigm grid, research philosophy, ontology and epistemology. Then it will provide the reasoning for the decision to follow a qualitative research approach by conducting semi-structured interviews as well as the details related to the process of information gathering. The sub-chapter about research ethics will be followed by the last section summarizing the process of interview analysis.

Chapter 4 'Analysis of interviews' provides an analysis of the 31 semi structured interviews using the method of thematic analysis. The themes identified in the interview analysis will be explained in detail and supported by quotes from the interviewees. Details about the interviewees and their main statements will be provided in order to be able better relating their viewpoints to their personal and professional background.



Chapter 5 'Conclusions, limitations, contribution and future research' presents the main conclusions derived from the interview analysis of chapter 4. It explains in detail the conclusions and by which theme as identified in chapter 4 they are supported. This is followed by a reflection on how the conclusions relate to research questions, the existing literature and the main debates and gaps identified. A summary of the contributions to academic and practical knowledge is followed by the limitations of this research as well as recommendations for further research.

The final chapter 6 provides a summary of this thesis. It addresses the motivation and contextualisation, the research approach and as well the contributions, limitations and recommendations for further research.

### **1.3 My background and research journey**

My interest in the topic of distribution of decision power in matrix organizations of MNCs was developed over twenty years during the course of my professional career. I have worked for several MNCs and occupied several roles both in the headquarters as well in local companies. In my various jobs I faced business issues and situations similar to the one covered in my doctoral thesis. All MNCs I have experience with were organized in variants of matrix organizations. The global heads of the various business units were usually located at corporate headquarters and the local subsidiaries were responsible for selling some or all parts of the various products to local customers. The two-dimensional product-regional matrix that is subject of this doctoral research project existed in all of these organizations. I acted as the head of a product unit in headquarters as well as the regional CEO of a product unit. I managed teams of staff who operated in two, three or more dimensional matrix structures.

I acted in these matrix organizations in my day-to-day business role primarily in a 'learning by doing' methodology. My engineering education included a focus on preparedness for business and management; however, little information was given regarding the specific underlying challenges of operating within matrix organizations. I pursued a Global Executive MBA to better understand general management and business issues in preparation for more senior roles. The MBA curricula provided answers to my questions from the academic and practical side. On the other hand it also nurtured my interest to pursue formal research in the area of business and management. The Doctor of Business Administration programs, which are not yet widely available in Germany, focus on

professional and academic development, rather than a strict curriculum primarily based on academic research. After reviewing several alternatives, I was convinced that DBA programs offered the perfect balance between the academic and practical world.

The DBA programme offered by the University of Gloucestershire in cooperation with the University of Applied Sciences FHM in Bielefeld became my first choice because I was impressed by the dedication and commitment of Volker Wittberg and his staff and I took the calculated risk of joining the first Bielefeld cohort. It was of particular importance to me to have German co-students who also had to become accustomed to the British educational system that is different in many aspects from the German way of pursuing a doctoral degree. By the regular lectures and assignments I was gradually prepared for the doctoral journey. Although I feel that I can be disciplined on pursuing a target I was also aware that due to my professional and family obligations I would have always found perfect excuses to not dedicate time to the DBA. The ability to exchange my ideas and problems with co-students in a similar situation has been of great help throughout the entire journey. Although we all have been working for our own doctorate there still has been some form of positive peer pressure. In the end it has been a win-win situation and we have been helping each other to get through the program.

The first assignment was about literature review, which was very tough, because I was completely drowned in finding the right literature. Purely practical things like getting used to work with the University web page, the various databases and Endnote proved difficult and time consuming at the beginning. I considered dropping out because I felt that my literature review assignment was not very good. Fortunately I persevered and appreciate now towards the end of the journey that we were forced to get exposed to the literature from the very beginning. I learned that a literature review is potentially never finished and that a researcher has to make decisions whether he or she believes to have covered sufficiently the literature.

The second assignment covered methods and methodology, which gave me a great push forward by encouraging me that qualitative research via semi-structured interviews was the perfect choice for my thesis. Apart from being the right choice from an academic standpoint, this decision complemented my experience as a manager regarding the power and value of conversations when trying to gain in-depth understanding. Coming from a rather positivist academic background it has been an entirely different experience learning about business research philosophy, paradigms, methods, methodologies and approaches. Initially I found it particularly difficult to understand and appreciate the different and sometimes contradicting definitions in the area of business and management research. I have not changed my research choices and subsequently have felt as though I were on the right track.

In the third assignment we were asked to review our research choices against the option of action research. The term 'action research' was new to me; however, I realized that I had used action research several times in solving problems in previous jobs. I feel that action research can be a quite helpful and relevant methodology but I chose to commit to my previous choice. One of the main reasons to discard action research for my doctoral study lies in the fact that I separated my doctoral study entirely from my full time job environments in order to avoid any potential conflict of interest.

The last assignment on 'reflective professional development' was also a very helpful exercise. It helped me to critically review the first 18 months of my doctoral journey. I was encouraged to be on the right track and developed a plan for the following 18 to 24 months.

Apart from the first assignment – where I was granted some weeks extension for private reasons - I handed in the assignment at the due date, which always was a great boost of motivation to be on the right track. Apart from the first assignments I also got just A and B grades, which made me proud and gave me further confidence.

The doctoral colloquiums and trainings (RD1, viva) were very helpful to stay in contact with co-students and professors and as well to get my ideas challenged and progress challenged on a regular base. The process of getting the RD1 - approval to officially start with the research I passed through relatively quickly. I associate this to the fact that I had clarity and confidence about my research projects.

The time of interviewing was a very joyful exercise because I gradually could connect my desktop literature review with the views of practitioners and start drawing conclusions. While interviewing I started writing the thesis, starting with the chapters about literature review and methods and methodology. I have kept the initial structure of chapters of the thesis through the process until final submission. I have constantly reviewed the structure and consulted for this various doctoral studies; the outcome of the feedback loop has been minor changes of titles and sub-chapters. Throughout this process to constant contact and feedback with my two supervisors has been of great help and inspiration.

The research objective and the research questions have stayed relatively constant throughout the journey of my thesis. I wanted to better understand academically and practically the distribution of decision power between HQs and LCs of MNCs. I joined the DBA program with 15 years of experience working in MNCs and therefore I had some opinions and views about some challenges and their potential solutions. However I had no clear view of the outcome of the thesis, otherwise I might not have taken the decision to pursue a doctoral degree or at least I had selected a different

topic. Now at the end of the process I am quite happy to have gained better understanding and clarity and I am proud and confident that the answers to the research questions in this thesis make an important contribution to the academic and practical world. In fact I am applying some of the findings of this thesis in my current work environment.

A major milestone in my research journey was the viva based on a previous version of this thesis. My thesis was criticized for a number of issues and I was permitted to re-submit an adapted version of the thesis. Among other things one of the main criticisms was the absence of reviewing and reflecting on literature about power and decision making. This consequently resulted in a major project for me engaging with a body of literature that I had basically ignored, as the examiners rightly pointed out. Although it was quite time consuming I sincerely enjoyed reading and learning about a variety of views on power and decision making. Both topics are part of my daily private and business and now I feel much better prepared to relate practical experiences with the academic foundations. In summary I am confident that my thesis is now a much better piece of work than it was originally.

Looking back at the entire research journey I have to acknowledge that it has been sometimes quite tough and challenging to find time on doing my research and in particular finally writing the thesis while having a very demanding full time job and a family with three young children, of which my youngest son was born during my studies. However it was a great motivation for me to prove that studying a doctorate while working full time is possible without compromising my professional and family commitments when staying focussed and constantly working on small steps the progress.

At the inauguration ceremony of the first Bielefeld cohort, my first supervisor Volker Wittberg advised us that we should be prepared to run for the next three to four years. He also raised the expectation that when submitting the final thesis we should expect to become one of the top world experts in our particular fields of research. Looking at my doctoral journey I feel that I indeed have been running a lot over the last more than three years. With regard of being among the top experts I am modest and realistic enough to understand that I shall not try to compare myself with full time academics. I however have checked the results of my thesis with some well-known academics in the field of matrix organizations and MNCs and got the feedback that my research is an important addition to the current academic and practical knowledge. I definitely hope and plan that my academic journey does not finish with the submission of my thesis. I would very much like to do further research such as publishing articles and speaking at conferences. Further I would like to passing on my knowledge and experience as a lecturer.

## **2 Literature Review and theoretical frame of reference**

The following chapter will at first describe the process and outcome of the systematic literature review. Then it will cover the history and origin of modern MNCs as well the definition and historic development of matrix organizations in MNCs. The next section reviews how the MNC related literature that has started emerging since the 1950s from two basic streams, namely International Business (IB) and socio political studies, have been addressing issues of internationalization, centralization and de-centralizations and HQ-subsiidiary relationships. The next section will cover the aspect of power from its traditional medieval routes via 19<sup>th</sup> century's sociologist to its intensive study in particular in the context of organizations since the 1950s. The next section will review the research on decision making from different angles. The subsequent section will link the previous sections about MNCs, power and decisions making by addressing how the topics of power and politics have been covered in traditional IB and sociologist literature streams. The thin literature covering explicitly decision power distribution in matrix organizations in MNCs is addressed in the following section before briefly addressing how aspects of national and organizational culture have been addressed in the literature. The last section of this chapter links all the previous sections together by identifying the literature gaps that the present doctoral studies will address.

### **2.1 Literature review process**

In order to compile a successful research paper such as a doctoral study it is important to define a strategy of reviewing the existing literature (Saunders, Lewis, & Thornhill, 2009). This is a crucial prerequisite because a researcher must demonstrate how her or his work relates to the existing research in similar fields and identify which research gaps need to be addressed (Saunders et al., 2009). Saunders et al. (2009, pp. 61-62) summarizes the main reasons for reviewing the literature systematically as follows:

- To refine the research question.
- To avoid repeating work that already has been done.
- To find out about topics and issues for additional work.

- To explore how other researchers applied similar methodologies and methods.

Saunders et al. (2009) uses the term 'critical' literature review whereas many other text books about business and management research (for example Bryman & Bell, 2011; Cavana, Delahaye, & Sekaran, 2001; Collis & Hussey, 2009; Easterby-Smith, Thorpe, & Jackson, 2008; Walliman, 2011) refer simply to literature review or 'systematic' literature review or survey. Saunders et al. (2009) further on argue, that the term 'critical' is needed based on the work of Mingers (2000) who recommends that researchers much be critical in the following four aspects (Mingers, 2000, p. 227; Saunders et al., 2009, p. 64)

- "Critique of rhetoric (critical thinking).
- Critique of tradition.
- Critique of authority.
- Critique of objectivity."

This thesis is guided by a realist approach as will be explained later in detail. Due to my practical experience as a manager, I am per definition critical with regard to those fours aspects. For that reason there is no need to call the literature review 'critical' because criticality is part of any review.

### **2.1.1 Literature review before starting the doctoral study**

The literature review started more than 20 years ago by reading text books and literature about business and general management topics during my engineering studies at the University of Bochum in Germany while pursuing a degree in electrical and electronic engineering. The interest in non-engineering topics emerged while experiencing various matrices and the challenging relationship between headquarters and local subsidiaries while working in management consultancy and later on for a German technology MNC. At the time no systematic literature review was done. It rather consisted of reading books and articles that were discovered coincidentally. In 2005 and 2006 I attended an Advanced Management Training Program, where professors from the two U.S. business

schools Babson College and Duke University taught classes based on their MBA programs. The program specifically addressed matrix organizations and MNCs using case studies and lectures. Literature was provided and recommended by the program, the professors and the co-students. In 2007 and 2008 I attended the Global Executive MBA Program at IESE Business School in Barcelona, Spain that focused on 33 different subjects in the area of General Management. Through this program we studied each topic by taught classroom lessons, 10 to 15 case studies, classroom and online discussions and various group and individual assignments. For each topic there was a list of recommended literature from professors and co-students, which was used for further detailed study and independent source of reference. Studying the 33 topics at the MBA program we addressed matrix organizations and MNCs several times, which raised my interest to do more formal research about this topic via a doctoral study. In the process of selecting the best fitting doctoral program a more intensive literature research about matrix organizations and MNCs was started, basically using the Internet.

### **2.1.2 Systematic literature review throughout the doctoral study**

In 2010 the DBA studies at the University of Gloucestershire started officially. Fortunately, the first module taught was about 'Systematic Literature Review' and the primary element of learning was to realize that doctoral students first have to learn how to do business and management research, which is quite different than the approach in engineering studies. Additionally, doctoral research has higher demands and is expected to be more sophisticated than research for a master's degree. As recommended in the first module and some of the recommended text books (Bryman & Bell, 2011; Easterby-Smith et al., 2008; Saunders et al., 2009) the following checklist was used to plan and perform the literature review:

- Defining key words
- Conduct research in various databases and the Internet.
- Make a long list of potential literature.
- Review abstracts and/or table of contents.
- Make a short list of potential literature.

- Get electronic or paper copy of the literature short list and record them in Endnote.
- Read the literature and make notes.
- Check the list of references.
- Redefine key words.
- Start from the beginning.

As suggested by Saunders et al. (2009, p. 63) the following five questions were answered before reading and revising each reference of this literature review.

- “Why I am reading this (p. 63)?” Is it worth to invest time and effort (p. 63)?
- Why is the author writing this, what is he trying to achieve (p. 63)?
- What are the issues relevant for my research in this particular piece of literature (p. 63)?
- Do I consider it to be convincing what the author is saying (p. 63)?
- What’s in it for me? What are my benefits (p. 63)?

As sources for the research the database accesses through the ‘Online Resources’ section of the ‘Library and Information Services’ of the University of Gloucestershire (weblink as of 2 April 2013: <https://infonet.glos.ac.uk/departments/lis/Pages/onlineresources.aspx>) was used. The majority of the relevant literature was found in the following databases:

- ABI/INFORM Global; Proquest.
- Business Source Complete, EBSCO.
- Discovery Service, EBSCO.
- Emerald Backfiles, Emerald.
- Library Catalogue, University of Gloucestershire.
- MyiLibrary, Ingram.



- Science Direct, SciVerse, Elsevier.
- Web of Knowledge (ISI), Thomson Reuters.

In addition the following online databases were used to access doctoral theses as recommended by the 'Moodle' service of the University of Gloucestershire (weblink as of 2 April 2013: <http://moodle.glos.ac.uk/moodle/my/>)

- German theses: <http://www.dnb.de>.
- EThOS UK doctoral theses: <http://ethos.bl.uk/>.
- Swiss theses: <http://ml.metabib.ch/>.
- Austrian theses: <http://www.onb.ac.at/ev/index.php>.
- Swedish thesis: <http://www.dissertations.se/>.
- Australian theses:: <http://www.caul.edu.au/caul-programs/australasian-digital-theses>.
- Canadian theses: <http://www.collectionscanada.gc.ca/index-e.html>.
- Dutch theses - online database (in English): [www.narcis.nl](http://www.narcis.nl).

The following web pages were also used:

- <http://www.abebooks.co.uk/>.
- <http://www.amazon.com>.
- <http://www.google.com>.
- <http://scholar.google.com/>.
- <http://www.worldcat.org/>.

The initial key words used for the database search were derived from combinations of the three main areas of literature research which have been used since the start of the doctoral study 2010:

- Business research and management research.
- Matrix organization, matrix structures and matrix management.
- Multinational Corporation, MNC, Multinational Enterprise and MNE.

Regarding literature in the field of business and management research, the advice from the lecturers was followed to focus primarily on standard textbooks as literature, which made the search relatively easy. Several of textbooks were used to review the process of the doctoral research. The outcome of this research will be presented and discussed in detail in chapter 3.

For the other two areas of literature research the key words 'matrix' and 'multinational' were used and searched the literature that contained the title words as shown in Table 1 and Table 2. It can be seen, that each single key word returned an unwieldy number of results. The combinations of 'matrix' with 'management', 'structure' and 'organization' provided a suitable number of references that all have been reviewed in detail. The reason for the much bigger number of hits in 'Discovery Service, EBSCO' and 'Web of Knowledge (ISI), Thomson Reuters' lies in the fact, that the terms matrix, management, structure and organization are also used in disciplines of the natural sciences like mathematics, chemistry, biology, physics as well as in medicine. Therefore the following databases are particularly considered relevant for this doctoral: 'ABI/INFORM Global; Proquest' and 'Business Source Complete, EBSCO'.

The similar pattern was observed with the key word 'multinational' combined with 'corporation' and 'enterprise'. The absolute number of hits for this key word and its combinations is significantly higher, than for matrix when focussing on the databases 'ABI/INFORM Global; Proquest' and 'Business Source Complete, EBSCO'. This is interpreted with the fact, that MNCs and MNEs are more broadly researched than matrix management, organizations or structure.

Unexpectedly, the combination of the key words 'matrix' and 'multinational' in the same title brought just one single hit (Chi & Nystrom, 1998). This was the case when the systematic literature review was started in 2010 and was confirmed more than four years later. As the number of relevant hits was smaller in the field of the key word 'matrix' the review of this literature was started in the systematic manner as described before. Checking the reference lists of the reviewed literature

proved to be a very important step, because it gave access to the primary or secondary literature used for those references. The title, journal, author and year of publication were checked for all references and the manner in which the literature was referred to in the original source. Based on the context, it was chosen whether to review the reference as new literature. Through this process I gradually got to know and learned about the relevant literature in a deeper and comprehensive way. Many literature resources resulted to be relevant because of its appearance in literature list of other sources or because of the authors and less so as the title would suggest.

**Table 1: Literature research: 'Matrix' and combinations in the title date: 2 April 2013.**

	Matrix	Matrix AND Management	Matrix AND Structure	Matrix AND Organization
ABI/INFORM Global; Proquest.	7518	119	166	68
Business Source Complete, EBSCO.	6810	95	144	40
Discovery Service, EBSCO.	120246	408	2612	335
Emerald Backfiles, Emerald.	0	0	0	0
Library Catalogue, University of Gloucestershire.	21	1	0	0
Science Direct, SciVerse, Elsevier.	172	0	7	0
Web of Knowledge (ISI), Thomson Reuters.	284129	3461	6660	739

Saunders et al. (2009, pp. 68-75) categorize available literature resources in primary, secondary and tertiary. Primary sources such as theses and reports typically cover a specific topic in more detail and are usually available first. Various theses and reports are then summarized and compared months or years later in journal articles and subsequently in books defined as secondary sources. After a period of several years, primary and secondary sources are utilized as the foundation for publications like dictionaries, indexes or encyclopaedias. These compilations are designated as tertiary literature. However, the distinction between the various levels is defined only as primary or secondary analysis (Bryman & Bell, 2011).

**Table 2; Literature research: 'Multinational' and combinations in the title date: 2 April 2013.**

	Multinational	Multinational AND Corporation	Multinational AND Enterprise	Multinational AND Matrix
ABI/INFORM Global; Proquest.	7574	1193	748	1
Business Source Complete, EBSCO.	5739	1055	752	1
Discovery Service, EBSCO.	15795	2903	1862	1
Emerald Backfiles, Emerald.	192	0	0	0
Library Catalogue, University of Gloucestershire.	47	1	3	0
Science Direct, SciVerse, Elsevier.	1	0	0	0
Web of Knowledge (ISI), Thomson Reuters.	8818	1204	949	0

Whenever possible, the primary literature or the secondary literature that was the base for other secondary and tertiary literature was used. All literature was recorded in the software program Endnote V7 that was recommended by lectures and textbooks. The majority of online sources provide the function to export the literature reference to Endnote; this feature was helpful for the recording the sources and creating standard citations. Some literature references needed to be entered manually into Endnote. Most journals, articles and theses were accessible from one of the previously mentioned databases in an electronic form (usually pdf format). Sources unavailable via electronic delivery were requested from the very helpful and fast 'Inter-Library Loan' service provided in the 'Library catalogue' section (weblink as of 2 April 2013: <https://aleph.glos.ac.uk/F>) of the University of Gloucestershire.

The literature, that was neither available electronically nor via the 'Inter-Library Loan' service were purchased via electronic bookstore such as [www.abebooks.co.uk](http://www.abebooks.co.uk) and [www.amazon.com](http://www.amazon.com). Many of the books were purchased second-hand as former library books. Apart from helping to save money it was an excellent form to get access to the original unabridged copies of books. In very few exceptional cases the various university libraries in Hanover and Hamburg were used in order to review literature. At the moment submitting this thesis the literature list used for this thesis and recorded in Endnote composes of more than 1300 sources.

As mentioned earlier when starting the systematic literature review it was originally expected to find a vast collection of literature, particularly doctoral theses specifically addressing the area of research namely matrix organizations, MNCs and MNEs. It was a surprise however, that this was not the case. Four years after beginning the systematic literature review, only seven sources have emerged that cover the words 'matrix' as well as 'multinational' in the title (Adzic, 2006; Chi & Nystrom, 1998; Egelhoff et al., 2013; Qiu, 2010; Qiu & Donaldson, 2012; Wolf & Egelhoff, 2012; Wolf, Egelhoff, et al., 2008). The only two primary sources are doctoral studies (Adzic, 2006; Qiu & Donaldson, 2010) that together with an earlier habilitation thesis (Wolf, 2000) are the basis for later conferences paper and journal articles (Egelhoff et al., 2013; Qiu & Donaldson, 2012; Wolf & Egelhoff, 2012; Wolf, Egelhoff, et al., 2008). The work of Chi and Nystrom (1998) is also to be considered secondary literature based on other secondary and primary literature. Two master theses containing the word 'matrix' in the title were found (J. Andersson & Finnserud, 2003; Kramer, 2006) and in addition to the two doctoral theses mentioned earlier six further doctoral thesis in the field of business, management or social science containing the word 'matrix' were found (Bresnen, 1986; McElvaney, 2006; Rosdal, 2005; Saracoglu, 2009; P. E. Smith, 1983; Wellman, 2003). As mentioned earlier theses relevant to natural sciences were excluded.

Additionally the literature review revealed only nine books addressing the topic of matrix organization, structure or management (Cleland, 1984; S. M. Davis & Lawrence, 1977; J. R. Galbraith, 2009; Gottlieb, 2007; Gunn, 2007; K. Hall, 2013; Kingdon, 1973; Knight, 1977; Martin, 2005). This analysis cannot be used exclusively to draw universal conclusions. However, based on the assumption that significant parts of the existing literature have not been missed, this information is used as evidence that the topic of matrices in multinationals is lacking research. Table 3 summarizes the limited number of literature found that contain the word 'matrix' in the title.

As this study focuses on German MNCs, a dedicated search of literature about matrix organizations and MNC in German language was performed. This search revealed the habilitation thesis of Joachim Wolf (Wolf, 2000) as well as the PhD thesis of Mihael Adzic (Adzic, 2006) who was a student of Joachim Wolf. Both works were discovered in the standard literature review and both were the source of articles that were later published in English (Wolf & Egelhoff, 2001, 2002; Wolf, Egelhoff, et al., 2008). In addition the literature search revealed a master thesis about MNCs (Bulut, 2008) which summarizes the present literature and provides direction for further literature to search. Joachim Wolf and Mihael Adzic were contacted to discuss the existence of literature in German covering the areas of matrix organizations and MNCs. They confirmed that there is no additional relevant German literature that potentially was missed in the literature review.

To verify the assumptions regarding the potential research gap of this doctoral study, the following three leading academic institutions (Easterby-Smith et al., 2008, p. 32) were joined:

- Academy of Management (AOM)
- British Academy of Management (BAM)
- European Group for Organizational Studies (EGOS)

Table 4 provides an overview of the conference programme of these three leading academic institutions and how the topics of matrix, MNC, MNE and multinational were covered.

In the 2011 AOM Conference Programme only one presentation covered matrices and MNC titled "Understanding Conflict in MNC Matrix Structure Firms" (Academy of Management (AoM), 2011, p. 277) authored by William Egelhoff and Joachim Wolf. Both authors published an article the following year with a similar title (Wolf & Egelhoff, 2012).

**Table 3: Summary of literature the contained the word 'matrix' in the title.**

Criteria	Literature found
Doctoral theses that contain the words 'matrix' and 'multinational' in the title.	2: (Adzic, 2006; Qiu, 2010).
Other literature that contain the words 'matrix' and 'multinational' in the title.	1: (Chi & Nystrom, 1998).
Doctoral theses that contain 'matrix' in the title.	8: (Adzic, 2006; Bresnen, 1986; McElvaney, 2006; Qiu, 2010; Rosdal, 2005; Saracoglu, 2009; P. E. Smith, 1983; Wellman, 2003).
Master theses that contain 'matrix' in the title.	2: (J. Andersson & Finnserud, 2003; Kramer, 2006).
Books addressing the topic of matrix organization, structure or management.	9: (Cleland, 1984; S. M. Davis & Lawrence, 1977; J. R. Galbraith, 2009; Gottlieb, 2007; Gunn, 2007; K. Hall, 2013; Kingdon, 1973; Knight, 1977; Martin, 2005).

In the 2012 AOM Conference Programme the session 1711 "MNC Matrix Structures: Exploring the Use of Matrix Structures in Modern MNCs" (Academy of Management (AoM), 2012, p. 399) was dedicated to matrix structures in MNCs. It was a combined session of the two AOM divisions 'International Management (IM)' and 'Organization & management Theory (OMT)' and it was the only session with presentations that contained the word 'matrix' in the title. Among the presenters in that session were the following five experienced professors, who have conducted numerous research studies and published accordingly in the field of matrix organizations and MNCs. For that reason much of their research is used as references in this doctoral study.

- Lex Donaldson
- William G. Egelhoff
- Jay R. Galbraith
- Charles Snow

- Joachim Wolf

**Table 4: Conference Programme of leading academic institutions**

Conference	Session with key word 'matrix'	Sessions with key word 'multinational' or including synonyms 'MNC' and 'MNE'	Sessions with 'matrix' and 'multinational', 'MNC', 'MNE'
AOM 2012	1	10	1
BAM 2012	None	9	None
EGOS 2012	None	10	None
AOM 2011	1	15	1
EGOS 2011	None	4	None
AOM 2010	None	53	None
EGOS 2010	None	5	None

As further presenter Mr Karsten Heppner presented MNCs from a practitioners view working for Deutsche Telekom a major MNC in the field of telecommunications. The remaining presenter Jane Qiu wrote one of the two doctoral theses that were referred to earlier covering matrix and MNC (Qiu, 2010). Her two examiners were Lex Donaldson and Joachim Wolf, who were two of the above mentioned presenters. In addition Joachim Wolf was the supervisor and one of the two examiners of the other doctoral thesis covering matrix and MNC (Adzic, 2006). All of the above-mentioned presenters were contacted to discuss the status of the systematic literature review, the identified research and the research strategy for this doctoral study. All of the presenters were very open and gave helpful advice encouraging continuing the route and confirming that this study has not missed any relevant literature that specifically address the topics MNCs and matrix.



### **2.1.3 Literature review about allied key issues**

The lack of available literature with MNCs or allied key words and matrix in the title could lead to the conclusion that no further literature is addressing these topics. A more precise review of the literature covering the topics of MNCs and the relationship between headquarters and subsidiaries reveals however that there is a huge body of literature that cover similar topics without explicitly using the word matrix. For the participants of the mentioned AOM 2012 session MNCs offering various product lines in a number of countries by definition use matrix organizations. This view is however not shared or explicitly challenged by a large body of literature. Consequently the literature review of the following sections will also cover a number of allied key issues such as internationalization, centralisations and decentralization, relationship between headquarters and subsidiaries and organizational culture. The literature will be reviewed in a critical way reflecting the variety of perspectives of different streams as suggested during the viva by the examiners.

In addition the literature of power and decision making will be reviewed in detail in a separate section, because they are rather covered narrowly in the classical literature about international business (IB). As will be seen later the IB literature is assuming that the definition of power and decision making is clear and widely understood. The literature review about power and decision making will however reveal that there is a rich body of literature. I initially used the literature recommended by the examiners, my supervisors and professors. I then applied the same methods described previously by checking the references used in these recommended sources. In addition I searched the key databases mentioned earlier by the key words 'power', 'decision making' and 'decision power' independently and in combination with the initial key words. This resulted in a complete new stream of literature that had been mainly ignored in the previous version of this thesis.

### **2.1.4 Definition of language and words**

The word 'boss' is usually not used a lot or even not always fully accepted among academics in the UK. The advice was given to use instead the word manager or line manager or management instead. Most of the early literature however was originally published in the U.S. by authors who did their research among U.S. corporations and organizations. Out of the 31 interviews, 27 were conducted

in German, three in Spanish and one in English. In the German interviews the English word 'Boss' or German word 'Chef' were predominantly used, in the Spanish interviews the word 'jefe' was used and in the English interview again 'boss' was used. The adequate translation of the German word 'Chef' and the Spanish word 'jefe' is 'boss'. There are words in German and Spanish that translate to the English words 'manager', 'line manager' or 'management'; however, the interviewees did not use them. The decision was therefore taken to use the term 'boss' or the exact word that was used in the original literature source when referring to this references. The word 'boss' may be exchanged by the synonyms "manager" or "line manager" and it defines the person to which a member of staff has a reporting relationship.

The literature review of this study has not revealed any clear separate definitions of corporation, enterprise and company. Some authors use multinational enterprise (MNE) (for example Hutzschenreuter & Gröne, 2009; Narula & Dunning, 2000) others multinational corporation (MNC) (for example U. Andersson, Forsgren, & Holm, 2002; Egelhoff, 1988b) and some authors even Multinational Firm (for example Morgan, Kristensen, & Whitley, 2001; Navaretti, Anthony, & Frank, 2004). For that reason these words are used as synonyms. They do mean the same, unless otherwise specified precisely. They refer to a commercial organization that operates in various different countries. A more precise definition will be provided later. In addition the terms matrix organizations, matrix structure, matrix management and matrix will be used as synonyms.

The words organization, structure and design or combinations as organizational design or structure do refer to the same matter: the manner in which a company, corporation or enterprise has designed its organizational structure. For that reason these words are used as synonyms in this study. They do mean the same, unless otherwise specified precisely.

## **2.2 The history and origin of MNCs**

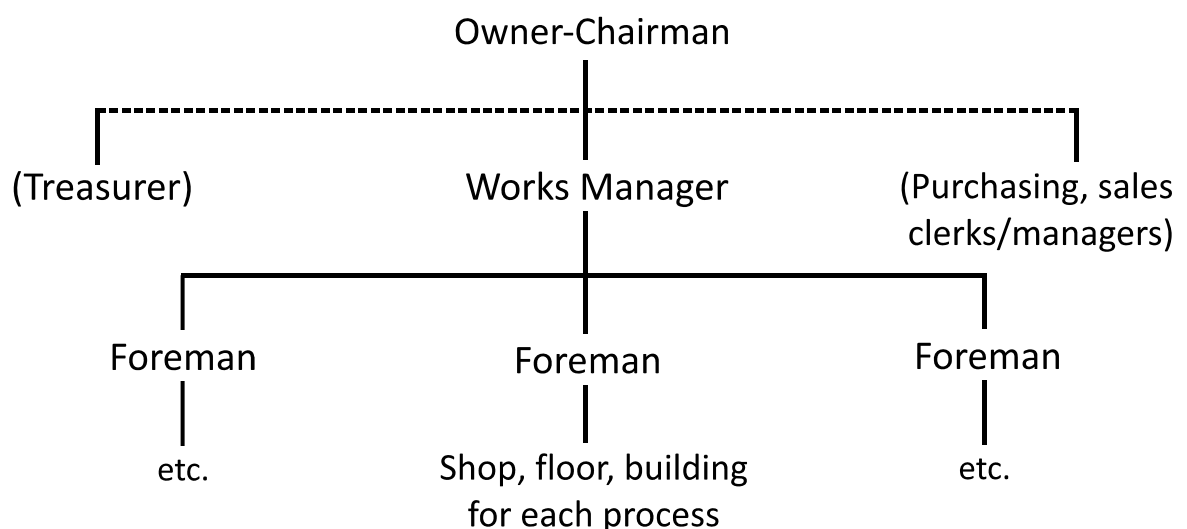
### **2.2.1 U-Form and early organizational structures**

This section describes the history and origin of Multi-National Corporations (MNCs) from the original functional U-form structure towards the multidivisional M-form structure. Both the U-form and the M-form structure was the starting point for MNCs that moved towards a matrix structure as will be explained in the next section (Gulati, Puranam, & Tushman, 2012; Williamson, 1985).

It has been argued that the main trigger or “tipping point” (Gladwell, 2000) for the development of the modern corporation was the appearance of railroad services predominantly in the U.S. but additionally in United Kingdom and other parts of Europe (Chandler Jr, 1977; G. Porter & Livesay, 1971). Before the appearance of the railroads, commercial organizations were similar to equivalent organizations in the 15<sup>th</sup> century (Williamson, 1985, p. 274) and Figure 3 shows a typical functional U-form organizational diagram used in the beginning of the 19<sup>th</sup> century. The owner was the top manager, coordinated all activities of his staff and took all operational and strategic decisions (Chandler Jr, 1977; Wright Jr, 1979a).

According to Williamson (1985, p. 275), the development of the railroad industry in the USA had the biggest impact on organizational innovation between the 1850s and the beginning of the 20<sup>th</sup> century and was the prerequisite for the massive immigration to the USA principally from Europe and Asia (Poole, 1999; G. Porter & Livesay, 1971). The first railroad enterprises started with simple structures similar to as shown in Figure 3, which grew rapidly and quickly became more complex (Chandler Jr, 1977; Wilkins, 2009). Many management innovations emerged such as the appearance of contracted professional managers who were not part of the owner’s family (Chandler Jr, 1977; Poole, 1999; Williamson, 1985) and the separation of technical operation and financial management (Poole, 1999). It has been argued, that at Erie Railroad Daniel McCallum invented the organizational chart after his nomination as CEO, called “General Superintendent” (Chandler Jr, 1988, p. 156).

**Figure 3: Unified (U-Form) or Entrepreneurial Form of Organization**



Source: (Poole, 1999)

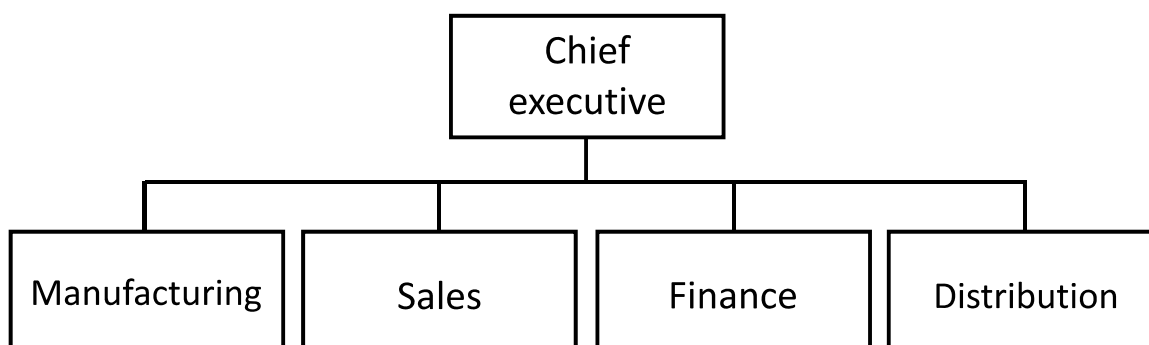
As a result of further growth railroad companies created sophisticated and complex organizational diagrams (Chandler Jr, 1977; Wilkins, 2009). The railroad companies continued to use the U-form or unitary organizational form where all similar tasks are put together in one functional department, where all specialization of a similar kind of work is concentrated (Qian, Roland, & Xu, 1999; Williamson, 1985).

Figure 4 shows another example of a U-form structure where the key specialized functions manufacturing, sales, finance and distribution is represented (Weir, 1995). Even though the U-form has the advantage of synergies due to bundling of resources this advantage has drawbacks as all key day-to-day operational decisions and as well all long-term oriented strategic decisions are taken by one single manager (Chandler Jr, 1977; Williamson, 1985). The functional heads have limited decisions making power and have different aspirations from that of CEO (Weir, 1995, p. 25).

Therefore the U-form organizational structure is best suited for Small to Medium Enterprises (SME) and companies that operate in a relatively simple market environment (Chandler Jr, 1977; Williamson, 1985). Examples can be a single market with a single offered product, such as railroad services in the U.S. In the late 19<sup>th</sup> and early 20<sup>th</sup> century it remained the organizational form of choice for most corporations in North America and Europe (Hitt, Ireland, & Hoskisson, 2011; Scott & Davis, 2014), which in that era represented the main economic centres of the world (Cox, 2006; Mankiw, 2007).

Figure 4: Unitary form of organization

### Unitary form of organization



Source: (Weir, 1995, p. 25).

## 2.2.2 M-Form structure for the first large corporations

Corporations in the USA and the European industrial centres UK, Germany and France grew in the phase of industrialization in the second half of the 19<sup>th</sup> century and the early years in the 20<sup>th</sup> century (Qian et al., 1999; Wilkins, 2009). Corporations started to diversify and abandoned the single product in a single market strategy by offering more products and product lines to more markets (Burton et al., 2011; Hitt et al., 2011). A different market could mean similar customers in a different geographic region or internationally and in particular new types of customers in different industries (Williamson, 1985; Wolf & Egelhoff, 2001). The main form of diversification and growth resulted in the respective national markets by the addition of several new product lines serving the same market (Strikwerda & Stoelhorst, 2009; Teece, 1981). As the growth potential in the home national market expanded there was sufficient opportunity of growth and expansion at home and little pressure to develop abroad (Birkinshaw & Terjesen, 2003; De la Torre, Esperanca, & Martínez, 2003). Principally this was the case in the U.S. and remains applicable today (Hennart, 2009; Kindleberger & Audretsch). As a result of this increased complexity the previously mentioned limitation of the U-form functional structure became apparent and forced corporations to rethink their structural design (Scott & Davis, 2014; Strikwerda & Stoelhorst, 2009). Apart from growing organically by entering into new markets or product lines there was also a move to creating new larger companies by merger activities between companies of the similar type in the U.S. circa 1900 (Chandler Jr, 1988, p. 157). This trend resulted in larger companies that began to experience the difficulties of the U-form structure and consequently moving to more complex structure (Dunning, 2009; Wilkins, 2009).

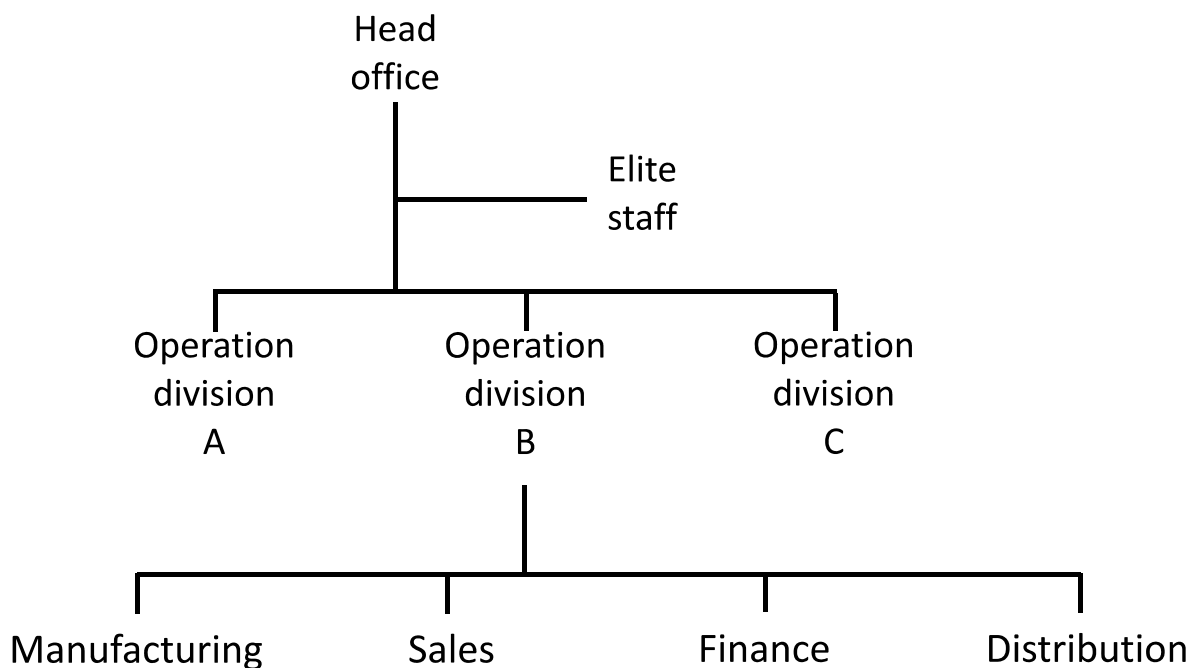
Supported by the works of Taylor (1911a, 1911b) and Fayol (1917) corporations started changing their structures. The chemical corporation Du Pont and the automotive corporation General Motors are considered to be the first innovators in organizational design and started shortly after the end of World War I. The early 1920s saw the introduction of the so call "M-form" (Chandler Jr, 1962, p. 2; Williamson, 1985, p. 280) or multidivisional or structure as shown in Figure 5 (Tallman & Yip, 2009; Weir, 1995).

The underlying principle of the M-form structure is that various operationally relatively autonomous divisions report to one single entity termed Headquarters (Qian et al., 1999). The business units or divisions are responsible for a certain line of products and operating as a profit centre (Williamson, 1985). The profit centre or Profit & Loss (P&L) responsibility means that the CEOs of the business units has full control over the day-to-day operational and strategic decisions and therefore can be evaluated by financial key performance indicators (KPIs) (Strikwerda & Stoelhorst, 2009; Williamson,

1985). Typical KPIs are profit & loss (P&L) statement, cash flow statement (CFS) and balance sheet (Bernstein & Wild, 2000; Fernández, 2002). In essence, the autonomous divisions or business-units are responsible for the day-to-day operational decisions (Strikwerda & Stoelhorst, 2009; Williamson, 1985). The Headquarters or head office on the other end engages a small team of highly qualified financial, operational and strategy expert team or “Elite staff” (Weir, 1995, p. 26) focussing on controlling, mid-term to long-term strategy setting and major operational decisions (Qian et al., 1999; Williamson, 1985). A recent study of Boumgarden, Nickerson, and Zenger (2012) provides evidence that the separation of short or medium focus “exploiting” (p. 587) business opportunities by decentralized units and the long term focus of “exploring” (p. 587) new areas of business in centralized corporate functions is still prevalent in modern MNCs.

Figure 5: Multidivisional form of organization

### Multidivisional form of organization



Source: (Weir, 1995, p. 26).

The act of moving towards the multidivisional M-structure is also called “decentralization” (Chandler Jr, 1962, p. 2) and various large corporations in the USA followed the example of Du Pont and General Motors (Wilkins, 1970, 1974). Until 1935 a total of 10 of the largest corporations in the USA

had adopted a multidivisional M-structure (Chandler Jr, 1962). The appearance of the multidivisional structures is analysed by Coase (1937). Coase (1937) examines the transaction costs of internal and external contracting as justification for the existence of larger firms due to economies of scale (Canbäck, 2002). At the same time Barnard (1938, 1940) is one of the first authors who analyses the tasks and challenges faced by executives of the new large organizations (Gulati et al., 2012). The two main M-Form organizations as defined by Williamson (1975) among others are the “product organization and the geography organization” (Baron & Besanko, 1996, p. 1).

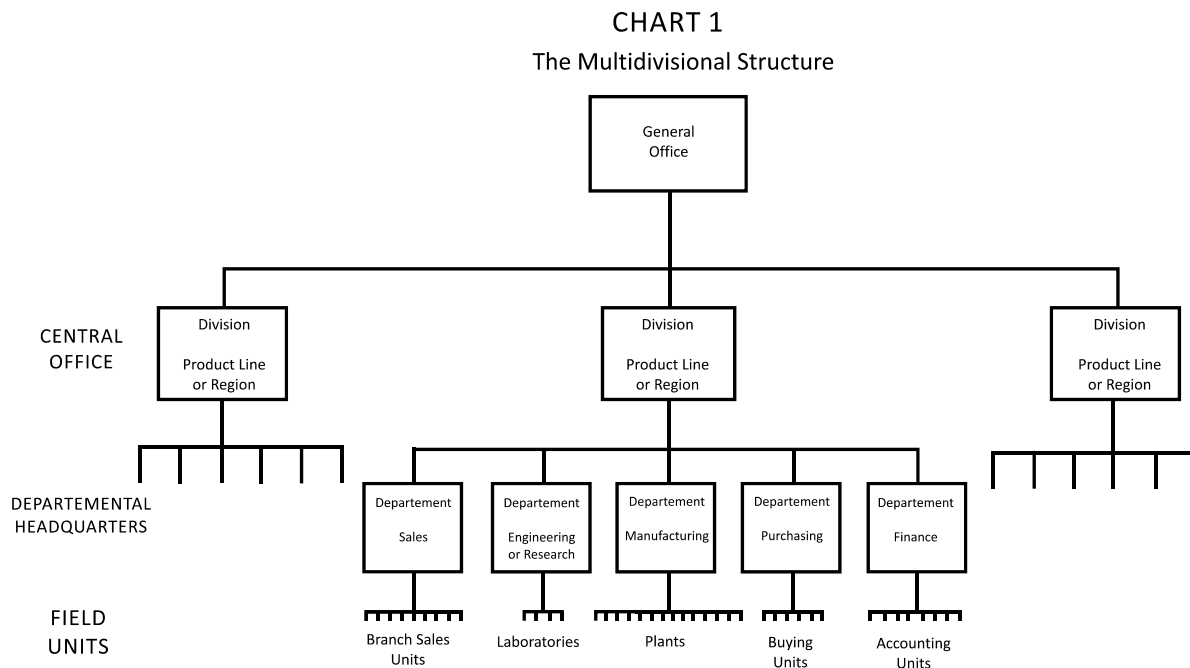
The creation of a new organizational structure necessitated employing organizational charts, which were required to explain the new responsibilities to staff, managers and customers (Chandler Jr, 1988). In the 1920s, Henry Ford argued that the complex organizational chart explaining the multidivisional structure of his competitor General Motors was of little use and an expression of excessive bureaucracy (Chandler Jr, 1988). During this period of time, the market share of Ford in the U.S. automotive market fell from 56% in 1921 to 21%, whereas General Motors managed to gain market share from 12% in 1921 to 41% in 1935 (Chandler Jr, 1988, p. 157; Sloan, 1964).

Henry Ford eventually did recognize the need for using an organizational chart and also implemented the multidivisional M-structure (Chandler Jr, 1977) such as many other major corporations in the U.S. (Child & Kieser, 1981). All these enterprises realized that there are various benefits of “self-contained operating divisions or quasi-firms” (Chi & Nystrom, 1998, p. 142) as represented in the M-form structure. If there is little interaction in the day-to-day operations between divisions or business unit of the same corporation, than this independence should be recognized and no extra costly corporate burden of communication among the units should be demand by corporate headquarters (Scott & Davis, 2014). Divisions are allowed and forced to take even major decisions on their own and thus the operational financial performance is a good and fair measure of the performance of the management team (Gerlach & Palmer, 1981; Qian et al., 1999). Headquarters is relieved from many day-to-day operational decisions and can be organized in a lean structure where to top management board with some staff focus on strategic decisions, supervisions of the divisions and potentially some major or significant decisions such as investments or acquisitions or selling of parts of the business (Chandler Jr, 1977).

Simon (1947, 1951) analyses the increasing difficulty of processing information in the new larger corporations (Gulati et al., 2012, p. 571). In a highly influential study, Chandler Jr (1962) analyse the relationship of strategy and structure in the biggest U.S. corporations (Bedeian & Wren, 2001). He concludes that in the 1950s the multidivisional M-structure was the standard structure of choice among U.S. corporations. Figure 6 shows a typical multidivisional structure (Chandler Jr, 1962, p. 11). Chandler Jr (1962) created the slogan “structure follows strategy” (p. 14) which is expressed in the

M-form structure as a result of the strategy of most major U.S. corporations which was to grow by exploiting new markets in various almost independent divisions (D. J. Hall & Saias, 1980; Scott & Davis, 2014).

Figure 6: The Multidivisional structure



Source: (Chandler Jr, 1962, p. 11).

A sizeable body of literature exists concerning U.S. corporations due to its standing as the strongest economic power in the first half of the 20<sup>th</sup> century (Dunning, 2009; Wilkins, 2009). Based on economic strength, the U.S. effectively defined the terms of modern business (Stopford & Turner, 1985; Wilkins, 1970) and only after Europe recovered from World War II with support of the Marshall Plan (Dyas & Thanheiser, 1976; Wilkins, 1974), European MNCs gained again increased attention from researchers (for example Channon, 1973; Rugman, 1979; Stopford & Turner, 1985; Vernon, 1977). The funding of academics and resulting biased research is heavily criticized (Baritz, 1960; Pfeffer, 1981) resulting in power and politics mainly being neglected. This has resulted in a large body of MNC research that has mainly a positivist focus and lacks links to the social science (Schotter & Beamish, 2011; Sorge & Rothe, 2011).

Little literature is available about Asian corporations (Child, 2009; Westney, 2009a). The Mitsubishi Corporation for example operated already in the early 20<sup>th</sup> century using a multidivisional M-



structure (Chandler Jr, 1988, p. 156). This can be taken as evidence, that also Japanese and other Asian corporations of the similar kind like the ones in the U.S. or Europe draw similar conclusions from the potential benefits of the multidivisional M-structure.

### **2.2.3 Summary of historic MNC organizational structures**

This section summarizes the main characteristics of the principle organizational structures as discussed in the previous sections. The unitary or functional form is the classical organizational form that is best suited for small and medium sized enterprises. All decisions and coordination are executed by the top manager (CEO, President, Managing Director, etc.). The functional heads have limited decision power and tend to focus a lot of time on internal politics and selling to get higher recognition, more resources and power (Harris & Raviv, 2002; Strikwerda & Stoelhorst, 2009)

In the Multidivisional (M-Form) each division acts as quasi-autonomous enterprise being responsible for all day-to-day operational and strategic decisions. There is little interaction and coordination with the other divisions. Each division is measured mainly by key financial performance indicators such as the Profit & Loss statement, the cash flow statement and the balance sheet. The Headquarters is responsible for controlling the various divisions and for allocating major funds and resources as well as taking major operational decisions, such as big investments (Baron & Besanko, 1996; Donaldson, 1996)

The Holding Company or H-form structure is similar to the multidivisional structure. The main difference lies in the non-existence of Headquarters performing controlling and strategic functions. These functions lie in the responsibility of the divisions. Competition between the divisions is rather focussed on capital fund provided by the holding company. Due to the little links, holding companies can easily add new divisions by purchasing them and selling others (Weir, 1995; Williamson, 1975)

Some authors such as Williamson and Bhargava (1972, p. 141) and Weir (1995, p. 27) present variants of the multidivisional structure such as the “transitional multidivisional (M’-form)” or the “corrupted multidivisional (M̂-form)”. The transitional multidivisional or M’-form has not reached the final desired state or stability and in case of the corrupted multidivisional or M̂-form the Headquarters gets more involved in too many operational day-to-day decisions (Weir, 1995; Williamson & Bhargava, 1972). It seems reasonable to agree with those authors that follow the view that corporations are always in flux and consistently operate imperfectly in some parts of the

organization (Collins, 2001; Drucker, 1993b; Peters & Waterman, 2004; Welch & Welch, 2007). Consequently, the M-form structure is a development of the U-form to cope with increased complexity of new markets environments (Gulati et al., 2012; Weir, 1995; Williamson, 1985).. Therefore they are both on the same pattern and evolutionary rather than revolutionary.

The development towards the M-form structure was accompanied by the appearance of matrix structures in the 1950s and 1960s which will be discussed in the next section.

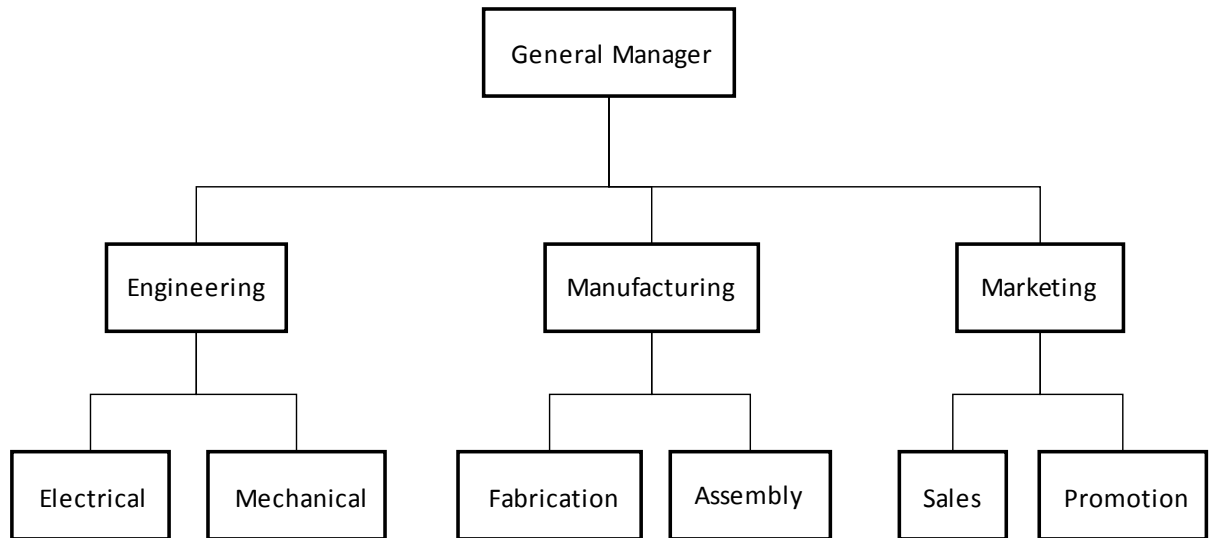
## **2.3 Matrix organizations**

### **2.3.1 Definition of matrix organizations**

In the traditional management theory one of the “golden rules” (Ludwig, 1970, p. 60) is “one man shall have one boss” (Ludwig, 1970, p. 60). There is communication with other staff within the organization, but there is just one manager to whom a worker was accountable (Ludwig, 1970, p. 60). Figure 7 shows the classical functional U-form organization as discussed before that follows this principal management theory with a vertical line of command. Staff from each function has little interaction with other functions. When communication and conflict escalated, issues were resolved by the General Manager or his management team (J. R. Galbraith, 1971; Williamson, 1985).

In contrast to the single line of command of the traditional organization the common feature of a matrix organization is the “two boss” (Knight, 1976, p. 8; Wright Jr, 1979b, p. 57) situation. Other authors describe this feature of matrix organizations as “dual command” (S. M. Davis & Lawrence, 1978, p. 134; Lawrence, Kolodny, & Davis, 1977, p. 47) , ‘dual authority’, ‘dual management structure’, “mixed” (Knight, 1976, p. 113; Larson & Gobeli, 1987, p. 127) or “overlay” (Knight, 1976, p. 113; Larson & Gobeli, 1987, p. 127) organizational form (Ford & Randolph, 1992; Kramer, 2006). Figure 8 shows the addition of the new function product (in this context a synonymous for project) management to the classical functional organization. Staff in each project report to the project manager and to the functional manager at the same time (Kerzner, 2010). Staff report in the “formal authority” (Boddy, 2012, p. 355) or “solid line” (J. R. Galbraith, 2009, p. 30) to their respective functional managers of engineering, manufacturing or marketing and simultaneously to the product or project manager, who executes technical authority (Kerzner, 2010; Wright Jr, 1979a).

Figure 7: Classical functional organization



Source: (J. R. Galbraith, 1971, p. 3).

### 2.3.2 History and origin of matrix organizations

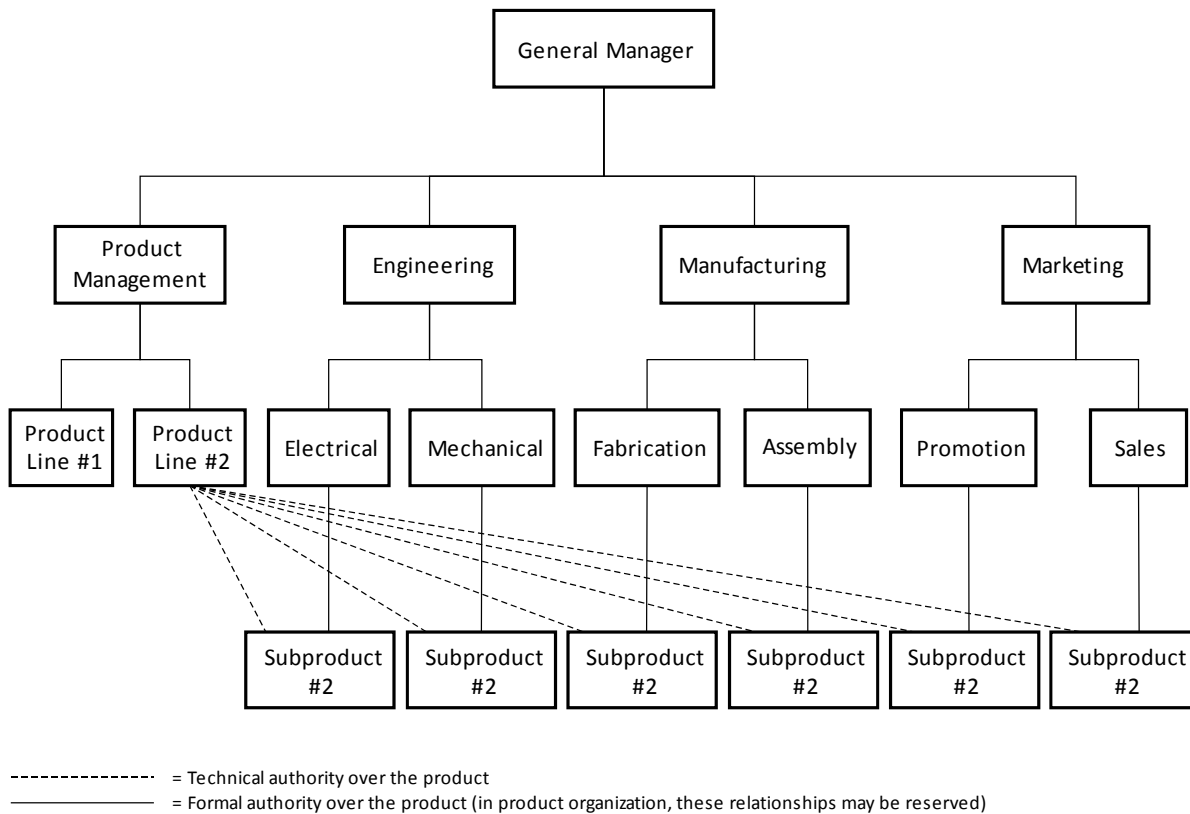
The use of matrix organizations became popular in the United States aerospace industry in the 1960s (Knight, 1977; Qiu & Donaldson, 2012). However, J. R. Galbraith (2009, p. 7) argues that the concept had been addressed much earlier by F. W. Taylor (1911a, 1911b). According to F. W. Taylor (1911b, pp. 61-62) workers shall report to various functional bosses:

- “Gang boss”, responsible for preparation and assignment of work (p. 61).
- “Speed boss”, responsible for keeping the schedule (p. 61).
- “Inspector”, responsible for the quality of work (p. 62).
- “Repair boss”, responsible for maintenance (p. 62).

F. W. Taylor (1911a, 1911b) analyses the challenges of management systematically and scientifically. His work is viewed as one of the first management consultants focussing on increasing the efficiency of organizations (George, 1968; Hindle, 2008). The word matrix is not used by F. W. Taylor (1911a, 1911b) and his ideas of multiple bosses were largely ignored over the following 40 to 50 years (J. R. Galbraith, 2009). Taylor’s work on improving efficiency in organizations however greatly impacted

U.S. and European corporations in the early 20<sup>th</sup> century and Taylor is the primary architect of the scientific analysis of management (George, 1968; Hindle, 2008) and one of Taylor’s most influential concepts was the recommendation that workers and management should cooperate and that processes should be defined and standardized (Bedeian & Wren, 2001; Drucker, 1993b).

**Figure 8: Matrix organization with product (project) management dimension**



Source: (J. R. Galbraith, 1971, p. 8).

Another founder of scientific management was Henri Fayol, “father of modern organization theory” (Pitts & Daniels, 1984, p. 54) who published his work “General and Industrial management” (Fayol, 1949) originally 1917 in French (Bedeian & Wren, 2001; Fayol, 1917; Hindle, 2008). Fayol gained popularity first in France and then across Europe and only 25 years after his death, Fayol’s work was published in English in 1949 and garnered then attention in the U.S. (Hindle, 2008). In contrast to F. W. Taylor (1911a, 1911b) who analyses organizations “bottom up” (Hindle, 2008, p. 237) from the workers view, Fayol (1949) sees organizations as “top-down” (Hindle, 2008, p. 237) from the top management point of view. Both authors are considered to be among the most influential authors of the 20<sup>th</sup> century (Bedeian & Wren, 2001). Fayol developed his ideas as Taylor did after having

worked for several decades in industrial enterprises (Daniels, Pitts, & Tretter, 1985; George, 1968; Hindle, 2008; Pitts & Daniels, 1984). Fayol (1949) strongly recommends that organizations should be structured into functions “defined as bundles of related tasks” (Drucker, 1993b, p. 532) and secondly that there should be “one and only one boss” (J. R. Galbraith, 2009, p. 7) per employee who gives him the related work orders (Pitts & Daniels, 1984, p. 54). Fayol expresses clear warnings of violating the principle of unity of command. “Should it [the principle of unity of command] be violated, authority is undermined, discipline is in jeopardy, order disturbed and stability threatened” (Fayol, 1949, p. 24; Pitts & Daniels, 1984, p. 54). A similar statement in the line of unity of command is associated with Daniel McCallum, who in 1854 was the CEO of Erie Railroad one of the first large railroad companies in the U.S. and one of the first executives using an organizational chart (Chandler Jr, 1988, p. 156).

Most U.S. corporations followed the advice of unity of command and were organized by functions as shown in Figure 7. They managed the hierarchical vertical structure following a “rigid military chain of command” (R. E. Anderson, 1994, p. 6) principle. “Authority should run in an unbroken line from the leader at the top to the workers at the bottom” (J. R. Galbraith, 2009, p. 7). Expert bosses as suggested by F. W. Taylor (1911b) were called “staff roles” (J. R. Galbraith, 2009, p. 7) , whose expertise and opinion was used, however without any formal decision making power, influence or authority (J. R. Galbraith, 2009). A primary reason for maintaining the hierarchical vertical structure and the status quo of doing business was the absence of external and internal pressures. After World War II, the U.S. was the wealthiest country in the world and policy focused on contending with the Soviet Union. U.S. corporations benefitted most the post-war boom (Drucker, 1993a; J. K. Galbraith, 1967).

The launch of the worldwide first satellite Sputnik by the Soviet Union in 1957 marked an important milestone (S. M. Davis, 1977; Knight, 1977). The unexpected ability of Soviet Union to enter space in a controlled fashion shocked many governments of the western world and was perceived as a concrete threat. In response, the U.S. government commissioned many military projects leading to a boom of the aerospace industry (Drucker, 1993b; Heppner, 2012; Ludwig, 1970). The primary focus of these government-financed projects was on technical aspects and the second priority was timely delivery and least important was meeting the financial budget (J. R. Galbraith, 2012; Sayles, 1976). An analysis of these projects by Peck and Scherer (1962) reveals that the tasks required twice the time expected and average cost was four times the initial projections (J. R. Galbraith, 2009, p. 8). J. R. Galbraith (2009, p. 8) describes the philosophy by which these projects were managed:

“Get the best technology into the field as quickly as possible and spend whatever it takes to meet the number one and two goals. It was a great time to be an aerospace engineer.”

This philosophy changed after in 1961 the President of the USA John F. Kennedy defined the target of landing on the moon by the end of the decade (Drucker, 1993b; Sayles, 1976), which was eventually accomplished in 1969. The government financed the project contracts that required the management of time, cost and quality at the same time (Peck & Scherer, 1962; Sayles & Chandler, 1971). Consequently, those contracts were organized in a project based organization, where the project manager reported directly to top management (S. M. Davis & Lawrence, 1977; Kerzner & Cleland, 1985). Some of the contracts had fixed prices with penalties for not meeting the technical scope or planned schedule (J. R. Galbraith, 2009). Thanks to this moon landing project the wide use of matrix organizations was started in the aerospace industry in the USA in the 1960s (S. M. Davis, 1977; Knight, 1977). The growth of the defence industry as a result of the Vietnam war and the growth of Boeing as the dominant worldwide manufacturer of commercial airplanes put an additional challenge to the available scarce resources (Bartlett, Ghoshal, & Birkinshaw, 2003).

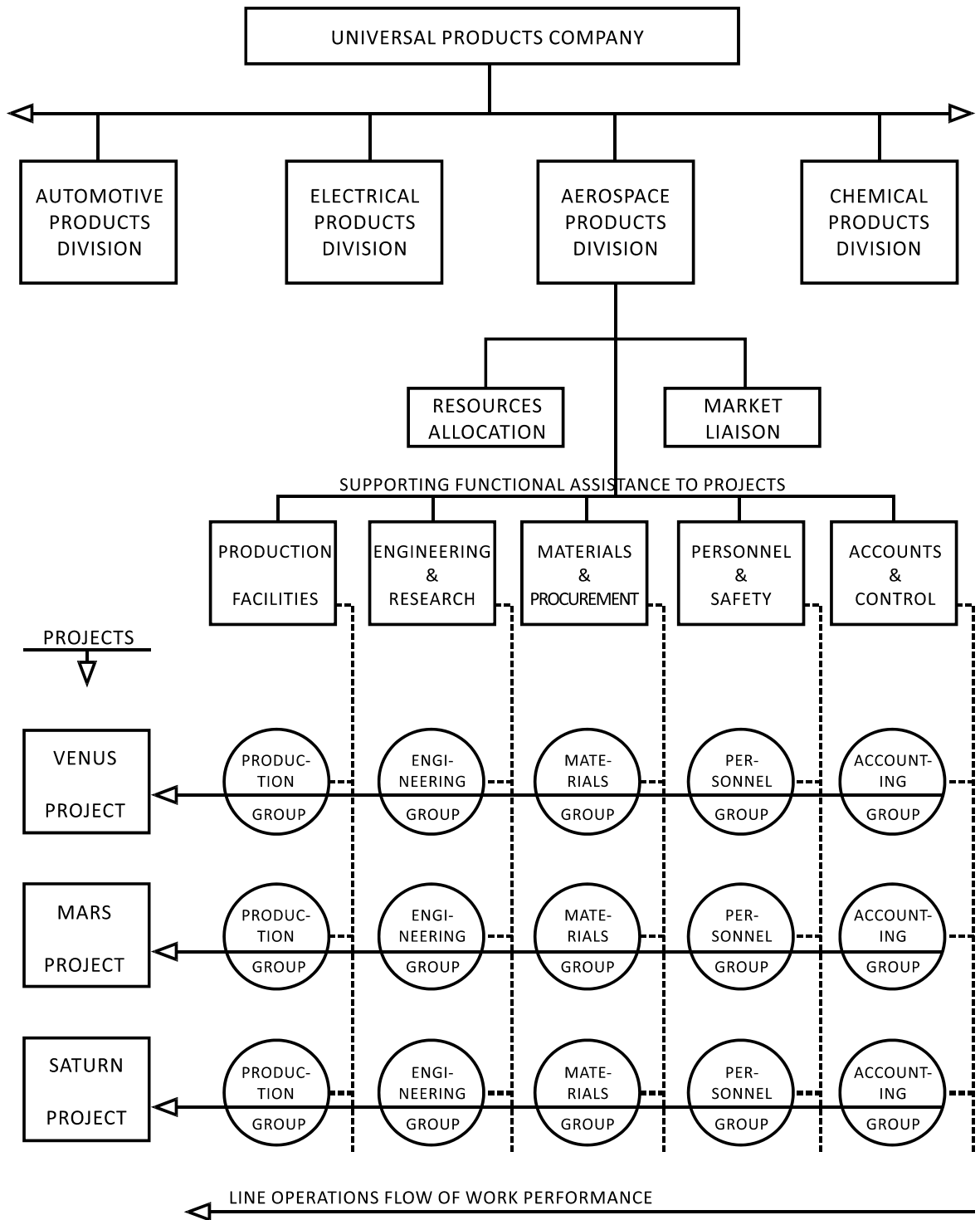
Due to their origin in temporary projects, matrix structures became increasingly popular in organizations that were running projects (Morrison, Brown, & Smit, 2006; Project Management Institute, 2004). Structures with dual line of command or authority were originally called project organizations instead of matrix organizations (Ford & Randolph, 1992; Kerzner & Cleland, 1985). Figure 9 shows an example of a typical temporary project matrix used in the U.S. aerospace industry in the 1960s. The traditional vertical dimension is complemented by a horizontal dimension (Kesler, 2009; Numerof & Abrams, 2002). The vertical dimension is still important, “but it exists to serve the horizontal” (Martin, 2003, p. 3).

Initially, dual command structures were installed provisionally to cope with the challenges of the temporary projects, such as the moon landing project in the 1960s (Wellman, 2003). Mee (1964) is one of the first to formally describe the use of matrix organizations in the U.S. aerospace industry in the 1960s. He considers matrix organizations as a “new way of thinking” (p. 70) that emerged “from a divisionalized organization structure” (p. 70). “A matrix type of organization is built around specific projects” (p. 72) and is “designed as a web of relationships rather than a line and staff relationship of work performance” (p. 72). Figure 9 shows an example of how Mee (1964) sees the implementation of a matrix structure in the aerospace industry serving various projects by various functions at the same time.

“The terms matrix management, project management, matrix organizations and project organization are frequently interchanged” (Ford & Randolph, 1992, p. 269) and used to describe cross functional structures (Kerzner & Cleland, 1985). Drucker (1993b) uses the term “systems structure” (p. 592) instead of matrix structure that is best suited for temporary projects or missions with a very clear

objective like “Get a man on the moon by 1970” (Drucker, 1993b, p. 596) defined by John F. Kennedy and implemented by NASA (National Aeronautics and Space Administration).

Figure 9: Matrix organization of an aerospace division



Source: (Mee, 1964, p. 71).

Drucker (1993b, p. 592) and Peters (1979, p. 17) disagree with the view of Sayles & Chandler (1971) that the systems structure as used by NASA was new. According to Drucker, (1993b, p. 592) NASA applied “a system used in Japan for a century” (Drucker, 1993b, p. 592) building on the strong relationships between large organizations and their suppliers. Apart from the moon landing project having a clear objective Drucker (1993b) also considers “building an economically strong Japan” (Drucker, 1993b, p. 596) as a comparable project were systems structure were used. This comparison will no further be debated; it is however an important piece of evidence that Drucker (1993b) as one of the most influential management author and consultants (Bedeian & Wren, 2001) relates systems or matrix organizations as a temporary state.

Many corporations in the U.S. grew in the 1960s as a result of the boom after World War II and moved from offering one single product in a single market into diversifying into multiple products in multiple markets (Stopford & Dunning, 1984). “The growing complexity and size of industry demanded structural forms that were more flexible than the old line-and-staff. Thus many companies (often without realizing it) turned into what is now known as matrix, grid, or latticework patterns” (Ludwig, 1970, p. 60). The successful use of the new cross functional project and matrix structures made matrix organizations very popular among corporations because it allowed management to address many competing factors and trends within an organization (Donaldson, 2009b; Schotter & Beamish, 2011). Consequently matrix organizations also gained a lot of attention of academics since the 1960s (for example Cleve & Sachtjen, 1964; S. M. Davis & Lawrence, 1977; Knight, 1976; Lawrence et al., 1977). Likert (1976) for instance suggests sizeable cost savings potential by using a “full-scale ... matrix form of organization from the top hierarchy to the bottom” (p. 42). He also acknowledges that according to his analysis such an organization did not exist when writing his work in the early 1970s. Likert (1976) provides examples for researchers from the 1960s through the 1970s who suggested a transfer of the positive experiences from the project based matrix organizations to permanent matrix organizations in large corporations. The theory and practical experience about matrix organizations was however still in a pre-mature phase and “ahead of its time” (MLab - The Management Lab, 2013, p. 3) in the period from the 1960s until the 1980s.

The widespread application of matrix structures revealed however also significant problems and challenges for organizations relevant to implementation and operation during the phase-in period (Franko, 2003). Criticism of matrix organizations grew in the 1970s and 1980s and some major U.S. corporations prominently abandoned matrix organizations and consequently several academics declared matrix organizations as failures (Gobeli & Larson, 1986; Numerof & Abrams, 2002). Although declared to be failures, practitioners in MNCs continued to use matrix organizations and learned to take advantage of the benefits and avoid or manage around disadvantages (Adzic, 2006;



Kramer, 2006). MNCs and their workforce became gradually more and more professional in managing matrix organizations (Gottlieb, 2007; Gunn, 2007). The growth of MNCs who “dominate international business” (Rugman, 2005, p. 3) and the new technological possibilities (Geer & Economist, 2003) eventually revived interest in organizations since the late 1990s (Egelhoff et al., 2013). Currently, managers and newer employees begin working in some sort of matrix organization from the very beginning (Siemens, 2002). This phenomenon is in contrast to the period from the 1960s through the 1980s, a time period that associated the introduction of matrix organizations with abrupt change for managers and staff (J. R. Galbraith, 2012).

Cultural and political changes add significant factors. 1968 was a year of political upheaval and heralded a movement that questioned authority (Encyclopaedia Britannica, 2010). Citizens and staff are now more critical with authorities and more used to ambiguity and conflicting interests than 40 years ago (Derven, 2010; Gaunt, 2007; Kesler, 2009). This goes along with the increasing popularity of emotional intelligence (Goleman, 1995; Leban & Zulauf, 2004) as a factor for success in the private and in particular matrix work environment (Sy & Cote, 2004). Employees become used to constant change much more than in the past (Slocum, 2007; Vermeulen, Puranam, & Gulati, 2010). Even though ambiguity caused by matrices is continuously reported to be against human nature (Kriel, 2006; H. R. Smith, 1978) one can also argue that the underlying principle of matrix organizations, namely the dual or multiple boss situation is actually a longstanding principal learned in early childhood as toddlers become skilled at managing two bosses – mother and father.

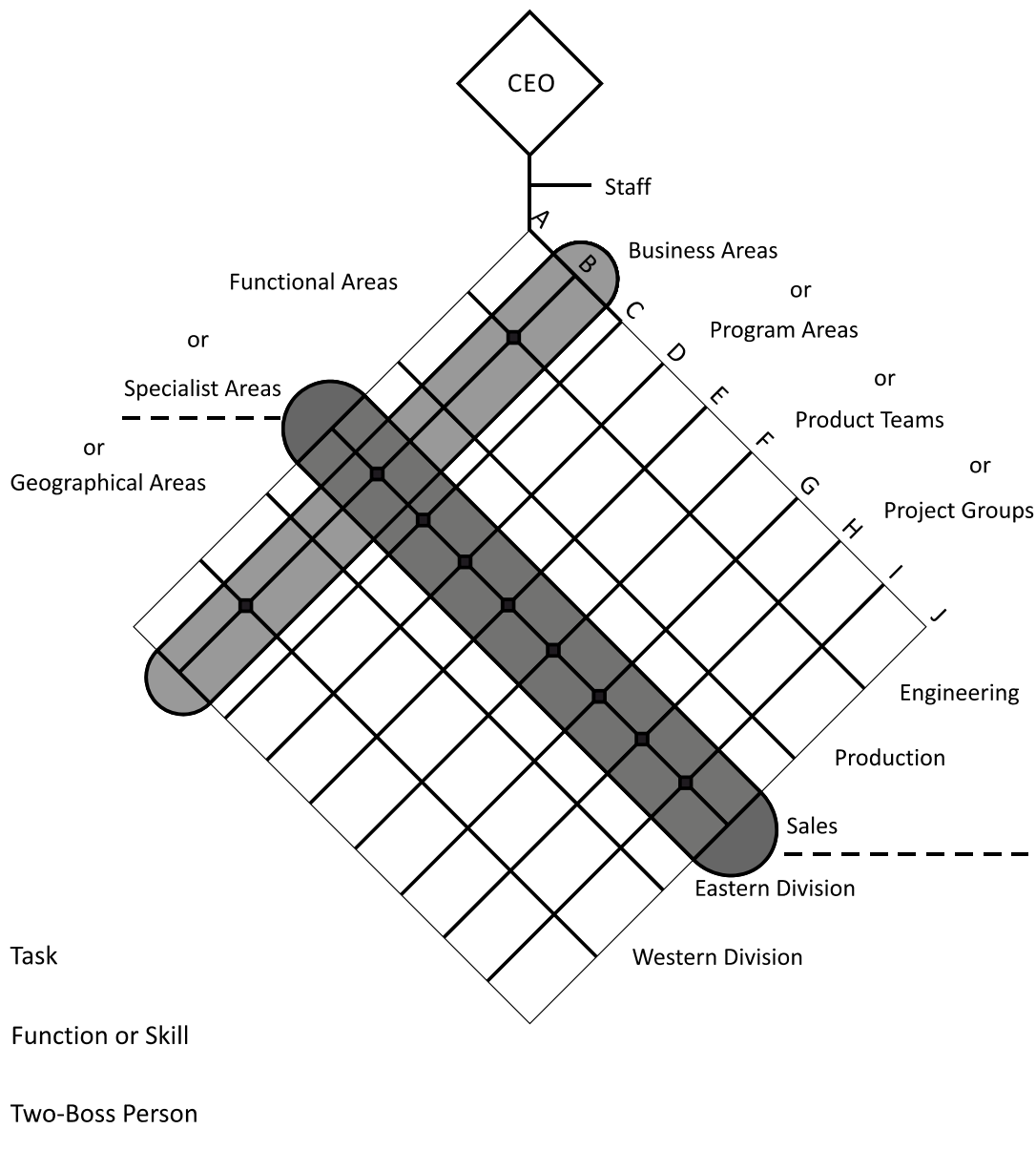
Wolf, Egelhoff, et al. (2008) propose a unique assertion regarding the different use of matrix organizations among U.S. and European MNCs. They suggest U.S. corporations are still recovering from the widespread rejection of matrix organizations in the 1980s and are still reluctant to use formal matrix structures. However, informal structures with multiple coordination and reporting relationships are quite common. Additionally, the authors state that European MNCs in contrast “appear to have experienced fewer problems with matrix structures, and, consequently they are the primary users of formal matrix structures today” (Wolf, Egelhoff, et al., 2008, p. 3).

The introduction of matrices into these organisations effectively allowed for the distribution of power between several nodes of power. The dimensions of the matrix are the ways in which the structure of the organisation develops the links between the multiple bases of power. So after discussing the history and origin of matrices the following section will cover the matrix dimensions used. Later in this chapter there will follow a discussion on the distribution of power across these dimensions.

### 2.3.3 Dimensions of matrix organizations

The typical dimensions of a matrix organization are the product line or business unit, the regional or geographical area, the customer or global accounts dimension and other functional dimensions (Adzic, 2006). The functional dimension is not just one dimension but can be represented by many dimensions such as sales, marketing, finance, purchasing and logistics (Adzic, 2006). The myriad matrix dimensions are well illustrated in Figure 10.

Figure 10: Various dimensions of typical two dimensional matrix organizations



Source: (Kolodny, 1981, p. 81).

It however assumes that just two dimensions will be selected to form a two dimensional matrix organization (Kolodny, 1981). In the 1970s and early 1980s matrix organizations were a revolutionary concept of organizational design and academics, managers and conventional staff was overwhelmed by the change imposed due to the abandoning of the clear vertical line of command structure (R. E. Anderson, 1994) The concept of introducing various matrix dimensions which would eventually represent not just two but potentially four or five dimensional matrix organizations was too much of a change at that time (Ford & Randolph, 1992; Lawrence & Lorsch, 1967b).

Building on Lawrence and Lorsch (1967b, p. 221) who suggest up to six matrix dimensions one could imagine a five dimensional structure of a technology MNC being based on various dimensions as derived from the example in Figure 10.

- Region: China
- Product Group: Household appliances
- Customer: Wal-Mart
- Function 1: Manufacturing
- Function 2: CFO

The CFO for the manufacturing plants of household appliances in China for a Wal-Mart customer project could for example report to the following managers:

- The CFO of the local subsidiary China.
- The CFO of household appliances China.
- The CFO of the customer team Wal-Mart.
- The Head of manufacturing in China.
- The CFO of manufacturing China.

The latter example of five lines of reporting is sensible from a logical standpoint of organizational design. However, each additional matrix dimension increases the complexity and difficulty of

managing such an organization and impacts the ability to process the adequate quantity and quality of information (Egelhoff, 1988a). Balancing the trade-off between clarity and complexity MNCs tend to use two or three formal matrix dimensions (Adzic, 2006; Qiu & Donaldson, 2010). There is still an informal relationship with various colleagues and potentially managers who agree to exchange information and report to each other about the status of the business without being formally obligated to do so (Barringer & Harrison, 2000). Consequently more recent literature suggests that the most common dimensions of matrix organizations are function (F), region (R) and product (P) which leads to four different principle matrix organizations as shown in Table 5 (Bartlett & Ghoshal, 1992; Wolf & Egelhoff, 2001).

**Table 5: Most typical types of matrices**

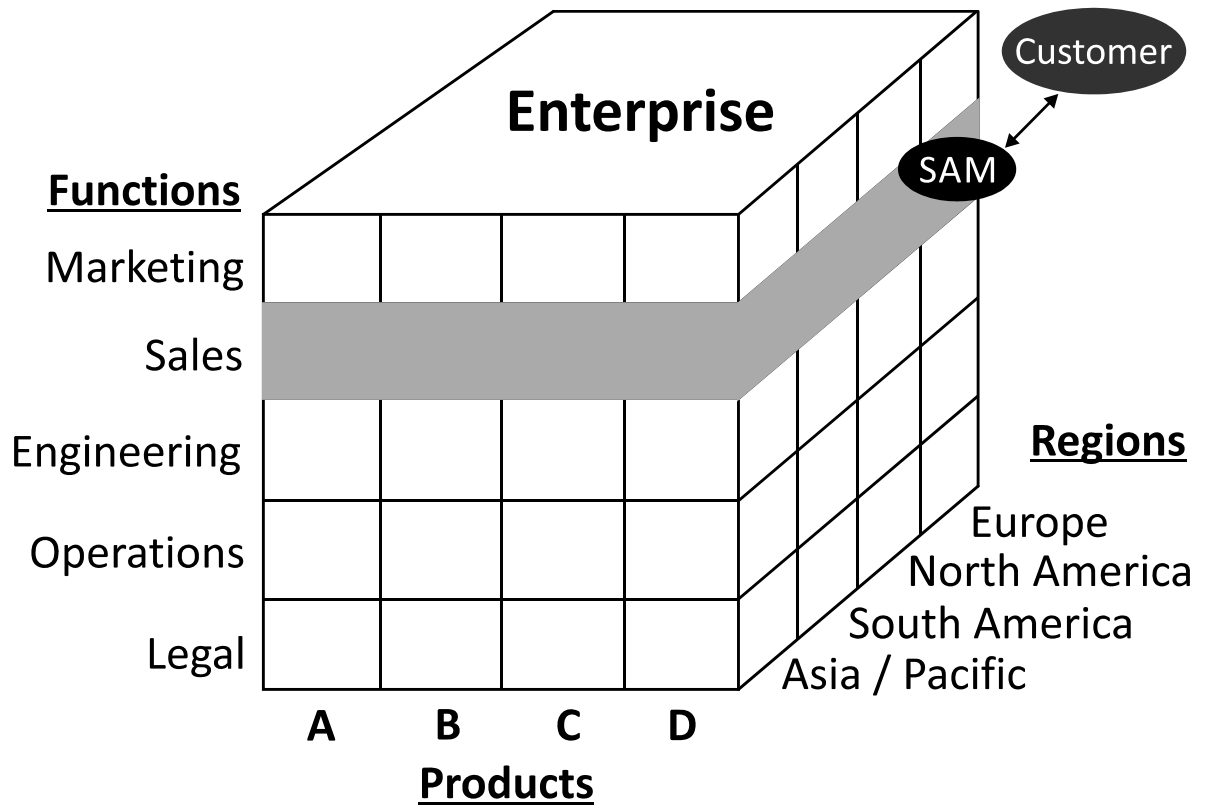
Matrix dimensions	Type of matrices
Two	<ul style="list-style-type: none"> <li>• FR – Functional – Regional matrix</li> <li>• FP – Functional – Product matrix</li> <li>• RP – Regional – Product matrix</li> </ul>
Three	<ul style="list-style-type: none"> <li>• FRP – Functional – Regional – Product matrix</li> </ul>

As shown in Figure 11 the three dimensional Functional-Regional-Product matrix can be complemented by a fourth dimension of customer (C) which is a particular effect of globalization and the growth of MNCs (Capon, 2001). Birkinshaw, Toulan, and Arnold (2001) are among the few authors that confirm this view and suggest that global account teams and their influence on the existing matrix dimensions in MNCs are gaining increasing importance.

The largest principal customers of MNCs are the MNCs themselves and require global unified attention, which is delivered through the fourth matrix dimension of customers (Toulan, Birkinshaw, & Arnold, 2006; Yip & Bink, 2007). Such attention is usually delivered through global account teams (Bailey, 2008; Mattsson, 2010). That recent concept however still lacks research (Birkinshaw et al., 2001). Consequently Agthe (1990) argues from his experience as President and CEO of ABB that the four dimensions product, region, functions and region are interlinked and dependent on each other. Agthe (1990) however further argues that the two main dimensions by which a MNC, such as ABB, is primarily organized are products and regions. As way of implementation Agthe (1990) describes that

ABB is successful by having strong product lines in HQs and strong autonomous local subsidiaries at the same time. “The problem of managing multinational organizations is best solved by the multi-domestic, global corporation” (p. 37).

Figure 11: Three dimensional FRP matrix organization



Source: (Sullivan, 2006, p. 51).

Equally J. R. Galbraith (2000, pp. 188-195) considers the product and regional dimensions as the most relevant ones because these dimensions can be measured by individual profit & loss statements and therefore can act like semi-independent companies. Additionally, J. R. Galbraith (2000, pp. 188-195) recognizes that there are various other dimensions such as solutions, functions (R&D) and common customers that add additional complexity to the two dimensional matrix. The conclusion drawn from these considerations is that the most important dimensions for the strategy structure relationship continues to be the product and regional dimension as suggested over 40 years ago by Stopford and Wells (1972) and various subsequent studies.

### 2.3.4 Advantages and disadvantages of matrix organizations

Matrix organizations were introduced in response to external pressures that forced organizations to focus on several interests or demands at the same time (Hendry, 1993). Thus in some ways they can be considered to be an emergent response to the organizational situation. The requirement then was to further understand the benefits and possible detriments of adopting such a structure. Matrix organizations were analysed and received acclaim for being the ideal organizational innovation that assisted MNCs to overcome new challenges and exploit new opportunities (Donaldson, 2009a; Hawkins & Walter, 1981). The 1970s and early 1980s were considered a period of matrix boom and propaganda (Derven, 2010; Kesler, 2009). The word matrix was used because a typical matrix organizational structure as shown in Figure 10 resembled a matrix as used in mathematics (Ford & Randolph, 1992; Pitts & Daniels, 1984). Table 6 summarizes the main advantages and disadvantages by matrix organizations as mentioned in the reviewed literature.

Davis & Lawrence (1977) were one of the first who analysed the reasons for adopting matrix structures. They use various case studies to relate the adoption of matrix organizations with the strategy of the organizations and derive three main prerequisites for the adoption of matrix structures (Wolf, Egelhoff, et al., 2008, p. 5):

1. Market or competitive “pressure” for “focussing” on various dimensions at the same time.
2. “Pressures for high information-processing capacity”.
3. “Pressures” for “sharing” of scarce and costly “resources” and to gain economies of scale.

Davis & Lawrence (1977) identify sound rationales for and the necessity for espousing matrix organization and therefore explicitly recommend the adoption of matrix organizations. However, they warn that matrix organizations are accompanied by many potential flaws and could be difficult and costly to introduce and manage. In rather recent studies it is recommended that organizations should just implement matrix structures if absolutely necessary and if at least one of the above mentioned conditions applies (Burton et al., 2011; Hitt et al., 2011).

Pitts and Daniels (1984) analyse 93 out of the Fortune 500 biggest U.S. corporations and are surprised by the results showing only one company actually used a matrix (p. 48). They defined as

matrix “criteria” (p. 48) first the “dual authority relationship” (p. 48) as well the “power balance” (p. 48) between the matrix managers as suggested earlier by other authors (J. R. Galbraith, 1971).

Pitts and Daniels (1984, p. 49) assert that the primary reason for adopting matrix structures rests on the fact that it allows companies to “simultaneously achieve” (p. 49) the benefits of the “conventional unitary structure”. Pitts and Daniels (1984, p. 49) further unveil as the main belief of “matrix advocates” (p. 50) that a matrix structured organization “more effectively balances functional, product, and area needs”. In other words, matrix structures force organizations to reach consent between various opposing and potentially contradicting interests and positions. The end result is ostensibly a better decision (Pitts & Daniels, 1984, p. 50).

**Table 6: Advantages and disadvantages of matrix organizations**

Advantages & strengths	Disadvantages & Weaknesses
<ul style="list-style-type: none"> <li>• Matrix dimensions foster frequent communication.</li> <li>• Increased information processing capacity through the creation of lateral communication channels.</li> <li>• Increased flexibility and speed due to quick and easy transfer of resources.</li> <li>• Lower costs due to economies of scale by sharing and pooling of functional resources.</li> <li>• Employees focus on multiple companywide business goals and enhance personal communication skills.</li> <li>• Cross cultural and functional teamwork facilitates innovative solutions to complex, technical problems..</li> </ul>	<ul style="list-style-type: none"> <li>• Violation of single command principle may challenge organizational culture.</li> <li>• Violates principle that authority should equal responsibility.</li> <li>• Ambiguity, conflict and tendency towards anarchy.</li> <li>• Power struggles between matrix managers are provoked.</li> <li>• Communication problems of team members of cross cultural and cross functional teams.</li> <li>• Additional cost and lower speed due to overhead internal lobbying and focus on internal issues.</li> <li>• Resistance to change as employees attribute the matrix with loss of status and authority.</li> </ul>

(Baber & Bartlett, 1990; Cleland, 1981b; S. M. Davis & Lawrence, 1978; Donaldson, 2009b; Dunn, 2001; Ford & Randolph, 1992; Gobeli & Larson, 1986; Knight, 1976; Kolodny, 1981; Lawrence et al., 1977; Mote, 2011; Mumford & Honey, 1986; Sy & Cote, 2004; Sy & D'Annunzio, 2005)

Conversely, Burns and Wholey (1993, p. 110) claim the “increase of Information-processing capabilities” (p. 110) as business practical reasons for the adoptions of matrix organizations. Additionally, the authors argue that highly political motives designated as “normative-institutional pressure” (p. 114) also played an important role in MNCs that adopted the matrix organization model. After the adoption of matrix structures by many major U.S. MNCs some companies experienced significant problems with matrix organizations which resulted in a public abandonment of matrix organizations (Egelhoff et al., 2013; Qiu & Donaldson, 2012). Larson and Gobeli (1987, p. 126) for instance consider matrix structures as “an unworkable system that stifles development”. AMA Forum (1980) joins the matrix criticism suggesting that even “some very good people find life a matrix structure intolerable” (p. 36) in particular because of the additional need of communication. Consequently it is recommend to use matrix structures just in project setting or introduce them in a smooth way.

In a similar fashion the very influential author and management coach Drucker (1993b, p. 595) for instance is also highly critical of matrix organizations, which he calls systems:

“Systems design is a very poor “fit” with respect to all design specifications. It lacks clarity. It lacks stability. People neither find it easy to know what their job is, nor to understand the job of the whole and their relationship to it. Communications are a continuing problem, and one not capable of lasting solution. It is never clear whether a certain decision should be made, or indeed what the basic decisions are. Flexibility is great and receptivity to new ideas is almost too great”

Drucker (1993b, p. 598) further concludes:

“The systems structure will never be a preferred form of organization; it is fiendishly difficult. But it is an important structure, and one that the organization designer needs to know and needs to understand – if only to know that it should not be used where other, simpler and easier structures will do the job.”



Despite this criticism many MNC identified many good reasons to adopt a matrix organizational structure and others failed to operate successfully in a matrix structure why it was eventually suspended or abandoned (Egelhoff et al., 2013; Qiu & Donaldson, 2012).

After presenting the advantages and disadvantages of matrix structures the following section discusses how MNCs that used matrix organizations evolved to respond to the changing nature of international trade since their adoption in the 'space race' discussed in section 2.3.2.

## **2.4 MNC evolution since the 1970s**

Research about MNCs increased exponentially since the 1950s (Dunning, 2009) and MNC related literature can be grouped into two main streams, studies with an economic functionalist approach called International Business (IB) literature stream and studies with a rather sociological and political perspective (Dörrenbächer & Geppert, 2011). The lack of linkage between IB and social science research is criticized (for example Buckley & Casson, 2009). Collinson and Morgan (2009) claim that their edited book is a rare exception in recent publications providing a bridge between business and social science. Early studies about MNCs, such as Hymer (1970) and Vernon (1966) bridge the gap between economic and sociological or political literature. Until recently later MNCs studies have been allocating themselves however more clearly towards one of the two streams, with economic or international business (IB) literature representing the clearly dominant research (Collinson & Morgan, 2009, pp. 6-7). MNCs have been studied dominantly by economic science focussing on performance and efficiency in a rather coherent way (Collinson & Morgan, 2009, p. 6). The other stream related to sociology and political science "has always been smaller and less coherent" (Collinson & Morgan, 2009, p. 6)

According to Collinson and Morgan (2009) and Geppert and Dörrenbächer (2014) there are three sub-streams within the mainstream of IB literature, first the eclectic theory or also called strategy structure paradigm, second the evolutionary model also called strategic contingency theory and third research on HQ-subsidiary relationship and subsidiary entrepreneurship. The eclectic theory (also called OLI paradigm) (Dunning, 2000) is based on transaction cost theory (Canbäck, 2002; Coase, 1937; Williamson, 1975) and argues that "internationalization decisions are shaped by ownership (O), locational (L) and internationalization (I) advantages" (Geppert & Dörrenbächer, 2014, p. 227). The evolutionary model builds on the work of Bartlett and Ghoshal (1989) and Nohria and Ghoshal

(1997) based on contingency theory (Geppert & Dörrenbächer, 2014, p. 227), that is the MNCs is contingent or dependent on the various external forces, in particular the forces for global integration and local responsiveness (Banalieva & Sarathy, 2011; Birkinshaw, Morrison, & Hlland, 1995). The rather recent stream of research “on business networks and subsidiary entrepreneurship” (Geppert & Dörrenbächer, 2014, p. 227) - whereas Aldrich and Whetten (1981) is an early exception - is led by studies focussing in particular on the power relationships between HQs and local subsidiaries (for example U. Andersson, Forsgren, & Pedersen, 2001; Birkinshaw, 1996; Forsgren, Holm, & Johanson, 2005; Hedlund & Rolander, 1990).

In addition to the mainstream IB literature Geppert and Dörrenbächer (2014, p. 231) identify two main streams of sociological studies focussing on institutionalism, namely “North-American neo-institutionalism [and] European comparative institutionalism” (p. 229). Both of the mainstream sociological institutionalist stream of research “stress that organizations need to adapt and respond to their institutional environments” (p. 231). IB mainstream literature analyse MNCs from a rather rationalistic view whereas “institutionalist research argues that no organization can be understood without understanding its social embeddedness in the wider society” (p. 231).

In the following sub-sections the three main IB and two sociologist streams will be presented in detail. In addition special focus will be put to the aspect of MNC’s regions focus as well as to alternative strategies of internationalization.

### **2.4.1 Strategy structure or Eclectic paradigm**

Building on the economic model of transaction cost theory (Coase, 1937; Williamson, 1975) the first IB paradigm follows a free market theory for MNC internationalization. Collinson and Morgan (2009) uses the category ‘growth and development’ and Geppert and Dörrenbächer (2014) the term ‘eclectic paradigm’ for this IB literature stream. Economic free market theories that build on the transaction cost theory assume that firms expand internationally through the acquisition of foreign assets if the internally transaction costs are lower than engaging with a local partner into a contractual relationship. Perfect competition (M. E. Porter, 1986b) will in the absence from distorting governmental influences lead to highest efficiency and perfect allocation of scarce resources (Pfeffer, 1981, p. 13). Dunning (2000) summarizes this paradigm as eclectic theory (also called OLI paradigm) and argues that “internationalization decisions are shaped by ownership (O),

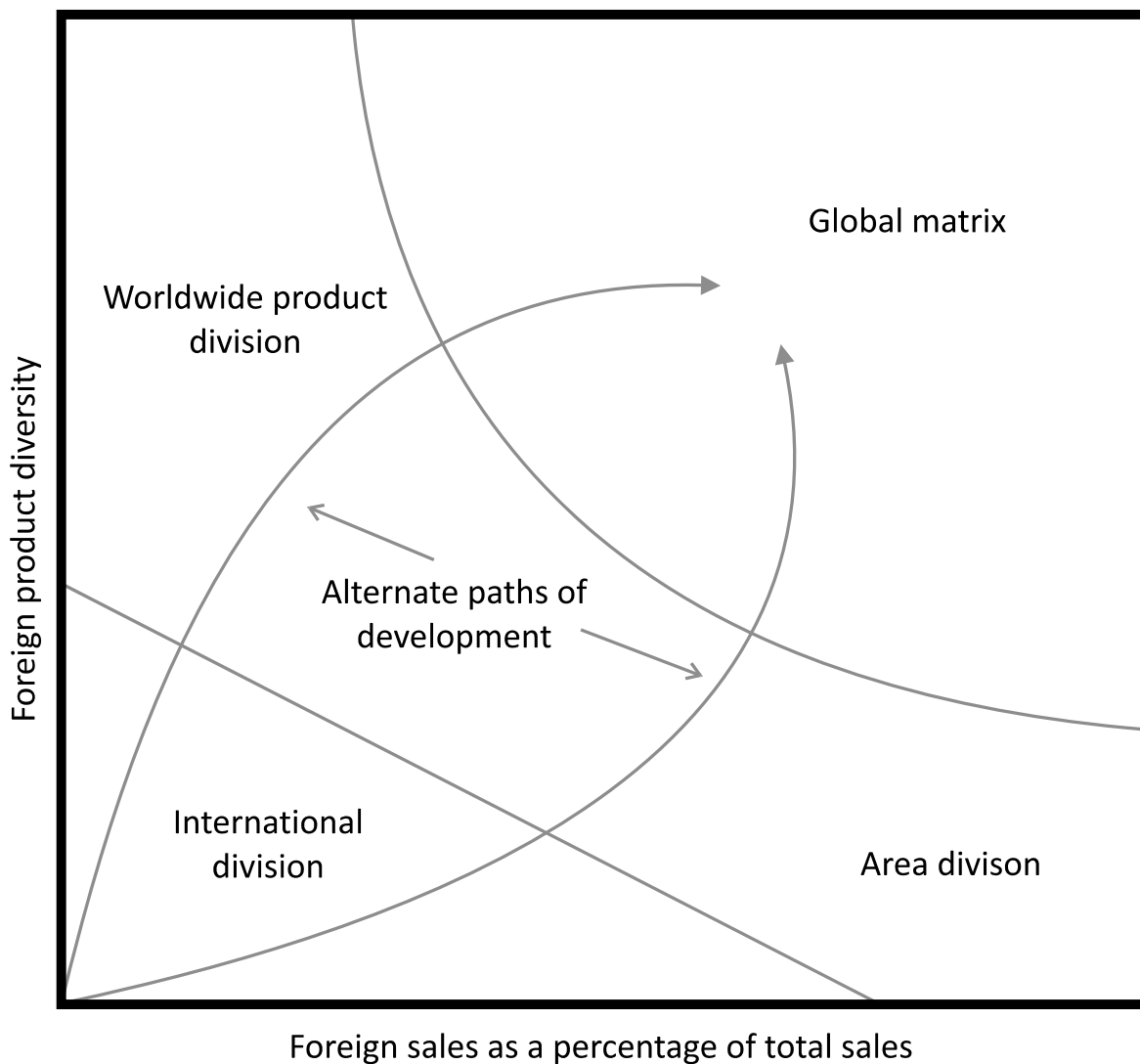
locational (L) and internationalization (I) advantages” (Geppert & Dörrenbächer, 2014, p. 227). The research of the eclectic paradigm was originally initiated by the strategy-structure work of Chandler Jr (1962) and followed by a number of U.S. and European studies (De la Torre et al., 2003, p. 62). Many of the first studies are directly linked to the Harvard Multinational Enterprise Project which was started in the 1960 (for example Dyas & Thanheiser, 1976; Fouraker & Stopford, 1968; Franko, 1976; Rumelt, 1974; Stopford & Wells, 1972). These were followed by subsequent studies in the 1980s (for example Daniels, Pitts, & Tretter, 1984; W. H. Davidson & Haspeslagh, 1982; Egelhoff, 1982, 1988b) reviewing and refining the results of the earlier studies (Birkinshaw & Terjesen, 2003; De la Torre et al., 2003).

The highly influential landmark study of Stopford and Wells (1972) builds on the strategy-structure theory (Chandler Jr, 1962) as one of the first extensive empirical studies by analysing 187 MNCs in the U.S. Stopford and Wells (1972) suggest that in the process of the internationalisation of an enterprise a key milestone is adjusting the structure to the strategy (Rugman, 1979), which is dependent (contingent) on the various environmental factors in which the enterprise operates (Birkinshaw, Ghoshal, Markides, Stopford, & Yip, 2003, p. ix). As shown in Figure 12 Stopford and Wells (1972) suggest that there are four basic structural alternatives for MNCs, namely international division, area division, worldwide product division and global matrix.

In the setup of the ‘International division’ a single department or division is created to address all business matters outside the home market. Typically there is a department for the international division or international operations that is added to the existing functional structure (Czinkota et al., 2009; Qiu & Donaldson, 2012; Stopford & Wells, 1972). In case of selecting the structural option of ‘worldwide product division’ each of the business units or divisions as described in the M-form sells their products also to foreign customers. There is no or little cooperation with other divisions operating in the same foreign country as they were managed and incentivized to operate as quasi-autonomous firms (Bartlett et al., 2003; Egelhoff, 1988b; Stopford & Wells, 1972). The set-up of the ‘area division’ puts regional or country managers in charge to represent all product lines of the MNCs in their particular country. Usually local or regional legal subsidiaries are created and the country or regional managers are based physically in these countries of regions. Corporations that decided to follow this path of organizational design typically integrate little variety and/or difference in their portfolio of product units (Adzic, 2006; Bartlett, 1986; Stopford & Wells, 1972). Prior to the structure of area or regional division, corporations usually start the international ventures via the creation of an international division or department as previously explained. The alternatives to creating an individual department or division includes finding a local partner either as distribution channel or for a joint venture, or purchasing a local company already established in that market (Egelhoff, 1988a;

Qiu & Donaldson, 2010; Stopford & Wells, 1972). In the case of choosing the 'matrix organization' as preferred structural choice various product or business units do business in various foreign countries and markets in a coordinated and dependent way. The move toward the matrix structure typically goes either via the organizational path of worldwide product division or via the area division (Birkinshaw & Terjesen, 2003; Pitts & Daniels, 1984; Stopford & Wells, 1972).

Figure 12: The Stopford and Wells Model of international strategy-structure fit



Source: Adapted from Stopford and Wells (1972) and (Qiu & Donaldson, 2010, p. 84).

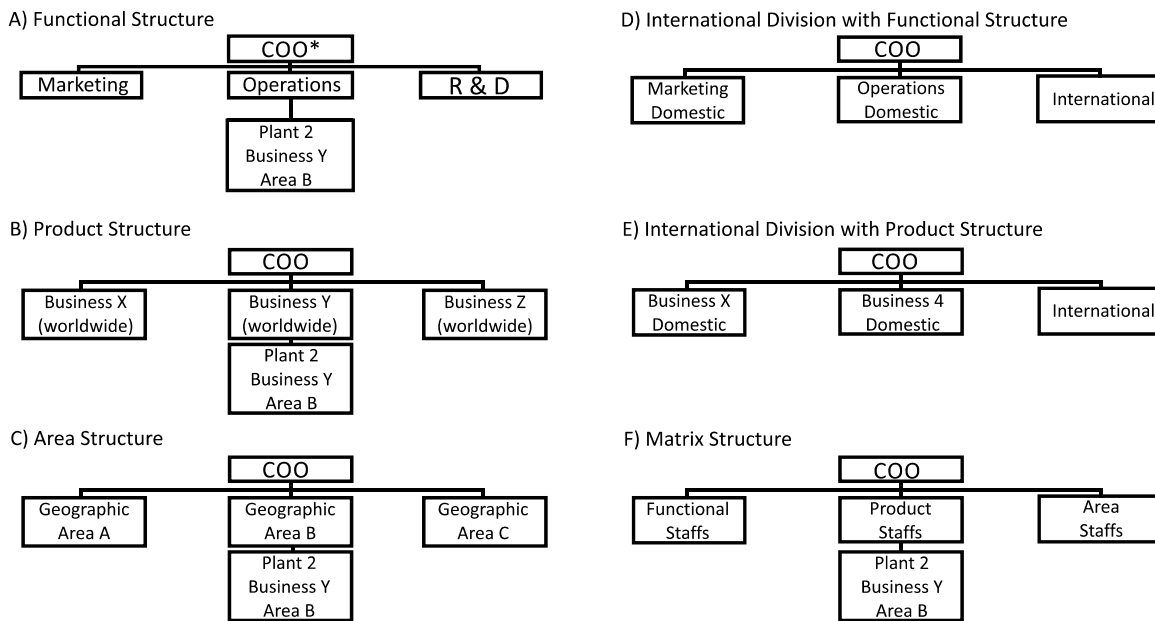
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Stopford & Wells' (1972) predict that a high percentage of foreign sales and a high level of foreign product diversity is best addressed by a product-regional matrix structure. The prediction was not supported by the study, as just three out of the 187 MNCs analysed in Stopford & Wells' study (1972) used matrix structures (Qiu & Donaldson, 2012; Stopford & Wells, 1972). Figure 13 provides a good overview of the structural options of MNCs, which emerged from the traditional U-form functional structure (A). The product (B) and area (C) structures are variants of the multidivisional M-form structure. Pitts and Daniels (1984, pp. 49-50) further distinguish two variants with the international division, one with a functional structure (D) and one with a product structure (E). The most important point is that all international operations are grouped into a single organizational responsibility. The final step is a three-dimensional matrix structure (F), where product, regional and functional interests are balanced (Pitts & Daniels, 1984).

**Figure 13: Examples of various structures according to Stopford & Wells**

CHART 1



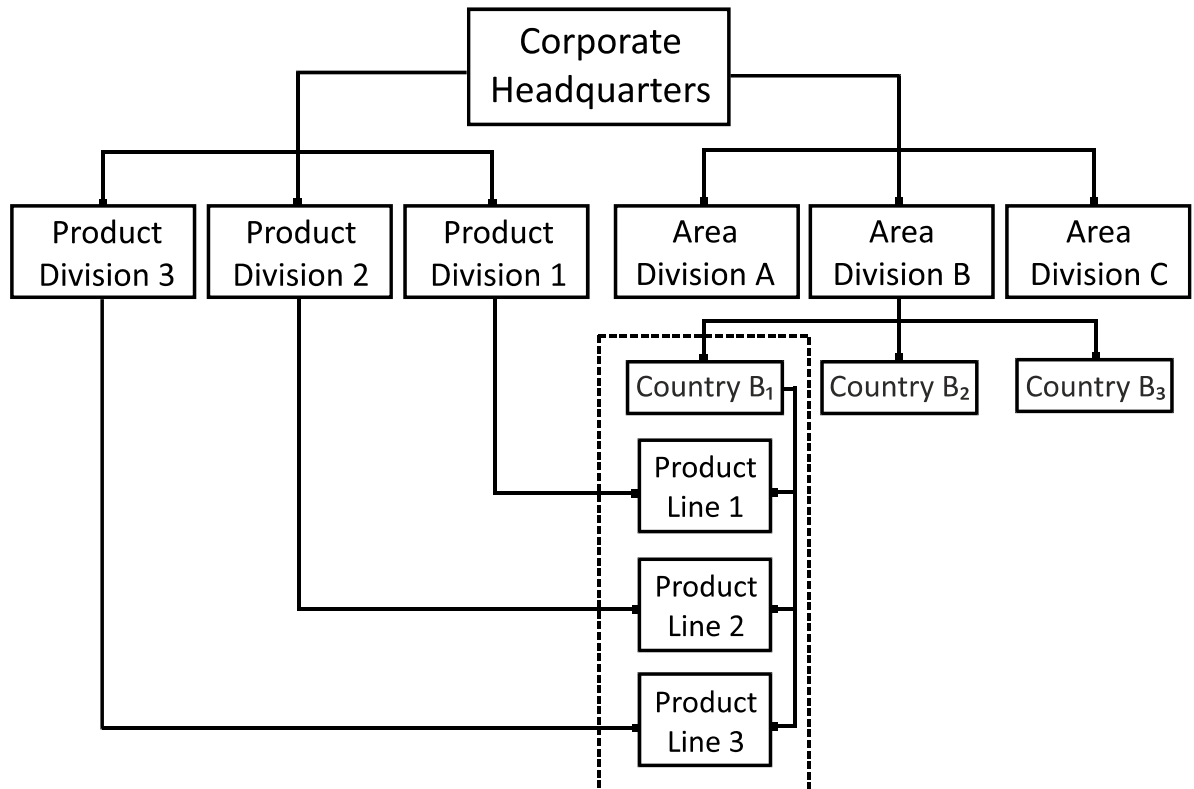
\* Chief Operating Officer

Source: (Pitts & Daniels, 1984, p. 50)

Parallel to the publication of the work of Stopford and Wells (1972) the 1970s saw a large number of MNCs changing from the multidivisional M-structure to a matrix structure as shown in Figure 14 (Chi & Nystrom, 1998). This change of structure towards matrix organizations in major U.S. and European organizations and corporations from the Asia Pacific Region was accompanied by parallel increase in academic research analysing the relationship between structure and strategy (for example Chenhall, 1979; Daniels et al., 1984; Donaldson, 1986; Egelhoff, 1980; Franko, 1976; Habib & Victor, 1991).

As mentioned earlier since the 1980s the use of matrix organizations in MNCs has received increased criticism from the academic and corporate world, why matrix organizations were declared dead by various authors (Birkinshaw et al., 2003). The prominent and highly influential study of Bartlett and Ghoshal (1989) is one of the critics of matrix organizations and can be seen as a milestone for opening up a new IB research paradigm away from the traditional rational economic theory based strategy-structure model towards softer view on MNCs. The original strategy-structure approach for the analysis for MNCs “gave way in the 1980s to a rather more behavioural or process oriented body of literature” (Birkinshaw & Terjesen, 2003, p. 116). This new paradigm will be discussed in the next section.

Figure 14: Two dimensional MNC with product and area dimension



Source: (Chi & Nystrom, 1998, p. 142)

## 2.4.2 Evolutionary model or strategic contingency theory

Collinson and Morgan (2009) term the second IB literature stream as ‘strategic contingency theory’ and Geppert and Dörrenbächer (2014) suggests the definition of the ‘evolutionary model’ where “economic factors influencing...growth and development” (Collinson & Morgan, 2009, p. 7).

The evolutionary model builds on the very influential work of Bartlett and Ghoshal (1989) and marks an important milestone on the further development of economic theories in the study of MNCs (Collinson & Morgan, 2009). The study of Bartlett and Ghoshal (1989) and the revised second edition (Bartlett & Ghoshal, 1998) is based on extensive case studies of some major MNCs and follow strategic contingency theory, that is the MNCs is contingent or dependent on the various external forces (Banalieva & Sarathy, 2011; Birkinshaw et al., 1995). The studies of Prahalad and Doz (1987), Bartlett and Ghoshal (1989) and later on Nohria and Ghoshal (1997) address less purely economic and rational but softer aspects in the theory of MNC management by suggesting that there are

limited structural options for MNCs, why they need to focus on three aspects “integration, responsiveness and learning” (Birkinshaw & Terjesen, 2003, p. 117). First MNCs need to strive of global integration by taking advantage of economies of scale and second they further need also show local responsiveness to local markets (Tallman & Yip, 2009). It can be argued that these two aspects are represented by the global business unit and regional dimension of a grid or matrix structure as already suggested by Stopford and Wells (1972). Bartlett and Ghoshal (1989) however explicitly avoid speaking about structural solutions and in addition present as third aspect the management of knowledge, learning and innovation (Tallman & Yip, 2009). Bartlett and Ghoshal (1989) explicitly focus on the importance of organizational culture (Morrison, Brown, & Smit, 2008) and suggest that MNCs should rather be organized as network (Aldrich & Whetten, 1981) than as formal structure. The proposal of a network image of MNCs is further developed by Nohria and Ghoshal (1997) and Forsgren et al. (2005). Even though Bartlett and Ghoshal (1989) suggest to focus on three aspects, namely integration, responsiveness and learning their most recognized and cited contribution is the recommendation that MNCs must focus both on global integration and local responsiveness (Birkinshaw et al., 2003). Based on the primary pulls for global integration and local responsiveness Bartlett and Ghoshal (1989) and Ghoshal and Nohria (1993) as well as others subsequent studies defined four structural options for MNCs as shown in Table 7. Kotabe and Jiang (2009) argue that these “counteracting forces” (p. 448) are a central theme for the study of MNCs and have been addressed already in the late 1960s by for example Fayerweather (1969).

As further pointed out by Kotabe and Jiang (2009) some authors use slightly different terms instead of global integration, which represents the “supply side argument” (p. 448) and local responsiveness which represents the “demand-side argument” (p. 448). The terms used for the supply side are “unification, standardization, globalization, global integration, scale” (Kotabe & Jiang, 2009, p. 448) and “global coordination” (Bartlett & Ghosbal, 1987, p. 46). The terms for the demand side are “fragmentation, adaptation, localization, local responsiveness, sensitivity” (Kotabe & Jiang, 2009, p. 448) and “national differentiation” (Bartlett & Ghosbal, 1987, p. 46). In this study however the terms global integration and local responsiveness as suggested Bartlett and Ghoshal (1989) will be used.

Table 7 links the structural options as suggested by Bartlett and Ghoshal (1989) and Ghoshal and Nohria (1993) to the original study of Stopford and Wells (1972) and more recent studies (Adzic, 2006; Wolf, Egelhoff, et al., 2008). Table 7 uses the original classification of the option for MNC strategy of Stopford and Wells (1972) with the more recent studies of Bartlett and Ghoshal (1989) and Ghoshal and Nohria (1993). The study of Ghoshal and Nohria (1993) unveils the two main “forces” (p. 27) by which MNCs are driven, namely the “Forces for Global Integration” (p. 27) and the “Forces for Local Responsiveness” (p. 27) and provides some suggestions which type of MNCs have to



respond to the forces of global integration and local responsiveness as shown in Figure 15. Figure 15 associates certain industries to the structural options presented in Table 7. It can be seen, that although different terms are used the underlying categorization remains dominant, which is also confirmed by recent studies (Adzic, 2006; Wolf, Egelhoff, et al., 2008).

**Table 7: Four structural options for MNCs as defined by different authors**

Definition of Bartlett and Ghoshal (1989).	Definition of Stopford and Wells (1972).	Definition of Ghoshal and Nohria (1993).	Explanation by Wolf, Egelhoff, et al. (2008, p. 14).
Multi-domestic strategy	Geographic division	Multinational Environment	“Products are developed for each local market and respond to local market conditions; each foreign subsidiary possesses its own unique domestic strategy; subsidiaries tend to possess a full value chain of activities and to be relatively independent.”
International strategy	International Division	International Environment	“Products are developed for the home country market and are moved into international markets with little or no adaptation”
Global strategy	Product divisions	Global Environment	“Attempts to simultaneously realize the local responsiveness advantages of the multi-domestic strategy and the efficiency advantages of the global strategy”
Transnational strategy	Matrix	Transnational Environment	“Attempts to simultaneously realize the local responsiveness advantages of the multi-domestic strategy and the efficiency advantages of the global strategy”

The aforementioned studies associated to the evolutionary model view MNCs primarily from the HQ perspective defining a globally unitary structure for the entire MNC. A new stream of IB literature

has emerged in the last 20 years putting the subsidiary in the focus and offering a more diverse view on the role of the subsidiary and local entrepreneurship (Blazejewski & Becker-Ritterspach, 2011a; Dörrenbächer & Geppert, 2011). This stream of literature is discussed in the next section.

Figure 15: "The environment of MNCs: Classification of Business"

	<b>Global Environment</b>	<b>Transnational Environment</b>
<b>Strong</b>	<ul style="list-style-type: none"> <li>● Construction and mining machinery</li> <li>● Nonferrous metals</li> <li>● Industrial chemicals</li> <li>● Scientific measuring instruments</li> <li>● Engines</li> </ul>	<ul style="list-style-type: none"> <li>● Drugs and pharmaceuticals</li> <li>● Photographic equipment</li> <li>● Computers</li> <li>● Automobiles</li> </ul>
<b>Forces for Global Integration</b>		
	<b>International Environment</b>	<b>Multinational Environment</b>
<b>Weak</b>	<ul style="list-style-type: none"> <li>● Metals (other than nonferrous)</li> <li>● Machinery</li> <li>● Paper</li> <li>● Textiles</li> <li>● Printing and publishing</li> </ul>	<ul style="list-style-type: none"> <li>● Beverages</li> <li>● Food</li> <li>● Rubber</li> <li>● Household appliances</li> <li>● Tobacco</li> </ul>
	Weak	Strong
	<b>Forces for Local Responsiveness</b>	

Source: (Ghoshal & Nohria, 1993, p. 27)

### **2.4.3 Subsidiary role and local entrepreneurship**

The third and most recent literature stream of IB research is described by Collinson and Morgan (2009) and Geppert and Dörrenbächer (2014) in a similar fashion and puts more focus on the relationship between HQ and subsidiaries and the changing more entrepreneurial roles of subsidiaries (for example U. Andersson, Forsgren, & Pedersen, 2001; Birkinshaw, 1996; Forsgren et al., 2005; Hedlund & Rolander, 1990).

The studies of Hedlund (1986) and Hedlund and Rolander (1990) were very influential to further develop the evolutionary model of the MNC suggesting “that the strategic approaches of MNCs are more dynamic and might switch back and forth between more or less hierarchical control and coordination mechanisms” (Geppert & Dörrenbächer, 2014, p. 230) called “heterarchy” (Hedlund, 1986) a heterogeneous hierarchy. Following the same stream of research Forsgren and colleagues (for example U. Andersson, Forsgren, & Holm, 2007; Forsgren et al., 2005) object the central role of the HQs and building on the work of Aldrich and Whetten (1981) “propose a business network approach” (Geppert & Dörrenbächer, 2014, p. 230) for the management of MNCs where the MNC is seen as federation and the “HQ is one player among other” (Geppert & Dörrenbächer, 2014, p. 230).

Birkinshaw and colleagues (for example Birkinshaw, 1997; Birkinshaw, Holm, Thilenius, & Arvidsson, 2000; Birkinshaw & Riddlerstrale, 1999) in their analysis of subsidiary entrepreneurship are considered as a rare example of the most advanced form of research addressing the diverse and complex relationship between HQs and LCs in MNCs (Geppert & Dörrenbächer, 2014, p. 231).

In the following two sub-sections recent studies covering the relationship between HQ and LCs and the emerging new diverse role of subsidiaries are covered in more detail.

#### **2.4.3.1 Relationship between HQ and LC in MNCs**

Some of the most recent studies cover the relationship and competition between subsidiaries of the same MNC (Becker-Ritterspach & Dörrenbächer, 2009, 2011; Gammelgaard, 2009). Roth and Morrison (1992) and Forsgren et al. (1995) analyse the criteria pertinent to how a MNC should delegate the leadership of product units from the HQs to the LCs. Following the same line of

argument Prahalad and Doz (1981a) further suggest that the classical roles and relationship between HQs and LCs are evolving and that MNCs fine-tune their operations.

Theuerkauf, Ernst, and Mahini (1993) in line with Bartlett and Ghoshal (1986) suggest that MNCs must find the right balance between central planning, decision making and local autonomy. Prahalad (1976), Hamel and Prahalad (1983) as well as the two articles of Doz and Prahalad (1981) and Prahalad and Doz (1981a) focus on the strategic responsibility and role of the subsidiaries. They unveil that subsidiaries gain more autonomy once the product become more mature. Prahalad and Doz (1981a, p. 8) however alert that HQs face the risk of a “control gap” (p. 8) by accepting the demands of local subsidiaries to grant more autonomy and strategic control. This research points to the concept that MNCs face the risk of not being fully able to appreciate the benefits of global integration. Theuerkauf et al. (1993, p. 107) warn that “the condition for success cannot be reduced to a simple formula”. Consequently, there is no single universally applicable distribution of decision power and autonomy for all parts of the MNC. The role and importance of the LCs depends on the added value (Hamel & Prahalad, 1983).

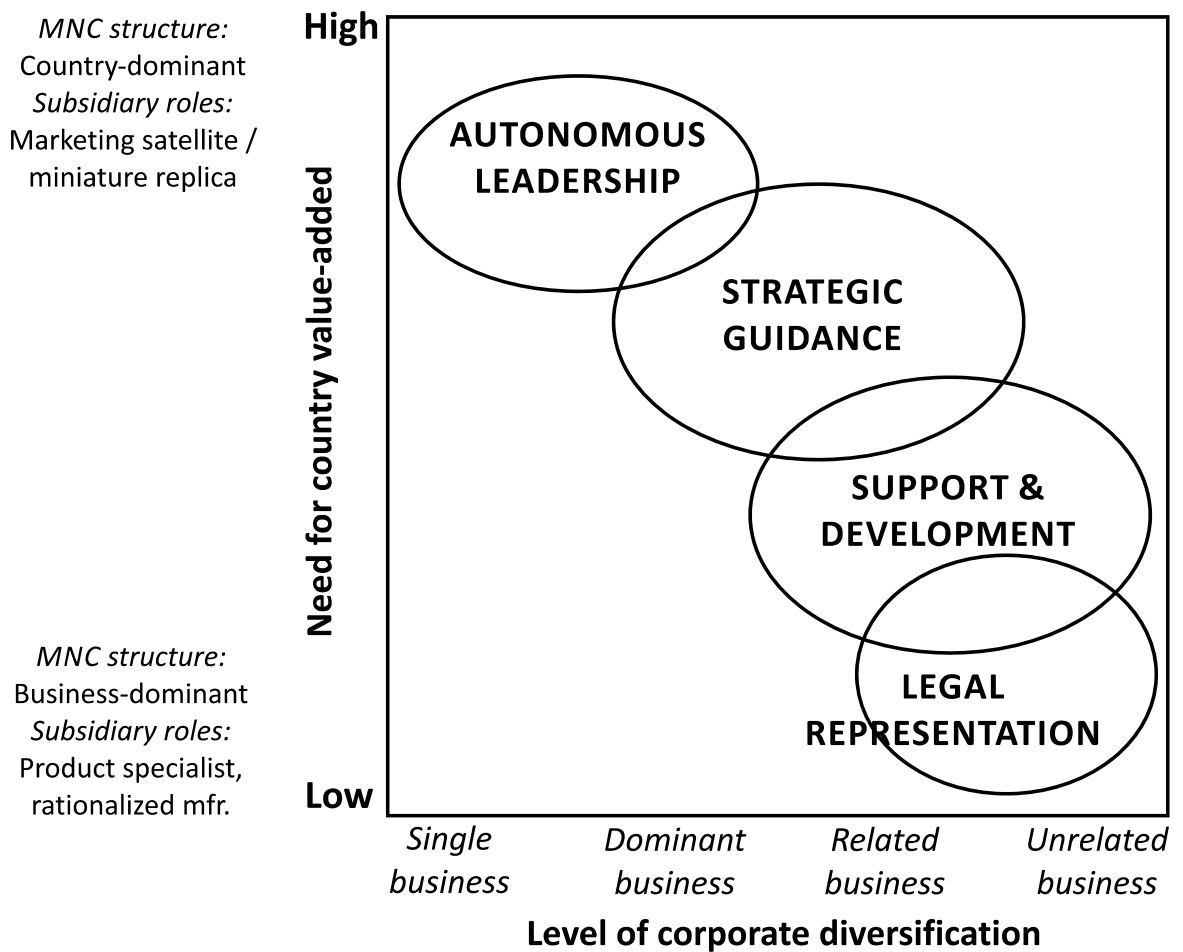
Among others, Doz, Bartlett, and Prahalad (1981) note the importance of strong local political connections in order to better manage the “host country demands” (p. 63). By specifically focussing on the role of country managers in MNCs later studies as that by Quelch (1992) observe that the pressure for global integration and economies of scale leads to a shift of the decision power away from powerful and autonomous country operations towards the central product units in HQs. Following this line of thought Birkinshaw (1995) questions whether the traditional operational country managers will disappear and act to represent the MNC interests. Birkinshaw (1995) and later Quelch and Bloom (1996) conclude that strong country managers are particularly needed in emerging markets and for product units that require a strong local added value.

The importance of a strong local presence and in particular the limits of global product units that ignore special conditions and requirements of local markets has received in particular recent attention (for example Glimstedt, 2001; Kristensen & Zeitlin, 2005; Spar, 2009). In a series of contributions for instance the well know Havard and IESE scholar Ghemawat (2001, 2003, 2007b) argues that there are limits of globalization and that MNCs should carefully analyse the business case for each individual country in which they pursue expansion. Despite the crucial importance of successful country operations, literature focused on country managers is rare. Birkinshaw (1995, p. 283) for instance criticizes this gap in research: “the academic literature has given little attention to the country manager in explicit terms, for reasons that are unclear.”

### 2.4.3.2 Local Company focus

The study of Birkinshaw (1995) is one of the few examples that analyses the strategy-structure options of MNCs from the country manager's and local subsidiaries point of view. He lists four different types of country management functions, namely autonomous leadership, strategic guidance, support and development and legal representation.

Figure 16: Country management types



Source: (Birkinshaw, 1995, p. 294)

Figure 16 and Table 8 show how these four different types differ in the need for local added value, the levels of corporate structure and corporate diversification and for the proposed role for the subsidiary. Birkinshaw (1995, p. 286) addresses the topic specifically and argues that the authority

over the country operations varies from “uncontested authority over country operations” via a continuum to “no authority over country operations”.

The options for MNCs as presented by Birkinshaw (1995) and shown in Figure 16 and Table 8 do partly fit and partly not fit to the options of Ghoshal and Nohria (1993). This is mainly because Ghoshal and Nohria (1993) view MNCs from the HQ side whereas Birkinshaw (1995) takes the view of the local subsidiary. Additionally, the four types of country management roles cannot be assigned to one of the four business types of Ghoshal and Nohria (1993), overlaps occur in both directions. The most significant distinction is that Birkinshaw (1995) believes that there are very different types of country management roles depending on the environmental and intra-MNC organizational factors, whereas Ghoshal and Nohria (1993) propose a global structure per MNC that results in the same roles for all local subsidiaries.

**Table 8: Environmental and organizational factors impacting country management function.**

	Autonomous leadership	Strategic guidance	Support and development	Legal representation
Need for local value added	High	Moderate	Low	Low
Corporate level of diversification	Single or dominant business	Related business	Related or unrelated business	Unrelated business
Corporate structure	Country dominant	Balanced matrix	Matrix, limited country input	Business dominant
Subsidiary role	Marketing satellite or miniature replica	Strategic independent, product specialist	Product specialist, rationalized manufacturer	Rationalized manufacturer

Source: (Birkinshaw, 1995, p. 295).

## 2.4.4 Regional and global focus of MNCs

The growth of MNCs and the “globalization of markets” (Levitt, 1983, p. 92) has motivated many researchers to further analyse the strategies and success factors of globally acting MNCs (Elango, 2004; Hamel & Prahalad, 1985; Kanter, 1991). Rugman (2001) contradicts the view of most authors that large MNCs are naturally global players with worldwide presence as “myth”. Building on this line of thought in a later study Rugman (2005) suggests that only nine out of the 500 largest MNCs qualify as ‘global’. He defines global “as the ability to sell the same products and/or services around the world” (Rugman, 2005, p. 1). He further claims that almost all of the 500 largest MNCs have a rather regional focus “in the home region of the ‘triad’ of North America, the EU, or Asia” (Rugman, 2005, p. 1). For 120 from the 500 largest MNCs Rugman (2005) had no data available and for 15 MNCs there was not sufficient data available. Of the remaining 365 MNCs analysed in his study, 320 MNCs are “home-region based” (Rugman, 2005, p. 3) having more than 50% of the revenue in their home region.

Typical examples are “the U.S. Post office (ranked at 29) and the Central Japan Railway (ranked at 460)” (Rugman, 2005, p. 3). The category “bi-regional” (Rugman, 2005, p. 3) is associated with 25 MNCs, that have less than 50% of their sales revenue in their home region of the triad and at least 20% of their sales revenue in the remaining two regions of the triad. There are 11 MNCs which do more than 50% of their business outside their home region and are referred to as host-region based MNCs. Only nine MNC comply with the category of ‘global’ MNCs having more than 20% of sales revenue in each of the three regions of the triad and less than 50% of their revenue in the home region (Bulut, 2008, p. 59; Rugman, 2005, p. 3)

Table 9 summarizes the finding. Rugman (2005) calls this a “picture of regionalization, not globalization” (p. 3) and asserts that the 500 MNC rather need a regional than global strategy. It can be argued whether the classification as used by Rugman (2005) makes sense because of his focus on sales revenue as the determination factor for the classification (Bulut, 2008). Further studies however use the same classification to explain tests its applicability for MNCs of a certain region (Wolf, Dunemann, & Egelhoff, 2008). Delios and Beamish (1999, 2005) for instance study MNCs of Japanese origin and Asmussen (2009) defines a “multidimensional index of regional and global orientation” (Asmussen, 2009, p. 1192).

Delios and Beamish (1999, 2005) refine the definitions of Rugman (2005) and Rugman and Verbeke (2001). Instead of using the three triad regions North America, Europe and Asia they use the seven regions Asia, Africa, Europe, the Middle East, North America, Oceania and South America (Delios &

Beamish, 2005, p. 22). Furthermore they use five categories instead of four (Delios & Beamish, 2005, p. 22):

- Home-oriented.
- Host-oriented
- Bi-regional.
- Global 1 (tri-regional).
- Global 2 (quad-regional)

**Table 9: Regional focus of the 365 MNCs surveyed by Rugman**

<b>Definition of category</b>	<b>Sales revenue in the regions of the triad</b>	<b>MNCs belonging to this category</b>
Home-region-based MNC	More than 50% of the revenue in the home region. Less than 50% of the revenue in the other two regions of the triad.	320
Bi-regional MNC	Less than 50% of the revenue in the home region. More than 20% of the revenue in two regions of the triad	25
Host-region based MNC	Less than 50% of the revenue in the home region. More than 50% of the revenue in one of the other regions of the triad	11
Global MNC	Less than 50% of the revenue in the home region. More than 20% of the revenue in all three regions of the triad.	9

Source: (Bulut, 2008, p. 59; Rugman, 2005, p. 3).

Delios and Beamish (2005) analyse 1229 MNCs over a period of more than 10 years discovering significant differences in the financial performance of home-oriented MNCs versus global (tri- or



quad-regional) MNCs. As a measure for financial performance they use Return on Sales (ROS) and Return on Assets (ROA) (Atrill & McLaney, 2004; Hawawini & Viallet, 2007; Higgins, 2009). Using ROS and ROA the global MNCs had significantly higher performance than the home-oriented and host-oriented MNCs (Bulut, 2008; Delios & Beamish, 2005). Banalieva and Santoro (2009) as well as Banalieva, Jiang, and Santoro (2010) confirm the research of Rugman (2005) by specifically showing that MNCs from emerging markets primarily focus on the home country and home region, although they provide evidence that MNCs following a mainly local and global strategy show superior financial performance.

These aforementioned studies and their results had a significant impact on the research design of this thesis. These studies are interpreted as evidence that the strategy and consequently the structure of MNCs vary widely. They are – at least partly – in contrast to studies seeking a single strategy structure relationship (Qiu & Donaldson, 2012; Stopford & Wells, 1972; Wolf & Egelhoff, 2012). The designation of MNC does not necessarily imply a firm with global reach, but is an indication of high sales revenue and operations in many different countries. As most MNCs are mainly focused on one or few regions, depending on which classification is used, their strategy, structure, staff and customers are likely to differ greatly. Attempting to analyse the specific and narrow subject of power distribution including MNCs from many very different geographic origins is regarded as project with high risk of failure. Interestingly there is however only little literature available that follows a specific regional emphasis. Laslo and Goldberg (2001) for instance research exclusively matrix organizations of technology companies in Israel. Marinov, Marinova, and Morita (2003) analyse the internationalization process of Japanese MNCs into Eastern Europe. As a result this lack of specific studies confirmed the decision to focus this thesis as narrowly as possible with respect to a specific industry in a particular country.

#### **2.4.5 Alternative strategies of internationalization**

The Uppsala model of internationalization of MNCs is based on the work of Johanson and Wiedersheim-Paul (1975) and Johanson and Vahlne (1977, 1990, 2009). It suggests that firms with relatively small home markets start selling abroad at relatively early stages and grow their international operations rather gradual than with large investments. In contrast the U.S. based studies like Stopford and Wells (1972) reveal that MNCs go abroad rather late due to a big home market and because of risk reduction through diversification (Rugman, 1979). European MNCs have

to learn to accommodate different views of countries very early, so it is part of their corporate DNA and culture (Morrison et al., 2008), whereas U.S. MNCs don't have the need to be interested on foreign cultures, customs and views at an early stage. European MNCs started their process of internalizations in the 1920 and 1930s whereas North American MNCs grew internationally after the boom in the decades after World War II and "their different heritages would lead them to adopt some very different strategic organizational models" (Bartlett & Beamish, 2011, p. 301). Consequently the structure and processes of North American MNCs are rather designed for central control, why they try to use the same structure even when growing internationally (Johanson & Vahlne, 1977, 1990, 2009). Further on Johanson and Vahlne (1990) report about an increasing number of research about the international process of MNCs, which is reflecting the increasing importance of MNCs. They however criticize that most studies only cover parts and that there have been "few attempts at developing the concept" (p. 22) of internationalization. "This is easily understandable as the basic ideas are drawn from several theoretical traditions – economic theory, organization theory and marketing theory – and most researchers feel at home on only one". (p. 22).

In the same line of argument recent studies suggest that the concept of internationalization as suggested by the Uppsala model is not applicable for all market environments. Marinov et al. (2003) for instance present the case of Western European MNCs, and in particular German MNC, that have since 1989 through foreign direct investment (FDI) played a pivotal role in the transition of countries in Central and Eastern Europe (CEE) towards market driven economies (p. 28). This rapid entry of Western European MNCs into CEE does not follow the Uppsala model. In another recent study Marinov and Marinova (2013) present the significant differences of the strategies of MNCs from Emerging Economies versus the MNCs from the Western world.

These examples are interpreted as evidence, that strategies of MNCs vary greatly depending from the country of origin and foreign operations of the MNC, the industry and the time span of study. Consequently this study follows a very narrow approach to avoid the risk of incorporating MNCs in the same study that are different in various important strategic and structural aspects.

## **2.4.6 Main sociological literature streams**

The first stream of sociological studies is termed by both Collinson and Morgan (2009) and Geppert and Dörrenbächer (2014) as 'neo-institutionalist'. The second stream is labelled as neo

institutionalist theory proposed by Westney and colleagues (Westney, 1993, 2003; Westney & Zaheer, 2009) and Kostova and colleagues (for example Kostova, 1999; Kostova & Roth, 2002; Kostova & Zaheer, 1999; Vora, Kostova, & Roth, 2007).

#### **2.4.6.1 North American Neo-institutionalist**

Kostova and colleagues argue that subsidiaries of MNCs encounter themselves in a “institutional duality” (Collinson & Morgan, 2009, p. 13). They have to respond to the demands of HQs and as well to the institutional demands of the host country. Kostova and Roth (2002) consequently suggest that LCs have four possibilities to respond to HQ demands: „We label these patterns active, minimal, assent and ceremonial adoption“ (p. 229). North-American neo- institutionalism further argues that management ideas and “best practices” (Geppert & Dörrenbächer, 2014, p. 232) are not adapted based on rationality but in order to “enhance the organization’s legitimacy” (Geppert & Dörrenbächer, 2014, p. 232). “Management ideas and ideologies create isomorphic pulls” (Geppert & Dörrenbächer, 2014, p. 232) that trigger other organizations to also adapt them.

#### **2.4.6.2 European comparative institutionalist**

The second stream of sociological studies called ‘European comparative institutionalist’ is not explicitly mentioned by Collinson and Morgan (2009) and solely used by Geppert and Dörrenbächer (2014). European comparative institutionalists (for example Harzing & Sorge, 2003; Sorge, 2005; Whitley, 2001, 2009) argue that there are fundamental differences between MNCs embedded in North American capitalist and European socialist societies (Geppert & Dörrenbächer, 2014, p. 232). MNCs do not respond to “isomorphic institutional pressures” (Geppert & Dörrenbächer, 2014, p. 232) as argued by North-American neo- institutionalism but rather to the “home and host country institutional features” (Geppert & Dörrenbächer, 2014, p. 232). “European institutionalists assume that MNC behaviour with regard to internationalization depends on the MNC’s country of origin” (Geppert & Dörrenbächer, 2014, p. 233). The country of origin has great influence on “the internationalization strategies of MNCs (Dörrenbächer, 2000; Geppert, Dörrenbächer, Gammelgaard, & Taplin, 2013; Whitley, 2001)....how power and authority are shared within the MNCs (Whitley,

2009)...and especially how the HQ controls its subsidiaries (Harzing & Sorge, 2003)” (Geppert & Dörrenbächer, 2014, p. 233). Drawing on the work of Almond and Ferner (2006) and Geppert (2003) it is suggested that “MNCs from liberal national business systems (such as the USA)...have developed more standardized organizational practices and transfer them internally as best practices” (Geppert & Dörrenbächer, 2014, p. 233). “MNCs from liberal market economies avoid investing in coordinated market economies such as Germany because of ‘constraining’ host country institutions” (Geppert & Dörrenbächer, 2014, p. 233).

### **2.4.7 New emerging critical perspectives**

Emergent critical approaches (Barner-Rasmussen, Piekkari, Scott-Kennel, & Welch, 2010) challenges the uncritical applicability of North American neo institutionalist and European comparative institutionalist research to MNC research (Geppert & Dörrenbächer, 2014, p. 234). The first emergent critical approaches (Barner-Rasmussen et al., 2010) represented by Kostova, Roth, and Dacin (2008) and Morgan (2001) criticize North American neo institutionalist research by arguing that MNCs instead of blindly following isomorphic pressures rather shape and influence standards and regulations (Geppert & Dörrenbächer, 2014, p. 234). They argue that “MNCs cannot be seen as coherent organizations” (Geppert & Dörrenbächer, 2014, p. 234) and suggest to focus studies on the role of “social agency” where various actors actively influence standards and regulations through the use of power and politics (Geppert & Dörrenbächer, 2014, pp. 234-235).

The second Emergent critical approaches (Barner-Rasmussen et al., 2010) represent research in the area of “transnational social space (Geppert & Williams, 2006; Morgan et al., 2001) and a contested terrain (Edwards & Bélanger, 2009; Ferner, Quintanilla, & Sánchez-Runde, 2006)” (Geppert & Dörrenbächer, 2014, p. 235) and criticizes the applicability of European comparative institutionalist research to MNC (Geppert & Dörrenbächer, 2014, p. 235).

MNCs “are not unique organizational forms but multi-level and diverse organizations” (Geppert & Dörrenbächer, 2014, p. 235) where various actors follow their different interests through the use of power and politics. “Formal authority and power structures of MNCs are not ‘footloose’, but fragmented bringing together divergent collective and individual actors with different histories and experiences” (Geppert & Dörrenbächer, 2014, p. 236). Consequently “different identities and interests of key actors stabilize and destabilize established institutional, cultural and organizational

structures, and not the other way around as in mainstream institutionalist approaches.” (Geppert & Dörrenbächer, 2014, p. 236).

With this the discussion of the different IB and sociologist literature streams focussing on MNCs ends. The next sections will be reviewing the literature about power and decision making followed by sections covering power and decision power distribution in MNCs.

## 2.5 Power

The research of power is potentially among the most interesting and contested one and many disciplines claim power to be their central theme in particular the social science (Clegg, 1989; Lukes, 1986; Pfeffer, 1981). Power has been discussed already by ancient Greek writers and modern times discussion of power have been heavily influenced by Niccolo Machiavelli's "The Prince" (Machiavelli, 1997), originally published in 1513, Thomas Hobbes' "Leviathan" (Hobbes, 1962), originally published in 1651, as well as Max Weber (M. Weber, 1922, 1947) who defines three forms of legitimate authority (Clegg, 1989; Lukes, 1986; Pfeffer, 1981).

Dahl (1957, 1958, 1961) is among the most prominent authors researching power on a community level and relating power when it is used in a decision making process (Clegg, 1989; Lukes, 1986; Pfeffer, 1981). The one-dimensional or single faced view of power is complemented by Bachrach and Baratz (1962, 1963) who criticize Dahl (1957, 1958, 1961) because of an incomplete and too simple view of power. Bachrach and Baratz (1962, 1963) add to the first face of power during decision making the second face of power by non-decision making or agenda setting (Clegg, 1989; Pfeffer, 1981). This two-dimensional view of power is complemented by the very influential work of Lukes (1974) who adds a third dimension of power that changes the believes, wishes and preferences of actors without them realizing and against their own set of interests (Clegg, 1989; Pfeffer, 1981). Further on Foucault (1977, 2006) defines power as embedded in society in a rather subtle way and as a relationship between institutions (Clegg, 1989; Lukes, 1986; Pfeffer, 1981).

The use of power in organizations has received little attention with few exceptions (for example Clegg, 1979; Clegg, Courpasson, & Phillips, 2006; Mintzberg, 1983; Pfeffer, 1981; Zald, 1970). The use of power and politics in organizations is very much linked to decisions making processes as originally suggested for instance by Pfeffer (1981) and later confirmed by an extensive literature performed by Eisenhardt and Zbaracki (1992). The terms of power and politics in MNCs has largely been neglected

by both International Business (IB) and social science based research as illustrated by a very recent literature review performed by Geppert and Dörrenbächer (2014).

This section is structured as follows. After discussing the foundations of the study of power the evolution towards the three dimensional view of power (Lukes, 1974) will be discussed. Next the concept of power, the relationship of power and authority and aspects of politics and power will be covered. After linking the aspects of power to the study of organizations a summary of the current debates in the power literature will close this section.

### **2.5.1 Traditional routes of power**

Dahl (1957, p. 201) claims that power was already studied by ancient Greek philosophers Plato and Aristotle and consequently the topic of power has received continuous attentions throughout the centuries. Two influential writers who have addressed power since the 15<sup>th</sup> century are Thomas Hobbes (Hobbes, 1962), originally published in 1651, and Niccolo Machiavelli (Machiavelli, 1997) , originally published in 1513 (Clegg, 1989; Pfeffer, 1981). “Hobbes sets out the terms of a debate around a conception of sovereignty and community” (Clegg, 1989, p. 4) whereas “Machiavelli initiated a concern with strategy and organization” (Clegg, 1989, p. 4). In other the difference between Thomas Hobbes (Hobbes, 1962) and Niccolo Machiavelli (Machiavelli, 1997) can be described as follows: Hobbes defines “what power is” (Clegg, 1989, p. 5), Machiavelli describes “what power does” (Clegg, 1989, p. 5). Apart of the concept of how Hobbes and Machiavelli approach power it is worth noting that Hobbes published his work more than hundred years after Machiavelli (Clegg, 1989, p. 6). Thomas Hobbes (Hobbes, 1962) was strongly influenced by “the powerful accomplishments of Galileo’s new mechanical science” (Clegg, 1989, p. 41) why his work clearly is to be seen in the positivist tradition of natural science.

### **2.5.2 Community power and the one-dimensional view**

Many texts in the 1950s and 1960s (for example Dahl, 1957, 1958) were in the tradition of Hobbes and see power “to be conceived in positivist terms as something directly observable and

measurable" (Clegg, 1989, p. 4). Dahl (1957) for instance defines that "A has power over B to the extent that he can get B to do something that B would not otherwise do" (Dahl, 1957, pp. 202-203). Dahl (1957, 1958, 1961) suggests that "power can only ever be attributed when it has been seen to be exercised" (Clegg, 1989, p. 83). The work Dahl (1957) is criticized for being "mechanic, atomistic and classical causal in its arguments as were those of Hobbes" (Clegg, 1989, p. 39). Despite the criticism the classical power view of Dahl (1957) is still widely used in the literature (Haugaard & Clegg, 2013; Yukl, 2009).

### **2.5.3 Intention and agenda setting, the second dimension of power**

Bachrach and Baratz (1962) are among the early authors who criticize the very influential work of Dahl (1957) by suggesting that there are "two faces of power" (Bachrach & Baratz, 1962). One face is the positivist mechanical or formal model of Dahl (1957) the other face is the "structural face of power" (Clegg, 1989, p. 11) which Dahl (1957) neglects to address (Clegg, 1989, p. 11).

Bachrach and Baratz (1962, p. 947) stress that there is fundamental disagreement between the sociologists also called 'elitist' strand (for example Hunter, 1953; Schulze, 1958) which suggest "that power is highly centralized" (Bachrach & Baratz, 1962, p. 947) and the political scientists also called 'pluralist' strand (for example Dahl, 1957, 1961; Polsby, 1960) which view that "power is widely diffused" (Bachrach & Baratz, 1962, p. 947). Bachrach and Baratz (1962) summarize the two different strands in the analysis of power as the sociologist or elitist asking "Who rules?" (p. 952) and the political scientists or pluralist asking "Does anyone have power?" (p. 952). Bachrach and Baratz (1962) consequently present "two faces of power, neither of which the sociologists see and only one of which the political scientists see" (p. 947). According to Bachrach and Baratz (1962) the first face of power is the only one seen by political scientists or pluralists (for example Dahl, 1957, 1961; Polsby, 1960) and refers to the use of power for key, critical or strategic decisions. The second face of power is ignored by political scientists or pluralists (for example Dahl, 1957, 1961; Polsby, 1960) and refers to the "restrictive face of power" (Bachrach & Baratz, 1962, p. 952) which also considers "the dynamics of non-decision-making" (Bachrach & Baratz, 1962, p. 952).

In short Bachrach and Baratz (1962) criticize political scientists or pluralists for just seeing the face of power that is involved in active decisions making by ignoring the face of power that focuses on avoiding decisions to be made. Bachrach and Baratz (1962) further criticize political scientists or

pluralists for their positivist view “of discarding ‘immeasurable elements’ as unreal....[because] their approach to and assumptions about power predetermine their findings and conclusions” (p. 952). The original critique of Bachrach and Baratz (1962) is further discussed and emphasized in a later article of the same authors (Bachrach & Baratz, 1963). In a later study Finkelstein (1992, p. 508) addresses the importance of decision agenda setting in a study about power in Top Management Teams by stating that “managers who can reduce internal sources uncertainty by controlling an organization’s decision agenda..., the alternatives considered..., or information flows...will gain power” (Finkelstein, 1992, p. 508). Without explicitly mentioning it (Finkelstein, 1992, p. 508) supports thereby the findings of Bachrach and Baratz (1962).

#### **2.5.4 Changing believes, the subtle third dimension of power**

Lukes (1974, 2005) adds as third dimension of power the influences of preferences, influences and thoughts (Clegg, 1989). The contribution of Lukes (1974, 2005) has been widely used in the social sciences and further refined (for example Gaventa, 2006, 2007; VeneKlasen & Miller, 2002; VeneKlasen, Miller, Budlender, & Clark, 2007) for instance by referring the three dimensions as “power cube” (Gaventa, 2006, p. 25). The first dimensions is the “visible power” (VeneKlasen & Miller, 2002, p. 40) in the process of decision making. The second dimension is the “hidden power [in] setting the political agenda” (VeneKlasen & Miller, 2002, p. 40). Powerful actors control the content of the agenda and who is involved in the decision making process (VeneKlasen & Miller, 2002, p. 40). The third dimension as presented by Lukes (1974, 2005) is the “invisible power [of] shaping meaning” (VeneKlasen & Miller, 2002, p. 40) focussing on “social conditioning, ideology [and] influencing people’s needs” (Powercube, 2014, p. 1). “Problems and issues are not only kept from the decision-making-table, but also from the minds and consciousness of the different players involved” (VeneKlasen & Miller, 2002, p. 40). The three dimensional view of power is frequently used by sociologist and political scientist and at the same time largely ignored by traditional IB scholars and management books.



## 2.5.5 Ambiguity and contested nature of power

The ambiguity and contested notion of power is widely discussed in the literature. Dahl (1957) for instance describes power as a “Thing to which people attach many labels with subtly or gross different meanings in many different cultures and times is probably not a thing at all but many Things” (p. 201). Pfeffer (1981) states that “while power is something, it is not everything” (p. 2) however by referring to March (1966) it is suggested that the concept of power is “used to explain almost everything” (Pfeffer, 1981, p. 2). In other words Pfeffer (1981) further believes that the concept of power can be considered as “tautology” (p. 2), an universal concept to explain topics that cannot be explained by other concepts or theories (p. 2). Referring to Emerson (1962) it is argued that “power is a relative concept that can only be understood in a particular context” (Finkelstein, 1992, p. 508).

In a similar fashion Bachrach and Baratz (1962) note that “the concept of power remains elusive” (p. 947) and the debate about the definition and the concept of power continues. Clegg (1989) for instance describes power “as a concept which had a common essence subject to endless contestation” (p. 2). Further on Pfeffer (1981) considers that “power and organizational politics are topics that make people uncomfortable” (p. x), power is a term “with an ideological tinge” (p. x) and politics is seen as “unethical” (p. x). Due to these questionable associations it seems logical “that we are ambivalent about power” (Pfeffer, 1992b, p. 33). The sensitivity of the term power is also illustrated by Finkelstein (1992) who states that “power is a sensitive subject for many managers. The word itself is heavily laden with meaning” (p. 511). An even stronger critique of power is presented by Kanter (1979, p. 65).

“Power is America’s last dirty word. It is easier to talk about money - and much easier to talk about sex – than it is to talk about power. People who have it deny it; people who want it do not want to appear in hunger for it; and people who engage in its machinations do so secretly” (Kanter, 1979, p. 65).

Despite the ambiguity of power the general importance of power in societies at large is stressed by J. K. Galbraith (1986) who proposes that “power, along with glory, remains the highest aspiration and the greatest reward of humankind” (p. 211).

Summarizing power is the central theme in the study of social sciences (Haugaard & Clegg, 2013) and at the same time a contested subject with a partly negative unethical notion. Even though disliked by classic management and business scholars it is arguably central for the understanding of any kind

of organizations and in particular MNCs (Clegg & Haugaard, 2013; Geppert & Dörrenbächer, 2011). Consequently the following section will discuss the variety of concepts and definitions of power.

### 2.5.6 Definition and the concept of power

As an early author Bierstedt (1950, p. 738) suggests that power is a social phenomenon, it is different from dominance, force and authority, it occurs only in case of opposition and there are various sources of power. The difficulty of defining power is further addressed by Hickson, Hinings, Lee, Schneck, and Pennings (1971, p. 216) who suggest that the first studies about power in organizations (for example March, 1955; Wrong, 1968; Zald, 1970) have struggled with the definition and understanding of power. Originally the research about power in organizations did focus on individuals and not on departments or sub-units (Hickson et al., 1971, p. 216). In the late 1960s and 1970s the first studies (for example Lawrence & Lorsch, 1967a, 1967b; Perrow, 1970) appeared focussing on departments and sub-units when analysing power and not just on individuals (Hickson et al., 1971, p. 216). Hickson et al. (1971) consequently presents a “theory of intraorganizational power” (p. 216) suggesting “that organizations being systems of interdependent sub-units, have a power distribution with its sources in the division of labour” (p. 216). Hickson et al. (1971) conclude that the power of a department or sub-unit is directly related to its capability of “coping with uncertainty, substitutability, and centrality” (p. 216). The conclusions of Hickson et al. (1971) are later confirmed by a study of Hinings, Hickson, Pennings, and Schneck (1974). Wrong (1979) links power and intention (for example Emmet, 1953; Russell, 1938) and defines power as “the capacity of some persons to produce intended and foreseen effects on others” (Wrong, 1979, p. 73). Wrong (1968, 1979) adds to the classic action related power definition of Dahl (1957, 1958, 1961) the “definition of power in which power is a capacity” (Clegg, 1989, p. 83).

Summarizing Pfeffer (1981) defines power as “the capability of one social actor to overcome resistance” (p. 2). More precisely power is defined as a “force sufficient to change the probability of B’s behaviour from what it would have been in the absence of the application of the force” Pfeffer (1981, pp. 2-3). The above mentioned different definitions are further illustrated by Pfeffer (1981) suggesting that “Power may be tricky to define but not that difficult to recognize....Power is context and relationship specific [and] a person is not ‘powerful’ or ‘powerless’ in general, but only with respect to other social actors in a specific social relationship” (p. 3).

Linking power to conflict in a decision making process Pfeffer (1981) defines power as “the mechanism, the currency by which the conflict gets resolved” (p. 70). Later on in a similar fashion also addressing power in the decision making process Finkelstein (1992, p. 530) identifies four types of power, namely structural, ownership, expert and prestige power. As the definition of power (for example Emerson, 1962; French & Raven, 1959; March, 1966) is a contested terrain its measurement is considered to be even more challenging (Mintzberg, 1983; Pfeffer, 2010; Provan, 1980).

Summarizing it can be seen that power has many definitions or labels and it is potentially used to explain everything, but itself is not everything but rather a social phenomenon. Power is difficult to define and measure but not so difficult to observe. Power traditionally is mainly seen in action, in particular in decision making, but also can be seen as capacity defining agendas and even influencing believes.

As discussion about power is very much linked to the work of Max Weber the link of power and authority the influence of the work of Max Weber will be further discussed in detail in a subsequent sub-section. Another sub-section will deal with linking power and (organizational) politics before the next section will cover the aspects of power in organizations.

### **2.5.7 Power, authority and the work of Max Weber**

Max Weber is considered as “founding father” (Kahan, 2012, p. 144) of sociology and “one of the giants of modern social thought” (Kahan, 2012, p. 144). The key concepts in the work of M. Weber (1958) are power and legitimated authority (Swedberg, 2003, p. 283). Weber, coming from a wealthy trading family witnesses the advancements of the industrialization in the late 19<sup>th</sup> century and believed that through rationalization und bureaucratic control everything can be controlled and predicted with mathematical precision (Gordon, 2013, p. 257; Grosby, 2013, p. 301). Weber was very sceptic in regard to the trend of rationalization and it is suggested that “Weber was perhaps a more systematically pessimistic critic of capitalism than even Marx” (Kahan, 2012, p. 144). This extreme criticism of capitalism can be shown by the fact that “Weber argues that the market replaces robbery with trade” (Kahan, 2012, p. 144). In contrast to Marx, Weber saw people in relations of production not as victims of their own “false consciousness” (Gordon, 2013, p. 258). Weber links “power and legitimacy to rationality” (Gordon, 2013, p. 258) whereas Marx “associates

power and legitimacy with the emancipation of peoples” (Gordon, 2013, p. 258). Both Weber and Marx strongly influenced “modern era’s approach to power and legitimacy” (Gordon, 2013, p. 258).

The original work (M. Weber, 1922) was reprinted as part of a greater collection of Weber’s texts such as in M. Weber (2006) and was translated by various authors (M. Weber, 1947, 1958; M. Weber, Henderson, & Parsons, 2012). When discussing the implications of the work of Max Weber it is worth noting that potential problems and mistakes in these translations of the original German text into English have been discussed in the literature (M. Weber et al., 2012). This is in particular true for the terms power and authority. Max Weber is in particular referred to for his three forms of legitimated authority which is a translation of the term ‘legitime Herrschaft’. “The term ‘Herrschaft’ [itself] has no satisfactory English equivalent. The term ‘imperative control’ ... is close to Weber’s meaning” (M. Weber et al., 2012, p. 152). The term ‘legitime Herrschaft’ however can be quite properly translated with ‘authority’ (M. Weber et al., 2012, p. 152) or ‘legitimated authority’. Pfeffer (1981, p. 4) also proposes to distinguish between power and authority and suggests by referring to Max Weber that authority can be termed as legitimated power. The term ‘power’ poses less problems and is considered to be a proper translation of the term ‘Macht’ (M. Weber et al., 2012, p. 152). The terms power, imperative control and discipline are defined as follows:

- “Power (Macht) is the probability that one actor within a social relationship will be in a position to carry out his own will despite resistance, regardless of the basis on which his probability rests” (M. Weber et al., 2012, p. 328).
- “Imperative control (Herrschaft) is the probability that a command with a given specific content will be obeyed by a given group of persons” (M. Weber et al., 2012, p. 328).
- “Discipline is the probability that by virtue of habituation a command will receive prompt and automatic obedience in stereotype forms, on the part of a given group of persons.” (M. Weber et al., 2012, p. 152).

As mentioned earlier M. Weber (1922) in the original German text and as translated in M. Weber (1947) distinguishes between three types of legitimated authority (M. Weber, 1958; 2006, p. 218; M. Weber et al., 2012, p. 328).

- Legal or rational authority based on the believes that authority has been assigned based on given divine rights. Example: King.

- Traditional authority based on believes that authority in the past shall also be recognized in the present. Example: Manager or boss
- Charismatic authority based on special or exceptional skills or qualifications individuals. Example: Leader.

Building on the work of Max Weber it is proposed by Pfeffer (1981, p. 4) to distinguish between power and authority, while authority is defined as legitimated power. "By transforming power into authority, the exercise of influence is transformed in a subtle but important way" (Pfeffer, 1981, p. 4). The exercise of power is applied against certain resistance and has therefore costs associated to it. Once power is legitimated and transformed into authority the exercise of authority is not causing resistance and has no costs because it is "expected and desired in the social context" (Pfeffer, 1981, p. 4). Apart from not being associated to specific costs the exercise of authority may actually increase "the amount of authority subsequently possessed." (Pfeffer, 1981, p. 4). It is further suggested that it may be even necessary to continuously exercise the authority in order to prevent negative effects of reduced authority (Pfeffer, 1981, p. 4).

By referring to the study of Mechanic (1962) of low level organizational members Pfeffer (1981) illustrates the fact that once power is transformed into authority it can be exercised independently of the power possessed by the social actors. "Lower level organizational members have, in reality, a great amount of power" (Pfeffer, 1981, p. 5). However there is almost no resistance against superiors and no exercise of the relatively low level of power. Consequently "power becomes transformed into authority, and control can be exercised almost regardless of the balance of power possessed by the interacting groups." (Pfeffer, 1981, p. 5).

By this the section about describing the importance of the work of Max Weber finishes. It has been shown that Max Weber is one of the most influential authors as he distinguished and also linked power and authority. The next section will cover the aspects of politics, which are applied when power and authority are not perceived to be sufficient that an actor can impose his will.

## 2.5.8 Power and organizational politics

In the same way as power is difficult to define also the definition of organizational politics is a contested terrain (Mintzberg, 1983; Pfeffer, 2010; Provan, 1980). Both terms are avoided by mainstream IB literature and at the same time their existence is widely recognized (Mudambi, 2011; Pfeffer, 1992b). A survey by Gandz and Murray (1980) shows that it is recognized among managers that the use of power and politics in organizations is both common and regarded to be successful (Gandz & Murray, 1980, p. 244). The survey of Gandz and Murray (1980) on the other hand also shows that most respondents dislike the existence of power and politics and wish that an ideal organization gets “rid of politics within the organization” (Gandz & Murray, 1980, p. 244).

Despite the criticism it is recognized that “politics in organizations is simply a fact of life” (Ferris & Kacmar, 1992, p. 93) why for understanding organizations it is needed to treat them as “political entities” (Pfeffer, 1992b, p. 29). In order to “understand organizational politics” (Pfeffer, 1992b, p. 29) the central and not just peripheral presence of politics needs to be understood and accepted (van de Vliert, Nauta, Giebels, & Janssen, 1999).

Already in the 1930s Lasswell (1936) defines politics in the title of his books as the study of “who gets what, when and how”. Later on Allen, Madison, Porter, Renwick, and Mayes (1979) offer an enhanced definition: “Organizational politics involve intentional acts of influence to enhance or protect the self-interest of individuals or groups.” (Allen et al., 1979, p. 77). The use of the term influence is often more acceptable in organizational contexts perhaps because it can be more easily aligned to a desire to achieve organizational goals. Influence is often seen as constructive pressure whereas politics is often seen to be dominated by sectional interests. Organizational politics seems however to be a term which is more central to the discussion. By using the definition of Lasswell (1936) and the studies of politics in the U.S. budgetary process as (O. A. Davis, Dempster, & Wildavsky, 1966; Wildavsky, 1966) the following definition of politics is proposed (Pfeffer, 1981, p. 7).

“Organizational politics involves those activities taken within organizations to acquire, develop, and use power and other resources to obtain one’s preferred outcomes in a situation in which there is uncertainty or dissensus about choices.” (Pfeffer, 1981, p. 7).

Buchanan and Badham (1999) defines power “as the capacity of individuals to exert their will over others” (p. 611) and politics as “power in action” (p. 611) that eases the “path for the execution of decisions” (Mintzberg, 1985, p. 150). In other words “power is a property of the system at rest, politics is the study of power in action” (Pfeffer, 1981, p. 7). Political activity changes and influences

organizational decisions against the will of “individuals and groups” (Ocasio, 2002, p. 363). It will therefore be confronted with “resistance” (Ocasio, 2002, p. 363; Pfeffer, 1981, p. 7).

As pointed out earlier most IB scholars have a negative view about the use of power and politics in organizations and consequently ignore their existence (Hardy, 1996; Haunschild, Nienhueser, & Weiskopf, 2009). This is remarkable, because power and politics exist in all organizations, and should therefore be extensively studied even though it lacks positive connotations. The argument is that researchers and practitioners should investigate how to make use of power and politics in an effective way (for example Geppert & Dörrenbächer, 2014; Pfeffer, 1981; Yukl, 2009) so that they are “beneficial rather than harmful to organizations and people” (Pfeffer, 1981, p. x).

To illustrate how politics becomes embedded in organizations three options of “getting things done” (Pfeffer, 1992b, p. 40) in organizations, namely authority, culture and power are compared (Pfeffer, 1992b; Rojot, 2008; Ybema & Byun, 2011). The two traditional ways are first the use of formal authority and control (Beer, 2009; Pfeffer, 1992b, p. 40) and second the use of a shared vision, values and a common organizational (Kirkpatrick, 2009; Pfeffer, 1992b, p. 42). Using authority based on the hierarchical structure of the organization is accompanied with various problems (Colquitt & Salam, 2009; Pfeffer, 1992b; Schein, 1997). First it is outdated and will cause resistance by well-educated independent staff (Conger & Pearce, 2009; Pfeffer, 1992b, p. 41). Second in today’s large organizations one needs cooperation and help from other departments that are not under one’s direct hierarchical control (Okhuysen & Bechky, 2009; Pfeffer, 1992b, p. 41). Third it bears the risk that wrong decisions of top managers are not questioned leading to inefficiencies and potential break-up of the company (Larrick, 2009; Pfeffer, 1992b, p. 41).

The second form of accomplishing things in organizations is through the use of a common vision, culture and set of values (O’Reilly, 1989; Pascale, 1985). It bears the downside that the implementation requires a lot of “time and effort” (Pfeffer, 1992b, p. 42) and additionally makes it difficult that “new ideas that are inconsistent with that culture can penetrate....It is easy for a strong culture to produce groupthink” (Pfeffer, 1992b, p. 42). Group think is defined as a process where groups thrive for consensus and fail to consider countervailing arguments or costs involved (Macleod, 2011; Noto, 2012). There is a potential high risk of engaging into group think in group decision making in particular if all members share the same culture (Lunenburg, 2012; W. Weber, 2014).

Due to associated downsides of using hierarchy or culture to get things done in organizations an alternative third option the “use of power and influence” (Pfeffer, 1992b, p. 44) is proposed (Pfeffer, 1992b; M. S. Taylor & Fielbig, 2009; Yukl, 2009). The use of power is accompanied by the problems

of perceived “ambivalence about power” (Pfeffer, 1992b, p. 44) and the lack of formal training (Haugaard & Clegg, 2013; Pfeffer, 1992b, p. 44; Yukl, 2009).

It is not recommended to rely exclusively on the “unofficial process of power and influence” (Pfeffer, 1992b, p. 44) to get things done but to combine them with the traditional forms of hierarchical authority and organizational cultures (Ferris & Kacmar, 1992; Mizuchi & Yoo, 2002; Pfeffer, 1992b). In a similar fashion (Yukl, 2009) argues that “knowledge about power and influence is useful for people who must gain cooperation and support from others to perform their job effectively” (p. 363).

Power and politics is not just needed to get things done, but even more fundamentally needed to for change and innovation processes in all aspects of life (Ebertz, 2013; Pfeffer, 1992a; Steen-Johnsen & Vidar Hanstad, 2008). “Computers don’t get built, cities don’t get rebuilt, and diseases don’t get fought unless advocates for change learn how to develop and use power effectively” (Pfeffer, 1992a, p. 337).

To demonstrate that the use of power and politics is actually beneficial and increases performance Pfeffer (1981) presents examples of the business firm Polaris and the academic institution New York University (NYU). One of the arguments deployed against the use of power and performance is the perception that the best decision will not necessarily be taken, trade-offs will tend to predominate. The counter argument is that a supposedly objective, open and fair process may take even longer (Langley, Mintzberg, Pitcher, Posada, & Saint-Macary, 1995; Larrick, 2009). In addition such a process does not guarantee that the decision is taken in the best interest of the organization (Pfeffer, 1981, p. 339; Rogers & Blenko, 2006; Royer & Langley, 2008). In addition it is argued that a perfect or right decision does not exist, as there inherent competing interests in organizations combined with a lack of time and information (Larrick, 2009; Pfeffer, 1992a; Royer & Langley, 2008). It is better to take a decision and correct it later if necessary than to take no decision (Amason, 1996; Pfeffer, 1981; Welch & Welch, 2007).

The argument is further strengthened with the acknowledgement that those actors that successfully get their favoured preferences followed by the organization are also those that potentially best can represent and defend the organizations when interacting with outside players. Consequentially it is suggested that the use of power and politics is indeed beneficial for the performance of organizations.

The next sub-section develops the argument further that power and politics are an effective perspective from which to manage organizations. It is shown that power and politics are perfectly suited to respond to the complex environment and competing interests of MNCs.



## 2.5.9 Power, Organizational design and matrix organizations

Typically the literature analysing design of organizations focus on “effective coordination and control” (Pfeffer, 1981, p. 356). J. R. Galbraith (1973) is presented as an example focussing on either higher and better information processing or reducing the amount of information to be processed (Pfeffer, 1981, p. 356). The multi-divisional M-form structure as evolution from the functional U-form structure is suggested as the best answer to challenges confronted as the effect of growth (Pfeffer, 1981; Scott & Davis, 2014).

There are very few authors in the 1970s and 1980s that suggest MNC should not be a market for internal capital as it is suggested for the design principle of the multidivisional M-form structure but rather a market for internal power (Pfeffer, 1981, p. 360). In the case that power is seen as “transaction medium” (Pfeffer, 1981, p. 360) the information must be widely and openly available and power consequently must be decentralized (Pfeffer, 1981; Pfeffer & Salancik, 1977).

By suggestion that power shall substitute internal capital within MNCs Pfeffer (1981, p. 361) supports the argument of J. R. Galbraith (1973) for the deliberate use of matrix organizations. Pfeffer (1981) sees three implications when using matrix organizations. First “conflict has been designed into the organization” (Pfeffer, 1981, p. 361) by having two bosses who have different interests and perspectives (S. M. Davis & Lawrence, 1977). Second a “balance of power” (Pfeffer, 1981, p. 362) of the various matrix dimensions is suggested. Third there is an internal market for functional experts even potentially including external providers in order to ensure the appropriate level of service attitude (Pfeffer, 1981, p. 362).

Pfeffer (1981, p. 363) and later on Barker, Tjosvold, and Andrews (1988) assess it positively to make deliberate conflict a design parameter and recommend to focus on making the matrix work instead of trying to avoid it.

“The important point about the matrix...is that one of the reasons for its effectiveness is its legitimation and institutionalization of conflict, competition and some degree of political activity with the firm” (Pfeffer, 1981, p. 363).

“We seems to have spent much more time worrying about how to rationalize organizations rather than exploring strategies for making them operate more effectively using a political approach” (Pfeffer, 1981, p. 363).

The view is confirmed by Prahalad and Doz (1987) who suggest that matrices are despite the potential flaws, such as unclear responsibilities and conflict, are still the most appropriate organizational form. They recognise the importance of managing different views is more important than concentrating on the formal structure.

“A matrix is not a structure. It is a decision making culture where multiple and conflicting points of view are explicitly examined” (Prahalad & Doz, 1987, p. 177).

Summarizing Pfeffer (1981) makes a strong recommendation for the use of matrix organizations by stating that “organizations, which are prone to power and politics in any event, a matrix design...may be a more effective way to structure the organization” (Pfeffer, 1981, p. 363). Pfeffer (1981) further on suggests that matrix organizations may encompass more advantages than the traditional multidivisional M-form structure, he however also recognizes that “this argument requires empirical study” (Pfeffer, 1981, p. 363).

As a practitioner I fully subscribe to this argument and it perfectly links the literature streams on research about MNCs and power. The previous literature review however has shown that the arguments in favour or against the use of matrix organizations in MNCs are rather applying a rational positivist approach. The present study precisely fills this gap of research by further investigating the use and distribution of power in matrix organization of MNCs.

### **2.5.10 Power: Summary of debates and literature gap**

The three dimensional view of power as presented by Lukes (1974) seems to be the most complete and accurate. Building on the original view of power as coercion (Bierstedt, 1950; M. Weber, 1947) the classical view as presented by Dahl (1957) of power being exercised in a decision situation seems to be however largely followed (Haugaard & Clegg, 2013; Yukl, 2009).

It has been noted for instance by earlier (for example Allen et al., 1979; Pfeffer, 1981) as well as more recent studies (for example Blazejewski & Becker-Ritterspach, 2011b; Geppert & Dörrenbächer, 2014) that the topics of power and politics have attracted very little empirical research and they are hardly covered if not ignored in the mainstream business and management literature. It is argued that power has received so little attention in the literature because it is hard to define, contested in

the social science and because it does not fit to the rather rational education of managers (Pfeffer, 1981, p. 2). Pfeffer (1981, p. 352) further argues that since the 1950 there has been a shift from qualitative to quantitative focus of U.S. business schools why topics like power and politics are hardly researched by business and management scholars. "Ideology dies hard" (Pfeffer, 1981, p. 333) why most management books focus on making organizations more effective and efficient. This is mostly done by increasing the profit and shareholder value, and not by focussing on supposedly unethical vague topics like using power and politics which are used to control and influence people and information (Pfeffer, 1981, p. 333). It is criticized that many traditional management and business theories (for example Bartlett & Beamish, 2011; Czinkota et al., 2009; M. E. Porter, 1986a) explicitly or implicitly claim that power and politics work against effectiveness and efficiency and therefore against the profit and shareholder value of organizations (Haugaard & Clegg, 2013; Jenkins, 2013; Pfeffer, 1981, p. 333).

Pfeffer (1981) further comments that most studies covering power in organizations focus on "hierarchical power" (p. 3) ignoring the fact that power is primarily a "structural phenomenon" (Pfeffer, 1981, p. 4). Different departments and units have a power relationship to each other even in the absence of a direct hierarchical link. Those departments and units do not have all the same level of power, but different levels of power depending on specific context and their relationship to each other (Pfeffer, 1981, pp. 3-4).

As discussed earlier there is still a lot of literature suggesting that matrix organizations are too complex to operate and no effective way of organizing an organization. As discussed in this section the use of power and politics is also largely labelled in classical IB literature as in-effective and something that needs to be avoided. Pfeffer (1981) and Prahalad and Doz (1987) make the exceptional recommendation that both previous assumptions are wrong and explicitly suggested that first that the use of power and politics are needed to run an organization and secondly that matrix organizations are the preferred structural option for large organizations such as MNCs. As a practitioner I fully subscribe to this argument. The present study precisely adds to this debate by further investigating the use and distribution of power in matrix organization of MNCs.

## 2.6 Decision Making

This section follows the principle structure of the literature review about 'strategic decision making' provided by Eisenhardt and Zbaracki (1992). Findings from other literature sources are incorporated.

After an introduction of the topic and presentation of the main debates the sub-sections will cover the aspects of (bounded) rationality, power and politics in decision making, the garbage can model and decision making in groups. The final sub-section will summarize the main debates.

Pfeffer (1992b) proposes three basic principles about decisions. "First, a decision by itself changes nothing" (p. 37) it is just a promise or ambition to take action. "Second, at the moment a decision is made, we cannot possibly know whether it is good or bad" (p. 37). We need to wait until the decision is executed and the effects caused by the decision are visible. Third, we "spend more time living with the consequences of our decisions than we do making them" (p. 37). This means that the focus shall not only be on the decision making process but also on managing the implementation and consequences of the decisions (Pfeffer, 1992b, pp. 37-38). Whether a decision is "good or bad is in most cases only known long after the decision has been made and implemented" (Pfeffer, 1981, p. 346). Pfeffer (1981) criticizes that researchers have broadly ignored literature covering the "non-rationality of decision procedures" (p. 14).

Mintzberg, Raisinghani, and Théorêt (1976) define "a decision as a specific commitment to action (usually a commitment of resources)" (p. 246). Mintzberg et al. (1976) further define "a decision process as a set of actions and dynamic factors that begins with the identification of a stimulus for action and ends with the specific commitment to action" (p. 246). Mintzberg et al. (1976) further define a strategic decision as one that is "important, in terms of the actions taken the resources committed, or the precedents set" (p. 246). Mintzberg et al. (1976) study "25 decision processes from which they generated a model of the structure of apparently 'unstructured' strategic decisions. Three basic phases - the identification, development and selection phases of decision making - form the heart of the model. In the classic rational model of choice, these stages occur sequentially. In Mintzberg et al's study, these phases have no sequential relationship" (Eisenhardt & Zbaracki, 1992, p. 21).

Without using the term strategic decision making (Pfeffer, 1981, p. 232) is an advocate for the use of power and politics in organizations is one of the few examples that concretely defines the decision areas, namely financial, HR and structural matters.

Eisenhardt and Zbaracki (1992) provide a literature review about strategic decision making and suggest that the terms strategic and strategy are interpreted in many different ways. Eisenhardt and Zbaracki (1992, p. 17) suggests that research on strategy was originally triggered by Miles and Snow (1978) and M. E. Porter (1980, 1985) who strongly influenced nowadays views on the definition of strategy. For their literature review about strategic decision making Eisenhardt and Zbaracki (1992) build on the above mentioned definition by Mintzberg et al. (1976) who define a strategic decision as one that is "important, in terms of the actions taken the resources committed, or the precedents set" (p. 246). Eisenhardt and Zbaracki (1992) review the three major streams about strategic decision making which are "rationality and bounded rationality, politics and power, and garbage can" (p. 17). Eisenhardt and Zbaracki (1992) conclude "that people are rational, but only boundedly so, that power wins battles of choice, and that chance affects the course of strategic decision making" (p. 18).

Simon (1987) reflects on the view of Barnard (1938) with regard to "logical and non-logical processes for making decisions" (Simon, 1987, p. 57). The view of Barnard (1938) is interpreted that managers do not take "decisions on the basis of orderly rational analysis but depend largely on intuitive or judgemental responses to decision-demanding situations" (Simon, 1987, p. 57). Simon (1987) criticizes that the arrival of tools and computer systems have ignored the view of Barnard (1938) and shifted focussed on rational "decision making that is well-structured, deliberative, and quantitative" (Simon, 1987, p. 57). In contrary Simon (1987) criticizes that "decision making that is loosely structured, intuitive and qualitative" (p. 57) has largely been ignored by researchers and practitioners. Simon (1987) suggests that the recommendation of Barnard (1938) shall be ignored and concludes with the proposition that managers cannot and shall not choose between "analytical and intuitive" (p. 63) but that both required in a skill-set of a manager.

(Pfeffer, 1981, p. 25) suggests by referring to (Stava, 1976, p. 209) that decisions are situations specific, dependent of the decisions makers himself and the proceeding process why decisions consequently are hard to predict. (Pfeffer, 1981, p. 25) argues that "one only knows what one likes after it has been experienced" (Pfeffer, 1981, p. 25) or by referring to (Weick, 1969) that "one only knows what one has done after he or she has done it" (Pfeffer, 1981, p. 25).

Pfeffer (1981, p. 18) suggests that there are three main ways of organizational decision making, namely rational, bureaucratic or political. "The rational model [of decision making] presumes that information and value-maximization dictate choice" (Pfeffer, 1981, p. 20) and "the political model [of decision making] presumes that parochial interests and preferences control choice." (Pfeffer, 1981, p. 22). The bureaucratic model of decision making follows certain bureaucratic procedures that are not necessarily rational (Pfeffer, 1981, p. 22). The difference between bureaucratic and rational model of decision making is illustrated by the example public budgeting (O. A. Davis et al., 1966;

Wildavsky, 1966) which suggests “that the best predictor of this year’s budget is last year’s budget” (Pfeffer, 1981, p. 22).

### **2.6.1 Rationality and bounded rationality**

According to “the synoptic or comprehensive model of decision” (Eisenhardt & Zbaracki, 1992, p. 18) which is supported by Nutt (1976, 1984) and P. A. Anderson (1983) “actors enter decision situations with known objectives” (Eisenhardt & Zbaracki, 1992, p. 18).

In the “common model of rational action....actors enter decision situations with known objectives. These objectives determine the value of the possible consequences of an action. The actors gather appropriate information, and develop a set of alternative actions. They then select the optimal alternative” (Eisenhardt & Zbaracki, 1992, p. 18). Eisenhardt and Zbaracki (1992, p. 18) notes that these limitations of humans in terms of speed and capacity of processing information is first addressed by Simon (1957), Lindblom (1959) and Cyert and March (1963).

The decision model of bounded rationality describes the limited rationality of individuals who lack all available information, who are limited in their capacity to process the information and who are limited in the time (Eisenhardt & Zbaracki, 1992, pp. 21-22). Mintzberg et al. (1976) identify the “identification, development and selection phases of decision making” (Eisenhardt & Zbaracki, 1992, p. 21). Eisenhardt and Zbaracki (1992) acknowledge in their analysis of rationality and bounded rationality “the existence of cognitive limits to the rational model....Many decisions follow the basic phases of problem identification, development and selection....The complexity of the problem and the conflict among the decision makers often influence the shape of the decision path” (p. 22).

### **2.6.2 Politics and power in decision making**

Models of rational choice for decision making ignore that there are different intentions, interests and targets in organizations (Pfeffer, 1981, p. 27). Equally bureaucratic models of decision making assume that a perfect decision process prevents the interests of individual stakeholders to influence the decision outcome (Pfeffer, 1981, p. 28). Political models of decision making address these topics

and argue that organizations are “divided into various interests, subunits, and subcultures” (Pfeffer, 1981, p. 28). In political model of decision making power is needed to influence decisions in the desired way and to work against opposition and resistance (Pfeffer, 1981, p. 28). Referring to March (1966) it is argued that it is “difficult to distinguish between chance from power or force models” (Pfeffer, 1981, p. 28). It is further suggested that a good indicator for power or force models is of “power is stable over time” (Pfeffer, 1981, p. 28) and “stable over subject matter” (Pfeffer, 1981, p. 28). Consequently the use of power and politics is considered a key element for strategic decision making in organizations (Carter, 1971; Finkelstein, 1992; Murray, 1978). It is however also noted that “very few have attempted to measure the phenomenon” (Finkelstein, 1992, p. 505).

Even though decisions appear to be unstructured it is suggested that an underlying structure can be identified and measured (Mintzberg et al., 1976). Tushman (1977) addresses that uncertainty and ambiguity is highest among top managers why decisions process are less structured and the exercise of power is increasing (Finkelstein, 1992, p. 507). As discussed earlier in their analysis of decision making in top management teams Finkelstein (1992, p. 530) identifies four types of power, structural, ownership, expert and prestige power.

Eisenhardt and Zbaracki (1992, p. 23) summarizes as key characteristics for the use of power and politics in organizations that “people are individually rational, but not collectively so [and] ... that organizations are coalitions of people with competing interests” (Eisenhardt & Zbaracki, 1992, p. 23). Coalitions with competing conflicting interests employ power and politics and the most powerful coalitions influence decisions according their interests (Eisenhardt & Zbaracki, 1992, p. 23; Hinings et al., 1974; March, 1962; Salancik & Pfeffer, 1974). “The traditional view is that politics arise from conflict....however, a contradictory view is emerging. Politics are triggered by power imbalances” (Eisenhardt & Zbaracki, 1992, p. 26).

Pfeffer (1981) suggests as illustrated that the combination of “the condition of scarcity, interdependence, and heterogeneous goals and beliefs about technology produce conflict” (Pfeffer, 1981, pp. 69-70). “Shared resources are one of the precursors to conflict” (Pfeffer, 1981, p. 79). This is for instance also stressed by S. M. Schmidt and Kochan (1972, p. 363). Consequently there are no other options why the “use of power is virtually inevitable” (Pfeffer, 1981, p. 70) and “the only way to arrive at a decision” (Pfeffer, 1981, p. 70) excluding chance as viable option (Pfeffer, 1981, p. 70).

Pfeffer (1981, p. 70) further proposes as the two conditions that trigger the use of politics in organizations as the high importance or relevance of a decision and the fact that the power is distributed and not centrally located. If the decision is not sufficiently important that it is likely that no political activity will be engaged into and no power is applied (Pfeffer, 1981, p. 70). Likewise if the

power is not distributed among various actors, but centrally allocated, than equally there is no need to engage into political activity (Pfeffer, 1981, p. 70). Further on Pfeffer (1981, p. 70) presents the overview for the categorizations of decision situations as originally developed by Thompson and Tuden (1959) and illustrated in Table 10.

In case of disagreement on both the consequences of actions and the common goals it is suggested that an “unstructured, highly politicized” (Pfeffer, 1981, p. 71) process of decision making is undertaken. Further on Pfeffer (1981, pp. 71-72) refers to the assentation of Lawrence and Lorsch (1967b) suggesting that competing goals cannot be avoided and are a typical consequence of task specialization. Japanese firms – which strive for lifetime employment - are presented as an example for agreement on long-terms goals and shared culture and vision (Ouchi, 1977; Ouchi & Jaeger, 1978) which counterworks the problems of not synchronized short goals (Pfeffer, 1981, pp. 72-73).

**Table 10: Categorizations of decision situations**

		Agreement on Goals	
		Yes	No
Agreement on Connections between actions and consequences	Yes	Computational decision (rational choice)	Compromise
	No	Judgement	Inspiration (unstructured, highly politicized).

Source: (Pfeffer, 1981, p. 71) & (Thompson & Tuden, 1959)

Eisenhardt and Zbaracki (1992) summarize their analysis of the use of power and politics in strategic decision making by stating that “(1) Organizations are comprised of people with partially conflicting preferences, (2) strategic decision making is ultimately political in the sense that powerful people get what they want, and (3) people engage in political tactics such as cooptation, coalition formation, and use of information to enhance their power” (p. 27). Political activity will be confronted with “resistance of opposition” (Pfeffer, 1981, p. 7). In case of “rational” or “bureaucratic” decisions there is however no need for political activity, because the process of decision making is clearly defined. (Pfeffer, 1981, p. 7).



### 2.6.3 “Garbage can” model

The garbage can model is based on the work of Cohen, March, and Olsen (1972) and “describes decision making in highly ambiguous settings called organized anarchies” (Eisenhardt & Zbaracki, 1992, p. 27). The garbage can model suggests that organizations “can be viewed for some purposes as collections of choices looking for problems, issues and feelings looking for decision situations in which they might be aired, solutions looking for issues to which they might be an answer, and decision makers looking for work” (Cohen et al., 1972, p. 1). Or in other words there are too “many solutions, which are disregarded [as garbage] due to lack of appropriate solutions” (Saracoglu, 2009, p. 29). The garbage can model (Cohen et al., 1972; Cohen, March, & Olsen, 2012) is seen as reaction to rational decision models for strategic management (Eisenhardt & Zbaracki, 1992). Cohen et al. (1972) criticize that the rational models primarily based on rational decision makers and clear structure as not appropriate in a complex, ambivalent, constantly changing world (Eisenhardt & Zbaracki, 1992). Cohen et al. (1972) further on suggest that the decision processes in universities, which is considered due to the high level of uncertainties as “organized anarchy” (p. 1), are characterized by “problematic preferences,...unclear technology [and] fluid participation” (p. 1). Due to the extreme level of uncertainty the decision can be considered irrational without any logical pattern linking the intentions of decision makers with the final decision (Cohen et al., 1972, p. 1).

Pfeffer (1981, p. 26) suggests that one of the key arguments of the garbage can model is that “intention is lost in context dependent flow of problems, solutions, people and choice opportunities” (Cohen, March, & Olsen, 1976, p. 37). Decisions are not following a step-by-step approach leading from a problem to a solution and are not made based purely on rational intentions by the decision makers in but are the results of the combination of the four streams problems, solutions, people and choice opportunities (Cohen et al., 1972, p. 3) that are merged or combined in a not predicable stochastic process at the moment of the decision (Cohen et al., 1972; Pfeffer, 1981, p. 26). As the consequence the garbage can model suggests there may be solutions without a problem, decisions without solving the problem and not only the ideal desired case that problems are solved (Cohen et al., 1972, 2012).

The four streams of the garbage can model are as follows. Problems call for attention, solutions are looking for a problem, choice opportunities “are occasions when an organization is expected to produce behaviour that can be called a decision” (Cohen et al., 1972, p. 3) and participants change frequently (Cohen et al., 1972, p. 3). The decision process of organizations is seen as garbage can into which problems and solutions are dumped. Depending on the people or participants involved

and the choice opportunity the decision process is not following an orderly step-by-step approach from problem to solution but a stochastic non predictable search for fitting a solution to a problem.

Eisenhardt and Zbaracki (1992) summarize their analysis of the use of the garbage can model in strategic decision making as follows:

“To summarize, empirical research only modestly supports (1) the central idea of the garbage can perspective that organization anarchies exist. Similarly, the empirical research modestly confirms that (2) decisions occur as a result of chance intersection among changing problems, choice opportunities, solutions, and people (i.e., garbage can model). Finally, (3) the model is more robust as time frames become longer, deadlines are removed, and institutional forces are diminished” (Eisenhardt & Zbaracki, 1992, p. 31)

#### **2.6.4 Decision making in groups**

Decision making in groups is considered to have advantages over decisions made by individuals (Lunenburg, 2012) even though this is no guarantee for a too narrow and biased view (Larrick, 2009). The key advantages of group decision making are “quality, creativity, acceptance, understanding, judgement and accuracy” (Lunenburg, 2012, p. 1). There are however also potential flaws in group decision making, where ‘group think’ is considered one of the main dangers or risks (Dobelli, 2013). Group think is defined as a process where groups thrive for consensus regardless of the opposition or cost involved (Macleod, 2011; Noto, 2012). Group think “usually occurs when group members rally around a central manager’s idea (CEO), and become blindly committed without considering alternatives. The group tends to convince each member that the idea must go forward” (W. Weber, 2014, p. 18).

To avoid and actively work against group think is in particular the responsibility of the manager or leader (Macleod, 2011). Diversity in terms of gender, age, experience, ethnic and cultural background in the management team or group of decision makers is strongly recommended to ensure a broad area of perspectives is taken into consideration (Larrick, 2009; Noto, 2012; W. Weber, 2014). Two methods to actively work against consensus and instil conflict are ‘devil’s advocacy and ‘dialectical inquiry’ (Murrell, Stewart, & Engel, 1993; Schwenk, 1989).

In the method of dialectical inquiry various options are compared with each other simultaneously. Various different viewpoints are tested and compared by forcing a debate and conflict. Finally the options are revised and a decision is made in favour of one or a combination of the options (Amason, 1996; Schweiger, Sandberg, & Ragan, 1986; Schwenk, 1989). The method of devil's advocacy also forces a debate and conflict, which is however centred on only one option that is criticized and eventually either accepted, modified or rejected (Lunenburg, 2012; Murrell et al., 1993; Schwenk, 1989; W. Weber, 2014).

Analysing the alternatives of dialectical inquiry, devil's advocacy and consensus Schweiger et al. (1986) and Schweiger and Sandberg (1989) conclude "that programmed conflict is useful in improving the quality of strategic decisions" (Schweiger et al., 1986, p. 66). The authors thereby confirm the earlier suggestion of Janis (1972) that "consensus may lead to too little conflict in the group decision making process and thus to uncritical acceptance of invalid assumptions and inferior recommendation" (Schweiger et al., 1986, p. 67). The downside however is that the better quality of decisions comes at the potential expense to "weaken the ability of a group to work together in the future" (Schweiger et al., 1986, p. 67).

In a critical review of the literature on decision making Eisenhardt and Zbaracki (1992) suggests further research to investigate "whether there is an optimal level of conflict...and overall, how strategic decision makers can gain the benefits of conflict without the cost" (p. 34). Amason (1996) builds on this recommendation and answers the question "how can top management teams use conflict to enhance the quality of their decisions, without sacrificing consensus and affective acceptance among their members" (p. 123)? Amason (1996) conclude that "cognitive conflict can be encouraged while affective conflict is restrained" (p. 143).

Eisenhardt, Kahwajy, and Bourgeois lii (1997) and Larrick (2009) take a similar view encouraging managers to challenge each other view point for the sake of better understanding and not for personal victories It is recognized that these recommendation is challenging previous studies (Janis, 1972; Schweiger et al., 1986) why further research in this field is suggested (Amason, 1996).

## **2.6.5 Decision making: Summary of debates and literature gap**

(Eisenhardt & Zbaracki, 1992, p. 35) summarize the findings of their literature review of strategic decision making as follows:

“Organizations are accurately portrayed as political systems in which strategic decision makers have partially conflicting objectives and limited cognitive capability. Further, strategic decision making is best described by an interweaving of both boundedly rational and political processes. It is boundedly rational in that strategic decision makers are cognitively limited and engage in a cycling among rational decision making steps. It is political in that strategic decision makers also engage in politics and that ultimately the most powerful among them determine decisions. In contrast, we observe that the garbage can model is less relevant for strategic decision making. It remains a clever reminder of the importance of chance, but is empirically less robust than the other paradigms” (Eisenhardt & Zbaracki, 1992, p. 35).

Eisenhardt and Zbaracki (1992, p. 35) conclude that the inherent political nature of organizations shall be recognized. For that reason it is recommended to employ a decision making process that combines rationality with the systematic use of power and politics.

Even though Eisenhardt and Zbaracki (1992, p. 34) support the moderate employment of power and politics in organizational decision making they also criticize that the use of conflict is sometimes too strongly emphasized or even glorified. They warn about the downside of conflict that “can retard the process...and tear apart a decision making group by creating winners and losers in an atmosphere of frustration, anger, and resentment” (Eisenhardt & Zbaracki, 1992, p. 34).

By linking the aspects of organizational decision making and global matrix organizations Prahalad and Doz (1987) suggest that global matrices are needed for MNCs to respond to a complex business environment and that consequently unclear responsibilities and conflict are an inbuilt feature of matrix organization. As discussed earlier this view is also shared by Pfeffer (1981), although most authors in the IB and management literature either ignore power and politics in MNCs and their link to decision making or they recommend to avoid conflict. Eisenhardt and Zbaracki (1992, p. 34) consequently summarize that “one of the big debates in the literature is whether the use of politics is positive conflict driven or negative power driven” and suggest to further research “how strategic decision makers can gain the benefits of conflict without the costs” (Eisenhardt & Zbaracki, 1992, p. 34). This debate is still ongoing and not resolved more than twenty years later while writing this doctoral study.

After discussing the topics of power, politics and decision making from a broader viewpoint the following sections review how these topics have been covered in the study of MNCs.

## 2.7 Power and politics within multinational corporations

Geppert and Dörrenbächer (2014) criticize that the topic of power in MNCs has not gained sufficient attention given the increased public interest in MNCs and its broad influence (p. 226). Geppert and Dörrenbächer (2014) analyse the use of power and politics in MNCs by the two main literature streams International Business (IB) and sociological studies that both have a rather macro perspective on MNCs focussing on “external societal influences and supra-organizational authority” (p. 227).

The mainstream body of literature in the field of International Business (IB), which focuses on the study of internationalization, Foreign Direct Investment (FDI) and Internationally operating firms, has covered the issues of power and politics rather narrowly (Geppert & Dörrenbächer, 2014, p. 226). Geppert and Dörrenbächer (2014, p. 226) refer to Eden and Lenway (2001) and the subsidiary centred studies of Birkinshaw (1996) and Birkinshaw and Riddlerstrale (1999) as rare examples of research putting topics of power and politics to a more central role. Geppert and Dörrenbächer (2014, p. 226) further argue that the main body of literature focussing on power is related to power that MNCs have in their negotiations with host government.

Pfeffer (1981, p. 9) is joining the criticism that the concept of power is mainly neglected in the main literature of organization theory even though power is used in day to day business and private conversation and “understood at least at an intuitive level” (p. 9). He argues that the terms “size, technology and environment” (p. 9) are much more frequently covered where the term power is hardly appearing in the indexes (Pfeffer, 1981, p. 9). Pfeffer (1981, p. 10) further asserts that management and business literature is strongly based on “ideology and values” (p. 10) which are not compatible with “power and politics” (p. 10).

Pfeffer (1981, p. 14) further joins Geppert and Dörrenbächer (2014) in criticising the lack of power and politics in mainstream IB research. He suggests that hardly any business, management or economic literature “is itself political” (Pfeffer, 1981, p. 14). He calls this a “very strong ideological basis and bias” (Pfeffer, 1981, p. 14) mainly by U.S. originated literature. The European based literature on organizational behaviour is considered to be “more context-specific” (Pfeffer, 1981, p. 14) and thus more reflective and less biased (Pfeffer, 1981, p. 14). He further argues by referring to Baritz (1960) that social scientists in the U.S. have not been sufficiently reflective and critical with the status of the commercial organizations, that mainly financed their research. Consequently they have not been independent to challenge the system why in the end the topics politics and power were largely ignored in business and management research. Rightly Baritz (1960) calls those scientist

“servants of power”. As a consequence Pfeffer (1981) suggests that most books containing the words ‘power’ or ‘politics’ in the title are “either European, political scientists, or sociologist” (Pfeffer, 1981, p. 16).

All three sub-streams of IB research are criticized of either ignoring aspects of power and politics or taking a too rationalistic view (Geppert & Dörrenbächer, 2014, p. 229). Collinson and Morgan (2009, p. 2) in particular criticizes the search for ‘truth’ or law like generalizations based on natural science positivism in most MNC related literature and suggest rather the use of images.

Perrow (1986) criticizes the 1<sup>st</sup> IB stream or eclectic theory or OLI paradigm for ignoring the “associated political processes” and the simple reduction to “principal agent relationships” (Geppert & Dörrenbächer, 2014, p. 227). Cyert and March (1963) are considered “organizational theory pioneers” (Geppert & Dörrenbächer, 2014, p. 228) that stress that decisions are not purely taken on economic grounds, but they are also influenced by “political coalition building” (Geppert & Dörrenbächer, 2014, p. 228). “Economic approaches...[such as the eclectic paradigm] have a rather simplistic understanding of the role of MNC management” (Geppert & Dörrenbächer, 2014, p. 228). “Economic studies such as the eclectic paradigm neglect politics and power in MNCs” (Geppert & Dörrenbächer, 2014, p. 228).

The second IB stream of evolutionary studies addresses issues of power in the evolution of MNCs, however they “ignore or dismiss the political nature of the MNC’s evolution as a social organization”. (Geppert & Dörrenbächer, 2014, p. 230). The use of power and politics are seen as working against the efficiency principles of organizations (Geppert & Dörrenbächer, 2014, p. 230).

The third IB stream of subsidiary entrepreneurship is also criticized for their rather peripheral considerations of aspects of power and politics. Even though the business network approach as proposed by Forsgren and colleagues (for example U. Andersson et al., 2007; Forsgren et al., 2005) has recognized that not all power is allocated with the HQs but rather distributed among a network of federative subsidiaries their approach is still criticized as being “largely remained structuralist” (Geppert & Dörrenbächer, 2014, p. 231). The studies of Birkinshaw and colleagues (for example Birkinshaw, 1997; Birkinshaw et al., 2000; Birkinshaw & Riddlerstrale, 1999) are complemented as rare examples of giving the aspects of power and politics a more central role in their analysis of HQ-LC relationships and by this “going beyond the rationalistic arguments of previous studies” (Geppert & Dörrenbächer, 2014, p. 231).

Geppert and Dörrenbächer (2014) further argue that recent upcoming “emerging critical approaches” (p. 226) – also called “socio-political studies of MNCs” (p. 226) – take a more accurate

“bottom-up and actor-centred perspective” (p. 226) as also stressed by Barner-Rasmussen et al. (2010). The IB literature is criticized by addressing power and politics in MNCs in a rather macro approach largely ignoring “micro-politics within MNCs” (Geppert & Dörrenbächer, 2014, p. 227). The emergent critical approaches (Barner-Rasmussen et al., 2010) also challenge the uncritical applicability of North American neo institutionalist and European comparative institutionalist research to MNC research (Geppert & Dörrenbächer, 2014, p. 234). The merging critical approaches can be grouped into two main streams of literature. The first stream is focussing on “the institutional and cultural embeddedness of social relationships in the MNC” (p. 227), the second stresses “the role of agency and diverse key actors, which constitute the MNC as a political system” (p. 227). Geppert and Dörrenbächer (2014) further suggest that future research shall build on the recent “socio-political studies of MNCs” (p. 226) studies and shall focus more on the “micro-political perspective” and “the micro foundations of power relations” (p. 226). Power relations are dynamic and relational, interactively created” (Geppert & Dörrenbächer, 2014, p. 236). Consequently the emergent critical approaches (Barner-Rasmussen et al., 2010) suggest a shift from macro to micro-political and actor centred views of MNCs.

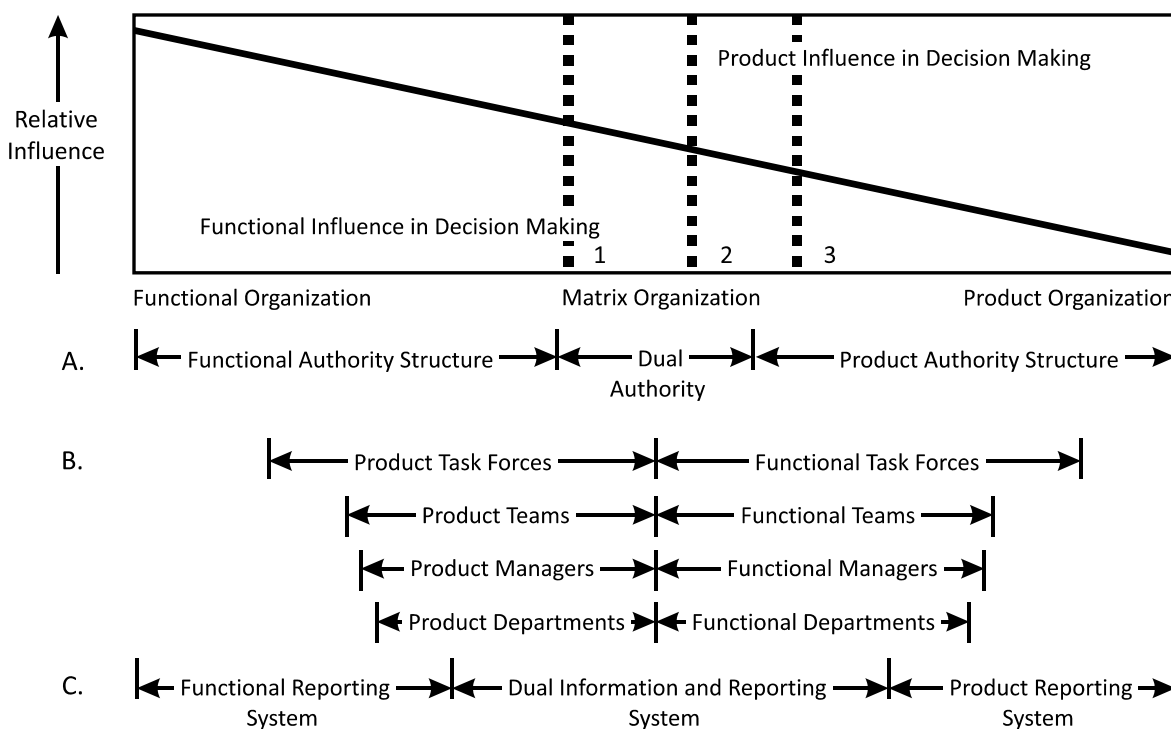
In summary the literature review of Geppert and Dörrenbächer (2014) reveals the lack of attention to power and politics in recent IB and sociological studies in MNCs. As practitioner I can confirm that MNCs are far from being purely rational but highly political where key actors have a great influence on the day-to-day operation and strategic orientation of MNCs. The present doctoral study consequently attempts to address the two flaws of the mainstream IB and sociological studies. As will be seen later it focuses on a study of one country to account for the potential national influence on management practices, on the other hand it is actor centred due to the analysis of senior managers by conducting semi-structured interviews. This doctoral studies further draws on the recommendations of Geppert and Dörrenbächer (2014) by focussing on key actors in the political arena between HQ and LC, namely managers who either fight for their interests, either of the business unit or the local unit, or who have to balance the interests of these two matrix dimensions.

## **2.8 Power distribution in MNCs**

The previous sections have reviewed the research in the areas MNCs, matrix organizations, power and decision making rather independently. This section integrates these topics into an analysis how the specific topic of the distribution of decision power in matrix organizations of MNCs has been

addressed. As discussed earlier as practitioner I experienced this topic of central importance for the management of MNCs. As illustrated by Saracoglu (2009) the particular topic of distribution of decision power in matrix organizations has been mainly covered by Jay Galbraith, why unfortunately relatively few other authors will be mentioned in this section. Already in the early 1970s J. R. Galbraith (1971) suggests that the level of influence or (decision) power between the dimensions of the matrix organization as shown in Figure 8 may vary and there are many alternatives as shown in Figure 17. The importance of decision making in matrix organizations is later confirmed by Prahalad and Doz (1987). In other words there is a continuum of distribution of influence or “liaison devices” (Mintzberg, 1979, p. 175) between the two extremes of a pure product (project) organization or pure functional organization (J. R. Galbraith, 1971, p. 37; Mintzberg, 1979, pp. 175-180).

Figure 17: Continuum Range of alternatives of influence between two matrix dimensions



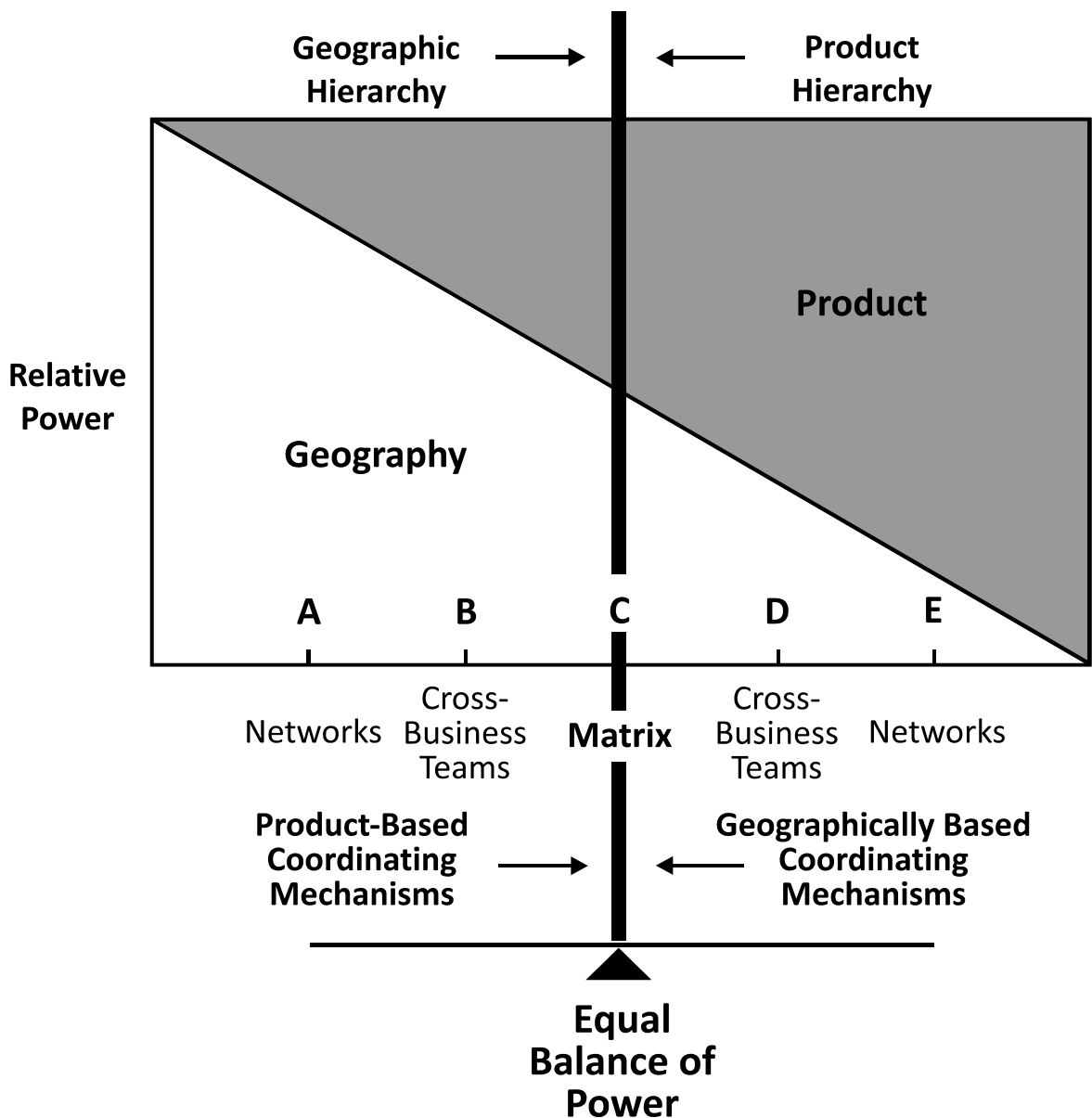
Source: (J. R. Galbraith, 1971, p. 37).

There is agreement among some researchers, that matrices exist in the centre of the continuum (for example Mintzberg, 1979). Few mainly recent literature do however not limit the matrix just to the centre as shown in Figure 17, but consider that there is always a matrix with different levels of distribution of power or authority (Buckley & Casson, 2010; J. R. Galbraith, 2009, 2012). Matrices



make “it difficult for both outsiders and insiders to understand the internal distribution of power” (Buckley & Casson, 2010, p. 101). There is in addition disagreement whether the matrix structure as shown in the centre of Figure 17 is just a temporary state in the transition period between the two extremes or whether the matrix is stable and permanent (Ford & Randolph, 1992). A study about the adoption of matrices in hospitals reveals the contrary (Burns, 1989). It suggests that “...matrix programs remain structurally stable and do not evolve over time” (Burns & Wholey, 1993, p. 107). In a later study J. R. Galbraith and Downey (2002, pp. 169-170) specify the main dimensions from product and function in Figure 17 towards product and region as shown in Figure 18.

Figure 18: Galbraith; 2002; p. 170, Power shift in the lateral organization

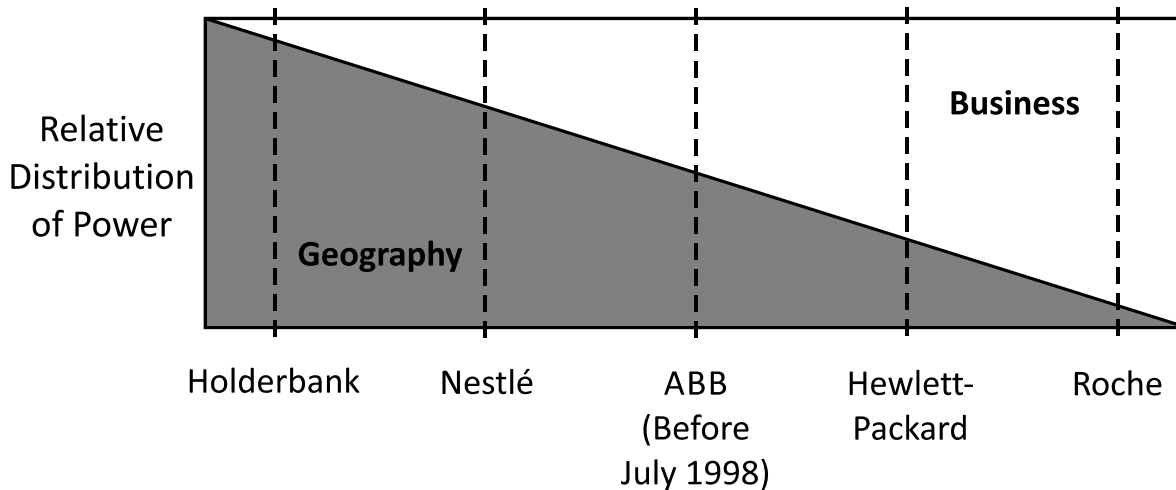


Source: (J. R. Galbraith & Downey, 2002, p. 170).

This is in line with the studies that mainly focus on the product and regional dimension. However J. R. Galbraith and Downey (2002, pp. 169-170) still suggest that a matrix only exists if there is equal balance power of balance as shown in point 'C' of Figure 18. Pfeffer (1981) also suggests that matrix organizations need a balance "balance of power" (p. 362) between the various dimensions and by this implicitly suggests an equal balance of power as shown in Figure 18. Similarly a recent doctoral study about the use of power in matrix organizations comes to a similar conclusions and actually uses the same figure as used in Figure 18 (Saracoglu, 2009, p. 159). Likewise Mintzberg (1979) building on the work of J. R. Galbraith (1973) and later on also Worren (2012) directly associate a matrix organizations as a balanced matrix where the decision power resides in the middle point between the two extremes.

As an exception J. R. Galbraith (2000) in a later book introduces the "relative distribution of power" (p. 41) between the product or called "business" (p. 41) dimensions and the regional or "geography" (p. 41) dimension and presents examples of various MNCs that distributed the power differently between the two dimensions applied in various MNCs as shown in Figure 19.

Figure 19: "Strength of the subsidiary links and business-unit power."

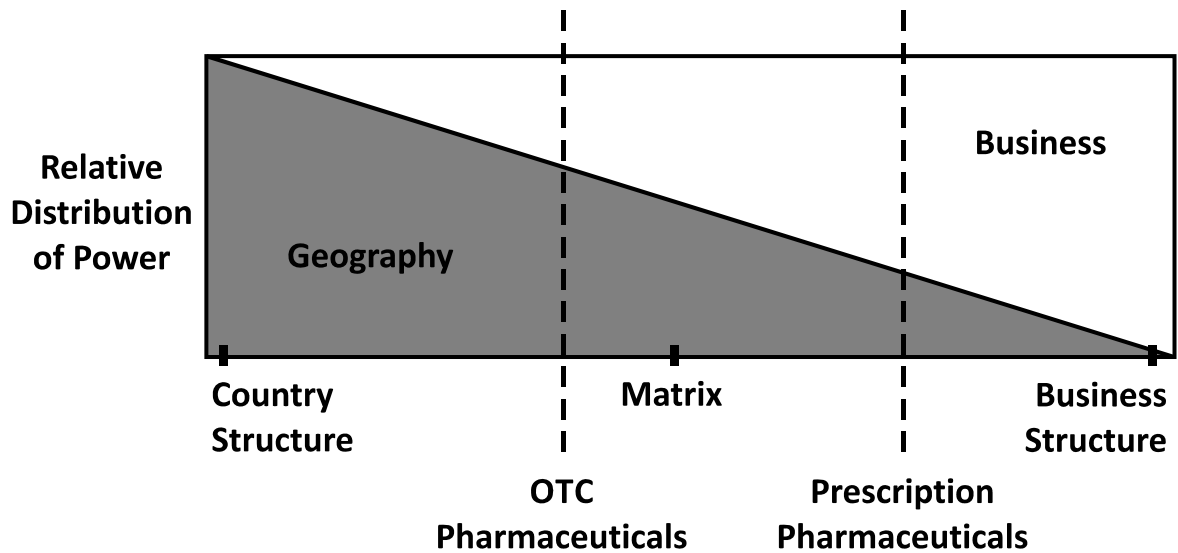


Source: (J. R. Galbraith, 2000, p. 41).

According to J. R. Galbraith (2000) the "strength of the subsidiary links and business-unit power" (p. 41) are quite different for different MNCs. He suggests however that the relative power of the subsidiary versus the business units in HQs is fixed at a certain moment of time for the entire MNC. The "relative distribution of power" (J. R. Galbraith, 2000, p. 41) may change over time as shown in the in the particular case of 3M.

Further on J. R. Galbraith (2000, p. 159) refines his previous statement that the relative power is fixed for the entire MNC and provides an example where the distribution of power is different depending on the product or business units of a pharmaceutical company as shown in Figure 20.

Figure 20: "Differentiated business structures."



Source: (J. R. Galbraith, 2000, p. 159).

With regard to the use of the term matrix in the continuum of distribution power J. R. Galbraith (2009) further refines his view in his most recent book. In contrast to all previous publications he now also uses the term matrix if the power is outside the balance in the middle of the continuum. Instead of "equal power" (p. 75) he now suggests that there is more often "imbalance of power" (p. 75) why he now uses the terms "Geography-Dominant Matrix" (p. 77) and "Business-Dominant Matrix" in addition to the "Balanced Matrix" (p. 77).

In summary most studies use the terms matrix only if there is a balance of power between the various dimensions. There is a lack of recent studies about matrix organizations in MNCs and J. R. Galbraith (2009) is one of the very few exceptions using the term matrix even in cases of power imbalances between the dimensions of the matrix organization.

## 2.9 Organizational culture

This section will provide further support for a narrow focus of MNC studies by discussing the concepts of cultural dimensions and psychic distance. Jones (2007, p. 2) suggests that the work of Bartels (1967) was one of the first to demonstrate the relevance of culture in the business environment by “analysing the variables inherent in the ethics of decision making” (Bartels, 1967, p. 20). Hofstede, Hofstede, and Minkov (2010) define culture “as the collective programming of the mind that distinguishes the members of one group or category of people from others” (p. 7). Hofstede et al. (2010) further suggest that “culture is learned, not innate. It derives from one’s social environment rather than from one’s genes” (p. 7).

Kirkman, Lowe, and Gibson (2006) propose that the study of Hofstede (1980) is potential the most influential one in the field of national cultural classifications. The importance of Hofstede is confirmed by Bing (2004) stating that “Hofstede is the most-cited Dutch author and the ninth-most cited European in the 2001 Social Science Citation Index” (Bing, 2004, p. 80). The work of Hofstede (1980) has received a lot of praise and recognition for its impact and influence in the field of consulting and business as well as academics (Bing, 2004; Erez, 2009). At the same time it has been criticized to be too simple and inconsistent and therefore not entirely useful for instance in the field of intercultural learning (Signorini, Wiesemes, & Murphy, 2009).

### 2.9.1 The cultural dimensions of Hofstede

Hofstede (2001) developed the well-known theory of reflecting the specific cultural aspects of countries into five cultural dimensions: power distance, uncertainty avoidance, Individualism, masculinity and long-term orientation. A description of the five dimensions is provided following and the scores for a selected list of countries are provided in Table 11.

- Power distance “is related to the different solutions on the basic problem of human inequality.” (Hofstede, 2001, p. 29)
- Uncertainty avoidance “is related to the level of stress in a society in the face of an unknown future.” (Hofstede, 2001, p. 29)

- Individualism versus collectivism “is related to the integration of individuals into primary groups.” (Hofstede, 2001, p. 29)
- Masculinity versus femininity “is related to the division of emotional roles between men and women.” (Hofstede, 2001, p. 29)
- Long-term orientation versus short-term orientation “is related to the choice of focus for people’s efforts: the future or the present.” (Hofstede, 2001, p. 29)

**Table 11: Hofstede cultural dimensions for selected countries**

Country	Power Distance	Uncertainty Avoidance	Individualism	Masculinity	Long-term orientation
Arabic World (ARA)	80	68	38	52	
Australia (AUL)	36	51	90	61	31
Canada (CAN)	39	48	80	52	23
Colombia (COL)	67	80	13	64	
Denmark (DEN)	18	23	74	16	
France (FRA)	68	86	71	43	
Germany (FRG)	35	65	67	66	31
Great Britain (GBR)	35	35	89	66	25
India (IND)	77	40	48	56	61
Netherlands (NET)	38	53	80	14	44
Norway (NOR)	31	50	69	8	
Sweden (SWE)	31	29	71	5	33
United States (USA)	40	46	91	62	29

Source: (Hofstede, 2001, p. 500)

The different scores reveal potentially surprising commonalities and differences. Great Britain and Germany have an equal score of 35 for the cultural dimension 'power distance'; however, France received a score of 68. The interpretation suggested by Hofstede (2001) implies that in Great Britain and Germany there is much more interaction and dialogue between managers and staff. Employees are more likely to directly and openly disagree with their superiors whereas in France this would be considered offensive to senior management. The differences between Great Britain, France and Germany are even more apparent in the cultural dimension 'uncertainty avoidance'. At 35, Great Britain has one of the lowest scores among all countries. France has one of the highest score with 86 and Germany scores in between with 65. The interpretation suggests that individuals in France are very risk averse; Germans are also reluctant to take too much risk whereas in Britain risk is simultaneously viewed as chance.

These examples are representative for the scores of the countries as shown in Table 11. Very few countries possess similar scores in all dimensions. In particular, neighbouring countries score very differently. This can be illustrated by the Scandinavian countries of Denmark, Norway, Sweden and Finland. The only exceptions are the countries of the Arab World, which were grouped together. The primary result of the cultural dimensions theory as developed by Hofstede (2001) is that the cultures of apparently similar and neighbouring countries, such as Western Europe or Asia, are far different than one might suspect. Consequently, these differences greatly impact the way businesses are run and organizations are managed.

## 2.9.2 Psychic distance

Johanson and Wiedersheim-Paul (1975) add to the theory of cultural differences by the introduction of the "concept of psychic distance" (pp. 307-308). They claim that it is very helpful in understanding the challenges of MNCs in managing multiple cultural differences that are relevant when managing the relationship between the HQ and the local operations of the MNC. Differences can appear in "language, culture, political systems, level of education, level of industrial development, etc." (p. 308). Although psychic distance may be related to geographic distance, the example of England-Australia and USA-Cuba show that there can be significant exceptions from this rule. (Johanson & Wiedersheim-Paul, 1975, p. 308).

There are few studies that take these recommendations into consideration and specifically address the aspects of organizational cultures being influenced from different country cultural backgrounds (Jaeger, 1983; Jaeger & Baliga, 1985; Laurent, 1980; Rowlinson, 2001). Laurent (1980) for example presents one of the few studies that specifically addresses the cultural aspect in the context of matrix organizations by focusing on the differences between southern European Latin cultures versus a Nordic cluster. Cray (1984) as another example addresses the differences in culture between the HQs and the LCs when discussing the mechanisms of control in MNCs. The importance of language for the management of global MNCS is for instance addressed by Charles (2007).

### **2.9.3 Critical literature review of Hofstede's study**

#### **Hofstede criticism:**

Ailon (2008) critically analyses the work of Hofstede (1980) by applying a strategy of mirroring the book against itself. Ailon (2008) suggests to reveal a "political subtext" (p. 898) by "overvaluing" (p. 899) western cultures and at the same time "devaluing" (p. 898) non-western cultures termed "the Rest" (p. 899). Hofstede (2009) offers a reply to Ailon (2008) claiming that she is using a "distorting mirror" (p. 570) actually mirroring her own values. Hofstede (2009) stresses that his "style is unusually reflexive" (p. 571) due the rather diverse European and Asian base of his respondents and his own working experiences apart from being originally Dutch. Hofstede (2009) further argues against the purely positivist nature of his research that he "always argued explicitly that there is no value-free science" (p. 571). In a reply to the reply of Hofstede (2009) the reflectiveness of the original work of Hofstede (1980) it acknowledged by (Ailon, 2009). What was critically against the U.S. mainstream literature in 1980s is however now considered to be the mainstream why it is suggested that the original work must be read and analysed differently almost 30 years after its original publication (Ailon, 2009, p. 572). Ailon (2009) further acknowledges that the work of Hofstede (1980) was and is helpful for studying cultural differences. Ailon (2009) however continue with the criticism that the interpretation provided by Hofstede (1980) is "culturally bound and issued from a specific standpoint and place in the world" (Ailon, 2009, p. 572). Ailon (2009, p. 572) further argues that Hofstede (1980) is biased valuing the western values and cultures higher than the non-western cultures.

“Western production of scientific knowledge about ‘others’ does not involve neutral comparisons but is always, to some extent, an act of power involving a contest over worth” (Ailon, 2009, p. 572).

Jones (2007) criticizes in a similar line of argument like Ailon (2008) that the main problems associated with cross-cultural studies such as the one from Hofstede (1980) are “definition problems, ... methodological simplicity, ... [and] equivalency” (p. 3). “Definition problems” (Jones, 2007, p. 3) lie in the different interpretation of the same words such as culture and the increased difficulty and complexity when translating these words in order to have questionnaires in the favoured language of the study participants (Jones, 2007, p. 3). “Methodological simplicity” (Jones, 2007, p. 3) refers to the potential bias due to the background and “ethnocentric pattern” (Jones, 2007, p. 3) of the researcher (Jones, 2007, p. 3). “Equivalency” (Jones, 2007, p. 4) can occur in the four dimensions “functional, conceptual, instrument and measurement equivalence” (Jones, 2007, p. 4) and refer to the fact that observations are not equivalent among various cultures, but they have rather different meanings and led to different interpretations (Jones, 2007, pp. 3-4).

### **Support for the study of Hofstede:**

Despite the criticism the results of Hofstede (1980) are still widely used in particular from practitioners (Bing, 2004; Jones, 2007; Kirkman et al., 2006). A comprehensive literature review of 180 studies using Hofstede’s framework of cultural dimensions suggests that Hofstede’s findings are rather confirmed and refined instead of being rejected (Kirkman et al., 2006). Jones (2007) comes to a similar conclusion predicting that Hofstede’s work “will continue guide multinational practitioners into the ‘global’ future” (Jones, 2007, p. 2). At the same time Kirkman et al. (2006) also share the view that the results must not be used blindly as for example the underlying data from Hofstede’s study is up to 50 years old dating back to the 1960s and 1970s.

### **Summary of cultural dimensions as presented by Hofstede**

In summary the study of Hofstede (1980) has been discussed “highly controversial” (Jones, 2007, p. 5) resulting in many arguments in favour and against it.



The arguments against it include the inappropriateness of a survey for a cross cultural study, the non-existence of a homogenous national culture, the inappropriateness of using national borders as cultural borders and the difficulty of forcing these cultures into few dimensions (Jones, 2007, p. 5; Knudsen, 2007, pp. 304-305). Further critique includes the fact that just data from one company (IBM) was used, which is outdated as data was collected in the 1960s and 1970s (Jones, 2007, p. 5; Knudsen, 2007, pp. 304-305). Finally there exists strong criticism of the political, western cultural bias. Bias of the researcher is a standard feature of qualitative research (Denzin & Lincoln, 2011b; Symon & Cassell, 2012) however due to the quantitative analysis of the data some critiques regard the work of Hofstede (1980) as purely positivist. Hofstede (2009) stresses in a recent response to one of his critiques (Ailon, 2009) that he “always argued explicitly that there is no value-free science” (Hofstede, 2009, p. 571).

The supporters of Hofstede (1980) argue that the work was ground-breaking at the time of its publications and continues to be relatively accurate (Jones, 2007, p. 6; Kirkman et al., 2006; Sondergaard). The supporters also stress the model of cultural dimensions was proven empirical by rigorous analysis of the data (Jones, 2007, p. 6).

#### **2.9.4 Varieties of capitalism: Institutions and national business cultures**

The theory of varieties of capitalism is based on the work of P. A. Hall and Soskice (2001) and analyses the variants of liberal market economies (LME) and coordinated market economies (CME) based on the institutional environment (Witcher & Chau, 2012). Examples for liberal market economies are the U.S., Canada and the UK and examples for coordinated market economies are many European countries like Germany and Scandinavian countries as well as Japan (P. A. Hall & Soskice, 2001). The main argument is that the institutional heritage and set-up of countries have huge impact on the national business culture, why the variant of how capitalism is implemented and lived needs to be considered for business decisions (Amable & Azizi, 2014; Buhr & Frankenberger, 2014).

The theory of varieties of capitalism is heavily criticized for instance for being too static (Streeck & Thelen, 2005) and functionalist (V. A. Schmidt, 2002). Another strong criticism theory of varieties of capitalism is presented by Rugman and Verbeke (2009) who follow the eclectic paradigm (Dunning, 2000, 2001) and build on previous contributions (Rugman, 2001, 2005; Rugman & Verbeke, 2003)

presenting MNCs as rather regional than truly global companies. Rugman and Verbeke (2009) question the applicability of the theory of „varieties of capitalism“ (P. A. Hall & Soskice, 2001) for understanding MNCs. Rugman and Verbeke (2009) on the one side acknowledge that the different structure of national institutions are important to understand different market places, they however argue that the specific heritage of MNCs in certain industries and countries have a greater impact on evaluating the activities in certain local markets.

From a practitioners view the theory of varieties of capitalism is considered an important reminder that the institutional heritage and setting of countries (Collinson & Pettigrew, 2009; Peng & Khoury, 2009) can have huge impact on the management of business organizations. On the other hand the criticism is supported that nowadays MNCs are not any longer purely centralized entities with a single business culture (Erez, 2009; Graham, 2009) but rather a heteracy (Hedlund, 1986; Hedlund & Rolander, 1990) with a trend to a federative (Whitley, 2009) or network type (Banalieva & Athanassiou, 2010; O'Donnell, 2000) of relationships. These networks exists between different subsidiaries and between subsidiaries and HQs . The key knowledge and decision making does not necessarily happen just in HQs, but certain countries are assigned the roles of centres of excellence (Frost, Birkinshaw, & Ensign, 2002).

### **2.9.5 Cultural dimensions in the context of this thesis**

The methodological weakness of Hofstede (1980) is and the theory of varieties of capitalism (P. A. Hall & Soskice, 2001) is recognized why the quantitative results shall not be used without careful consideration of the potential flaws. On the other hand it is concluded from both the positive recommendations of the literature review and the experience of a practitioner that studies about cultural dimensions, national business cultures and psychic distance provide an important indication that there are significant national cultural differences. In the context of this thesis the concept of cultural dimensions and psychic distance shows that it is potential dangerous to blend results from MNCs that originate from countries with high psychic distance into one study without considering the potential psychic distance. In other words without these cultural considerations multi-country studies about organizations potentially provide distorted views and results (Erez, 2009). Particularly if the studies collect and analyses statistical data, where there is little possibility to validate the answers and put them in the appropriate context.

Consequently in this thesis the view is followed that studies covering corporations or organizations of various countries should always be done considering the cultural differences. For those reasons it was decided to apply a qualitative approach and to narrow this research project as shown in the following section.

## **2.10 Gaps in the literature addressed by this research**

The literature review about matrix organizations and the allied key issues such as development and internalization of MNCs, the roles of HQ and LCs, issues of power, decision making and culture in organizations have revealed various open debates that were used as theoretical foundation for the research objectives and questions as well as the methodologies and methods applied. The following key debates will be presented in the subsequent sub-sections of this final part of the literature review.

1. Are matrices common, when to use matrices?
2. The use of power in organization
3. Decision making in MNCs
4. Role of subsidiary, decision power between HQs and subsidiary
5. Main matrix dimensions
6. Method and methodology
7. Geographic focus and National cultural perspective
8. Industry segments
9. Timing
10. Background of researcher
11. Linking IB and sociologist research

### 2.10.1 Are matrices common, when to use matrices?

One of the most prominent advocates of matrix organizations is Jay R. Galbraith (for example J. R. Galbraith, 1971, 1977, 2000, 2009) who started research about matrix organizations in the 1960s. Galbraith left the academic world and now works as consultant in the field of organizational design, where he sensed a “renewed interest in matrix organizations” (J. R. Galbraith, 2009, p. xi). A typical question asked by his customers is “How do we make the matrix work?” (J. R. Galbraith, 2009, p. xi). This leads to the conclusion that in MNCs have realized that matrix organizations cannot be avoided any longer. “Instead it is a necessary form of organization in today’s business environment” (J. R. Galbraith, 2009, p. ix). This assessment is further confirmed by recent studies which suggest that despite the fact that researchers have lost interest in matrix organizations of MNCs most MNCs use at least some kind of matrix (Donaldson, 2009b; Egelhoff et al., 2013; K. Hall, 2013; Qiu & Donaldson, 2012).

Other literature is however rather suspicious about matrices and points out to the problems and the difficulty to manage them (Czinkota et al., 2009; Drucker, 1993b; Harris & Raviv, 2002; Peters, 1979). Consequently the term matrix is hardly covered or not even part of the index of recent management books covering management, international business and MNCs (for example Boddy, 2012; Navaretti et al., 2004; Rugman, 2009). The question arises if matrices are so present and relevant in almost all organizations why are they ignored on the other hand? The debate can be illustrated by comparing the contributions of some of the key authors.

The very influential study of Bartlett and Ghoshal (1989) and the revised second edition (Bartlett & Ghoshal, 1998) for instance suggest that the key driver of MNCs are global integration and local responsiveness. They are however explicitly critical with regard to the pure structural solution by using a matrix organization but focus on the more behavioural side. On the other hand Jay Galbraith, another influential author (for example J. R. Galbraith, 1971, 1977, 2000, 2009), confirms the driver of global integration and local responsiveness and suggests that matrices are the best structural response. The question arises whether there is actual disagreement between Bartlett and Ghoshal (1989) and J. R. Galbraith (2009) or whether they potentially speak about the same topics using different words and terminology. According to my interpretation as practitioner both authors speak about the same topic using a different language, however this has not been spelled out in other literature. A potential interpretation is the following: As the two highly influential studies of Bartlett and Ghoshal (1989, 1998) have disregarded matrix organizations the term matrix has gradually been disappeared from the research agenda of many IB scholars.

A recent study of Qiu and Donaldson (2012) summarizes the debate. “The research in this area has produced inconclusive findings and many questions remain unanswered. A primary concern shared by both academics and practitioners is: when and why MNCs use matrix?” (Qiu & Donaldson, 2012, p. 672). The present doctoral study offers to provide answers to this debate and question.

### **2.10.2 The use of power in organization**

As originally suggested more than 30 years ago (Mintzberg, 1983; Pfeffer, 1981) and confirmed by recent studies (Dörrenbächer & Geppert, 2011; Geppert & Dörrenbächer, 2014) the issues of power have mainly been ignored in mainstream IB research. MNCs and matrix organizations have rather been treated as rational entities that can be analysed by methodologies of positivism and the aim has been to search for universal rules (Geppert & Dörrenbächer, 2014). As a rare exception it is suggested by Pfeffer (1981) that matrix organizations are the ideal fit for organizations where agents of competing interests have to use power and politics to come to decisions. This is one of the few links between the mainstream IB and sociologist literature. This particular proposal of Pfeffer (1981) has been largely ignored in the traditional literature of IB and MNCs. Actually the literature review of this thesis has not found any other literature building on that proposal or making similar links between aspects of power and politics and the management of MNCs.

As a practitioner I share the view of Pfeffer (1981) that competing interests are an inherent feature of modern MNCs why conflict cannot be avoided. Further I am of the opinion that organizations are highly political entities. The view that power and politics exist in organizations is however by most literature rather disregarded as inappropriate or even unprofessional. This doctoral study will therefore explicitly analyse how power is distributed between HQs and LCs in an MNC and in the findings will reflect on the two opposing views about the use of power in organizations.

### **2.10.3 Decision making in MNCs**

Pfeffer (1981) and Pfeffer (1992b) believe that conflict is inherent in the process of decision making why he advocates the use of power and politics and explicitly rejects rational but also bureaucratic

decision making processes. Amason (1996) suggests the use of “cognitive conflict” and Schweiger et al. (1986) “programmed conflict” (p. 66) while Eisenhardt and Zbaracki (1992) in the same line of argument suggest to research the “optimal level of conflict” (p. 34) in the process of decision making. The authors suggest that by this the potential downsides and costs of bad compromises and frustrated actors can be avoided. The matter of conflict and the use of power and politics is however largely ignored by the mainstream IB literature and management books which primarily build on the work of Barnard (1938) suggesting rational decision making processes. Simon (1987) as an example disagrees partly with Barnard (1938) and suggests a refinement of the purely rational model. He suggests that decisions making processes are not purely rational or analytical and recommends that managers shall apply “analytical and intuitive” (p. 63) methods however without mentioning conflict and the use of power and politics. Pfeffer (1981) criticizes the “functional rationality” (p. 14) of classical IB research and further criticizes that classical IB and economic theory scholars are not aware and reflective about this explicit assumption.

As a practitioner I support the conclusions that organizations and in particular large MNCs are political entities and that the use of power is common practice in decision making processes. This is in particular true when conflict and competing interests are inherently build into the organizational design by the use of matrix organizations. The thesis will further contribute to the debate about the nature of decision making by explicitly researching the decision power between HQs and LCs in matrices of MNCs. As indicated by the term ‘decision power’ in the title of this thesis the assumption is made that power is particularly – but not exclusively - used in case of conflict and competing interests. In such cases the need for a decision how to proceed emerges.

#### **2.10.4 Role of subsidiary, decision power between HQs and subsidiary**

The changing role of the local subsidiary or country manager is discussed in the literature (for example Birkinshaw, 1995; Dunning & Lundan, 2009; Kristensen & Zeitlin, 2005) offers unclear recommendations and answers. Some see the role of the subsidiary as just representational and on the decline; others see the role of the country manager getting more importance and power (Birkinshaw, 1995; Quelch & Bloom, 1996; Williams, 2011). The quest in many IB research has been to provide generalizable answers, where one solution fits to all different settings (Blazejewski & Becker-Ritterspach, 2011b; Schmid & Daniel, 2011).

As an exception J. R. Galbraith (1971) takes a different view suggesting that a “continuum” (p. 37) of “influence” (p. 37) or decision power exists between the various matrix dimensions. This specific continuum has however not been widely studied by other researchers, except for instance Knight (1977). Birkinshaw and colleagues are one of the few recent academics discussing the diverse role of the subsidiary in a systematic way (for example Ambos & Birkinshaw, 2010; Birkinshaw, 1995, 1996). Similarly in my professional experience I have come to the conclusion that the role of the subsidiary and the power distribution between HQs and LC is of central importance and that there are no solutions that fit all different settings between HQ and LCs. For these reasons this study puts a particular focus to better understand the role of the subsidiary in MNCs.

### **2.10.5 Main matrix dimensions**

There is an on-going debate and different view about the importance of the matrix dimensions. J. R. Galbraith (2009) and Agthe (1990) explicitly suggest that the product and regional dimensions have the most significance because they are both measured via their own P&L statement. The P&L statement of the entire corporation is both a sum of the P&L statements of all regions and the sum of all P&L statements of all product lines (Agthe, 1990; Goggin, 1974). The customer dimension can also be measured by its own P&L statement (Birkinshaw et al., 2001; Toulan et al., 2006; Yip & Bink, 2007). Other studies however suggest that other dimensions such as manufacturing and functional dimensions are of high importance for the design of MNCs (for example Qiu & Donaldson, 2010; Wolf & Egelhoff, 2001). Generally research literature and also management books hardly cover specific dimensions of the matrix organization. As this topic of matrix dimensions has received little coverage in the literature it was decided to specifically address it in this study.

### **2.10.6 Method and methodology**

Many of the studies that followed Stopford and Wells (1972) were primarily based on a quantitative approach covering large samples of MNCs that operated in different industries and countries analysing ‘what’ and ‘how’ questions (for example Adzic, 2006; Egelhoff, 1988b, 2010; Qiu, 2010; Qiu & Donaldson, 2010; Stopford & Wells, 1972; Wolf, 2008; Wolf & Egelhoff, 2001) and suggesting a

single strategy-structure relationship and therefore an uniform relationship and power distribution between HQs and LCs. There are very few examples of studies using a qualitative research approach. As an exception Birkinshaw (1995) for instance criticizes quantitative studies by referring to Parkhe (1993) that “the premature use of a theory-testing approach often obscures or even neglects the core phenomenon” (Birkinshaw, 1995, p. 285). Marinov and Marinova (1999) in their analysis of European MNCs entering into Eastern European markets also suggest the use of semi-structured interviews.

From my practitioners point of view I am very sceptical when using quantitative methods to analyse organizations. Organizations are mainly shaped by the actors why a direct and close interaction with these actors is needed as also suggested by Geppert and Dörrenbächer (2014). For that reason, as will be discussed in detail in the next chapter, it was decided that this study collects qualitative information via semi-structured interviews.

## **2.10.7 Geographic focus and National cultural perspective**

There have been many studies covering MNCs from different national backgrounds but also research focussing on single countries. These studies however typically do not take into account the potential cultural and language influences. The potential advantages and disadvantages of having a narrower national and wider international scope have hardly been discussed explicitly. According to my interpretation as practitioner the implicit recommendation of the studies about cultural dimensions (Hofstede, 1980), psychic distance (Johanson & Wiedersheim-Paul, 1975) and different national business cultures (P. A. Hall & Soskice, 2001) is that national cultural aspects have a much more important role when studying business organizations than traditionally applied is classical MNC and management research. Consequently to avoid or at least limit the risk as for instance pointed out by Erez (2009) of conclusions been overlaid by national cultural aspects this doctoral study will apply a narrower national, namely German, focus.

The Germany focus makes sense because of various reasons. Germany is the strongest economy in Europe and is highly dependent on exports, why the number of German MNCs with a high variety of products operating in several countries is therefore among the highest in the world (Bishop, 2009; Economist, 2006; Ghemawat, 2007a; Wolf, 2000). German technology MNCs and particularly medium sized ‘Mittelstand’ companies represent the core economic strength of Germany (Krüger,



Klippstein, Merk, & Wittberg, 2006; Randow & Kirchfeld, 2010; Young, 2011). Many of these companies are also called “hidden champions” (Voyles, 2009, p. 10) due to their positions as world market leaders but relative anonymity outside of their specific niche (Berghoff, 2006; Randow & Kirchfeld, 2010; Voyles, 2009). Despite its comparable small size and population, Germany was leading global exports until China moved ahead in 2010. Currently, Germany exports more goods in U.S dollars than larger and more populous countries including the United States and Japan (Atkins, 2009; Wagner, 2013). It is considered therefore worthwhile to analyse in more detail the companies that are the basis for this success. In addition I am myself German and after having worked the most part of my career in German technology MNCs I possess an extensive network of managers experienced in matrix organizations. This network was used to recruit the interviewees for the present study.

### **2.10.8 Industry segments**

Most studies have covered MNCs from various industry segments and frequently from various countries. The relationship between headquarters and local subsidiaries potentially depends on the type of the industry segment and whether results from various industry segments can be compared with each other (Bartlett & Ghosbal, 1987; J. R. Galbraith, 2000). Throughout my professional career and during my engineering studies I worked primarily for technology MNCs that sell high-end technology products or systems along with related services. Consequently, I have specific knowledge regarding those models of MNCs and used my private and professional network to recruit the interviewees for this study. For these reasons this study primarily focuses on German technology MNCs.

### **2.10.9 Timing**

Since the late 1980s, researchers have lost interest in matrix organizations of MNCs despite the fact that today most MNCs use at least some kind of matrix (Qiu & Donaldson, 2012; Wolf & Egelhoff, 2012). The availability of high speed Internet access and smart phones change the way global operations are run (Li & Davies, 2001) and enhance the possibility of information flow between

headquarters and their foreign subsidiaries (Bekkerman & Gilpin, 2013; Lin, Standing, & Liu, 2008). Subsequently some matrix disadvantages disappear and professionals are becoming accustomed to working in matrices and from different locations including home or while travelling (Aghina, De Smet, & Heywood, 2014; Mocker, Weill, & Woerner, 2014; Yan, 2009). This is confirmed by recent studies about the development of the functioning of global virtual teams (Hertel, Konradt, & Orlikowski, 2004; Kelley, 2001; Schlenkrich & Upfold, 2009; Yan, 2009). The 'how' and 'why' of matrix organizations must therefore be seen in the light of the new technological advancements. The management of MNCs and matrix organizations has potentially been heavily impacted by the recent technological changes; therefore conducting a contemporary study is the logical action.

### **2.10.10 Background of researcher**

Many studies are conducted by individuals employed full-time in an academic environment. Additionally, most have little or no practical experience working in MNCs or matrix organizations. In contrast, I have been working in various types of matrix organizations in different functions and roles throughout my entire professional career which spans more than 15 years. This represents an unusual background for researchers in the field of matrix organizations or MNCs. Goggin (1974) and Agthe (1990) characterize two of the very few authors with a practitioners background. However, they did however not perform formal research, but presented their insights from their roles as President and CEO of major MNCs, namely Dow Corning and ABB. Confirming the importance of a practical link and referring to Pfeffer (1997) it is suggested in a recent publication that most organizational studies "focus on testing existing theories, rather than resolving issues facing practising managers" (Worren, 2012, p. 8). Consequently it is considered that doing formal research about matrix organizations in MNCs with a strong practical background is an important addition to the current literature.

### **2.10.11 Linking IB and sociologist research**

Most MNC and IB literature use the terms decision making, power and politics from a rather rational positivist stance and ignore the social and political sciences (Dörrenbächer & Geppert, 2011). A

recent literature review about power and politics in MNC research is suggesting a more nuanced and integrated view by linking IB and social and political science research (Geppert & Dörrenbächer, 2014). The reason for this lies in the fact that most studies stem from a certain school of research, mainly IB in case of MNCs and reflect the results primarily with the body of literature from that particular area of research. This doctoral study attempts to take a more integrated and nuanced view by reflecting the conclusions on various different streams of literature.

As a practitioner I am convinced that to better understand what happens in organizations it is of utmost importance to seek the causal relationship and ask the question of 'why' things happen and not only 'what' is happening. The importance of better understanding is also stressed by Bettis (1991) and Worren (2012, p. 8). They suggest that traditional management research, which is heavily influenced by U.S. scholars and in particular U.S. journals, put too much focus on explaining what is happening and too less focus on conclusions that lead to prescriptive recommendations. In a similar fashion Westney (2009b) criticizes MNC literature focussing to understand "what is happening" (p. 118) and not "why it is happening" (p. 118). In summary there is strong support for further studies researching matrix organizations empirically and for understanding the underlying reasons by asking 'why' and not just 'what' questions.

To find out this one has to speak to persons, ideally in a one-to-one setting. These experiences and beliefs framed the research design and methodologies applied in this study as discussed in the following chapter.

### **3 Research design and methodology**

The following chapter 3 'Research design and methodology' will first unveil the research questions and objectives which guide this doctoral study. This chapter then discusses how and why the methodology of semi-structured qualitative interviews is chosen. This is followed by the description of the analysis of the interview data/material and the subsequent evaluation. The chapter concludes by providing information regarding the selection process of the interviewees.

#### **3.1 Research questions, objectives and summary of choices**

Based on existing business research literature the most important element in business research and in particular for doctoral studies is the definition of research objectives and questions (Bryman & Bell, 2011; Easterby-Smith et al., 2008). The research questions and objectives should be aligned with the underlying research philosophy, the research paradigm and the methodologies and methods used (Collis & Hussey, 2009; Saunders et al., 2009).

The literature review exposed a number of open debates and significant lack of current research in the specific field of how and why decision power is distributed in MNCs between HQs and LCs in matrix organizations of MNCs. As practitioner I have experienced the constant power battles between HQs & LCs in matrix organizations of MNCs. I have seen little corporate guidance and encountered a highly political and relationship-based environment. The literature gaps and debates as well experiences as practitioner led to the development of the research questions and objectives of this doctoral thesis as shown in Table 12

These research questions and objectives had to be aligned with various research choices and decisions, such as research paradigm, research design and approach, research methodology and research methods (Bryman & Bell, 2011; Saunders et al., 2009). The literature review discovered no single definition available about the competing choices and definition for ontology, epistemology, research paradigm, methodology and methods. Therefore, the following variety of sources was used for the definition and choices of this doctoral study.

- Standard literature about business and management research methods.

- Thesis and dissertations in the field of business administration and social science.
- Lectures given as part of the DBA program.
- Discussions and conversations with lectures, professors and the supervisors.
- Discussion with students of the DBA program at the University of Gloucestershire as well with other DBA and PhD programs.
- My business and management experience as practitioner.

**Table 12: Research questions and objectives**

#	Research questions	Research Objectives
1	How do German MNCs distribute decision power in their matrix organizations between headquarters and local subsidiaries?	To investigate the organizational structure of German MNCs.  To understand how the MNCs operate the various matrix organizations and how decision power is distributed between headquarters and the local subsidiaries.
2	Why do German MNCs distribute the decision power in this particular way?	To determine the key objectives and criteria used when deciding upon the organizational set-up and distribution of decision power in German MNCs.

The results of this analysis and the typical main areas of research choices are summarized in Table 13. It also covers their generic definitions, the main (extreme) options and the choices for this doctoral study. The research paradigm of an interpretivist is followed and this research project will be guided by the research philosophy of realism. An inductive research design and approach is employed for creating new hypotheses and theory. As a result this study confirms the validation, rejection and refinement of existing theory. It was decided to collect and analyse empirical information being guided by a qualitative research methodology using as method semi-structured interviews. The term qualitative 'information' is used instead of qualitative 'data'. The reasons for this decision will be explained in detail in chapter 3.4.1 'Qualitative and quantitative methodology'.

**Table 13: Research terms, definitions, options and choices**

<b>Term</b>	<b>Definition</b>	<b>Options</b>	<b>Choices in this study.</b>
Axiology	The role and definition of values.	Value free Value laden.	Research is value-laden, generalisation possible.
Epistemology	Assumptions about the natures of the world or acceptable knowledge?	Data (positivist), Feelings (interpretivist).	Combination of data and feelings.
Ontology	Philosophical assumptions about the nature of reality. What is reality?	Objectivism, subjectivism	Combination of both more inclined to subjectivism.
Research paradigm	Basic values, beliefs, principles or worldview by which research is guided.	Interpretivist, radical humanist, functionalist, radical structuralist.	Interpretivist (partly overlaps with the other paradigms).
Research philosophy	Philosophical framework:	Positivism, interpretivism, realism, pragmatism.	Realism.
Research design or approach	Purpose of the research (testing theory or creating new theory). Link of theory and research.	Deductive: testing theory, theory guides research. Inductive: New theory is outcome of research.	Primarily inductive.
Research methodology	Study of methods to enquire into a specific situation.	Quantitative, qualitative, action research.	Qualitative.
Research method	Techniques for data collection.	Questionnaire, interview.	Semi structured interviews.

Sources: (Bryman & Bell, 2011; Burrell & Morgan, 1979; Cavana et al., 2001; Collis & Hussey, 2003, 2009; Creswell, 1998, 2011; Denyer & Tranfield, 2006; Denyer, Tranfield, & Van Aken, 2008; Denzin & Lincoln, 2008, 2011a, 2011b; Easterby-Smith et al., 2008; Fleetwood, 2012; Gall, Borg, & Gall, 1996; Guba & Lincoln, 1994; Lincoln, Lynham, & Guba, 2011; Peräkylä, 2008; Saunders et al., 2009; Stokes, 2011; Tranfield, Denyer, & Smart, 2003).

For reasons of consistency with regard to the research choices one single research design, methodology and method was used rather than mixing inductive and deductive approaches by collecting quantitative and qualitative data via questionnaires and interviews. The possible criticism that the primary options presented in Table 13 are an oversimplification and that they do not represent all potential options and variants is acknowledged. However, the research choices of this study are positioned within the mainstream according to previously mentioned sources that are considered as helpful and relevant for this study. Therefore this study will not elaborate in detail all of the potential options and combinations between the above mentioned choices for this research.

Comparing the research choices for this doctoral study using the “research onion” (Saunders et al., 2009, p. 108) reveals that the model of the “research onion” is regarded as too simplistic. The model for instance suggests that realism as it is used in this study is very much linked to deductive research. In addition Saunders et al. (2009, p. 108) do not show a separate layer of the “research onion” for methodologies and methods as one would expect applying the logic of Table 13. They rather summarize the combination of methodologies and methods as ‘strategies’. In this study the terms methodologies and methods will be used because those terms are considered more accurate than the vague term ‘strategies’. In the following sections the decisions with regard to the choices made as shown in Table 13 will be explained.

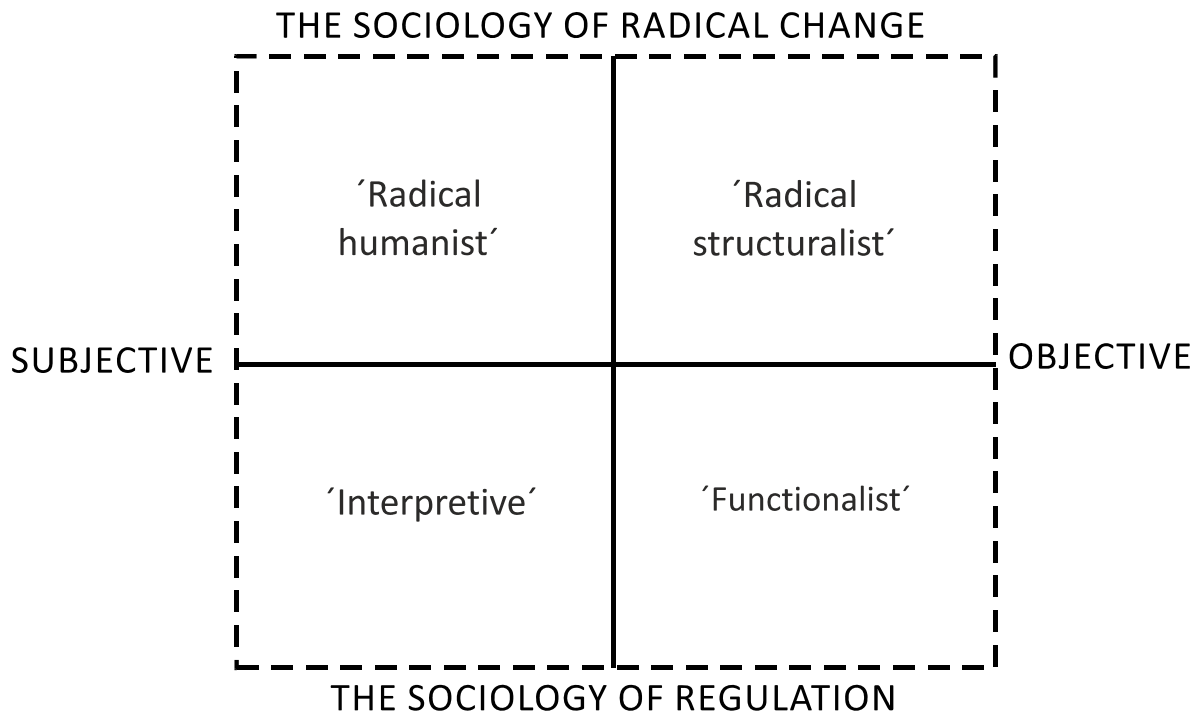
### **3.2 Research paradigm and ontology**

Saunders et al. (2009, p. 106) share the view of Guba and Lincoln (1994, p. 105) that a researcher should choose an underlying paradigm prior to establishing research philosophy, methods and methodologies. According to Creswell (2011, p. 280) a paradigm can be defined as “worldviews, beliefs or values” and “not only in choices of method but in ontological and epistemological fundamental ways” (Guba & Lincoln, 1994, p. 105; Saunders et al., 2009, p. 106). Saunders et al. (2009, p. 118) expand this definition: “[a] paradigm is a way of examining social phenomena from which particular understanding of these phenomena can be gained and explanations attempted.”

Contemporary usage of the term paradigm in the social sciences was first established by Kuhn (1962) which is regarded as one of the most influential and cited books of all time (Bird, 2011; DaRSIS, 2010). In a later edition of the same book Kuhn and Hacking (2012) define paradigms as “universally

recognized scientific achievements that for a time provide model problems and solutions to a community of practitioners” (p. xlii).

Figure 21: Four paradigms for the analysis of social theory



Source: (Burrell & Morgan, 1979, p. 22).

Burrell and Morgan (1979) use paradigm “as a term which is intended to emphasise the commonality of perspective which binds the work of a group of theorists together in such a way that they can be usefully regarded as approaching social theory within the bounds of the same problematic” (Burrell & Morgan, 1979, p. 23).

Figure 21 illustrates that according to the influential work (Deetz, 1996; Hassard, 1991; Nurminen, 1997) of Burrell and Morgan (1979) the schools of organizational and sociological theory can be organized alongside the two dimensions objective versus subjective and regulation versus radical change. The horizontal dimension of the paradigm quadrant in Figure 21 addresses the question of ontology or the philosophical assumptions about the nature of reality (Saunders et al., 2009) or the “assumptions about the nature of science” (Burrell & Morgan, 1979, p. 21) and varies in a continuum between subjective and objective. The vertical dimension reflects the “assumptions about the



nature of society” (Burrell & Morgan, 1979, p. 21) between the extremes of radical change and regulation. Table 14 summarizes the definition of the four extremes used in Figure 21.

**Table 14: Definitions of extreme positions in the Burrell-Morgan grid.**

<b>Extremes in the Burrell-Morgan grid</b>	<b>Definitions</b>
Objectivist	“Social entities exist independent of social actors” (Saunders et al., 2009, p. 110) and the structures and processes of organizations can be analysed from an external independent viewpoint (Bryman & Bell, 2011, p. 24).
Subjectivist	“Understanding the meaning that individuals attach to social phenomena” (Saunders et al., 2009, p. 111). An organization is a “socially constructed product” and does solely exist in the mind of employees “to make sense of their social experience” (Bryman & Bell, 2011, p. 24).
Radical change	Viewing organizations critically and suggesting radical, fundamental or even revolutionary changes to the current structures and processes of the organization (Bryman & Bell, 2011, p. 24; Saunders et al., 2009, p. 120).
Regulation	Trying to analyse organizations in order to suggest gradual changes to improve the current organizational structures and processes (Bryman & Bell, 2011, p. 24; Saunders et al., 2009, p. 120).

The resulting four paradigms of the Burrell and Morgan grid are explained in more detail in Table 15. Until in late early 1970s physics was the “queen of sciences” (Kuhn & Hacking, 2012, p. ix) why also researchers in the social sciences mainly used the functionalist paradigm (Burrell & Morgan, 1979). As shown in Figure 22 the functionalist paradigm was created mainly from sociological positivism (Burrell & Morgan, 1979, pp. 27-28). The theory of (sociological) positivism and functionalist (sociology) can be considered as similar if not synonyms. In providing an overview Burrell and Morgan (1979) grouped “somewhat crudely” (p. 28) the schools of sociological and organizational theory to the four main paradigms as shown in Figure 23 and Figure 24. All the theories and schools of thought will not be discussed further, other than to argue that a very precise definition of a paradigm seems to be difficult as there are many overlapping and transitional areas in Figure 23 and

Figure 24. In contrary authors such as Chua (1986) refer to positivism, interpretivism and critical theory as the three main alternatives for paradigms (DaRSIS, 2010).

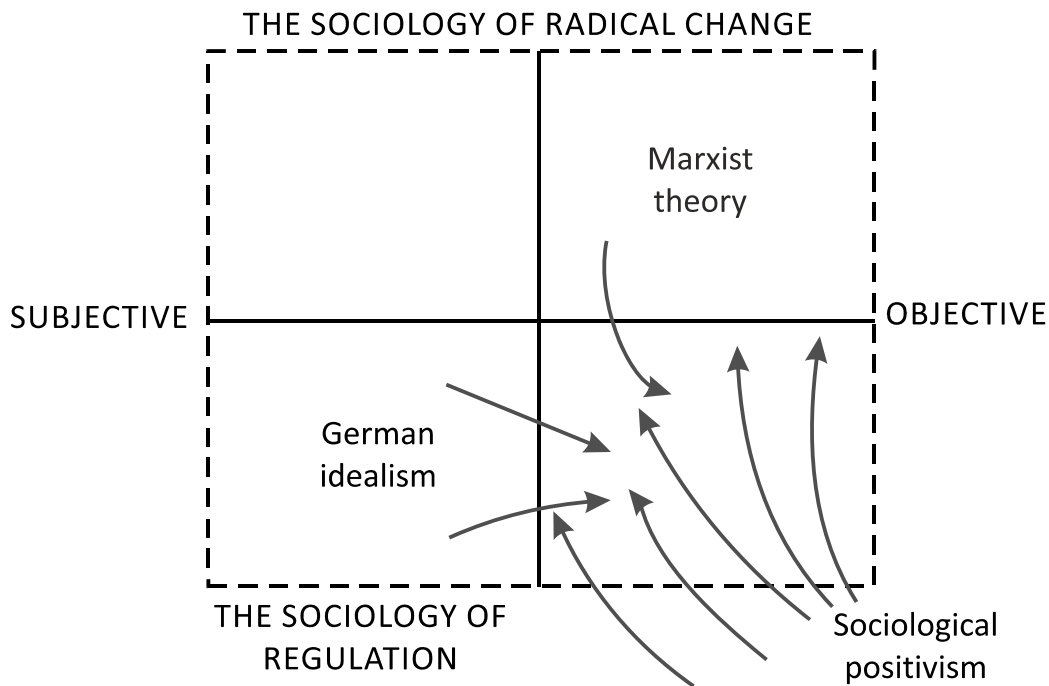
**Table 15: Definitions of the four paradigms**

<b>Paradigm</b>	<b>Definition</b>
Functionalist	Seeking rationale explanations to organizational problems in order to make suggestions for gradual change without significant changes in the organizational structure, processes or people (Bryman & Bell, 2011, p. 24; Saunders et al., 2009, pp. 120-121).
Interpretive	Seeking understanding and meaning of the individuals or employees and managers who experience organizational life on a day-to-day base (Bryman & Bell, 2011, p. 24; Saunders et al., 2009, p. 121).
Radical humanist	Trying to change the dependence of humans on organizational structures and processes, because this link is seen critical. Research is a vehicle to achieve this independence radically (Bryman & Bell, 2011, p. 24; Saunders et al., 2009, p. 121).
Radical structuralist	Analysing organizational structures and processes focussing on power struggles and conflicts within the organization and within different levels of hierarchies (Bryman & Bell, 2011, p. 24; Saunders et al., 2009, pp. 120-121).

Figure 25 illustrates that the position applied in this thesis using the Burrell and Morgan grid lies between the interpretive and functionalist paradigm with a tendency towards interpretivism. Functionalist is the dominating paradigm used when trying to solve business problems with a pragmatic problem-solving approach (Bryman & Bell, 2011, p. 24; Saunders et al., 2009, p. 120). The subjective and individual side is slightly considered more relevant in particular when addressing 'how' and 'why' questions such in this doctoral study. In the vertical domain that covers the "assumptions about the nature of society" (Burrell & Morgan, 1979, p. 21) there is a clear inclination toward regulation however it is also believed that sometimes radical change is needed or appropriate.

To explain the paradigm pursued in this doctoral thesis as shown in Figure 25 following will be referred to the exact position with regard to the two dimensions and their extreme views:

Figure 22: The formation of the functionalist paradigm in the Burrell and Morgan grid.



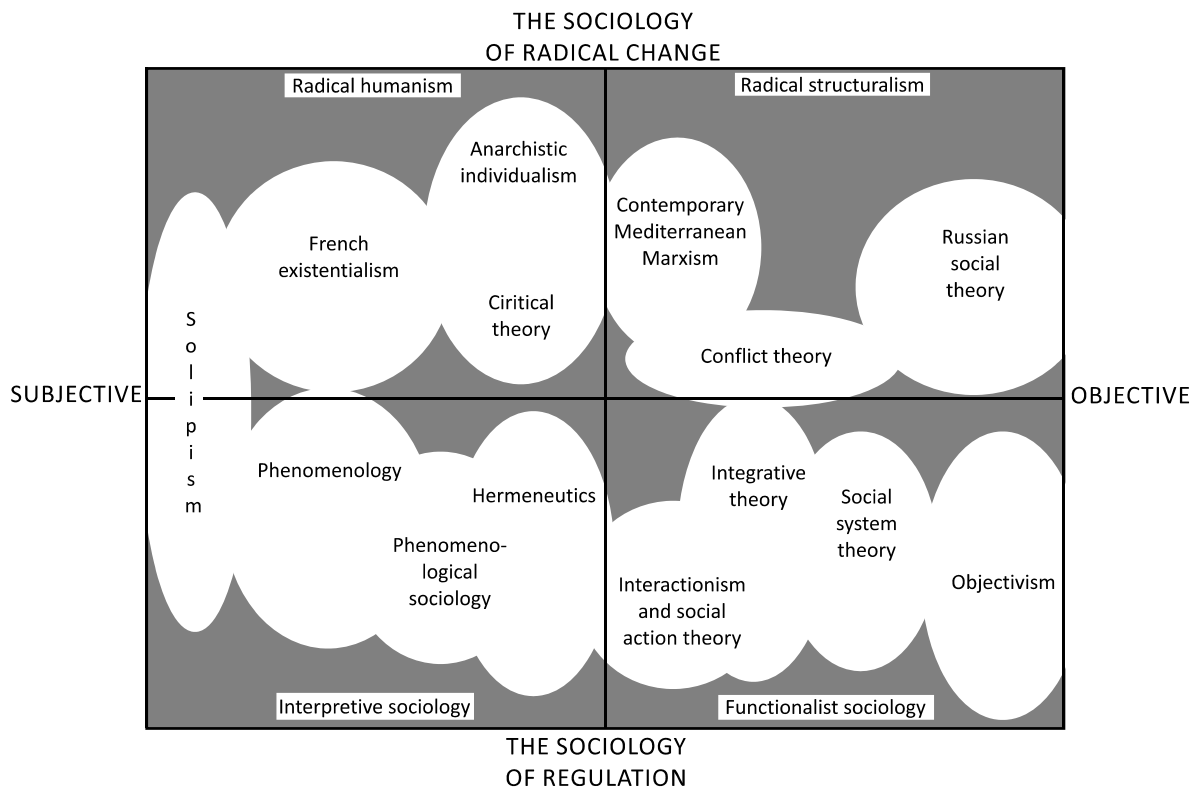
Source: (Burrell & Morgan, 1979, p. 27).

### Change management dimensions: Radical Change vs. Regulation:

The fundamental aim speaks to making a gradual improvement of the current organization because the view of authors is supported who assert that change involves risk by producing oppositions and counter forces by those that must adapt. Each part of an organization has a maximum limit of change that it can manage over a specific period of time (Goldratt & Cox, 2004; Vermeulen et al., 2010). However from a practitioners point of view those authors are also supported (for example Collins, 2001; Drucker, 2005; Welch & Welch, 2007) who suggest that occasionally radical changes of processes, structures and people may be needed in order to overcome organizational problems. Further the view of Vermeulen et al. (2010, p. 71) is shared who for instance argues that “even successful corporations have to shake things up to stay ahead of the competition.” By fostering a culture of constant change among managers and employees organizations can avoid “massive reorganization and restructuring that characterize many large firms” (Vermeulen et al., 2010, p. 76).

Constant change and performance improvement is a necessity for most organizations; however, proper implementation remains a challenge (Baxter & MacLeod, 2007, 2008).

Figure 23: The schools of sociological and organizational theory in the Burrell-Morgan grid (1/2)

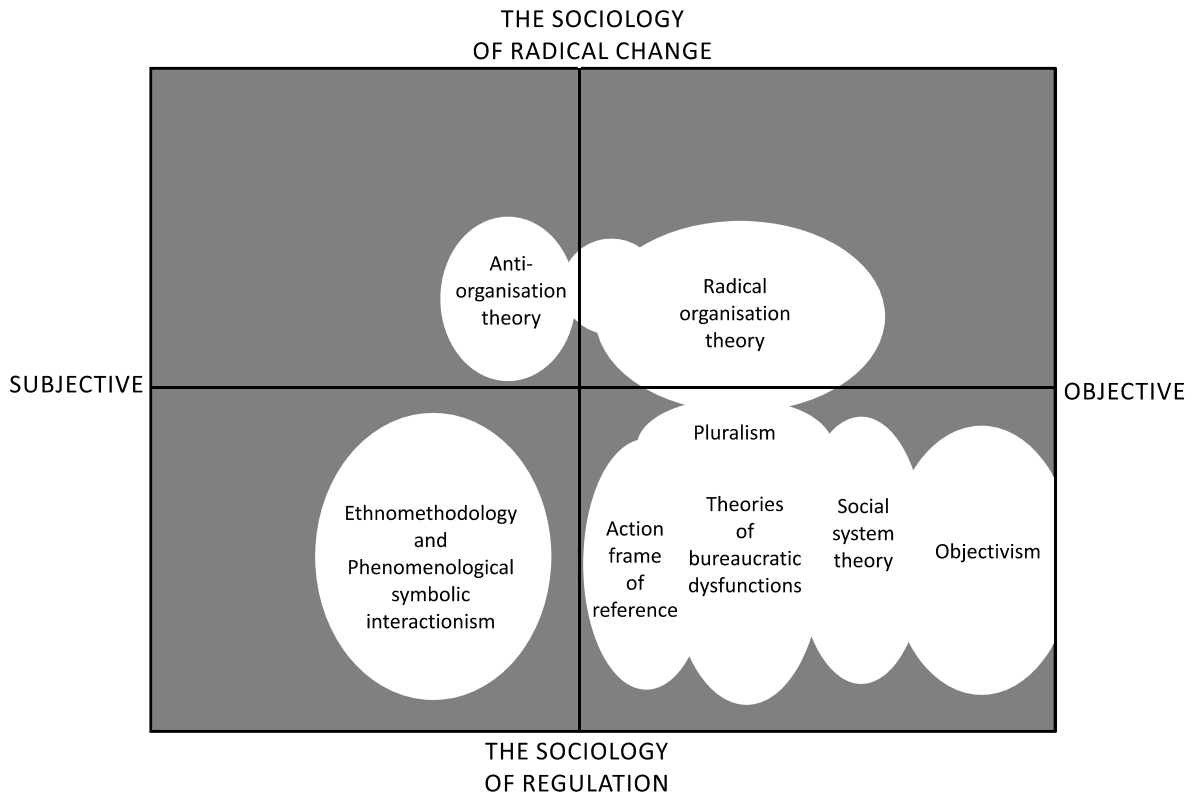


Source: (Burrell & Morgan, 1979, p. 29).

**Ontological dimension: Subjectivist vs. objectivist:**

Ontology is the philosophical assumptions about the nature of reality. Essentially, ontology addresses whether reality is seen as objective or subjective (Saunders et al., 2009). Ontology is viewed as the manner in which the real world can be observed objectively but is subjectively interpreted through “social conditioning” (Saunders et al., 2009, p. 115). Reality is neither just entirely objective nor solely subjective. The position applied in this thesis is inclined to subjectivism. Social, environmental and physical factors play a great role, such as office locations and status symbols because these attract and motivate staff. As an example, the challenges in organizations are similar and can be solved in similar manners, which is regarded as objectivism. However the way managers interpret and inhabit their roles is the determining factor relative to subjectivism (Bryman & Bell, 2011).

Figure 24: The schools of sociological and organizational theory in the Burrell-Morgan grid (2/2)



Source: (Burrell & Morgan, 1979, p. 30).

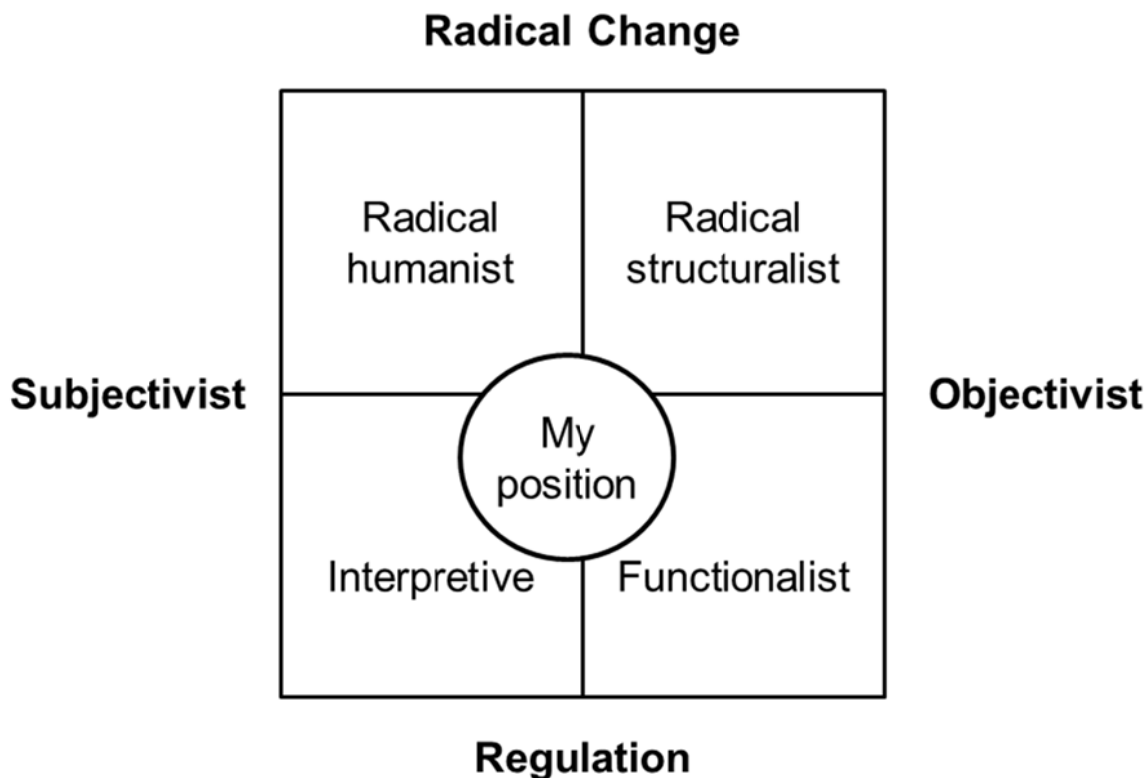
Theoretically, in an ideal or good organizational structure with good processes with well-trained managers the leadership team can easily be replaced without major impact. MNCs tend to strive to achieve this ideal state in order to be independent from individuals and to have the opportunity to move managers and employees within the organizations into new functions, business units and countries. Ignoring this principle some organizations may still perform well because of the particular people regardless of structure. However these organization faces the high risk of collapse if the particular managers will leave (Collins, 2001; Welch & Welch, 2007)

Earlier the influence of the cultural dimensions as defined by Hofstede (2001) on this doctoral study was discussed. The interpretation suggests that there is a strong link between the works of Burrell and Morgan (1979) and Hofstede (2001). The cultural dimension “uncertainty avoidance” (Hofstede, 2001, p. 29) for instance “which is related to the level of stress in a society in the face of an unknown future” (Hofstede, 2001, p. 29) can be interpreted as an indication how much regulation of radical change that certain societies consider acceptable. In other words, uncertainty avoidance as defined by Hofstede (2001) is potentially interlinked with the vertical radical change versus regulation axis of

the Burrell and Morgan (1979) grid. Consequently organizations in cultures with a high value of uncertainty avoidance such as France with a score of 86 or Germany with a score of 65 are more likely to prefer greater regulation in organizations than cultures with rather low uncertainty avoidance such as Great Britain with a score of 35. All scores are provided in Table 11.

Another cultural dimension is “individualism ... which is related to the integration of individuals into primary groups” (Hofstede, 2001, p. 29). This facet is interpreted as an indication of how much attention particular societies consider necessary regarding individual viewpoints. In other words individualism as defined by Hofstede (2001) is potentially interlinked with the horizontal subjectivist-objectivist axis of the Burrell and Morgan (1979) grid. Consequently organizations in cultures with a high value of individualism such as Germany with a score of 66 or Great Britain with a score of 67 are potentially inclined to be more sensitive to individual views of persons or countries in contrast to cultures with rather low individualism scores such as France with a score of 43.

Figure 25: The position of this doctoral study in the Burrell and Morgan grid.



Translated into the topic of this research it is suggested that MNCs with German and French origin potentially prefer and need clearer definition of the distribution of decision power than MNCs with

British origin. Furthermore, German and British MNCs are more likely to accept more specific organizational solutions and views than their French counterparts. It is acknowledged that these statements are highly speculative as no further extensive literature research has been performed. The suggested potential links between the theories of Burrell and Morgan (1979) and Hofstede (2001) have however an important impact on the research design of this thesis. They provide additional evidence to the problematic nature of researching MNCs of various cultural heritages simultaneously. It is considered very difficult to draw conclusions if these studies are using purely quantitative data collection methods based on a primarily functionalist research paradigm.

### **3.3 Research philosophies and epistemology**

#### **3.3.1 Research paradigm and research philosophy**

It is important to mention that literature about business and management research uses different definitions and interpretations for paradigm, research philosophy, the natural science philosophy, the social science philosophy and the alternatives to the two extreme positions. Table 16 provides an overview of the different definitions used. Selected literature sources use the definition and description for research paradigm as explained in the previous chapter (Bryman & Bell, 2011; Saunders et al., 2009; Stokes, 2011). Other literature claims that the research paradigm is more closely linked to research philosophies and use paradigm and philosophy as synonyms. Cavana et al. (2001, p. 8) consider a paradigm as a “school of thought” that “reflects a basic set of philosophical beliefs” whereas Collis and Hussey (2009, p. 55) use the definition that a “research paradigm is a philosophical framework”. Easterby-Smith et al. (2008, pp. 57-58) refer to a paradigm as a “scientific revolution” that emerges due to a “combination of new theories and questions”.

The specific definition of paradigm made in the previous chapter are considered being important because the exact definition of the position with regard to the ontological and change management dimensions helps to define the position and views of the world as applied in this thesis in a more precise way. In this thesis the different definitions for the words ‘paradigm’ and ‘philosophies’ will be used. When using the classification of Burrell and Morgan (1979) the position as used in this study falls between interpretivist and functionalist with clear tendency towards interpretivist and slight overlaps in the quadrants of radical humanist and radical structuralist as shown in Table 15 and Figure 25. With regard to what is considered as research philosophy there are also different

definitions used. Some authors do not use the term 'philosophy' but 'theory' (Walliman, 2011) or 'strategy' (Bryman & Bell, 2011). Maylor and Blackmon (2005) use the term philosophy as a description of the ontological assumptions. In subsequent sections it will be illustrated that the decision on the ontological position is frequently directly linked to the determination regarding epistemology and other research choices. The definition of research philosophy as used in this thesis is strongly influenced by the view taken with regard to epistemology. Epistemology is a set of assumptions about the best ways of inquiring into the natures of the world or on other words the answer to the question what is seen as acceptable knowledge (Saunders et al., 2009).

### **3.3.2 Definition of extreme positions and options**

Despite the varied definitions and uses of terms with regard to research paradigms, research philosophy, research theory or research strategy, the majority of the literature about business and management research that has been reviewed agree on two fundamentally different world views or extreme positions. It is recommended that researchers position themselves with regard to these positions as this directly implies or at least heavily influences most of the research decisions (Bryman & Bell, 2011; Saunders et al., 2009).

The first extreme position originated from the natural sciences and for centuries was the only way of doing research. It assumes that the researcher can be independent from the researched subject and therefore be able to draw conclusions objectively. Similarly, in physics, chemistry and biology the researcher stands apart and the measurements and the scientist do not interfere with the result (Bryman & Bell, 2011; Saunders et al., 2009). Contemporary scientific principles in the natural sciences recognize that each measurement interferes with the measured subject or system, this interference however can usually be neglected (Daintith, 2008, 2009; Dorf, 1993). Research is mostly done quantitatively by collecting large quantities of numeric data that are analysed statistically. Maylor and Blackmon (2005) employ the term "scientific approach" for this first of the two extreme research philosophies or epistemology. As can be seen in Table 16 most other literature uses the term positivism, which is the term that will be used further in this thesis.



**Table 16: Terms used to define research choices by different literature sources**

Source	Paradigm	Philosophy	Natural science philosophy	Social science philosophy	Alternatives to two extremes
(Bryman & Bell, 2011)	Functionalist, Interpretive, Radical humanist & structuralist.	Research strategy: quantitative vs. qualitative.	Positivism (ontology) Objectivism (epistemology) (p. 15; 27).	Interpretivism (epistemology), constructivism/ constructionism (ontology).	Empirical & critical realism (p. 17).
(Cavana et al., 2001)	Set of philosophical beliefs (p. 8).	Synonym for paradigm.	Positivism (p. 8).	Interpretivist (p. 9).	3rd paradigm is critical research, does not mention realist.
(Collis & Hussey, 2009)	Research paradigm is a philosophical framework.	Synonym for paradigm.	Positivism (p. 56).	Interpretivist (p. 56).	Pragmatism (p. 66).
(Easterby-Smith et al., 2008)	Synonym for philosophy.	Synonym for paradigm. Use term 'traditions'.	Positivism (p. 57).	Social Constructionism or constructivism (p. 59).	Realism & relativism. Traditional, internal, transcendental & critical realist.
(Maylor & Blackmon, 2005)	Not used.	Ontological assumptions (p. 155).	Scientific approach (p. 140, 153).	Ethnographic approach (p. 140, 153)	Not used.
(Saunders et al., 2009)	Functionalist, interpretive, radical humanist & structuralist,	Positivism, Realism, Interpretivism, Pragmatism	Positivism (p. 113).	Interpretivism (p. 115-116).	Realism: direct and critical (p. 114-115).

	(p. 120).	(p. 108).			
(Stokes, 2011)	Functionalist, Interpretive, radical humanist & structuralist, p 94.		Positivism (p. 99).	N/A.	Critical realism (p. 30-31).
(Walliman, 2011)	Brief explanations.	Uses term theory.	Positivism (p. 21).	Relativism, interpretivism, constructivism, constructionism idealism (p21).	Critical realism (p 24-25).

The social sciences evolved with the industrialization in the 19<sup>th</sup> century when researchers addressed their attention to organizations and the associated social phenomena (Yin, 2009). Initially, researchers used the approaches of positivism, these methods however received criticism from an increasing number of scientists and philosophers who felt that human behaviour and feelings and the processes within organizations cannot necessarily be measured by quantitative methods (Stokes, 2011). This conflict produced a new tradition of thought suggesting that researchers should gather information by talking to human beings or observing their behaviour (Peräkylä & Ruusuvuori, 2011). To gather the empiric information the researcher needs to get involved. By this he influences the research subject and result due to his own bias of knowledge and personal background (Denzin, 2011). Instead of independently measuring data the researcher should interpret the situation or describe how the subjects of a particular study interpret the world around themselves (Lincoln et al., 2011).

The acceptable knowledge is therefore constructed by the researcher and the researched subject (Bryman & Bell, 2011; Saunders et al., 2009). For that reason this new tradition of sought, research philosophy or epistemology is termed “interpretivism” (Cavana et al., 2001; Saunders et al., 2009), “(social) constructionism” or “constructivism” (Easterby-Smith et al., 2008, p. 59) and “relativism” (Walliman, 2011). Some authors call this the “second extreme position” or philosophy, others use the term “ethnographic approach” (Maylor & Blackmon, 2005, p. 140).

Table 17: Epistemology, the conflicting two main philosophies

<b>Category</b>	<b>Positivism</b>	<b>Interpretivism</b>
Aim	Discover universal laws to predict human activity.	Uncover the socially constructed meaning of reality.
Assumptions	Objective world	Subjective world
Axiology, values	Research unbiased and value free	Research value-laden and biased.
Epistemology	Objectivism.	Subjectivism or constructivism.
Finding	Measure.	Meaning.
Ontology, reality	Objectivism.	Subjectivism, constructivism.
Origin	Natural scientist.	Social science.
Relation to theory	Deductive, hypothesis testing.	Inductive, develop new theory
Research methods	Experiments; questionnaires, data analysis; statistical analysis.	Ethnography, observation; interviews; focus groups; case studies.
Research plan	Rigorous, linear and rigid.	Flexible, adapts during research.
Researcher type	Resources.	Feelings.
Role of the researcher	Context free, independent and stands apart from research.	Context bound, is fully involved with research subjects.
Structure	Structured to facilitate replication	Structure situation dependent
Typical functions.	Operations, Finance, Marketing.	Organizational Behaviour,HR.
Typical methodology	Quantitative.	Qualitative.
Typical questions	What? How much?	Why? How?

Sources: (Bryman & Bell, 2011; Collis & Hussey, 2009; Creswell, 1998; Denyer & Tranfield, 2006; Denzin & Lincoln, 2011b; Easterby-Smith et al., 2008; Saunders et al., 2009; Stokes, 2011)

Walliman (2011) considers that relativism, idealism, constructivism, or even constructionism are synonyms for interpretivism. In this doctoral study the term interpretivism will be used, primarily because the literature review revealed it as the most commonly used term and additionally because it is believed the term interpretivism thoroughly describes the process of interpreting the research results. Table 17 compares in more detail the two main competing epistemological positions and research philosophies and illustrates how positivism and interpretivism differs in various categories.

Bryman and Bell (2011) assert that researchers shall primarily decide between quantitative versus qualitative strategies rather than between the epistemological positions of positivism or interpretivism. They suggest that another form of describing the differences is “the fact, that quantitative researchers employ measurement and qualitative researchers do not” (p. 26).

Regardless of the approach, the result of the research design should be the same as the choices about epistemology and methodology are strongly interlinked as shown in Table 17. The overview provided in Table 17 can be regarded as an oversimplification, however it does provide a useful “basic set of distinctions” (Bryman & Bell, 2011, p. 27) to summarize the main differences and definitions. There are examples where the elements of the two columns are not exclusively interlinked to each other in all situations. For instance, prominent studies exists where qualitative studies evaluated existing models rather than generate new theories (Bryman & Bell, 2011, p. 27). As guidance the comparison made in Table 17 is considered as helpful and will therefore be used further in the course of this study.

### **3.3.3 Realism as choice for this doctoral study**

As discussed before this doctoral study is guided by a research philosophy that lies in between positivism and interpretivism. The two contrasting traditions positivism and interpretivism are considered too extreme when it comes to analysing real life business issues and situations. The research philosophy applied in this thesis is therefore best represented by realism (Bryman & Bell, 2011; Saunders et al., 2009) and not critical realism (Bhaskar, 1989; Fleetwood, 2012). Positivism is discarded because of the common criticism that research in the area of business and people management cannot be entirely value free and the researcher is not independent from the research. In particular positivism does not fit to the research questions or support a qualitative approach (Bryman & Bell, 2011; Saunders et al., 2009). Interpretivism is also rejected because problems in

business are not entirely unique and subjective. It is likely that certain patterns are similar in different organizations and common rules to solve problems can be derived (Bryman & Bell, 2011; Saunders et al., 2009). It can be argued that a practitioner and realist by nature is critical with regard to extreme positions. Table 18 shows the commonalities and critique of realism as applied in this study versus positivism and interpretivism.

**Table 18: Commonalities and differences of realism with positivism and interpretivism**

	<b>Commonalities with realism</b>	<b>Critique of realism vs. the two extremes</b>
Positivism	Quantitative data can be used to research the underlying external reality objectively.	The researcher cannot be independent and is always biased.
Interpretivism	Gathering qualitative data by interacting with human beings can be an important element of understanding organizations.	Organizations and their structures and processes do not just exist in the mind of humans. Those are not just socially constructed.

Sources: (Bhaskar, 1989; Bryman & Bell, 2011; Cavana et al., 2001; Collis & Hussey, 2009; Easterby-Smith et al., 2008; Maylor & Blackmon, 2005; Saunders et al., 2009; Stokes, 2011; Walliman, 2011).

Building on the previous paragraphs the underlying philosophical assumptions and viewpoints as used in this thesis can be described as follows. In my view the most important and appropriate way of understanding organizations – and in particular answering ‘why’ questions is by gathering qualitative information through direct interaction with humans working in or for organizations. There needs to be a degree of scepticism about gathering quantitative data in order to address any sort of questions, even when addressing ‘what’ questions. I do not believe that researchers in the area of organizations can be independent. Measurements in the natural science also always influence the measurement result, however mostly in a calculable and negligible way (Ashcroft, 1976; Daintith, 2009). Likewise researchers in the social science also always influence the research result, however the extent is much harder to predict and should therefore by default not be disregarded.

On the other hand I believe that organizations and their structure exist objectively and are not just a subjective construct of humans. The use of quantitative data can be helpful, for instance when analysing the number of employees, sales revenues and profit margins. Further on I believe that thorough analysis of qualitative information can and shall be used to make assessments of how certain ideas and trends are supported within the organization. The important aspects here are not to seek statistical relevance but to put the results in context with the interviewees, the structure and all other relevant internal and external environmental factors. So the acceptance of reality is combined with a need to develop a critical view.

### **3.3.4 Realism and critical realism**

Throughout the entire doctoral journey it was considered whether the research philosophy should be called 'critical realism' or simply just 'realism'. Various textbooks about business and management were analysed to better understand their definition of realism and the alternative philosophy that lies in between positivism and interpretivism (Bryman & Bell, 2011; Saunders et al., 2009). The brief summary of this analysis is provided in Table 18. Cavana et al. (2001) asserts that the philosophy between positivism and interpretivism is critical without mentioning the word 'realist' or 'realism' whereas Collis and Hussey (2009) consider the mean option as pragmatism. Easterby-Smith et al. (2008) use realism and relativism as synonyms and then distinguish between the variants of traditional, internal, transcendental and critical realism. The definition of relativism used by Walliman (2011) is very different from the one used by Easterby-Smith et al. (2008) who defines relativism as a variant of positivism – rather than an opposing paradigm - that requires large samples and favours mixed methods, such as survey and semi-structured interviews. Bryman and Bell (2011) provide an unequivocal definition which distinguishes between two major forms of realism, empirical realism and critical realism. They consider empirical realism as naïve believing that "through the use of appropriate methods, reality can be understood" (p. 17). Referring to Bhaskar (1989) they see critical realism as a deeper and more critical form of analysing the underlying structures and processes. "What makes critical realism critical is that the identification of generative mechanisms offers the prospect of introducing changes that can transform the status quo" (Bryman & Bell, 2011, p. 17). Saunders et al. (2009) describe the two variants direct and critical realism. According to Saunders et al. (2009) with regard to interpretation of data a direct realist believe that "what you see is what you get" (p. 114) whereas a critical realist view that "what we experience are sensations" (p. 115). Another way of describing the difference between direct and critical realism according to

Saunders et al. (2009) is the manner in which one experiences the world. Direct realists believe that certain things or events convey sensations at the level of the human observer. The critical realist focuses on the mental processing that goes on after the sensation meets our senses (Saunders et al., 2009, pp. 114-115). None of the described variants of realism, namely critical, direct, empirical, internal, traditional and transcendental, perfectly describe the philosophical point of view followed in this thesis.

Roy Bhaskar is considered to be the father of the theory of critical realism (Bryman & Bell, 2011; Saunders et al., 2009). Consequently his original sources as well as literature about Roy Bhaskar's work and critical analysis in general was analysed (for example Archer, 2007; Bhaskar, 2008; Collier, 1994). Mingers (2000, p. 227) for instance lists the "four aspects of being critical" as "rhetoric", "tradition", "authority" and "objectivity." From a practitioners point of view these aspects are considered as typical behaviours of a realist person, manager and researcher without the specific need of mentioning the word 'critical'. Although it is considered that 'critical realism' may describe well the research philosophy of this thesis it was decided after thorough analysis and discussion to omit the word 'critical'. The primarily reason for this conclusion lies in the direct link of critical realism with Roy Bhaskar's philosophy, which does not entirely reflect the philosophical beliefs as applied in this thesis. This is in particular the case because conversations with lecturers and researchers in the field of MNCs revealed disagreement regarding Roy Bhaskar's status as a representative of a certain political school of thought. This thesis does not want to make any political statement, other than to state that from a realist standpoint extreme positions are disliked and rejected. This is applicable in all environments, such as academic, business and as well political. In fact it is viewed that a realist may sympathise with views from different political extremes equally as to sympathise with certain elements of both extreme philosophical positions positivism and interpretivism. This study should be seen as independent from any author's particular view or any political categorization. Apart from these considerations Prof. Barry Davies encouraged me in various lectures and conversations that there is no need for the word 'critical' These considerations nurtured the conclusion to use the term 'realism' and explicitly not use the word 'critical' in order to describe the research philosophy by which this thesis is guided.

### **3.3.5 Linking realism with the methodologies and methods used**

The research paradigm of realism as used in this study assumes that there are not just visible effects or phenomena, but that there are also casual effects that influence these effects and phenomena. Organizations have real impact on the life of people and are not just constructed in the mind of people. Bosses for instance determine hiring, firing, promotion, salary and organizational charts indicate hierarchical relationship and potential flows of information. On the other hand it is assumed that there is not just one single universal reality in organizations but there are rather perceived realities of individuals in organizations. By the research design and methodologies and methods applied it is intended to reveal the causality in German technology MNCs identifying the visible and hidden forces, such as the distribution of decision power.

## **3.4 Research methodology and method**

### **3.4.1 Qualitative and quantitative methodology**

Prior chapters described and discussed in detail the view as applied in this thesis with regard to values in research (axiology), the definition of reality (ontology) and what is considered as acceptable knowledge (epistemology). The view of the world as applied in this thesis is best described primarily by the point between the interpretivist and functionalist paradigm as shown in Figure 25 and Table 15 as well the research philosophy of realism, which lies between the two extremes of positivism and interpretivism. This section will explain how the empirical information was collected and how this information is related to theory and the existing literature and knowledge. This thesis will therefore distinguish between the terms 'methods' and 'methodology' using the definition suggested by Saunders et al. (2009, p. 595):

“Method: The techniques and procedures used to obtain and analyse research data, including for examples questionnaires, observation, interviews, and statistical and non-statistical techniques.”



“Methodology: The theory of how research should be undertaken, including the theoretical and philosophical assumptions upon which research is based and the implications of these for the method or methods adopted.”

Inquiry into research methodology is considered by many authors a question regarding the benefits of quantitative versus qualitative research (Bryman & Bell, 2011; Saunders et al., 2009). Bryman and Bell (2011, pp. 26-27) consider this distinction of principal importance and their text on business research is organised around these two options. The decision about quantitative or qualitative research in many cases directly implies many of the other research choices as shown in Table 17 and discussed previously.

Business and management research following a quantitative methodology usually gather and measure information numerically, such as in the natural sciences. Information is typically collected using questionnaires that can then be evaluated statistically; the term quantitative research was derived from this methodology. The binary opposite of gathering numeric data is the collection of information based on words harvested by observations or interviews. Many textbooks use the term “qualitative data” which is considered as misleading because the word ‘data’ suggests the collection of primarily numeric information. In this study therefore the term ‘qualitative information’ will be used. The term qualitative as opposed to quantitative methodology is also considered to be incorrect, as qualitative information can also contain quantitative data (Bryman & Bell, 2011; Saunders et al., 2009). Despite this flaw the term qualitative research will be applied in this thesis as this is the commonly used term in business research literature (Bryman & Bell, 2011; Saunders et al., 2009). The two typical opposing methodologies and methods can be described as follows. In a quantitative typically deductive approach the researcher prepares very well before sending out the questionnaire and knows exactly what to look at. Once the questionnaire is sent out the results needed to be analysed and briefly summarized. In a qualitative typically inductive approach the researcher of course also needs to prepare well, however it cannot be guaranteed that the required data saturation is reached (soon) and therefore no guarantee can be given, that the data from the interviews will lead to the creating of new theory or hypothesis (Easterby-Smith et al., 2008). To come to the decision which methodology and methods to be used in this doctoral thesis it is helpful to review the research questions, which are:

1. How do German MNCs distribute decision power in their matrix organizations between headquarters and local subsidiaries?

## 2. Why do German MNCs distribute the decision power in this particular way?

To answer 'why' and 'how' questions, the most appropriate method is collecting qualitative information such as conducting semi-structured interviews, because the flexible interaction of the interviews gives the researcher the chance to rephrase questions and focus on specific issues in order to get to the core issue (Bryman & Bell, 2011; Saunders et al., 2009).

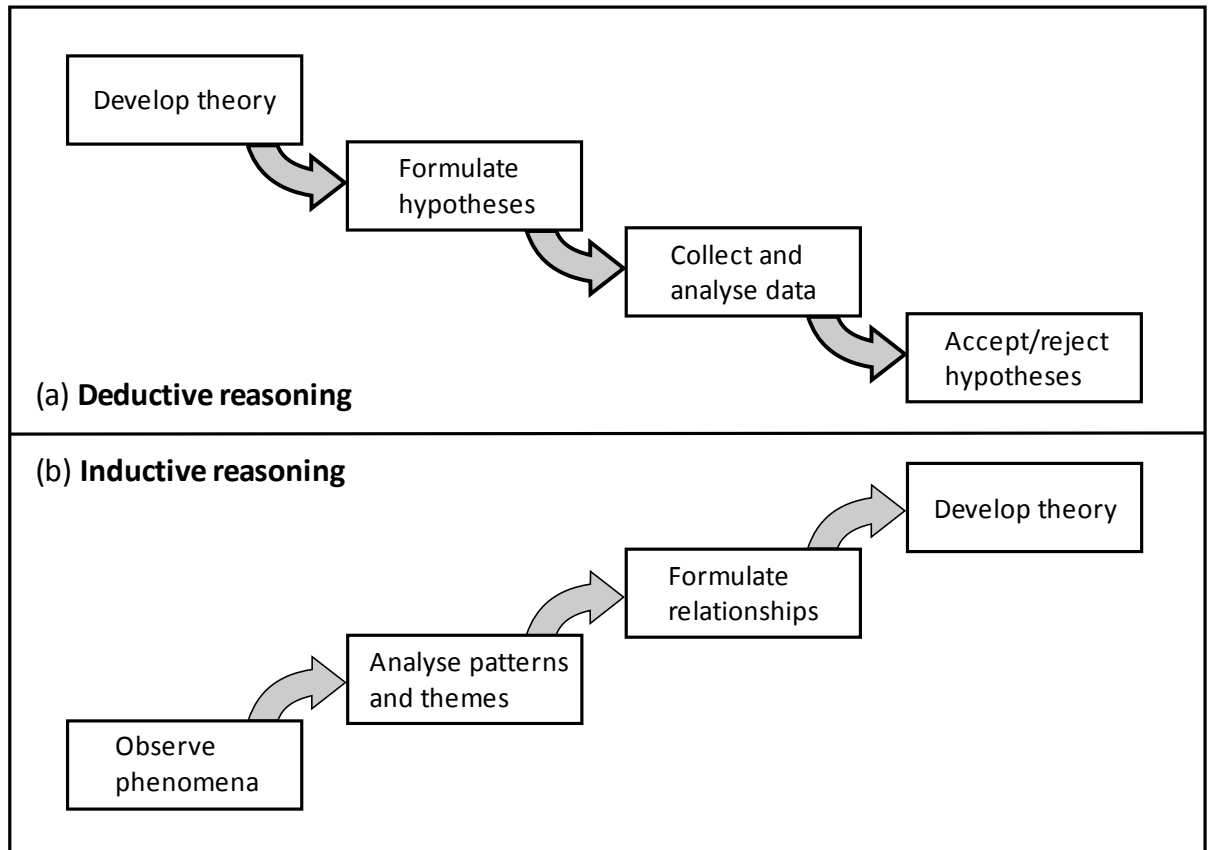
Apart from semi structured interviews there are two further methods of information collection via interviews, namely structured and unstructured interviewing (Bryman & Bell, 2011; Cavana et al., 2001; Saunders et al., 2009). A structured interview is conducted as a quantitative form of data collection asking the same (closed) question to answer 'what' and 'how much' questions (Adams, 2010). It is considered important to allow the interviewer to react to the answers given and to rephrase questions in case the response does not adequately the question. Informal interviews on the other side are considered to be too unstructured and pose the risk of not sufficiently addressing the research question (Woods, 2013). Semi-structured interviews combine the advantages and disadvantages of structured and informal unstructured interviews (Galletta, 2013). This information collection method encourages focus on the research questions and objectives and ensures the necessary flexibility during the interview process (Adams, 2010; Drever, 1995).

### 3.4.2 Inductive and deductive approach to relate theory and research

There are two main ways of relating research to theory. Deduction is rigorous testing of existing theory and hypotheses by using quantitative methodologies with statistical analysis and follows a positivist research philosophy. Induction is creating new hypotheses and theories by observation and the identification of common patterns and usually linked to qualitative methodologies (Bryman & Bell, 2011; Saunders et al., 2009). Figure 26 summarizes the main differences between an inductive and a deductive approach. A deductive approach uses a highly structured form of quantitative data collection in an attempt to understand 'what' is happening. The collected data is used to test existing theory. The researcher claims to be independent with no influence on the outcome. An inductive approach employs a more flexible structure of collection qualitative information in order to understand 'why' things are happening. The gathered information is used to

generate a new theory or refine an existing theory. The researcher acknowledges influence on the outcome of the research.

Figure 26: Differences between Deductive and Inductive approach



Source: (Cavana et al., 2001, p. 36).

Certain textbooks suggest that performing a deductive approach poses less risk of failure assuming that the questionnaire for quantitative data gathering is well-defined and the sample proven to be representative (Bryman & Bell, 2011; Saunders et al., 2009). Further recommendations suggest that doing a qualitative approach is not necessarily recommended for researchers with limited experience. Initially, I believed to be an inexperienced researcher. However, after further reading and thought it was concluded, that I am potentially sufficiently experienced in the subject area of this research and that various management assignments trained me to be experienced in interviewing people and gathering information. These are important if not mandatory qualifications when conducting interviews (Adams, 2010; Drever, 1995). The earlier description might lead one to expect that this thesis only follows an inductive approach to generate a new theory, because of the decision

to pursue the methodology and method of qualitative information gathering by conducting semi-structured interviews. However, this does not encompass the research approach. A combination of theory creation, testing, refinement and rejection will be applied. As discussed previously and shown in Table 14 the choices about epistemology, ontology, axiology and methodology are interlinked, however not exclusively. Bryman and Bell (2011, p. 27) refer to prominent studies where qualitative studies tested theories rather than generate new ones. This study will primarily generate new hypotheses and theory and will also refine and test existing theory. This dual approach is in line with the philosophical stance as realist rejecting extreme categories and stereotypes. Primarily, following the research paradigm of a moderate interpretivist this thesis also follows the theory of implementing gradual changes without rejecting radical changes of deemed appropriate.

This study will therefore analyse how the interviewees reflect on certain theory. This is not meant to be testing of theory in a statistical sense as applied by classical positivist research, however it is still an important piece of information how the interviewees respond. Consequently, this will have an impact of what is suggested as new or refined theory. The outcome of the analysis can be the generation of new theory currently not covered in the literature. Another outcome can however also be the hypothesis that certain theories suggested by some authors are potentially true or relevant. This means this research project can also be used for testing theory.

### **3.4.3 Time horizon: cross sectional vs. longitudinal**

The focus of a longitudinal study would be rather on the same organization and or people over a longer period of time; the comparison would be between the different time intervals rather than between the different organizations and/or people (Saunders et al., 2009).

The focus of this research project is cross-sectional and studies a certain pattern in a limited time-window. The approach is to compare different people and organizations and as well their strategies to manage matrix organizations in a specified time period (Saunders et al., 2009).

### 3.4.4 Mono, Multiple and mixed methods

There is much debate about the academic benefit of mixing methods (Creswell, 2011; Teddlie & Tashakkori, 2011). For example, researchers consider testing a theory by quantitative methods after a theory is developed or refined as a result of qualitative data gathering, such as semi-structured interviews (Cavana et al., 2001; Collis & Hussey, 2003; Saunders et al., 2009). There are three different options (Bryman & Bell, 2011; Cavana et al., 2001; Saunders et al., 2009).

- Mono method (qualitative) study.
- Multiple method (qualitative) study.
- Mixed methods approach, using qualitative and quantitative approaches to gather data.

Based on the underlying assumption that in this doctoral study semi-structured interview would be conducted, the questions had to be answered whether other qualitative methods like archival research or secondary data research should be used, which is called multiple method approach (Bryman & Bell, 2011; Cavana et al., 2001; Saunders et al., 2009). The other option would have been to add to the qualitative information gathering by semi-structured interviews and quantitative methods such as a questionnaire or survey, which is called mixed method approach (Bryman & Bell, 2011; Saunders et al., 2009).

The views of those authors that suggest the mixing of quantitative and qualitative methods as helpful in many business situations is supported. However, in a doctoral study it is considered that consistency in methodology, methods, philosophy and paradigm as of primary importance. What is considered as evidence and truth in business may not be considered such in academia. This view is confirmed by business and management research textbooks that advise following a mixed method approach as potentially risky due to reasons of consistency with regard to epistemology, research philosophies and paradigms (Bryman & Bell, 2011; Cavana et al., 2001; Denzin & Lincoln, 2011b).

For that reason this study follows the mono-method approach, i.e. information is gathered qualitatively by conducting semi-structured interviews. Both multi-methods and mixed-method are possible options. It is suggested that these options are more appropriate for a different research project.

### **3.4.5 Credibility, reliability and validity**

This study is aware of the common criticism with regard to reliability and validity of qualitative research (Bryman & Bell, 2011; Saunders et al., 2009; Silverman, 2006). Semi-structured interviews are always unique and the exact results of the interview can neither be reproduced nor predicted unlike experiments in the natural sciences. However, it follows those researchers that firmly believe that the chosen research approach can be valid and reliable (Bryman & Bell, 2011; Saunders et al., 2009; Silverman, 2006). It lies in the nature of qualitative research, that the researcher influences the results. Reliability and validity is reached through data saturation and the subjective interpretation of the researcher. Pure objectivity in the sense of positivism and the natural sciences is not aspired to and not regarded as possible.

## **3.5 Information gathering via semi structured interviews**

### **3.5.1 Personal one-to-one or focus group interviews**

It was decided to conduct personal one-on-one interviews with one exception as will be explained further below. This approach allowed me to focus entirely on the interviewee. It gave me the chance to re-phrase questions and cover specific and new topics and ideas that arose during the interview. Confidentiality and comfort for the interviewee and me prompted the one-on-one interview format. In one case, which was approved prior to the interview - the interviewee was joined by a friend who was also an experienced manager in German technology MNCs and who complied with the other selection criteria, that will be discussed later. The input of both participants was considered separately and the interview was counted as one.

### **3.5.2 Selection of interviewees and potential conflict of interest**

As discussed earlier after reviewing the literature about business and management research it was concluded that the best and preferred way to gather empirical information and to respond the

research questions and the underlying philosophical assumptions was to conduct semi-structured interviews (Bryman & Bell, 2011; Saunders et al., 2009). The primary interviewee target group for this research project were managers in German technology MNCs with experience in managing the relationship between Headquarters and local subsidiaries.

The rather conventional method for interviewee selection would have been to select interviewees from a broad variety of German technology MNCs as well as representatives from different functions and different work experiences both in HQs and LCs. In contrary I decided however to recruit the interviewees from my extensive network of business and personal contacts. The reasons for this more narrow approach are twofold.

First this research is based on the assumption that the researcher is strongly influencing the research process. This is why it is important to be able to analyse the extensive material of a semi-structured interview in the light of the relationship between the interviewer and interviewee and specific professional experiences. Contacting previously unknown interviewees increases the risk of lacking trust and knowledge, perhaps resulting in misunderstanding and interviewees potentially not opening up in a sufficient manner. I am convinced that it is much easier to have a much more open, honest and more insightful interview if there is a personal relationship and trust between the interviewer and the interviewee.

The second reason for selecting my own network for interviewee recruitment lies in the fact that my doctoral thesis is completely decoupled from my work environments throughout my doctoral journey. Several of the German technology MNCs in question however had or have business relationships with one of my previous employers or current employer. It would have been impossible to maintain this decoupling and to avoid any conflict of interest when recruiting new interviewees among the list of Germany technology MNCs.

As my broad private and business network represents experienced matrix managers from a variety of MNCs, work experiences in different countries, functions and business types I concluded to opt for using my own network when recruiting the interviewees. Given the need to connect with people and the related need to construct distance in the interview only interviewees were selected who did not maintain a business relationship with me in my work environment at the moment of the interview. Participating as interviewee in this research project was a personal unconditional favour that the interviewee granted to me. Potential interviewees were excluded from the long list of participants if a potential link to my current work environment was identified. The number of interviewees was consequently limited and important information and insight with regard to the research questions and objectives may have been missed due to this limitation. The potential risk of a too narrow focus

was accepted for the opportunity of gaining much deeper insight. This limitation and focus is a natural feature of qualitative research (Adams, 2010; Galletta, 2013; Wengraf, 2001) why it was accepted.

However there is still a potential risk, that some interviewees were influenced by my previous or current job as they may have linked it to their private or professional current and future plans. The answers given might have been different towards other researchers or in other circumstances. This is considered as typical defect of qualitative research that cannot entirely be avoided as discussed before. Great care was taken that the mentioned decoupling was understood. In conclusion the decision was taken that no interview needed to be discarded for reasons of conflict of interest.

### **3.5.3 Number of interviewees and information saturation**

From an industry practitioners point of view it would have been sufficient to interview 5 to 10 industry experts for this kind of study. However, for a doctoral study it was necessary to show that saturation of information was reached with the interviews (Bryman & Bell, 2011; Saunders et al., 2009). It was therefore planned at the beginning of the research phase to conduct at least 20 interviews and to verify during the analysis process whether additional interviews were needed. Eventually 31 interviews were conducted as will be described and shown later. To select the potential interviewees I scanned my private and business contacts for those matching with all of the following criteria:

- Experience in managing the relationship between headquarters and local subsidiaries of a German technology MNC.
- No potential conflict of interest with my current or previous work environment.
- Interviewee would do me a personal favour to participate in the study.

After the analysis of the 31 interviews it was concluded that no new information was emerging from the interviews; in the literature this is described as (data) saturation (Bryman & Bell, 2011; Saunders et al., 2009). It was therefore decided to not conduct any further interviews.



### **3.5.4 Telephone interviews instead of one-to-one**

Some of the interviews were conducted via telephone due to logistical and timing reasons of the interviewees. It was decided to conduct all the interviews in a time frame of approximately three to four months in order to reduce the time span between interviewing and analysing the data. This limited time was considered beneficial because it was helpful for the analysis to remember and to refer to the content and details of the different interviews. Attention to time was in addition significant due to constant flux in the global economy and particularly the business environment of the interviewees. Consequently, the conclusions drawn from this study are based on interviews and views and evaluations of experts in the field of this study from a quite similar time span, which is an important element of this study due to the decision to follow a cross-sectional rather than a longitudinal time horizon. However, telephone interviews possess certain flaws and associated disadvantages include not recognizing body language and gestures (Bryman & Bell, 2011; Saunders et al., 2009). It can be argued from a practitioner's point of view that a senior manager with many years of international experience is accustomed to conducting meetings via telephone or video conference. It can further be argued that those telephone or video conferences can be used efficiently if the participants know each other well (Bryman & Bell, 2011; Denzin & Lincoln, 2011b; Saunders et al., 2009). I knew all but one participant personally with whom a telephone interview was conducted and it is considered that those interviews were as valid as personal meetings for the purpose of this research.

### **3.5.5 Duration of interviews**

All interviews were planned to last between 45 to 60 minutes. The main reason for this was that all interviewees were busy managers and it was difficult to find longer time slots in their agendas. In addition, it was realized when contacting the potential interviewees to participate in this doctoral research that two hours, which was the preferred time per interview, was considered as too long. It was decided to accept this limitation and the interviews were planned to last between 45 to 60 minutes. The shortest interview lasted just 30 minutes and the longest interviews lasted 75 minutes.

### **3.5.6 Interviewing in German, English and Spanish**

All interviewees were asked to select the language among German, English and Spanish in which the interview was to be conducted. The selected interview language was chosen by the interviewee, all decided to select the language where potentially least information was lost. For example one interview with a native Spanish speaker was done in German because the interviewee felt that he spoke better German than I spoke Spanish. In another case it was the other way around, the Spanish native speaker felt that my Spanish skills were better, than his English or German skills. Eventually 27 interviews were conducted in German, one in English and three in Spanish.

It is believed that this approach provided the least possible loss through translation. If the interview with a native German would have been conducted in English there would have been four translations, both interview partners would make permanent translations, namely German->English when speaking and English->German when listening. This tactic allowed for only one translation from German into English, which lessened stress and provided sufficient time for the interviews.

## **3.6 Research Ethics**

This research follows the University of Gloucestershire Research Ethics Handbook (University Research Degrees Committee, 2010). As personal and confidential information are used the rules given by the University of Gloucestershire webpage (Administrative Data Liaison Service, 2013; Moodle, 2013) were followed.

The interviews were conducted in a place where the interviewees felt comfortable, such in an office, a hotel, restaurant or private location. Several interviewees felt more comfortable conducting the interview via the telephone. No pressure was applied on the interviewees at any point in time and it was not tried to convince the interviewees who expressed a desire for a telephone interview. Each interviewee was granted the right to withdraw at any time before, during or after the interview. No interviewee withdrew from the participation of this study. To avoid any potential conflict of interest potential interviewees were selected with whom I have not had any commercial or business contact other than having worked for the same company at some point of time. All interview agreed with the informed consent form as shown in chapter 7.1. To guarantee anonymity the name of the

interviewees and the persons and organizations mentioned in the interview are disguised in this thesis. In the original transcript and my own notes the original wording and phrasing was used.

### **3.7 Analysis using the interview guide**

Based on the literature review, the research questions and the methodology described an interview guide was developed to help both the interviewee and interviewer to address all the desired questions. However as part of the design and definition of semi-structured interviews there was no obligation to exactly stick to the interview guide (Bryman & Bell, 2011; Saunders et al., 2009; Silverman, 2006). The first two questions were answered by all interviewees. In some cases the interview diverted as interviewees would directly jump to answer the questions about conclusions and their specific challenges and experiences. It was ensured that regardless of the order all the questions were covered, either by specifically asking each question or by checking whether the answer was already given as response of one of the other questions. The interview guide contained the following 11 questions:

1. Please give a brief summary of your academic and professional experience.
2. How would you define a matrix organization?
3. How was the design of the matrix organizations in your professional experiences?
4. Why was the design of the matrix organization done in that particular way?
5. What are the dimensions by which matrix organization were organised?
6. Do you have experiences in two-dimensional regional-product matrices?
7. How was the decision power distributed between HQ and LCs?
8. Why was the decision power distributed between HQs and LCs in that way?
9. What are your experiences (how and why) of other matrix forms?
10. What are the advantages and disadvantages of matrix organizations?
11. How and why should MNCs distribute the decision power between HQ and LCs?

## 3.8 Interview analysis

### 3.8.1 Interview logistics, recording and transcribing

The analysis of qualitative information cannot be completely disconnected from the gathering of information as is claimed to be possible in quantitative research. In qualitative approaches the researcher is context bound and biased and therefore influences and affects the data gathering process (Denzin & Lincoln, 2008, 2011b; Myers, 2009; Silverman, 2006).

One of the key challenges of analysing and interpreting semi-structured interviews is the vast amount of information. Myers (2009) predicts that the transcript of an one-hour interview is as long as 15 pages of text or 7,000 words (p. 166). As mentioned earlier the majority of interviews in this research project lasted between 45 to 60 minutes, 27 interviews were audio-recorded and transcribed. In addition handwritten notes were taken during all 31 interviews. They were transcribed within the next 48 hours after the interview. Those 59 documents ended up in 415 pages of printed text in DIN A4 format and approximately 190,000 words. In the case of this study, the approximation of Myers (2009) was confirmed. Myers (2009, p. 166) further suggests to transform the gathered information in a meaningful way by using the appropriate approaches of analysing the qualitative information. Taylor-Powell and Renner (2003, p. 1) in addition assert that “analysis and interpretation are required to bring order and understanding.”

With regard to questions of how to use the 27 audio recordings the suggestion of Saunders et al. (2009) and Bryman and Bell (2011) was followed, who recommend to transcribe the audio-recordings entirely and shortly after the interview. By this no information is lost or pre-selected prior to the analysis. To answer the questions of whether using an external professional service provider in transcribing the interviews Saunders et al. (2009, p. 486) suggest to evaluate the two main potential problems when using an external provider:

- “You will not be familiarising yourself with the data as you are not transcribing it yourself.”
- “The transcription will still require careful checking as errors can creep in.”

These potential problems were eliminated by a careful check of the transcript with the original audio file as well with the handwritten notes. As external provider a person was selected, who had been

working in the in the area of typing and transcription services for over 20 years. All interviews were transcribed by the same person, which is considered beneficial, as the person quickly became familiar with my voice and the general topic of the interviews. The quality of the transcripts is very good and contained only a few typing mistakes of unfamiliar names or terms. The most significant advantage of using an external service provider was the speed by which the transcripts were returned. This allowed me to check the transcripts with the original audio recording shortly after the interview and proceed with the interviews in a shorter time frame than if I had completed the transcripts on my own.

A spread sheet was used to keep track with the status of the interviews, transcript and transcript analysis. The same table was used to collect various kinds of information about the interviews and interviewees. The spread sheet tables contain the following information:

- Date and location of interview.
- Interview audio recorded.
- Status of transcripts.
- Informed consent form signed and returned.
- Type of interview (telephone or in person).
- Mother tongue of interviewee.
- Interview language.
- Language skills of interviewee.
- Working experiences in different kinds of MNCs and organizations.
- Type of job roles.
- Number of jobs.
- Geographic working experiences.
- Educational background and number of degrees.

### **3.8.2 Thematic analysis selected for interview analysis**

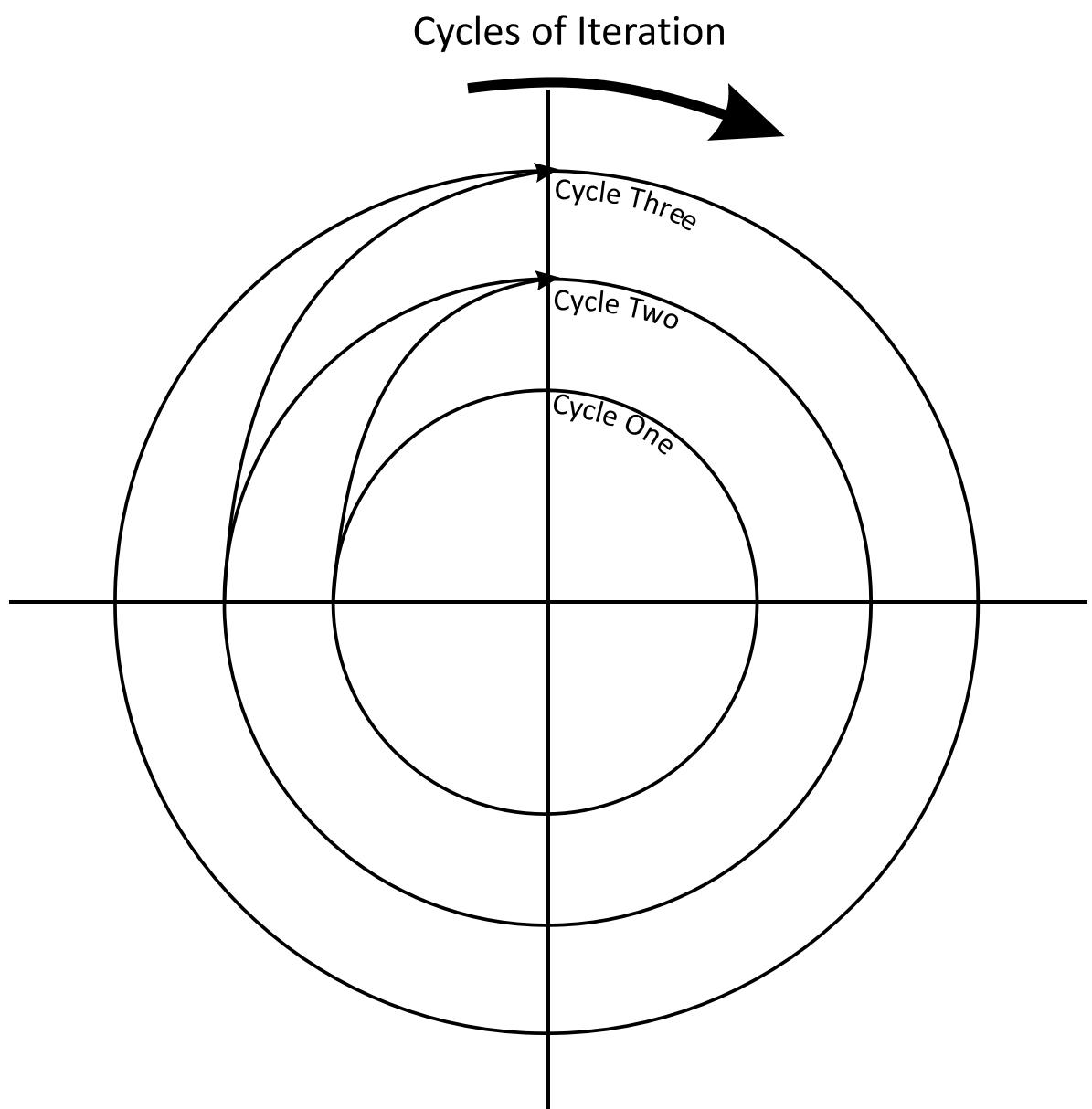
As a realist inclined to interpretivism, it is considered to be of utmost importance to listen to the interviewee while trying to interpret what he or she meant to say. The interviewee analysis process was approached rather intuitively by trying to read the subtext or theme within the responses of the interviewee. In other words - as discussed earlier - this study investigates the perceived reality of the interviewees. It is assumed that the interviewees did not intentionally lie, however I as researcher and interviewer was sensitive that interviewees potentially could have the notion of presenting the perceptions differently in order to impress me. By analysing the perceived reality the interview analysis tries to unveil what is relevant to the interviewees or what are the essential topics. Reviewing the literature about qualitative research and interview analysis (for example Wengraf, 2001; Woods, 2013) it is concluded that thematic analysis best describes the methods used in this thesis. Thematic analysis identifies common themes or topics that the interviewees mentioned. Conversation analysis (what was said?) was used by analysing and remembering the conversation. Discourse analysis (why was it said that way?) was applied by identifying the meaning of certain words or phrases. Simultaneously typification or coding of the text was applied by identifying recurring statements or topics. Narrative analysis (what is the story?) was used when reading the entire interview and reviewing the main messages and conclusions of the interview trying to identify the story that was told by the interviewee. Eventually also hermeneutic analysis (what is the meaning?) was applied by incorporating the previous interviews when conducting and analysing the remaining interviews.

### **3.8.3 Process for extracting themes from interviews**

After the completion and transcript of each interview, the interview analysis was started in concert with conducting further interviews. The analysis was started immediately after each interview rather than waiting until the completion of all interviews. The idea was to access my memories of the interviews to mark the parts that were recalled as of particular interests. The interview transcript was read and the parts that were considered important or relevant were highlighted. Notes were made on the paper to further explain the analysis or thoughts.

The exact words used were analysed and it was attempted to identify the interviewee's subtext or meaning. Then the main findings and conclusions of each interview were summarized. During that time the process of gathering ideas of general findings and conclusions that could be used as results of the thesis was started. This knowledge of analysis and my memories from the previous interviews were used while conducting further interviews. When all of the interviews and analysis had been conducted, it was reviewed how the conclusion would be supported by the interviews and defined what was said explicitly by the interviewees and what the interpretation was. I also tried to separate the findings of interviews from my personal beliefs and previous experiences as practitioner.

Figure 27: Expanding Spiral



Source: (School of Communication, 2013).

It is accepted that the interviews that were conducted in a later stage were influenced due to the analysis of the first interviews. It is however a typical feature of qualitative approaches that a researcher influences the outcome of the research by previous knowledge and experiences. A deliberate decision was taken not to do a pilot study because the information from all interviews was to be used and analysed in the similar way (Bryman & Bell, 2011; Myers, 2009; Saunders et al., 2009). Further it is considered to be beneficial to have done prior analysis of the first interviews as it improved the performance and focus during the later interviews. The later interviews were entered with knowledge of potential conclusions why it was easier to assess whether data saturation was reached and whether certain questions should be asked in a more precise way. The later interviews differed from the first interviews in the way that interviewees were asked questions about the opinion of statements made by previous interviewees. However, the statements of prior interviewees were reserved until the end of the session to limit undue influence on the current interview. The process of growing knowledge by various cycles of iterative interpretation toward an increased refinement of common themes is illustrated in the expanding spiral of Figure 27. "The structural model for the Cycles of Iteration is an expanding spiral. Each iteration builds on knowledge from the previous cycle" (School of Communication, 2013).

### **3.8.4 Process of information recording and reduction**

As previously mentioned, the challenge of qualitative research is to reduce the overwhelming amount of information – in case of this study 415 pages of DIN A4 text and 190,000 words – to manageable size without losing the main messages or meaning of the interviews. This challenge was faced by recording the interview analysis in a systematic structured way by using a large table as shown in Table 19. The responses of the interviewees to the eleven interview questions of the interview guide were summarized and translated into English where applicable. Some interviewees raised additional points or commented on subjects outside the scope of this doctoral study. These comments were summarized in an extra column "Further comments,"

After each interview the main messages and themes were summarized in a separate column as shown in Table 19. When starting the interview analysis the process of identifying common themes was started. It was apparent that some themes would potentially lead to certain conclusions. These conclusions were reflected in conjunction with the existing literature. This means that with the start of the interviewing process the literature review process was restarted. It was checked if and how



certain theories or conclusions were covered in the literature. The conclusions were refined and checked continuously in the parallel interviewing and analysis process. Afterward, it was considered which conclusions with regard to current or new theory and hypothesis could be drawn from all interviewees. The conclusions were listed and reflected upon how each interviewee specifically responded with regard to each conclusion. By this some conclusions were refined or changed which initiated a reflection on the new results. The final results are summarized in chapter 5.

It was considered to use computer-assisted qualitative data analysis software (CAQDAS) such as ATLAS.ti, MAXQDATA or NVivo as discussed in detail by J. Davidson and diGregorio (2011). Consultations with the supervisors, the co-students and with various web pages on the Internet were undertaken on whether to use CAQDAS software and which of the possible options was soundest. The conclusion drawn was not to use any CAQDAS software based on my relative inexperience with those programs. I did not feel comfortable using unfamiliar software for one of the most important parts of the doctoral thesis, namely drawing conclusions from the analysis of the interviews. It was decided to avoid the risk of losing time and chose to invest the time that would have been needed to learn to manage the software in reading and analysing the texts in a classical manner. I prefer paper printouts for reading and analysing, which allowed me the opportunity to perform the analysis in every moment of spare time, when commuting to work and while travelling.

**Table 19: Structured interview analysis**

	Interview question 1	....	Interview question 11	Further comments	Summary of main messages and themes per interviewee
Interviewee 1					
.....					
Interviewee 31					
Summary of main messages and themes per question					

## **4 Analysis of interviews**

The following chapter contains the results and findings of the interview analysis. First it will provide an overview of the interviews conducted and how the interviewees were chosen as well as information about the background and experience of the participants in this study. Following this chapter will analyse by thematic analysis those themes that emerged from the interview analysis.

Certain themes are more linked to one of the eleven questions from the interview guide than others. As each interview was unique some questions were not asked in some interviews and the focus given to certain questions was different in each interview. Further some interviewees addressed certain themes also while answering questions that were not necessarily related to that theme. For that reasons the interviews are analysed by thematic analysis.

Some interviewees also addressed issues that were not necessarily considered as direct answers to any of the questions. Those answers and comments were recorded in the analysis phase in a section called 'Further comments''. Those additional comments were also used in the iterative process of identifying the themes.

Quotes will be used in order to illustrate exactly what the interviewees said. The translation of the quotes of the interviewees was done with the objective of easier readability and understanding. Great care was taken to ensure that the original meaning or statement was not changed.

### **4.1 Overview of general information about interviews and interviewees**

A long list of 64 potential interviewees that all matched the selection criteria was identified. They were contacted via email or social media to verify their interest and availability to participate in this doctoral study. 44 answers were received and from that group, 42 interviewees were willing to participate; two declined participation. Eventually it was possible to arrange 31 interviews whereas for the other 11 interviewees no convenient timeslot was found. The 11 potential interviewees that could not participate did offer to contribute to the study at a later stage. The interviews were audio-recorded and transcribed in 27 cases. In two cases the interviewees refused to be recorded and in two additional cases recordings were not technically possible. Handwritten notes were taken during

all 31 interviews and within 48 hours after the interview it was transcribed electronically. For the transcription of the audio recordings a professional service provider was used. The transcript was checked with both the original audio recording as well with the handwritten notes. Adjustments or corrections were made where necessary. Table 20 summarizes the information about the interviewees and the interviews.

**Table 20: Information about interviews and interviewees**

<b>Description</b>	<b>Quantity</b>
Long list of potential interviewees	64
Answers received	44
Interview request accepted	42
Interviews conducted	31
Handwritten notes taken and transcribed electronically	31
Interview audio recorded and transcribed	27
Interview via telephone	20
Personal interview in office, private location, restaurant or hotel	11

The fact that almost all interviewees were audio recorded had two positive results. First it enabled me to focus more on interviewing than on taking notes. Additionally, giving my undivided attention to interviewees encouraged their confidence and led to the assumption that the interviewees were relaxed and felt comfortable during the interview. It is believed that most if not all of the interviewees responded with candour and expressed their true opinions and feelings.

20 interviews were conducted via telephone and 11 interviews in person either in an office, a private location, a restaurant or a hotel. As all interviewees – except two – were known to me personally and most of them very well over a long period of time it is considered to be acceptable to have done 20 interviews via a telephone conversation. While it is acknowledged that personal interviews are a better choice, if insisting on that format most of these interviews would not have been possible. It

was therefore decided to opt for the telephone interviews in order to conduct most interviews at dates close to each other in order to take advantage from the experiences made during the interviews and in order to incorporate new ideas. The interviews were conducted in the period from October 2012 until April 2013 within a bit more than half a year (195 days). However 27 interviews were conducted within a time frame of less than three months (78 days). Two more interviews were conducted in the following month, and the remaining two interviews each in one of the consecutive months.

The selection criteria did not include for certain quotas or targets of gender or geographic region of origin, however the interviewees resulted to be predominantly homogenous as shown in Table 21. Four interviewees were women and 27 interviewees were men, 27 interviewees were born and raised in Europe and four were born and raised in South America.

**Table 21: Further information about interviews: Gender, ethnic, skin colour, religion**

Description	Distribution of interviewees
Gender	4 female, 27 male
Geographic origin	27 European, 4 South American

## 4.2 Academic and professional experience of interviewees

An overview of the professional working experience and language skills of the interviewees is illustrated in Table 22, Table 23 and Figure 28. This information is taken from recollection and by using the professional social media web pages [www.linkedin.com](http://www.linkedin.com) and [www.xing.com](http://www.xing.com). All interviewees had an updated profile outlining their professional and academic experiences, 19 interviewees had a profile on both web pages. At the beginning of the interview all interviewees were asked to summarize their academic and professional experiences in order to verify that the interviewees were qualified to be interviewed about matrix organizations in German technology MNCs. The information given in the interview was compared with information available on public sites.

Table 22 shows the language related information about the interviews and interviewees. All participants were fluent in English and all but one in German. As 22 Interviewees had German as their mother tongue and as others were fluent in German the joint decision resulted in 27 interviews being conducted in German. No interviewee was a native English speaker, which explains why only one interview was conducted in English. Three interviews were conducted in Spanish. As mentioned earlier it is considered that the best way to conduct the interviews was to use the most convenient language combination for me and the interviewee. The risk of potential losses or misinterpretation of information due to translation is minimized by this approach.

**Table 22: Language related information about interviews and interviewees**

	German	English	Spanish	Other
Interview language	27	1	3	
Mother tongue of interviewee	22		5	4
Language skills of interviewees	30	31	14	15

Table 23 provides an overview of the professional experience of the interviewees. All 31 interviewees had experience working in the Headquarters of a German technology MNC and 23 also worked in a local subsidiary. All 31 interviewees had experience representing a product unit in Headquarters. The functions and levels of responsibilities in representing the product unit varied among the interviewees. In their specific roles each regularly dealt with local subsidiaries. Six interviewees had experience as the local CEO of a subsidiary of the MNC, i.e. they acted as one of the bosses of the product-regional managers. 22 of the interviews had working experiences with a specific product unit in a region or country. The functions and levels of responsibilities in representing both the product unit and the local subsidiary varied among the interviewees.

The term 'representing' instead of 'managing' or 'being responsible' is used deliberately because the interviewees were not necessarily the manager who was acting as CEO or general manager holding the P&L responsibility for the product unit in headquarters or in the local subsidiary. The organizational structures were different and a straightforward product-regional matrix did not always exist. Rather, various overlaying organizational structures existed at the same time. All interviewees in the first place used the term 'headquarters' and 'local companies', 'LCs' or 'local

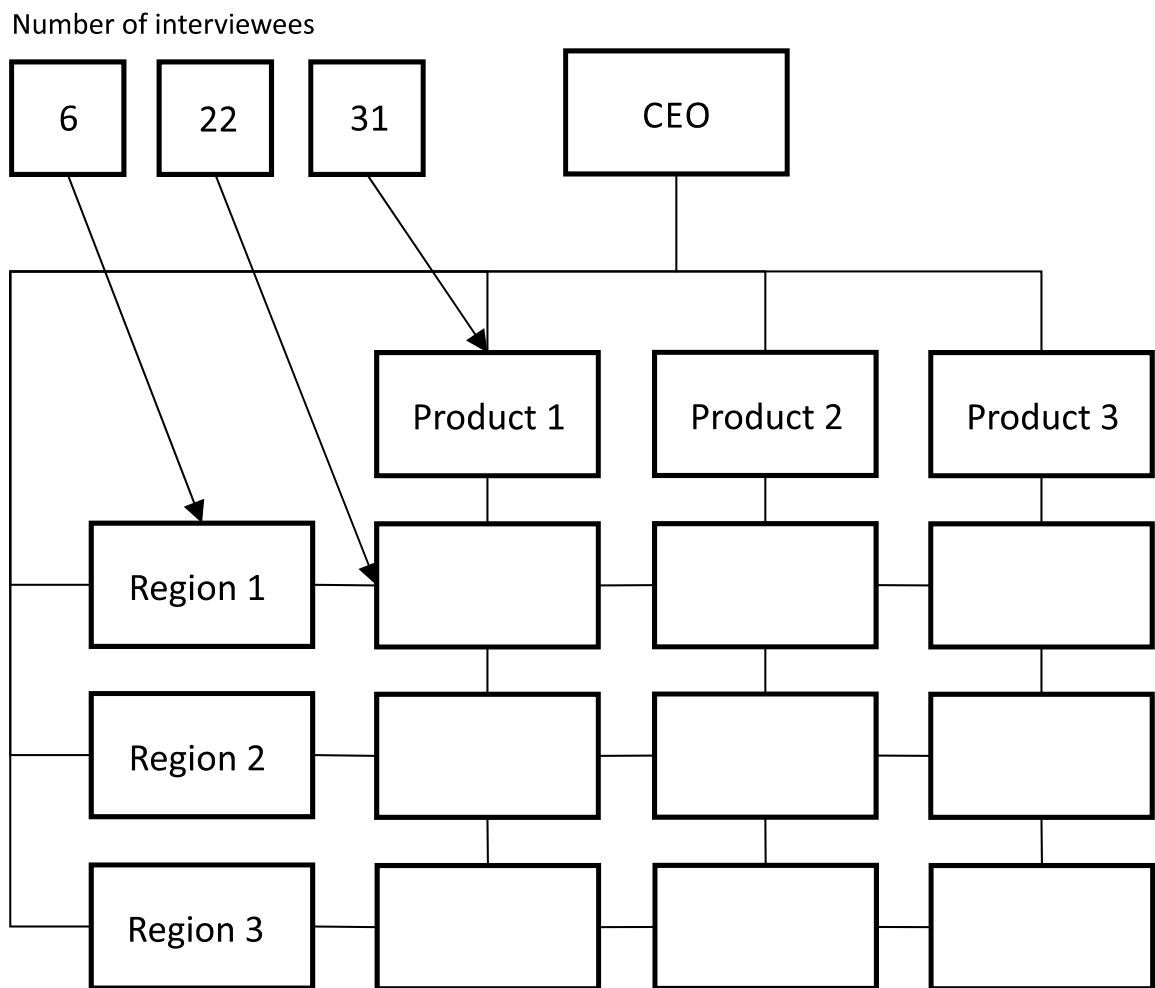
subsidiaries'. In the process of the interview it became clear to some interviewees that they worked in what could be defined as a product-regional matrix. As the interviewees were unaccustomed to the latest academic terminology they all had their own different ways of expressing themselves.

**Table 23: Professional experiences of the interviewees**

<b>Description</b>	<b>Quantity</b>
Working experience in Headquarters of German technology MNC	31
Working experience in local subsidiary of German technology MNC	23
Working experience representing a product unit in Headquarters	31
Working experience as country manager of a subsidiary	6
Representing a product unit in a specific country.	22
Working experience just in HQ representing a product unit.	9
Working experience in two functions, as representing in headquarters a product unit and also representing a product unit in a region.	16
Working experience in three functions as HQ product manager, as product regional manager and as country manager	6

Figure 28 illustrates the working experiences of the interviewees mapped to a typical two-dimensional regional-product matrix. It can be further seen in Table 23, that most interviewees had experiences in various roles. Only nine interviewees worked solely in functions representing a product unit in the headquarters. 16 had experience working in two functions, namely for a product unit in HQ and for a product unit in a local subsidiary. Six interviewees had experience working in all three functions, namely representing a product unit in headquarters and a region as well as regional or country manager.

Figure 28: Interviewee professional experiences in product-regional matrix



It is concluded that the interviewees were therefore able to provide a viable set of experiences in a two-dimensional regional-product matrix. It may be argued that the role of country manager is not sufficiently represented. This study follows a qualitative methodology and therefore does not seek any statistical relevance. The selection of potential interviewees was limited as mentioned earlier. In addition, it is concluded that all interviewees had suitable and relevant experience regarding the role and challenges of the regional manager. 22 of them had close relationships with the regional CEOs when representing a product unit in a specific region. Because the organizations in LCs are much smaller than in headquarters, there are naturally fewer hierarchical levels and most staff in a management or leadership position had regular contact. All of the interviewees had experience regarding the views, interests and needs of the regional manager, which shaped the decision to not seek further interviewees with regional CEO experience.

All interviewees hold at least one academic degree and 15 hold two academic degrees as shown in Table 24. 19 interviewees hold a degree in engineering or natural sciences, 20 interviewees studied business administration or economics, and two interviewees gained a degree in another area of social science. Five interviewees completed their studies with a doctoral degree. The conclusion is that all interviewees possessed the academic background necessary to analyse complex situations and structures. For that reason no interviewee was excluded from the analysis.

Table 25 provides an overview of the interviewees' total years of experience working in MNCs. It can be seen that only one interviewee had between six to ten years of MNC working experience. The majority of interviewees, 17 in total, had 11-20 years of MNC related experience, six interviewees worked between 21-30 years in MNCs and seven interviewees had between 31 and 40 years of experience working in MNCs.

**Table 24: Overview of the academic degrees of the interviewees**

<b>Academic degree</b>	<b>Number of interviewees</b>
One academic degree	16
Two academic degrees	15
Degree in engineering or natural sciences	19
Degree in business administration or economics	20
Degree in other social sciences	2
Doctoral degree	5

It is concluded that all interviewees had sufficient MNC work experience, why all interviews were considered for this analysis. An overview of the interviewees' working experience for German, European, North American and Asian MNCs is provided in Table 26 and Table 27. All MNCs were technology MNCs. The country label is based on the physical location of the headquarters. It can be seen, that all interviewees had working experiences in at least one German MNC.



**Table 25: Working experiences in MNCs of the interviewees.**

<b>Number of years of working experience</b>	<b>Number of interviewees</b>
Less than 6 years	0
6 – 10 years	1
11-20 years	17
21-30 years	6
31-40 years	7
More than 40 years	0

**Table 26: Working experiences of all 31 interviewees in MNCs**

Number of MNCs in which interviewees had working experience	Number of interviewees with working experience in different numbers of MNCs with HQ in Germany	Number of interviewees with working experience in different numbers of MNCs
1	10	7
2	17	14
3	4	7
4		2
5		1

10 interviewees worked for only one German MNC, 17 interviewees had experiences working for two German MNCs and four had worked for three German MNCs. Table 26 shows that some interviewees also had experience working in non-German MNCs. Seven interviewees worked for MNCs with headquarters in European countries other than Germany, five interviewees worked for

MNCs with headquarters in North America and one interviewee worked for an MNC with its headquarters in Asia. Only seven interviewees have experience with only one MNC, a German technology MNC. 14 interviewees worked for two different MNCs, seven interviewees worked for three different MNCs, two interviewees worked for four different MNCs and one interviewee worked for five different MNCs.

An important element of this study is the fact that most interviewees had the opportunity to put their work experience in matrix organizations in perspective to various MNCs. The interviews revealed that these interviewees constantly compared their working experiences in matrix organizations among the various MNCs in which they worked. The focus of experience for the majority of the interviewees stems from German technology MNCs.

**Table 27: Working experiences in different MNCs**

<b>Category of MNC for which the interviewees worked</b>	<b>Number of interviewees</b>
German technology MNC #1	26
German technology MNC #2	15
German technology MNC #3	4
Other German technology MNC	11
Other European technology MNC	7
North American technology MNC	5
Asian technology MNC	1

Table 27 illustrates that many interviewees worked for the same German technology MNC. 26 interviewees worked for the German technology MNC #1, 15 worked for the German technology MNC #2 and four worked for the German technology MNC #3. Most interviewees shared experience working for the same MNC, however not necessarily in the same country or department or business unit. 11 interviewees worked for a different MNC than the abovementioned three German technology MNCs. This study does not specifically address the fact that many interviewees shared their employer. The first reason is because most interviewees have worked for several MNCs and

presented their various experiences. In addition the experiences depend very much on the business unit or country environments which resulted in very different corporate sub-cultures even though they formally all belonged to the same MNC.

**Table 28: Working experiences per geographic region**

<b>Working experience in the geographic region of</b>	<b>Number of interviewees</b>
Germany	30
Europe except Germany	10
North America	6
Latin America	11
Africa	3
Middle East	1
Asia	5

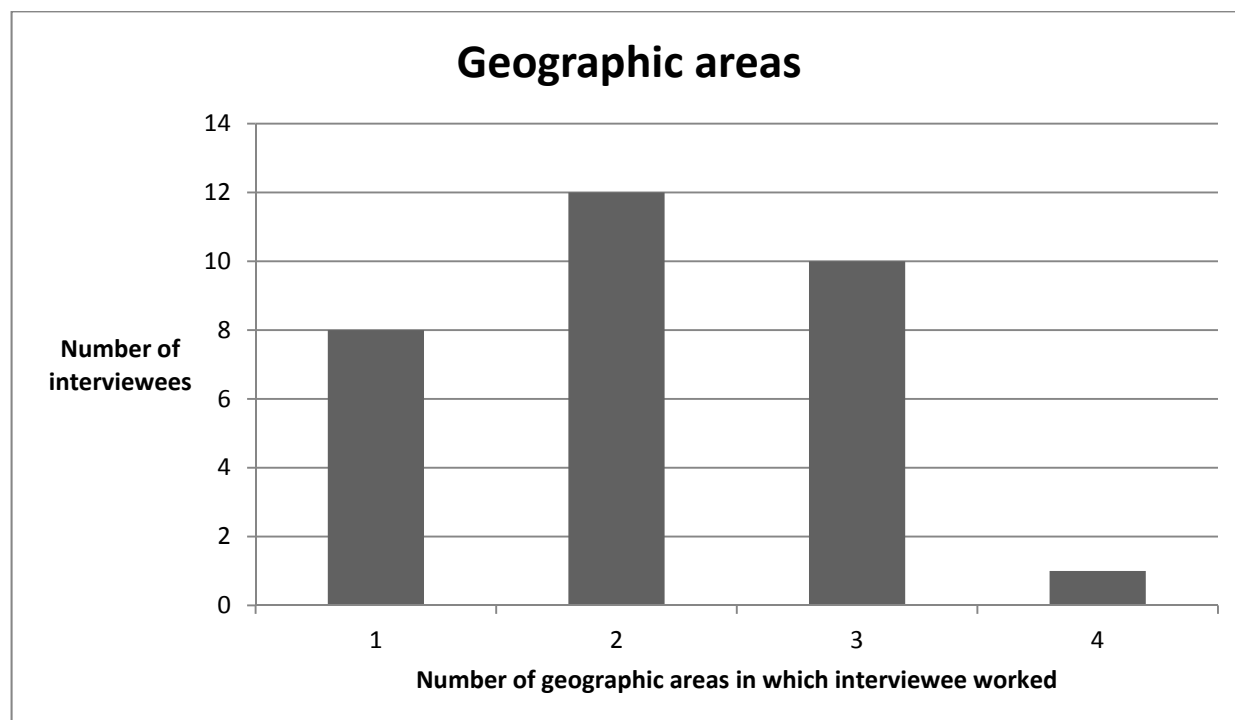
Table 28 provides an additional view on the work experience of the interviewees by focusing on the geographic area. The geographic area is where the interviewees were located permanently for at least a period of six months; frequent travelling to a geographic area or country is not sufficient to be accounted for in this list. It was a requirement that the interviewee had relocated and was a living in their own local residence. The working location as shown in Table 28 is not to be confused with the geographic location of the headquarters of the MNC as shown in Table 27.

The world was divided into the areas of: Germany, Europe with Germany excluded, North America, Latin America, Africa, Middle East and Asia. Germany was separated from the rest of Europe due to the German focus of this study.

Table 28 shows that all but one of the 31 interviewees have worked in Germany at some point of their career. 10 interviewees worked in other parts of Europe, six worked in North America, 11 worked in Latin America, three worked in Africa, one worked in the Middle East and five worked in Asia.

The focus of this study is centred on Germany due to the topic of this study and the pool of potential interviewees drawn from my professional network. However, most interviewees have broad international experiences. This is further outlined in Figure 29, which shows the number of geographic areas - according to the definition applied in Table 28 - in which the interviewees gained professional experience. Only eight interviewees had experience working exclusively in Germany, 12 interviewees worked in two areas, 10 interviewees worked in three areas and one interviewee worked in four areas.

Figure 29: Working experiences of all 31 interviewees in MNCs in different geographic areas



### 4.3 Detailed information of all interviewee

Detailed information is provided about all interviewees in this section. The information provided covers the same level of detail which is the base for the overviews presented in the previous section. Language related Information as shown in Table 22 and information about gender and geographic background as shown in Table 21 is not included in order to protect the identity of the interviewees.

For the benefit of readability the information about all interviewees is split in four tables. Table 29 covers interviewees 1 to 8, Table 30 covers interviewees 9 to 16, Table 31 covers interviewees 17 to 24 and Table 32 covers interviewees 25 to 31. The information is organized in that way that the first column of Table 29, Table 30, Table 31, Table 32 is identical and contains 27 different pieces of information or questions that can be either true, which is marked by 'X' in the following columns representing all 31 interviewees or false in which case the respective field is left blank.

There are certain dependencies between the 27 pieces of information. For instance the first seven questions show the work experience of the interviewees in different types of MNCs. All interviewees had work experience in at least in one of the seven MNC types, but theoretically could have worked in all of them. For example Interviewee #27 worked in 5 different MNC where Interviewee #7 just worked in one MNC. The same principle applies for the next seven questions that relate to the geographic work experience of the interviewees. At least one option is chosen for each interviewee and maximum all seven. The following four rows show the academic background of the interviewees applying the same logic as mentioned above. Following it is shown whether the interviewees have either worked in HQs, the LC or in both locations. The matrix working experience is shown in the next three rows applying the same logic. The following and last four questions refer to the years of work experience of each interviewee, where just one of the four options can be applied. No interviewee had less than 6 or more than 40 years of work experience why the respective options are excluded.

**Table 29: Detailed information about interviewees 1 to 8**

<b>Interviewees</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
Worked in German MNC #1			X	X			X	X
Worked in German MNC #2		X	X	X				
Worked in German MNC #3					X	X		
Worked in other German MNC	X				X	X		
Worked in other European MNC		X				X		
Worked in U.S. MNC		X						
Worked in APAC MNC								
Worked in Germany	X		X	X	X	X	X	X
Worked in Europe (excl. Germany)		X					X	X
Worked in North America		X	X					
Worked in LATAM		X						
Worked in Africa								
Worked in Middle East								
Worked in APAC				X				
Engineering degree	X	X		X	X			
MBA or equivalent	X	X	X			X	X	X
Doctoral degree	X	X						
Other academic degree								
Worked in HQ	X	X	X	X	X	X	X	X
Worked in LC		X	X	X				X
Product Manager HQ	X	X	X	X	X	X	X	X
LC CEO		X						
Product Regional Manager		X	X	X				X
6-10 years MNC experience	X							
11-20 years MNC experience						X	X	X
21-30 years MNC experience				X				
31-40 years MNC experience		X	X		X			

**Table 30: Detailed information about interviewees 9 to 16**

<b>Interviewees</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>
Worked in German MNC #1	X	X	X	X	X	X	X	
Worked in German MNC #2	X			X	X	X		
Worked in German MNC #3				X		X		
Worked in other German MNC							X	X
Worked in other European MNC								
Worked in U.S. MNC						X		
Worked in APAC MNC								
Worked in Germany	X	X	X	X	X	X	X	X
Worked in Europe (excl. Germany)	X		X	X				
Worked in North America						X		
Worked in LATAM	X		X		X			
Worked in Africa								
Worked in Middle East								
Worked in APAC								
Engineering degree	X	X	X	X	X	X		
MBA or equivalent				X	X			
Doctoral degree						X		X
Other academic degree							X	X
Worked in HQ	X	X	X	X	X	X	X	X
Worked in LC	X	X	X	X	X	X		
Product Manager HQ	X	X	X	X	X	X	X	X
LC CEO					X	X		
Product Regional Manager	X	X	X	X	X	X		
6-10 years MNC experience								
11-20 years MNC experience	X			X			X	
21-30 years MNC experience			X			X		X
31-40 years MNC experience		X			X			

**Table 31: Detailed information about interviewees 17 to 24**

<b>Interviewees</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>
Worked in German MNC #1	X	X	X	X	X	X	X	X
Worked in German MNC #2	X	X					X	X
Worked in German MNC #3								
Worked in other German MNC			X		X			X
Worked in other European MNC		X				X		X
Worked in U.S. MNC								X
Worked in APAC MNC								
Worked in Germany	X	X	X	X	X	X	X	X
Worked in Europe (excl. Germany)		X						
Worked in North America				X				X
Worked in LATAM	X			X				
Worked in Africa		X					X	
Worked in Middle East	X							
Worked in APAC						X	X	
Engineering degree	X	X		X		X	X	
MBA or equivalent	X	X	X	X	X			X
Doctoral degree								
Other academic degree								
Worked in HQ	X	X	X	X	X	X	X	X
Worked in LC	X	X		X		X	X	
Product Manager HQ	X	X	X	X	X	X	X	X
LC CEO				X			X	
Product Regional Manager	X	X		X		X	X	
6-10 years MNC experience								
11-20 years MNC experience	X	X			X	X		X
21-30 years MNC experience			X					
31-40 years MNC experience				X			X	



**Table 32: Detailed information about interviewees 25 to 31**

<b>Interviewees</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>
Worked in German MNC #1	X	X	X	X	X	X	X
Worked in German MNC #2	X				X	X	X
Worked in German MNC #3							
Worked in other German MNC			X	X			X
Worked in other European MNC			X	X			
Worked in U.S. MNC		X			X		
Worked in APAC MNC			X				
Worked in Germany	X	X	X	X	X	X	X
Worked in Europe (excl. Germany)		X	X			X	
Worked in North America					X		
Worked in LATAM	X	X	X	X		X	
Worked in Africa						X	
Worked in Middle East							
Worked in APAC	X						X
Engineering degree	X	X	X	X			
MBA or equivalent		X	X	X	X	X	X
Doctoral degree	X						
Other academic degree							
Worked in HQ	X	X	X	X	X	X	X
Worked in LC	X	X	X	X	X	X	X
Product Manager HQ	X	X	X	X	X	X	X
LC CEO	X						
Product Regional Manager	X	X	X	X	X	X	X
6-10 years MNC experience							
11-20 years MNC experience		X	X	X	X	X	X
21-30 years MNC experience	X						
31-40 years MNC experience							

#### 4.4 Detailed description of each interviewee

Further on each interviewee briefly is introduced specifying his or her background working experiences and as well main messages conveyed in the interview process. This presentation will adhere to the agreed norms on ethics in order to protect the identity of each interviewee, his colleagues, business partners and companies he worked in. As part of protecting the identity of the interviewees the gender of the interviewees will not be revealed and all interviewees will be treated as if they were male.

In addition to the overview provided in Table 29, Table 30, Table 31 and Table 32 an even more detailed description of each interviewee is provided in Table 33. It summarizes the main comments or quotes of each interviewee.. Quotes of the interviewees will also be used later when presenting the main themes identified. The following summary of Table 33 shall serve as reference point and reveal as much information as possible in order to better be able to relate the answers given and opinions expressed to the potential values and beliefs conditioned through the specific background and experience of each interviewee.

**Table 33: Summary of main messages per interviewee**

Interviewee	Main messages of interviewee
1	<p>Matrix means two bosses (technical and disciplinary).</p> <p>There are many matrices and many mixed forms of organization.</p> <p>Product, region, function are main dimensions.</p> <p>Regional manager had main P&amp;L.</p> <p>Quality of decisions improves with matrix; it takes however more time.</p> <p>A bad decision is better than no decision.</p> <p>One should question whether matrix is needed at all (cost benefit analysis).</p>

2	<p>Matrix means different managers that are not aligned.</p> <p>Matrix needed because complexity cannot be managed by single managers.</p> <p>Matrix was abandoned because to complex (11 levels of organization) and people where too far from each other.</p> <p>Power struggle between region and product was won by region; however people were not changed, so system did not work.</p> <p>Customer interaction defines matrix.</p> <p>Define the manager or dimension who has the final power.</p> <p>Exchange managers if they are not aligned.</p> <p>Matrix organizations are dilemmas.</p> <p>You have to make choices, there are no ideal solutions.</p> <p>Define trade-off between profit and growth.</p>
3	<p>Global product lines need most of the power to have economies of scale and avoid many local product versions.</p> <p>MNCs structure may force to try to sell all products everywhere although this may not be advisable.</p> <p>Each product line shall be self-funding in all countries.</p> <p>MNC matrix structures are a perfect excuse for under-performance.</p> <p>Country CEO just needed for representation, if at all.</p>
4	<p>There is no single matrix for all parts of the organization.</p> <p>Without clear rules there was a lot of overhead.</p> <p>Organizations shall decide on decision process and on the last call, the final decision.</p> <p>Matrices are good for pooling and flexible assignment of resources and to retain staff.</p> <p>Region had too much power and sub optimized their P&amp;L.</p> <p>Too many matrix dimensions resulted in slow decisions and a lot of overhead.</p> <p>There are limits of decentralisation and limits of virtualisation.</p>
5	<p>Product and region both have always some sort of decision power.</p> <p>MNC focussed to optimize profit and minimize risk.</p> <p>Local CEO had ultimate power to balance interests of various product units.</p> <p>Regional power was at the expense of smaller more complex product units.</p> <p>Complex systems and product business don't fit together in the same structure.</p> <p>An incentive and penalization system needed for local managers.</p>

6	<p>Matrix means dual boss structure for various functions.</p> <p>Final decision must be with one person like the local manager.</p> <p>Clear rules are needed however not always defined.</p> <p>Local manager needs representatives for the functions and products to delegate decisions.</p>
7	<p>There are various temporary and permanent matrices.</p> <p>Power distribution between HQ &amp; LCs is not the same in different parts of the organization, because it depends on personal relationships, self-marketing, historic power and sales volume.</p> <p>Fair incentive schemes are a key element.</p> <p>HQ staff faces many times lack of know-how and experiences, many times they act arrogantly and want to rule the world.</p> <p>Employees needs to be trained on soft skills and motivated to work in matrix organizations.</p>
8	<p>Matrix means shared responsibility and various parties are involved.</p> <p>There is not one single matrix structure for the whole company.</p> <p>Joint decisions preferred.</p> <p>Last decision is usually with budget holder in HQs.</p> <p>Lack of definition of rules and responsibility leads to lack of accountability and unclear communication.</p> <p>There is no optimal solution and it is not static.</p>
9	<p>Matrix means a regional sales boss and a product unit boss.</p> <p>There can be more dimensions.</p> <p>The structure changes every 2-3 years and is adapted to customer's needs.</p> <p>Both dimensions have always power and shall find a solution.</p> <p>Final decision maker needs to be defined.</p> <p>There is no absolute truth about the right structure.</p> <p>All big MNCs need a matrix.</p>
10	<p>Nowadays one has to learn to live in a matrix.</p> <p>MNCs by definition sell many products in many regions.</p> <p>German medium-sized family owned 'Mittelstand' companies are market leaders in their field, so called 'hidden champions'.</p>

	<p>'Mittelstand' companies try to avoid matrix organizations because they are too complex to manage. They cannot find international capable staff.</p> <p>Huge difference between German/European and U.S. MNCs.</p> <p>German MNCs are willing to live with complexity and balance of interest and accept cross subsidies.</p> <p>U.S. MNCs cannot cope with the European complexity and prefer central control and focus on profitability in each product unit in each region.</p> <p>"I call this shareholder paranoia".</p>
11	<p>Matrix was too complex why it was abandoned.</p> <p>Now complexity is down, speed is up, risk is up as important decisions lie in the responsibility of few managers.</p> <p>Don't use matrix if mode of operation is diluted, i.e. clear decisions are needed.</p> <p>Clear LoA (Limits of Authority) are needed.</p> <p>One cannot get always consensus.</p> <p>A company is not a democracy.</p>
12	<p>A matrix is needed to manage a complex environment; there is no perfect solution.</p> <p>All dimensions should work together in the interest of the company.</p> <p>Regional offices pass through different phases of development; first they need a lot of support, later they can act independently.</p> <p>LC power also depends on type of product.</p> <p>Systems business needs strong HQ involvement; box business can be delegated to LCs with clear LoA (Limits of Authority).</p> <p>A company is neither a military like organization nor a democracy; this means organizations need time to develop.</p>
13	<p>Basic function of LC is sales.</p> <p>Main dimensions in MNC are regions and product units.</p> <p>Global clients need special attention.</p> <p>Local freedom of decision making decreased over the last decades, because of compliance and global products and global accounts.</p> <p>Matrix means less risk and more time, no matrix means high risk and high speed.</p> <p>There is no alternative to the matrix.</p> <p>Decisions are different in different parts of the world.</p>

14	<p>Matrix management is an art to manage the dotted line.</p> <p>Local CEOs had final power and had incentive to deliver maximum profit.</p> <p>This was less risky for family owned MNC.</p> <p>The survival of the fittest principle led however that new, smaller and more complex business could not grow.</p> <p>Matrix works well if comparable business models are put together.</p> <p>MNCs have problems to assign different levels of distribution of decisions power between HQ &amp; LCs for different product units.</p>
15	<p>Matrixes give better control and reduce risk due to double reporting line.</p> <p>LCs shall lead standard business whereas HQ shall lead complex business.</p> <p>Power distribution depends on exact product-regional mix.</p> <p>Matrix and the regular re-organization caused a lot of conflict and lack of transparency.</p> <p>HQ shall rather facilitate and LCs shall not have too much independency.</p> <p>Clear joint target setting is needed.</p>
16	<p>Matrix organizations create by design conflict and the need to balance interests.</p> <p>Matrix organizations create bureaucracy and complexity that must be managed well.</p> <p>MNCs and almost all organizations cannot avoid matrices.</p> <p>There is always some power with all dimensions.</p> <p>Decisions power is about up to 50 decisions in the main areas investment, staff and customers.</p>
17	<p>Matrix means balance of competitive interests.</p> <p>Final decision power was in HQ because all major decisions needed backup by HQ.</p> <p>However LCs could influence HQ on very top level. There are shorter ways from LCs to the top in HQ than in HQ due to less levels of hierarchy in LCs.</p> <p>Local CEOs is always needed.</p> <p>The challenge is that everybody acts in the best interest of the entire company.</p>
18	<p>A matrix must satisfy local and global needs, and there is no optimal solution.</p> <p>Power in traditional product-regional matrix depended on the importance of the LC and the political connections of the local management team.</p> <p>Global customers, themselves MNCs, play an increasingly important role.</p> <p>MNC have very complex and challenging decision making processes, good networking</p>

	<p>and soft management skills are needed.</p> <p>The power cannot be shared by 100%.</p> <p>U.S. MNCs are very clear and fast in the decision making process and are willing to take risk.</p> <p>European, and in particular German MNCs follow a slow quality and consensus approach with less clear rules.</p>
19	<p>A matrix requires balancing interests between dimensions, mainly product and region.</p> <p>All dimensions have their own P&amp;L and it is a constant process of negotiation of the value adds of each dimension.</p> <p>Matrix structures can bring good balanced decisions however they may force managers too much on internal focus.</p> <p>Customer interests should be the first priority.</p> <p>Recently HQ was given the 'right of way' to define ultimate decision power.</p> <p>There is always a pendulum of distribution of decision power between HQ and LCs.</p>
20	<p>The power distribution depends on value add of all parties.</p> <p>In box business main decisions are taken in HQ, the implementation is locally.</p> <p>In systems business there is more balance and negotiation between local and central interests.</p> <p>20 years ago there were more regional kingdoms.</p>
21	<p>Matrix organization can be temporarily or permanent.</p> <p>Matrix needed to globally pool high qualified staff.</p> <p>Main decisions about customer/markets, products and staff.</p> <p>To make matrix work staff needs the right frame of mind as not all people can be motivated with money.</p> <p>Final decisions power shall be defined, usually the dimensions with the worldwide P&amp;L responsibility.</p> <p>Staff can work from everywhere around the world due to broadband internet connection, the borderline between HQ &amp; LC becomes less clear.</p>
22	<p>There were no instructions how to work in the matrix and how to come to decisions, it was just grown over years.</p> <p>Depending on the product unit and the region the decision power was either in the HQ or the LC.</p>

	<p>In established business units in mature markets there was a lot of local power.</p> <p>In new developing product units the power was mainly in the HQ, because otherwise the LCs would have ignored that product unit.</p> <p>10-20 years ago there were many small kingdoms in each country, because customers were local and pricing was locally.</p> <p>Now we have more global products, global customers and global pricing.</p> <p>Key in matrices in MNCs is to have a clear process of target setting between LCs and HQs.</p> <p>Final decision maker must be defined.</p>
23	<p>Ultimate power was with LC because executive board was primarily responsible for regions and then for product units.</p> <p>There was a lot of freedom for product units if they were in the expected corridor revenue and profit.</p> <p>There is a pendulum of power between HQ &amp; LC and no optimal way.</p> <p>The biggest risk is to take no decision.</p>
24	<p>To call it a matrix there must be a formal reporting line.</p> <p>Matrix means high effort to align LC and HQ interests.</p> <p>Strong LCs had too much power and could take decisions that were good for the local P&amp;L but bad for the global P&amp;L.</p> <p>LC wanted low risk and high return.</p> <p>Target agreements were not well synchronized.</p> <p>There shall be clear process and rules how to come to decisions.</p> <p>Under performance must be penalized.</p> <p>HQ was afraid to take away power from LC because HQ believed that LCs need some level of entrepreneurial freedom to attend local customers in the best possible way.</p> <p>Be aware that too many matrices make the organization too complex to manage.</p>
25	<p>You need a matrix to reduce chaos.</p> <p>In the 1980s and 1990s LCs were very strong because of local customers, nowadays you have less local and more global customers.</p> <p>You need always local content, so there is always a balance of power which depends on many factors, such as maturity of product and LC, market and political environment.</p> <p>There are too many product and regional specific requirement, why one global model</p>



	<p>cannot work.</p> <p>Power distribution mainly depends on value add.</p> <p>U.S. MNCs are more centrally organised and less flexible and accept to lose business that does not fit into their governance model.</p>
26	<p>There are always various dotted line bosses, but just one solid line boss.</p> <p>Distribution of decision power was 90% in HQ and 10% local.</p> <p>LC CEO was not involved in operational business matters, just to represent the company.</p> <p>LCs focussed on commission business, why they had no long term interest to take risk</p>
27	<p>There is a natural conflict of targets in matrix organizations of MNCs.</p> <p>MNC define the strategy centrally that is then implemented locally.</p> <p>As a regional manager one reports to various managers of central functions at HQs.</p> <p>There are various virtual organizations, but eventually one boss who defines salary and promotion.</p> <p>To survive in a matrix one needs to be a good negotiator.</p> <p>Decision power of regions depends on local management and maturity of the market and product.</p> <p>Clear target setting and harmonized incentive schemes are needed.</p> <p>Recently regional kingdoms were eliminated by exchanging local CEOs.</p>
28	<p>A matrix can be over-defined, where responsibilities can be unclear and assigned to multiple parties.</p> <p>On the other extreme matrices can be too flat, where many areas are not defined and the organization has 'blind spots'.</p> <p>There are usually various overlapping forms of matrix organizations.</p> <p>Regional kingdoms were eliminated and the 'right of way' assigned to the product units in HQs.</p> <p>There were many unwritten rules and the final power largely depended on the persons involved.</p> <p>There is always a local and global contribution.</p> <p>We lived the matrix by the principles 'two to hire and one to fire' and 'primus inter pares - first among equals'.</p>

29	<p>A MNC has by definition many products that are sold in many regions, why there is a regional and product dimension.</p> <p>In one MNC we had many product units why there was budget and need for a strong local CEO.</p> <p>In another MNC there were less product units, why we neither could afford no needed a local CEO, except for the legal representation.</p> <p>Consumer or box business does not need local CEO.</p> <p>To grow internally there were mirror functions in HQ and LCs. After a while the power was transferred locally and the HQ functions disappeared.</p>
30	<p>Our MNC was spoiled with local customers and business why it was not prepared to handle global accounts that require central decisions.</p> <p>We had a mirror organization between HQ and LC that was abandoned over time.</p> <p>There was no guidance, unclear responsibilities and a lot of power struggles.</p> <p>In another MNC the matrix was abandoned formally because too many (up to 10) people had a say in a decision. Now I have working relationships with my former dotted line reports and managers.</p> <p>Matrices can be managed, but need clear guidance and governance.</p> <p>Celebrate success, penalize mistakes.</p>
31	<p>There can be various dimensions of matrices in different parts of the organization.</p> <p>Two bosses mean conflict of targets.</p> <p>10-15 years ago matrix organizations are something for senior management, now it is normal in all parts of the organization.</p> <p>The one with the budget takes the ultimate decision.</p> <p>Decision power depends also on physically proximity to the top management.</p> <p>Clear targets and incentives are needed; however targets shall not be just quantitatively but also qualitatively.</p> <p>All big MNCs have some sort of mess of internal rules and guidelines.</p>

## **4.5 Themes identified in interview analysis**

For the interview analysis the method of thematic analysis is used. In the present section the themes and sub-themes that have emerged from the interview analysis are presented. Quotes from the interviewees supporting the themes will be used to illustrate the exact statement of the interviewees. In some cases that are marked clearly I add my experience as practitioner. Some of the themes and sub-themes can be regarded as findings or recommendations. The themes identified are:

1. Definition of a matrix organization.
2. Advantages and disadvantages of matrices.
3. Matrix design and dimensions.
4. Conflict and decision areas.
5. Decision power distribution between HQ & LC.
6. Simultaneous matrices.
7. Acceptance of matrix organizations.

### **4.5.1 Definition of a matrix organization**

The interviewees were selected with the objectives that all interviewees had a basic common knowledge and understanding of matrix organizations. To ensure that the selection process was successful and that the assumptions were correct all interviewees were engaged in a conversation about their definitions about matrix structures in order to verify the interviewees' comprehension of matrix organizations. The interview analysis reveals that different viewpoints and opinions exist regarding the exact definition of a matrix organization. These are discussed in the following sub-sections which are organized by the following different subthemes.

1. Two boss structure.

2. Solid and dotted line bosses.
3. Matrix dimensions.
4. Conflict, power and alignment of targets and interests.
5. Temporary and permanent matrix.

#### **4.5.1.1 Two boss structure**

A common definition of a matrix is that persons have two bosses, managers or leaders, which are used as synonyms. Each boss represents one of the matrix dimensions.

Interviewee #27 defines that “matrix means a two boss or two leader structures” and Interviewee #10 states that “matrix is if two persons define what a third person has to do”. Interviewee #04 refers to “two dimensions alongside working processes & regions” and Interviewee #05 experienced that “there is a cross road of responsibilities”.

Some interviewees refer to the various functions represented in the matrix dimensions.

“A matrix is a dual boss structure for various functions like sales, R&D, manufacturing, Finance, HR, etc.” (Interviewee #06).

“Matrix in the wider sense is a responsibility or a form of reporting in various directions or dimensions in a company. Those dimensions are split into various categories, such as products, business units, regions or business models or company sizes” (Interviewee #31).

Most interviewees initially refer to two bosses or dimensions like Interviewee #09 who states that a “matrix is like a chess-board”. However for example Interviewee #08 does not limit matrices to just two managers, but defines a matrix as “multiple boss structures”. Interviewee #31 explicitly confirms that there can be more than one dimensions by stating that “the easiest matrix is a two dimensional matrix, however there can be more dimensions”.

Some Interviewees more specifically link the existence of a matrix to a formal reporting line.

“A matrix means two levels of hierarchy, a double reporting structure and two bosses” (Interviewee #01).

“Matrix is two lines reporting of a manager” (Interviewee #16).

“To call it a matrix there must be a formal reporting line, otherwise I would call this normal cooperation among colleagues” (Interviewee #24).

Summarizing it is interpreted that there is consent among the interviewees that a matrix organization means that individuals in an organization have various bosses or managers, each of them representing different dimensions or functions. Most interviewees refer to two dimensions or bosses and just few interviewees explicitly mention that there are more than two bosses or dimensions. However no interviewee explicitly mentions that a matrix cannot have more than two bosses or dimensions, why it is interpreted that matrices are composed of two or more dimensions.

#### **4.5.1.2 Solid and dotted line bosses**

Few interviewees explicitly mention the terms ‘solid’ and ‘dotted’ line of reporting indicating the different levels of responsibilities between the matrix managers.

Interviewee #21 defines the difference between solid and dotted line by specifically referring to the organizational hierarchy and structure:

“The solid line is the hierarchy and the dotted line is the technical or functional responsibility”.

Interviewee #26 is more specific by stating that the solid line is related to payroll and there can be various dotted line bosses in a multi-dimensional reporting relationship.

“In a matrix there is a solid line, who is the payroll boss. There are many times several dotted line bosses for different functions, but just one solid line boss”.

It is interpreted that the definition of Interviewee #21 is related to an organization where staff is pooled and assigned to projects on a permanent or temporary base.

Further it is interpreted that the comment of Interviewee #26 is an indication that staff legally have just one formal employment contract and therefore receive their salary via a certain legal entity. The solid line boss is described as the person that has the ultimate influence on salary and bonuses and therefore is seen as boss with most power. The indication that are potentially several dotted line bosses is interpreted as interests of various other managers, that also have to be considered by the individual.

There was no agreement among the interviewees as to whether the solid line was to be associated with any matrix dimension such as product, regional or any other dimension. It is interpreted that this ambiguity lies in the fact that the matrix organizations in which the interviewees had worked were different and subject to regular change.

The fact that the sub-theme of solid and dotted line bosses is just covered by very few interviewees can be first interpreted as evidence that it is not a central theme for the definition and operation of matrix organizations. Another option of interpretation is that the definition of solid and dotted is inherently understood and accepted, why it is not considered worth being explicitly mentioned.

#### **4.5.1.3 Matrix dimensions**

Most interviewees relate the definition of a matrix organization to the dimensions associated. The predominant dimensions are the product line or business unit represented by the Headquarters and the regional dimension represented by the local subsidiaries.

“Matrix is network structure, responsibility organised by product lines and regions” (Interviewee #05).

“Matrix means sectors and regions” (Interviewee #07).

“A matrix is organized by business units and sales or regions” (Interviewee #09).

“A matrix is created with the intention to satisfy local and global demands or requirements. This may be seen as contradiction, but it is not” (Interviewee #18).

“Companies use matrices to distribute sales targets among the products and regions” (Interviewee #24).

“Matrix means a horizontal and vertical business responsibility, vertical in the country and the business unit in headquarters to support” (Interviewee #14).

Interviewee #06 explicitly mentions that a matrix organization can also represent other functions.

“A matrix is a dual boss structure for various functions like sales, R&D, manufacturing, Finance, HR, etc.”.

Interviewee #25 suggests that a definition of a matrix is directly linked to the profit & loss responsibility of the dimensions product and region.

“Matrix means that the profit & loss responsibility is distributed to at least two parties, usually product and regional aspect”.

The interviewees relate the Headquarters as the organizational unit where all product or business units are represented and managed by a divisional managing director being responsible for an own P&L statement. Local subsidiaries are mainly seen as sales office representing all business unit of the company. Most interviewees did not reflect on the possibility of relating functions like sales, R&D, HR, manufacturing and finance as own matrix dimensions but saw their organization predominantly by product units in HQs and sales in LCs. It is interpreted that this is partly influenced by the fact that the interviewees for this study were selected because of their local and global experience in matrix organization. In addition it is also interpreted as an indication for the fact the MNCs covered in this study are predominantly influenced and driven by representing the global interests of HQs and the product units and the local interests of LCs.

#### 4.5.1.4 Conflict, power and alignment of targets and interests

Most interviewees relate the definition of a matrix organization directly with different targets and interests of the representatives of the matrix dimensions which leads to conflict and challenges for management and leadership.

Interviewee #02 stresses the problem of alignment of targets and suggests that targets of a matrix are not aligned.

“Matrix means different individuals are responsible for different functions, they are not aligned”.

Interviewee #24 supports this view and suggests that the different bosses representing the different matrix dimensions have different and potentially competing targets.

“I define matrix as different bosses and different targets”.

This view is supported by Interviewee #27.

“Matrix means different viewpoints and directions from the two parts of the organization”.

Interviewee #10 in contrary views that the “basic principle of matrix is aligned targets”.

Interviewee #19 recognizes that there is potentially disagreement of targets and therefore suggests that these must be aligned.

“A matrix is a grid structure and at the cross points, there is a need for coordination and agreement about aligned targets”.



This view is supported by Interviewee #17 who suggests a balance of interests to be reached in a matrix organization.

“Matrix means to balance competitive interests”.

Interviewee #23 sees that the two representatives from the different matrix dimensions meet having equal power.

“Two persons or functions with equal power meet in the matrix”.

Interviewee #27 further specifies that the potentially competing targets can lead to conflict which shall be addressed by proper management and leadership.

“Matrix means conflicts of targets if not well managed and lead”.

Interviewee #16 presents a more reflected view stating that there are different interests and conflicts by natural design of the matrix organization. He however also recommends cooperation and coordination between these representatives of the different matrix dimensions.

“A matrix institutionalizes situations of conflict and forces several interest groups for coordination and cooperation”.

The previous quotes show the alignment of targets is seen as a main challenge for matrix organization. Interviewee #10 explicitly speaks about aligned targets as matrix principle whereas all other interviewees indicate the challenge of converting the potentially different interests of the matrix dimensions into aligned targets. Reviewing the entire interview with interview #10 it is interpreted that aligned targets is meant to be the desired state rather than a basic design principle.

The interview analysis shows that different interests and conflict are accepted as design principle of matrix organizations by the interviewees. Most interviewees speak about two matrix dimensions whereas more than two dimensions are not explicitly excluded.

#### 4.5.1.5 Temporary and permanent matrix

The majority of interviewees speak about the matrix organization as permanent organizational set-up. Few interviewees however precisely distinguish between permanent organizational matrices and temporary projects that are organized in a matrix like structure.

Interviewee #07 explicitly distinguishes between permanent matrix structures alongside the regional and product dimensions and the existence of temporary project matrices. He refers to the permanent matrix mainly by the synonyms HQs for the centre of all business units and the LCs as sales, service and partly manufacturing location. As example for the temporary project matrix he refers to the various internal audit teams, of which he was part.

“There are temporary and permanent matrices” (Interviewee #07).

Interviewee #11 refers to a matrix organization primarily as temporary project structure where staff is assigned temporarily from different disciplines to a project manager.

A classic matrix organization, such as I have experienced it in project management, is a temporary organization where people from different line functions work together. The disciplinary responsibility stays with the line and the technical lead is executed through the project manager in the matrix organization”.

Throughout the interview after reflecting on the HQ-LC relationship and task distribution he also recognized that the overall organizational structure also can be seen as a matrix organization. He however disagrees about different targets between the product (HQ) and regional (LC) dimension why it is interpreted that he refers to a matrix mainly to his personal experience working in temporary project teams. Consequently at the end of the interview he recommends the use of a matrix organization only under the condition of cooperation between the different functions represented is a project team.

“A matrix only then makes sense if there is interdisciplinary cooperation”.

Equally Interviewee #21 also sees a matrix organization primarily in a temporary project set-up.

“A Matrix organization can be permanent or....you are temporary assigned to other managers in projects in order to achieve certain tasks....We are setting up projects where staff from different functions is assigned to the program or project manager.

Interviewee #22 experienced a matrix either in a temporary project environment or as permanent regional-product matrix.

“For me a matrix means reporting along to axes, geographies or also projects, where I as matrix staff have to serve two bosses”.

“I have experienced a two dimensional matrix with regions and business units or alternatively primarily in the project environment where the business unit represents one dimension and the project the other dimension....At MNC #1 the line function had most of the say, promotion, salary, performance review. At MNC #2 it was different. Actually the project had more power and influence. Once I was member of project teams I actually belonged to them and they also eventually influenced the decisions. This was a huge different between MNC #1 and MNC #2”.

Interviewee #25 on the one hand sees a matrix as permanent organizational set-up where the P&L responsibility is distributed among the matrix dimensions.

“A Matrix organization is an organization where the profit and loss responsibility for a certain business is distributed among at least two actors, who manage the business from different angles; this means regional and product dimension or process dimension and value contribution dimension” (Interviewee #25).

“What is meant with the process dimension” (Interviewer)?

“For example project management” (Interviewee #25).

“You also can have a permanent project organization, where permanently new projects are added” (Interviewee #25).

In addition to the permanent organizational matrix Interviewee #25 refers to a project matrix either as temporary established projects but also alternatively as a permanent organizational unit that continuously manages time limited project by using a matrix structure:

In summary a matrix organization is primarily seen as permanent established structure with the typical dimensions product and region. Some interviewees however stress the point that projects where various interdisciplinary experts are put together in a project team can also be referred to as matrix because each project team member as a disciplinary functional boss and the project boss. The power distribution between functional and project boss can vary as seen in the example of Interviewee #22.

#### 4.5.2 Advantages and disadvantages of matrices

In question 10 of the interview guide the question about advantages and disadvantages were explicitly addressed. The interviewees however also commented throughout the entire interview about the positive and negative experiences working in matrices. Table 34 lists the main advantages and disadvantages, which are discussed in more detail further below.

**Table 34: Advantages and disadvantages of matrices as result of the interview analysis**

Advantages	Disadvantages
<ol style="list-style-type: none"> <li>1. Less risk, because the quality of decisions improves.</li> <li>2. Efficiency through standardized processes and economies of scale.</li> <li>3. Flexible assignment and pooling of resources.</li> <li>4. Balancing global and local interests.</li> <li>5. Managing a complex environment.</li> </ol>	<ol style="list-style-type: none"> <li>1. Slow and expensive decisions, more bureaucracy.</li> <li>2. One-fits all may not work.</li> <li>3. Ambiguous targets require culturally readiness of staff.</li> <li>4. Matrix complexity.</li> </ol>

## **4.5.2.1 Advantages**

### **4.5.2.1.1 Less risk, because the quality of decisions improves**

Due to the nature of a matrix organization multiple interests are represented by the various matrix dimensions. If all these matrix dimensions get involved in the decision making process it is suggested that eventually the quality of decision improves.

Interviewee #1 for instance sees that bringing in various viewpoints provides more information why better decisions are the outcome:

“An advantage [of matrices] is naturally...that the quality of decisions improves if one includes various perspectives in decision making processes, because the richness of information increases”.

Interviewee #13 points out the aspect of reduced risk in matrices due to the fact that various matrix dimensions are ideally thriving for agreement on decisions.

“Matrix organizations are less risky because due they thrive for consensus there are less failure”.

### **4.5.2.1.2 Efficiency through standardized processes and economies of scale**

Matrix organizations are seen as efficient form to manage a MNC in particular if the number of business unit and regions increases. Similar processes and structures make it relatively easy to add new business units or regions using the existent structure of LCs available. This advantage of economies of scale and repetition of structure and processes is seen as one great advantage of matrices in MNCs. As functional tasks are getting more complex and specialized it is beneficial for the local management to have their direct functional reports also reporting into a global functional manager. So local management can stay focussed on their local value add without the need to re-event the wheel for many standard processes.

Interviewee #3 for instance sees as great advantage of matrix organizations the low “marginal costs to add a new business in the LC”.

Interviewee #6 views as main advantage synergies due to same standard processes and optimized administrative work.

“A local Managing Director cannot handle all aspects himself so it is good if his direct reports have matrix bosses who help to implement proven processes and structure in the organization”.

Interviewee #14 sees cost synergies as one principle design criterion for matrix organizations.

“Matrix is there to take advantage of synergies”.

Interviewee #30 has a similar view.

“The main focus of a matrix is efficiency and an efficient way of working together”.

#### **4.5.2.1.3 Flexible assignment and pooling of resources**

Another main advantage of matrix organizations is seen in the flexible assignment and pooling of highly educated scarce human resources. Pooling helps in retaining these resources and reducing costs. Due to pooling of expert resources companies can quickly and flexible react to market demands by putting together multi-functional teams.

Interviewee #07 for instance states that pooling of resources helps organizations to react fast and foster growth.

“Matrix organizations facilitate the distribution of work and expansion, regionally and per business unit”.

Interviewee #30 puts attention to the advantages of training technical expert fields.

“Matrix means pooling of staff; you cannot cover all functions and technical specialities disciplines in all countries. With pooling you get better training”.

Interviewee #20 stresses the difficulty of individual regions or local subsidiaries to build up competencies.

“Several regions cannot afford to build up expert know-how in parallel, because maybe there is a business opportunity just every two years”.

Interviewee #07 for instance explicitly speaks about the advantages of permanent matrix organizations for work sharing and specialization and the support for regional and business unit growth plans.

“Matrix organizations facilitate the distribution of work and expansion, on regional level and per business unit”.

#### **4.5.2.1.4 Balancing global and local interests**

Balancing global needs from HQ and local interests of LCs is seen as one key advantage of matrix organizations. Local staff that is most familiar with the country can be given a great deal of autonomy and entrepreneurial freedom to pursue business opportunities while receiving the backup from global centralized products, processes and expert knowledge. By this a quick entry in new markets is facilitated.

Interviewee #16 stresses the advantage of matrix organizations to foster discussion and balancing the inherently different interests of the matrix dimensions.

“Matrix organizations are an organised way to bring up conflicts and force different parts of the organization to coordinate, cooperate and balance interests”.

Interviewee #25 sees matrix organizations as pre-requisite in a multi-product and multi-country environment of an MNC.

“Matrix organizations are needed if you have multi-dimensional business units”.

#### **4.5.2.1.5 Managing a complex environment**

Even though matrices in organizations are recognized as complex to manage it is also recognized that they are needed to an environment that is getting more complex. Thus the complexity of matrix organizations is a reflection of the complexity of the environment in which MNCs operate.

Interviewee #02 for instance sees that there is no alternative to matrix organizations.

“Matrices are put in organizations because individuals cannot manage complexity....You need a matrix to reduce chaos”.

Interviewee #12 also sees it as a principle task of matrix organizations to efficiently manage the complex business environment.

“A matrix is an organizational form to manage efficiently a complex environment, efficiently in the sense of best results and lowest costs”.



## 4.5.2.2 Disadvantages

### 4.5.2.2.1 Slow and expensive decisions, more bureaucracy

The potential advantage of better decisions through the institutionalized involvement of various stakeholders as representatives of the various matrix dimensions is linked to the disadvantage of slow and expensive decisions. Involving all matrix dimensions that have different interest can lead to long discussions. If in addition the intention is to have consensus among all matrix dimensions then there is the risk of no decision being taken at all. For that reason a common reported negative feature of matrix organization is the complexity and difficulty to manage a matrix organization. A matrix structure demands more effort for documentation which leads to more bureaucracy.

Interviewee #1 for instance stresses that the decision making process in matrices takes more time.

“A disadvantage [of matrices] is naturally that it takes more time...for decisions”.

Interviewee #1 further on presents the example of sourcing of raw materials where various aspects need to be considered, such as regions to cover, sub-suppliers, procurement departments, local units, the technical knowledge and experiences.

In a similar fashion Interviewee #25 sees the risk of long decision processes because of power battles between HQs representing the product line and LCs representing the regional interests.

“There is a risk of long decisions if power not defined between LC & HQ”.

Interviewee #02 reports about an extreme case of a matrix organization, where in certain cases 11 managers representing different interests groups, or layers, had to agree on a business deal. A unanimously decision was required, that is each of the 11 managers could veto the deal or demand changes. The layers were different levels of sales, such as local, regional, key-account, product management globally, locally, finance, legal, purchasing, production.

“There were 11 levels of organizational layers, i.e. in a way 11 matrix dimensions. 11 persons had to agree unanimously on a specific deal. Each member of the committee could kill the deal by his non-approval....The company was not moving because too many people had a say....We discussed who shall get the power, the region or the product line? We decided in favour of the region...because they were closer to the customer....In reality this was not accepted by the product people....We did not change people, so the system did not work....The matrix was abandoned because the organization stopped working...because people were too far away from each other”.

Interviewees #04 and #30 worked for the same MNC and reported about the delay problems working in a too complex matrix organization, which was eventually officially abandoned and replaced by a system where the final decision making power was given to the region.

Reflecting on the official abandonment of the matrix organization due to the described problems Interviewee #30 stated that in fact the dotted line still existed as working relationship. This means the formal matrix that all dimensions had a say, or even a veto, was abandoned, however the informal matrix where one coordinates with various interest groups and stake holders still existed.

“Actually the matrix in the original sense does not exist any longer....However in the reality the dotted line still exists....It is now more of a working relationship.” (Interviewee #30)

It can be argued whether the 11 organizational layers as described by Interviewee #02 shall be called a matrix, because the 11 managers who all could veto a certain contract or offer just show-up in the case of a certain complex decision but may not be present in other less complex, or risky, situations. However it is important to recognize that a matrix (like) structure can lead to the problems of delays and high costs.

Another example of delays and high costs is commented by Interviewee #03 who reports that all LCs had strong influence on the R&D plans requesting country specific adaptations or versions, which in the end severely slowed the development of an efficient global powerful software version.

Consequently it was intended to fulfil the interests of various LCs by losing sight of what might be the best interest for the entire MNC.

“We gave too much power to the regions....Giving the P&L to the regions means no harmonization of product line....because 75% of the R&D staff was doing country specific software adaptations. There was almost no further development of the main product line. In the end the product was dead” (Interviewee #03).

#### **4.5.2.2.2 One-fits all may not work**

The advantage of harmonized and standardized processes and structures is challenged by the fact that there are significant differences between business units, countries, market environments, state of products in the product life cycle and maturity and experience of the managers in LCs and HQs. The same matrix structure may therefore not work well for all environments.

Interviewee #05 for instance points out the problem of managing different business types with the same structure and management system:

“Different businesses that are managed with the same local approach don’t necessarily fit together”.

Interviewee #14 even believes that smaller or weaker business units need more protection and attention from top management in order foster their growth and avoid being neglected.

“Smaller or weaker businesses will develop less than possible: survival of the fittest”.

Interviewee #13 stresses the huge differences in decision making between different countries.

“There are other decision making processes in Brazil, USA and Germany”.

Interviewee #25 even sees the differences between local markets so relevant, that he questions the applicability of harmonized global structures.

“There are too many local differences...so that a global model cannot work”.

Interviewee #03 is concerned that a global unified matrix structure leads to inefficiencies because of the perceived marginal costs to add further business units to local markets. He recommends that the P&L decision shall be given to the product units, which decides which markets to serve.

“Matrix organizations are dangerous because it motivates product units to go into countries where they should not go....It fosters a culture where all country managers believe to have to cover all business units.”

#### **4.5.2.2.3 Ambiguous targets require culturally readiness of staff**

Working in a matrix requires strong interpersonal skills and continuous training. Having multiple bosses and reporting lines may be perceived against the natural desire of humans. It is therefore recommended to put extra effort in developing a matrix culture, staff selection process and an aligned target system. Working in virtual teams can be beneficial and cost effective however regular personal contacts and exchange must not be disregarded.

Interviewee #04 for instances reports about limits of decentralisation and virtualisation using a matrix structure.

“A new external financial manager said, that we were by far too de-centrally organized. To a level where it is impossible to professionally lead an organization. I fully agree, we have a virtual organization that has created together with a matrix organization crazy examples where staff never met their direct boss face-to-face”.

This is interpreted as an indication that MNCs shows trends towards virtualisation using the new possibilities of high speed broadband access via mobile devices such as laptops and smart phones.

Interviewee #20 believes that the multiple boss principle of matrix organizations work against the human nature.

“Matrix organizations work against the principle that one man shall only be responsible for one business”.

For that reason Interviewee #16 sees that matrix organizations have high demands towards their managers.

“Matrix organizations have high demands towards management as strong management skills are required”.

As discussed earlier Interviewee #02 reports about his experience that a change from a complex multi-dimensional matrix (up to 11 layers) to a simple structure where eventually the regional dimension had the final decision making power. As the management team was not aligned it was decided to exchange certain managers.

“You need a management team that is aligned and change people”.

Interviewee #30 sees the main challenges and problems for matrix organizations in the human and organizational cultural side.

“Celebrate your successes and penalize your mistakes...we need a culture of accountability and....discipline....Training receives according to my view too less attention....Treat the people as assets in which you invest in....The human side is extremely important”.

#### **4.5.2.2.4 Matrix complexity**

Interviewee #02 suggests that matrix organizations face dilemmas where managers must make choices where no ideal solution exists. MNCs cannot have full control, low risk and fast decisions. MNCs that focus on high transparency and control have less chance for growth and can more easily

reach their profit targets. If MNCs want to grow they must be prepared to take more risk and give away transparency and control. Growth usually occurs at the cost of profit.

“Matrices are dilemmas. You have to make choices, there is no ideal solution....[I recommend to] define trade-offs between profit versus growth and transparency versus risk”.

Interviewee #11 similarly reports about a highly complex matrix structure that is designed to incorporate all stake holders in order to reach to the best decision. This structure was however considered as too difficult to manage and was abandoned at the cost of higher risk.

“The matrix structure was too complex and difficult to manage why it was abandoned...Now the complexity is down, speed is up and risk is up as important decisions lie in the responsibility of few managers”.

As discussed previously Interviewee #03 addresses the problem that each country requires country specific technical features of a certain product that are deemed to be crucial for their local sales success. He further reports that MNCs cannot manage the full complexity of a matrix trying to balance all interests and suggests that each product must be profitable in each country. He therefore suggests that matrices should be an option but not the standard form of organization where each product line shall be present in each country.

“Each region had an incorporated excuse for non-performance, because all countries wanted special features....Matrices are dangerous because it motivates product units to go into countries where they should not go....Further it fosters a culture where all country managers believe to have to cover all business units”.

In summary the interview analysis suggests that the best theoretical matrix organization is not necessarily the most practical matrix organization. MNCs may decide to deliberately accept several disadvantages and potential loss of sales revenue and profit for having less complexity and thus faster decision-making processes. Those choices may eventually lead to further sales revenue. On the other hand, MNCs may leave very profitable business opportunities ‘on the table’ and may suffer from reduced sales volume and profit. MNCs should seek the optimum depending on the industry, market segment and country.

#### **4.5.2.2.5 Matrix abandonment due to too highly complexity**

The abandonment of the matrix as mentioned by five interviewees occurred in the same MNC that was formed as a merger from two previous MNCs. Originally all stakeholders in a specific customer project had to agree on a certain proposal. After the reported abandonment of the matrix the MNC continued to operate various product lines in various countries throughout the world. However, formally speaking there was no longer a matrix structure to relieve ambiguity regarding who held decision power, which was eventually given to the local or global sales teams.

The interviewees that describe the introduction and subsequent abandonment of a matrix organization, particularly an MNC state that the matrix organization was originally introduced with the intention to consider all stakeholders in a decision. The complex multi-dimensional matrix – up to 11 dimensions as mentioned by Interviewee #02 – was designed with the intention to reach common agreement among all stakeholders and consequently the best decision. However, the interviewees report the process as very lengthy and costly. Furthermore, they suggest that it was almost impossible to please all stakeholders equally; therefore frequently no agreement or decision was reached. The interviewees further suggest that any decision is preferable to no decision. Presently, the management team adopted the view that consensus among too many parties cannot be reached effectively why the need for anonymously decisions was eliminated. After the abandonment of the formal matrix structure the responsibility for developing a sales strategy was given to the sales managers. The sales manager were either located in the LCs in case of local or regional customers or globally in case of global customers. The sales managers were given a limit of authority (LoA), which defined the financial and legal limits of a customer offer or contract approved by different levels of managers. The mentioned abandonment of the matrix was simply a rejection of the need for agreement among all stakeholders for customer related decisions of standard offers. By this the MNC decreased complexity and costs for the day-to-day operations at the expense of the risk that all decision power was given to one person. For complicated offers or contracts that required strategic product-related and investment decisions different stakeholders and matrix dimensions were involved again. The interviewees reported that in addition the appointment of staff was a highly political exercise and not regulated by clear rules. The resulting ambiguity allowed several stakeholders and representatives from various matrix dimensions to influence these decisions.

### 4.5.2.3 Summary of advantages and disadvantages

In summary matrix organizations provide numerous advantages in particular for MNCs. There are however many potential flaws and disadvantages that can have a huge negative impact on the performance of any company. Operating without matrices is not seen as a viable option. The challenges is to manage the matrix well by taking advantage of the potential benefits and avoiding the potential flaws.

Interviewee #27 summarizes these challenges in stating:

“A Matrix can be very powerful, a clear strategy is needed.”

### 4.5.3 Matrix design and dimensions

The theme matrix design and dimensions is triggered through the respective questions of the interview guide and the fact that interviewees naturally spoke about the way matrix organizations were set-up in their work environment. In addition the theme responds directly to the two research questions and is directly linked to the title of this thesis, which asserts that the answers to all questions contribute to this conclusion. The answers to questions 3 and 4 about the matrix set-up as well the answers to questions 7 and 8 about the power distribution between HQs and LCs contribute particularly to this conclusion.

All interviewees were experienced managers in matrix organizations; however, most were unfamiliar with all the terms and definitions used in academic literature. Question 5 of the interview guide therefore specifically encouraged the interviewees to think about matrix organizations as they experienced them in their work environments using the terminology of the academic literature. This tactic was used to ensure that the interviewees had the same understanding of what is defined as regional product matrix in this thesis. On occasions an explanation on what was meant with matrix dimensions was necessary. Once this concept was clarified, the answers to this question were relatively short. In some interviews the answer to this question was given in one of the previous answers. Following are the dimensions mentioned.



- Product.
- Region.
- Customer (global key accounts).
- Functions such as sales, finance, marketing, research and development, product management, purchasing, logistics, manufacturing, service, project management and legal.

The dimensions product, region and customers can be measured with its own P&L or elements of it, whereas the other functions represent the various different stakeholders in an MNC that for certain decisions can also have decision-making power. For instance, the legal department can veto a customer contract if the legal risks, such as unlimited liabilities are considered as too high. These and the other functional departments are operated as cost centres because they do not generate external revenue in the manner of product, regional and customer dimensions. Some of the functions as mentioned above are part of the three main dimensions, because typically they have a sales, marketing and finance department. Manufacturing, services, logistics, procurement and product management are either provided centrally and or managed by each of the three main dimensions.

#### **4.5.3.1 Product-regional matrix**

The product-regional matrix was the predominant matrix structure of the MNCs in which the interviewees worked. The consensus is that because the MNCs sold various products in various countries around the world, product and regional interests needed to be balanced. A matrix structure with a regional and product dimension is perceived to be the adequate solution with many advantages; however, serious problems and concerns associated with the matrix structure are also mentioned. The main problems resulted from the fact the regional and product dimensions had competing interests and generally had no joint target setting process or joint incentive schemes. The management of the product and regional matrix dimension with its own P&L statement makes sense because both dimensions can be considered as quasi-autonomous companies within the large MNC. The P&L focus fosters entrepreneurship and an active discussion among the various stakeholders. However, each dimension was incentivized rather than penalized by sub-optimizing their individual

P&L statement at the cost of the other dimensions. This would be normal if each product line and each country operations were completely independent entities. However, because they are all part of the larger MNC the interviewees suggest that the overall interest and benefit for the MNC must be the ultimate goal for all managers. In the absence of that goal there would be no need and justification for an MNC structure.

All interviews are centred on the struggle, power clash and cooperation between headquarters typically representing various product lines and local companies representing the regional dimension as discussed in the previous theme. The process of internationalization and the relationship between HQs and LCs is illustrated on the following four levels of regionalization as suggested by the interviewees.

1. Sales out of HQ with direct contact and contract with the end customer.
2. Sales via local partner or distributor.
3. Sales via own local subsidiary.
4. Local subsidiary reports to regional HQ, which then reports to corporate HQ.

Options 2, 3 and 4 are interpreted as regional-product matrix with different levels of power given to the local office or representatives.

Interviewee #02 for instance explicitly mentions the product and regional dimensions as the most relevant matrix dimensions.

“The standard matrix, the one that is most important and that really matters ... is the product-regional matrix”.

Interviewee #05 defines a matrix as network structure where the responsibilities are organized alongside the dimensions products and regions.

“A matrix organization...is a network structure, where responsibility on the one side is organized alongside product lines and on the other side alongside regions”.

He further stresses the importance of the two dimensions by distributing the decision power between the region and the HQ, where the global product units were based.

“Power was mainly in the regions, 60% in the region, and 40% in HQ”.

Interviewees #08 and Interviewees #09 report that the MNCs in their work experience were organized in the two dimensions product or business unit and regions.

“Matrices are like a chess board. In the vertical dimension are usually the businesses units...In the horizontal dimensions are any other functions, but mainly regions” (Interviewee #08).

“There was always a high effort of coordination between the regional and product unit interests” (Interviewee #09).

Interviewee #19 and Interviewee #25 explicitly mention the two dimensions region and product as basic design criteria and states that both can be measured with their own P&L statement.

“Our MNC has many products in many regions. There was a coordination effort to align the organizations and the interests of (the matrix) dimensions....Both parts had their own PL&L, region and product.” (Interviewee #19)

“We offered global products; however apart from this you always need local content, because of legal requirements, local balance sheet, P&Ls, taxes, etc.” (Interviewee #25)

Interviewee #07 presents the example of an MNC where a regional or product dimension is co-headed by the commercial or financial counterpart, called regional or divisional CFO. The design principle foresees a four-eye-principle where decisions shall be taken jointly by divisional/regional CEO and CFO. The CEO however can over-rule the CFO, something which was done very rarely.

“The CEO of a division or region now formally has the sole business responsibility. Previously the CFO had the joined business responsibility with the CEO following the ‘Primus inter pares’ principle”.

Summarizing the interview analysis suggests that Headquarters is used a synonym for the matrix dimension product, as the global product unit were always located in HQs. The Local Company (LC)

or Local Subsidiary (LS) is considered as a synonym for the regional matrix dimension. The product-regional matrix is the pre-dominant structure although interviewees do not necessarily mention the word matrix but speak about HQ for product dimension and LC for regional (sales) dimension. These dimensions can be measured with their own P&L statement and can operate as semi-autonomous companies within the same MNC. These two matrix dimensions are mainly those that serve external customers and therefore generate intake of new orders, sales revenue and ultimately the cash, that pays for the entire organization. All other typical functions of an MNC such as marketing, finance & control, research & development, manufacturing, legal are either cost centres or have internal customers. There is not necessarily a formal matrix structure and there are different formal and informal structures in different parts of the organization.

#### **4.5.3.2 Global accounts as new matrix dimension**

In addition to the importance of the product and regional dimension the importance of the third dimension customer is also addressed by some interviewees. Global accounts are themselves MNCs that operate globally in various countries and often in varied business areas. Due to their size, sales revenue, number of operations and employees they have extensive purchase volumes for a variety of products and services. Previously MNCs may have paid for the same product or type of service different prices in different countries or markets. This was because of the non-existence of global coordination and a high level of autonomy for the local subsidiaries and global product units. MNCs currently establish global purchasing & procurement departments that excise chunks of the decision power for purchases of certain products and services from all functions of the MNC, in particular from the regions and global product units. The global purchasing departments are viewed by the potential suppliers as 'global accounts'.

The interview analysis suggests that such global accounts demand similar or equal products, services and prices throughout the entire world as managed by a global account team on their supplier's side. Ideally meeting these requirements can be achieved by the suppliers which are large MNCs themselves and able to provide service in all required regions and markets. The MNCs establish global account teams headed by a global key account manager who usually is a senior executive. This means that MNCs add a third dimension in addition to the regional and product dimension to serve their key customers. These global accounts will take away large portions of the decision power from the representatives of their regional or local subsidiaries or the global product units. The

rationale behind this is the same used to explain the primary focus on the regional-product matrix, namely the existence of a profit and loss statement for each global account.

A very precise explanation for the need and increasing importance for the third dimension global accounts is given by Interviewee #18.

“Global customers, themselves MNCs, play an increasingly important role...Since 5-10 years the 3rd dimension customer comes into play...Global customers want global support and a global management of their contracts, prices etc. they want global structures”.

It is interpreted that the views of Interviewee #18 are partly a result of the fact that he until recently is responsible for attending global accounts. It is further interpreted that he however is sufficiently reflective to see his current role and experience in relation to his previous roles working both in HQs and the region.

Interviewee #25 also confirms the importance of global accounts that transfer the traditional product-region matrix into a product-customer matrix.

“Looking at the industry segment of XXX we have the situation, where big MNCs position themselves as customers. One has to react to this change, in particular in the fast moving industry of XXX, where for instance the MNC YYY is managing its global business across 20 countries. For such a client the set-up of a LC does not make sense anymore, because HQ must have the authority to negotiate a contract that is valid for all 20 countries. The matrix then is not any longer a country-product matrix but a customer-product matrix”.

Summarizing the interview analysis suggests the appearance of global accounts as a potential third matrix dimension. There are just view interviewees suggesting that global accounts are emerging as new matrix dimension in addition to the existing product and regional dimensions. However no interviewee mentioned that global accounts do not exist as new dimension, why it is considered an important finding of this study. In addition this result is supported by my experience as practitioner where an entire MNCs was seriously affected by the experience of powerful global accounts that forced a fundamental change in the organizational structure away from the traditional product-

regional matrix to a more flexible structure giving global account teams more decision making power where needed.

#### **4.5.3.3 Summary of the theme matrix design**

The main dimensions are product, region and customer because they can be measured with its P&L statement. Other functions may exist as their own matrix dimensions or part of the main dimensions; they are however operated as cost centres and not with a P&L statement. The other functions are sales, finance, marketing, research and development, product management, purchasing, logistics, manufacturing, service, project management, legal.

#### **4.5.4 Conflict and decision areas**

The area where conflicts arise and decisions are taken about is another theme that arises from the interview analysis. The interview analysis reveals that decisions about the distribution of decision power are applied in the areas of financial investments, human resources and customer strategy because these represent the three most important stakeholders of a MNCs namely shareholders, employees and customers and have the biggest impact on the P&L statement of a MNC. This finding is a direct answer to the two research questions and is unequivocally linked to the title of this thesis. The main finding is composed of four sub-finding which will be discussed in detail in the present section.

- Distribution of decision power about financial investments.
- Distribution of decision power about staff and HR issues.
- Distribution of decision power about customer strategy.
- Main decisions guided by P&L impact and stakeholder interests.

#### 4.5.4.1 Decisions about financial investments:

The importance of financial investments is confirmed by Interviewee #08, who suggests that the final decision is often a decision about money which is done by the persons who manages the budget.

“The last decision is usually with the budget holder in HQs”.

Interviewee #09 rephrases this statement slightly.

“The last decision is with the person with the deepest pockets”.

Interviewee #16 stresses that the decision power distribution between HQs and LCs is dependent on this kind of decisions.

“There are detailed lists which decisions can be taken locally and for which decisions synchronisation with the central units is necessary. Usually it is the case that centrally certain frameworks are decided, such as the general budget...or certain IT standards”.

Interviewee #12 discusses a MNC gradually investing in an increasingly independent local company.

“We have to look at the different cycles of LCs...First there is no business at all or just via third party reseller, why someone from HQ is sent to build-up the local business...Once there is a stable business that supports a local structure the next step comes, which is difficult for many MNCs, to transfer HQ driven decisions to the LC”.

Interviewee #24 experience many decisions between HQ and LCs regarding high-risk investments and finance decisions.

“The LCs wanted to get new sales orders, however once we had financing involved, HQs was very welcomed...The risks were put on the balance sheet of HQs whereas the LCs wanted to report high business volume towards HQs”.

In summary it is concluded that one of the main discussions about decision power involves financial investments. The investments mentioned by the interviewees are as follows.

- Set-up an own legal entity or build up an office.
- Ship a demonstration system or product.
- Upfront recruitment of staff.
- Road show to promote the new product.
- Vendor financing of projects.
- Investment in technology and IT infrastructure.

#### **4.5.4.2 Decisions about staff and HR issues**

The second decision area of potential dispute is about staff. The interviewees report that local subsidiaries claim expertise concerning the local environment. Consequently they want to decide on the employees who will control a specific product line or customer. Usually there are local managers who have worked for MNCs for many years and may feel thoroughly trained and qualified to assume the leadership of a product unit. These local managers traditionally feel linked to the local subsidiary rather than to the product units at headquarters. Local CEOs may want to place their favourite candidates into leading positions.

In contrast, the managers at headquarters may have their own view about the best candidates and might have reservations about local candidates, whom they know from previous assignments or roles in other areas of the MNC. Headquarters may think that their product is so new and special that the qualifications of the local staff are insufficient and consequently prefers to bring in their own candidates, which may be managers delegated from the headquarters.

The category HR / staff is for instance confirmed by Interviewee #02 who reports that the dispute between the product and regional dimension is mainly about the managers that do not support a change in power distribution from the product towards the regional side.



“We knew about the matrix problem, the company was not moving. We discussed who shall get the final decision power the region or product line? We decided in favour of the region, theoretically. We however did not change the people, so we consequently changed nothing and the company did not change”.

Interviewee #02 further suggests that the key for success is a management team that is aligned and if alignment is absent, then change is necessary.

“You need a management team that is aligned...If the management team does not want to change you have to exchange the management team”.

Interviewee #07 complains about HQ staff lacking competence and experience to deal with different cultures.

“There is a significant lack of know-how and experience in HQ, managers in HQ are sometimes arrogant and believe to know better and want to rule the world...We need to bring more people from the regions in the HQ and make this part of the incentive scheme”.

Interviewee #14 confirms the importance of staff matters by pointing to the particular challenge of managing and leading staff that has not a disciplinary but ‘dotted line’ reporting relationship.

“Matrix management is an art to manage the dotted line”.

Interviewee #28 discusses an explicit matrix rule of hiring and firing staff that is shared between two managers in a matrix organization.

“Two [managers need agree] to hire and one to fire”.

This means that two bosses need to approve a new hire and both have a veto right. However the dissatisfaction of one of the bosses is sufficient to exchange a manager in a certain role.

In summary it is concluded that the second discussions centring on decision power involves HR and staff matters. The discussions are not only centred on the regional-product manager but also the

regional managers, the local support staff and the staff representing the central product line or other central functions.

#### **4.5.4.3 Decisions about customer strategy**

The third area of potential conflict in how to distribute the decision power between headquarters and local subsidiaries is related to the customer strategy.

Interviewee #17 reports about the importance of interaction of a high-ranking local CEO with local customers.

“Our MNC was quite big. They could afford a local CEO, which was good for political connections....You needed a high level representative locally to discuss with customers on C-level”.

Interviewee #02 stresses the importance of customer related decisions and the importance to have HQ and LC aligned in approaching customers.

“Most customers are regional....Sales people cannot commit to customers if they don’t have a back-up from HQ”.

This is confirmed by Interviewee #09 who suggests that

“...customer interaction defines the matrix organizational set-up”.

In the same line of argument Interviewee #19 reports that

“...customer interests should be the first priority”.

In summary the interviewees report that the discussions about the distribution of decision power concerned questions about which actions are needed to win or keep a certain clients and who should be responsible for which part of the investment. Secondary questions address the appropriate staff to manage face-to-face encounters with customers, particularly the account or sales manager, but also the entire account team and the planned project team intended to carry out the delivery of the services and products. Disputes arise when defining the pricing strategy for new contracts, the extensions of existing plans and particularly deviations from the original project plan. In summary it is concluded that the third main discussions about decision power are about customer strategy.

#### **4.5.4.4 Decisions guided by P&L impact and stakeholder interest**

The interview analysis further reveals that primary decisions are centred on financial investments, HR matters and customer strategy because of the economic impact measured by the profit & loss statement and because they directly affect the main stakeholders, namely shareholders, employees and customers.

As pointed out by Interviewee #19 the overall objective of both HQ and LCs is to meet their targets, which are measured in form of a P&L statement.

“All dimensions have their own P&L and it is a constant process of negotiation of the value adds of each dimension”.

Interviewee #01 also mentions the importance of the P&L statement.

“The regional manager had the main P&L responsibility”.

Interviewee #03 further stresses the importance of the P&L statement by giving an example when too much responsibility is given to the LC.

“P&L given to region means no harmonization of product line, in the end the product was dead, because 75% of the central R&D staff was doing patches, why there was almost no further development”.

#### **4.5.4.5 Summary: Conflict and decisions about finances, staff and customers**

The conflict about the decision power between financial investments, human resources and customer strategy culminates in the question of who 'owns' the business, the staff and the customer. The LC claims to own the customer and best know him, as they have selected and trained their own staff for years. They have built up personal relationships with the customer and invested time determining how to move forward and in what manner. The product units in HQs claim to best know the product and how to sell it successfully, which they have been doing with many other customers around the world. The global product unit asserts that the selected local staff is not sufficiently trained and experienced which supports their desire to bring their own staff. The provided explanations and examples illustrate typical power struggles about the distribution of decision power in the three areas of financial investments, human resources and customer strategy.

The interview analysis suggests that there are rarely key important decisions other than the decisions about financial investments, staff/HR matters and customer strategy. Only two interviewees mention explicitly the relevance of marketing, supply chain and global purchasing as decision areas and it is interpreted that these areas actually belong to one of the three areas mentioned before

The manner in which the P&L responsibility was implemented was not equal; however, the key elements were new sales order, booked revenue and profit. The profit was measured by the contribution margin (CM) or gross margin (GM) and the earnings before interest and taxes (EBIT). The main difference between EBIT and gross or contribution margin lies in the allocation of indirect cost, mainly Selling, General and Administrative Expenses (SG&A), which differed greatly due to varied implementation of the cost structures in the various MNCs (Atrill & McLaney, 2004; Butler, 2008; Hawawini & Viallet, 2007; Horngren, Datar, & Foster, 2006; Walsh, 2008). The gross margin is in particular used to measure the financial viability of projects as it considers all direct project related cost, however SG&A cost, Research & Development (R&D) and allocation charges of the MNC are regarded as indirect costs. EBIT is usually used as measure for profitability for entire companies or business units within MNCs and also includes the business unit specific direct SG&A and R&D costs and as well indirect allocation charges of the MNC headquarters (Atrill & McLaney, 2004; Butler, 2008; Hawawini & Viallet, 2007; Horngren et al., 2006; Walsh, 2008).

## **4.5.5 Decision power distribution between HQ & LC**

A central theme in all interviews is around the questions of 'how' and 'why' decision power is distributed between HQs and LCs. These questions are part of the interview guide and directly reflect the research questions and the title of this thesis. It is important to note that no interviewee asked the questions about the definition of the term 'power' or 'decision power'. It is interpreted that all interviewees assumed that there was common understanding about these terms, which can be defined as the ability to influence decisions in the desired way. The interview analysis reveals six sub-themes around the distribution of decisions power between HQ & LC as follows:

1. Main decision power is with region.
2. Main decision power is with product unit in HQ.
3. Balance of power needed. Both matrix dimensions are important.
4. Decision power depends on contribution to value creation and changes constantly over time.
5. Need for clear rules for the distribution of decision power.
6. Joint target agreements

Many interviewees provide arguments for not one but various sub-themes. Following the main arguments for each sub-theme are summarized by a selection of quotes.

### **4.5.5.1 Main decision power is with region**

In certain MNCs, the main customers of LCs are mainly local state-owned companies that commonly hold a monopoly like market position. All communication is in the local language and operations are conducted according to local business customs. The process of winning new contracts is lengthy and complicated. The potential returns are high because of price levels cannot be compared due to strong customization. Some MNCs have been very profitable and successful in growing quickly by serving these local customers. In order to provide the high level of local customer attention most of

the decisions are made locally. This explains why the majority of decision power is allocated to local management. Local staff and management provide the best and fastest response to local market demands. Local employees have the advantage of proximity in language, culture, time zone and minimal travelling distance. There are potential synergies in a country using the same structure for all product units. Members of staff are hired with a local contract and live locally, which results in a high level of local attachment and consequently increases the influence of local management. Due to the historically successful mode of operation with high levels of local decision-making power and autonomy, the status quo has not been challenged even though local customers are gradually replaced by cross-region or global customers.

The argument is that cultural differences and local autonomy are accepted partly because of the European origin of the MNCs. Due to the relatively small size of European countries most Europeans are constantly exposed to different languages and cultures. This is also reflected in the business environment and it is easier to accept that each country is special in its own way. Some interviewees further report that the MNCs work in two kinds of products, namely standardized box type of products and complex customer specific systems. Some interviewees share the opinion that standardized mass or box business is less complex and consequently can best be sold locally. The products are usually developed and manufactured centrally at HQ or at HQ controlled sites, but the final pricing and customer negotiations are done in each country in a slightly different manner. Local management has to fulfil certain sales and profit targets and comply with pricing guidelines. Apart from this local management has a relatively high level of freedom and autonomy as long as defined business targets are met. Interviewees further on argue that each LC has to comply with local legal requirements, in particular tax and labour laws, which suggests that strong local involvement and decision power is a necessity.

Interviewee #01 relates power to the regional or local dimension due to proximity and employment relationship with the matrix manager.

“The regional manager had the local P&L responsibility. He had power because he was the disciplinary boss”.

Interviewee #04 reports that the regional dimension has too much freedom and power, which leads to effects of sub-optimization at the expense of the entire MNC.

“The regions had more power....Each country or region put the best structure for them in place incl. overhead staff functions and own processes....This was counter-productive for global efficiency; no global standard was possible...The regions were given too much freedom”.

Interviewee #23 associates strong power to the LC because of the need of fulfilling local tax requirements:

“There is always a strong local power due to local tax requirement. If profits are very different between HQ & LC then there are problems.”

#### **4.5.5.2 Main decision power is with product unit in HQ**

The advocates associating the decision power mainly with the product line in HQs argue that HQs is the owner of the product line and also the owner of the local subsidiaries. This structure speaks to the response of several interviewees who argue that the main part of the decision-making power should be allocated to HQs. The HQ is the final risk taker, because HQs has stronger financial capabilities and can balance risk much easier among various countries and product units. According to some interviewees, cultural differences and local autonomies are less accepted in MNCs of U.S. origin because North American executives are accustomed to a relatively homogenous culture and in the immense North American market, business operates without language barriers. These managers find it therefore potentially much more difficult when confronting with strong local entities.

Another reason arises for allocating the majority of decision-making power to HQs is significant for companies that offer complex systems type products. Local Companies have no or little experience in complex systems because they don't sell such systems regularly and cannot afford to reserve resources over a long period of time without any corresponding sales orders. Such type of projects can be managed with strong involvement from a team of HQ experts that sell and service the complex systems on a regular basis. The role of the local company is dependent on the availability of experienced staff in the specific system.

Interviewee #11 and Interviewee #28 report about a power shift away from LCs to HQs as a result of globalization.

“Historically there were independent and autonomous local subsidiaries. With globalisation more global products were needed addressing global customers. The power went back to the HQs” (Interviewee #11).

“Local subsidiaries nowadays have no or little power. The power is with the sales customer teams. In rare cases of strong local customers the local organization represented by the local sales customer team has also more power” (Interviewee #11).

“Previously there were regional kings and the LCs had a lot of autonomy, now the right of way is given to the business units” (Interviewee #28).

Interviewee #07 also sees the decision power eventually associated to the product unit in HQs, he however also acknowledges that some regions had more power than others.

“Usually the power is ultimately with the business unit, however there are strong regions which have stronger power”.

Interviewee #08 reports about the desire of consensus, the final decision power he however associates to the product unit in HQs.

“Joint decisions were preferred. Last decision was in HQ”.

Interviewee #17 reports that theoretically the ultimate decision power was with the product units in HQs, he however also complains that powerful and well-connected regional manager could by-pass this rule by influencing the highest decision makers in the MNC, namely the executive board of directors.

“The final decision power was in HQ, however this was not always too clear. Many LC CEOs were close to executive board”.



#### 4.5.5.3 There is always a matrix, both dimensions are important

Several interviewees report situations where the decision power is principally associated with either the product or regional dimension of the matrix. Each interviewee however also confirms the lack of complete decision power with either dimension of the matrix. No matrix dimension can solve all day-to-day problems, and MNCs shall strive to reach the best decision by involving all parties. Of course some business problems or issues are better solved locally, others better centrally. The need for involvement of the LC and HQ is different for each combination of product and country. Having no matrix is not a viable option; both dimensions of the matrix are needed. The interviewees suggest that managers from both sides of the organization shall recognize this fact and attempt to cooperate and avoid unnecessary power battles. Work would be executed in the most efficient manner utilizing this concept from which the customers and the entire MNC would benefit.

Interviewee 0#5 and Interviewee #09 both see significant power given to both dimensions the region and product unit, however more power is seen to be associated with the region, in particular in relation to staff matters.

“The power was mainly in the regions (60% regional, 40% HQ). Product units hardly could position own staff” (Interviewee #05).

“As a local product unit manager the power about me was 55% with the region and 45% with HQs” (Interviewee #09).

Interviewee #13 associates different roles to HQs and LCs showing that both dimensions are relevant.

“The basic function of local subsidiaries is sales...The day-to-day business decisions are made locally, the tactical decisions, like strategy at headquarters”.

Various interviewees stress that both matrix dimensions are important and that there is always some sort of matrix.

“Product and region both have always some sort of decision power” (Interviewee #05).

“Matrix means shared responsibility and various parties are involved....Joint decisions are preferred” (Interviewee #08).

“Matrix means a regional sales boss and a product unit boss....There can be more dimensions....The structure changes every 2-3 years and is adapted to customer’s needs....Both dimensions have always power and shall find a solution” (Interviewee #09).

Interviewee #14 and Interviewee #19 describe that both the regional and product dimension were managed with their own P&L statement.

“The local CEOs and the product CEOs had to fulfil profit targets. If they were met no questions were asked” (Interviewee #14).

“All dimensions have their own P&L and it is a constant process of negotiation of the value adds of each dimension” (Interviewee #19).

Interviewee #20 provides the example of product or box business where the LC is mainly a sales office acting on behalf of the product unit in HQs. In such a case most decision power, for instance about technical content and prices, is associated with the HQ, the task of execution is given to the LC. In the end both dimensions still are seen to have decision power.

“In the product business there are 95% central decisions in HQ”.

Interviewee #16 provides an explanation why the local dimension always is relevant.

“A local dimension....is needed just because of legal reasons”.

Interviewee #13 suggests that the distribution of decision power should consider cultural sensitivity, because he reports about

“...other decision making in Brazil, USA or Germany”.

#### **4.5.5.4 Decision power continuum is constantly changing**

The interview analysis further suggests that there is no permanent and universally applicable point of decision power distribution, but rather a constantly changing continuum; decision power depends on many factors such as maturity of the product, capabilities of the local subsidiary, the national historic heritage of the MNC and the general market environment. Consequently there is a matrix continuum and all matrix dimensions are important particularly because of legal, tax and national regulations or because of customer requests.

The distribution of decision power of each combination of product and region is different. It varies with different projects of the same product line in the same region. Different products have different levels of maturity and different levels of complexity. These aspects speak to the different levels of support for the product unit in HQ and the local office. Local Companies have different sizes and different levels of management capabilities to manage different products. So the distribution of decision power between HQ & LC must be adjusted for each country or region. Customers are different in different countries. Some customers may have strong local competencies and demand a higher level of local support. Other customers may demand that the primary relationship reside with central product management.

The distribution of decision power is in a state of constant flux. New compliance and anti-corruption requirements may require more central control and management. Decision power is always strongly associated with the people involved. A change of key staff or senior managers may result in a change of the distribution of decision power between HQs and LCs. Mergers, acquisitions and divestments can potentially change the relative importance of a product unit or country. Another source of change in the distribution of decision power between product units in HQ and countries is the change in the customer landscape, such as the appearance of global accounts that require a strong central support and negotiation of contracts versus the previous model of strong local autonomous – state-owned – customers. The appearance of new competitors on local, regional or global level is mentioned as a further source of change, which can result in the modification of decision power.

Various interviewees suggest that the decision power is associated to the part of the organization which is eventually responsible for the financing of the decision.

“In general the last decision power is with the budget holder” (Interviewee #08).

“The power was with the person with the biggest pocket” (Interviewee #09).

“Those who take the risk have the power” (Interviewee #11).

“The one who has the budget decided and had the ultimate power” (Interviewee #31).

Interviewee #12 describes that the more value a LC can contribute the more power it is eventually given.

“Local subsidiaries pass through cycles of development. In the build-up phase they need a lot of support, later they should run independently”.

Several interviewees stress that depending on the value creation and maturity HQs and LCs can have different power and responsibilities for different product-regional combinations.

“If there is more added value of the LC the local autonomy should increase” (Interviewee #13).

“The local subsidiaries were in the lead for standard business, like product business. HQ was in the lead for complex business, like systems business....The power distribution between HQs and LCs varied a lot depending on the region-product mix” (Interviewee #15).

“The power distribution depends on local added value or contribution in the value chain. As an example in the service business there is a lot of local added value because of local technicians. Consequently there is also a lot of local decision making power” (Interviewee #20).

“Depending on the business unit there was either more power in the HQ or the region. In a new business unit the power was rather in the HQ. In established business units the power was rather in the LC....In mature business there were many local decisions, with own local risk independent from HQ” (Interviewee #22).

“Power was depending on the value creation, either more local or central. High tech companies are rather central, service companies are rather local” (Interviewee #25).

“The autonomy and decisions making power that I granted to the LCs depended on the level of maturity, the risk and potential of the business” (Interviewee #27).

Various interviewees highlight the importance of size and personal network for the distribution of decision power.

“The power distribution between HQ & LCs is not the same in different parts of the organization, because it depends on personal relationships, self-marketing, historic power and sales volume” (Interviewee #07).

“The power usually depended on the importance of the LC. The importance was a result of the sales volume, the personality and network of the local CEO. In the end it depended on how many key decision makers in HQs trusted the local manager” (Interviewee #18).

“Absolute size of the LC was also important. Big LCs could cross subsidise business and therefore execute power” (Interviewee #25).

Interviewee #19 believes that the decision power distribution is constantly changing between HQ and LCs.

“There is always a pendulum of power between HQ and LCs”.

Interviewee #19 and Interviewee #22 report that there is constant disagreement or negotiation about the contribution to the value chain by each part of the matrix dimension.

“There are constant power battles” (Interviewee #22).

“There are constant processes of negotiation” (Interviewee #19).

Interviewee #22 stresses the differences between new and mature businesses. He suggests that a new product line needs particular care, attendance and up-front investment from global product units based in headquarters. Local subsidiaries are measured against short term sales and profit targets and therefore are less willing to dedicate time, financial and human resources for a new product where the chance of success are not clear yet.

“In our MNC that had a long history and a broad portfolio it was very difficult to establish new requirements or new business areas. I therefore believe it makes a lot of sense to let

new product units run as separate entities, maybe even legal entities...Once they are bigger they can then be integrated into the global structure”.

Interviewee #22 further states that involvement from both sides is important.

“In the end it is however difficult to reach people with global structures, why it is better if the local management is involved. A strong link between central top management and local management is very important to reach alignment and between global and local targets”.

In summary introducing a new product to an existing customer of other products requires a strong involvement from both sides. Headquarters will be more familiar with the product than the local colleagues; however, the local subsidiary is closer to the customer and is acquainted with the internal politics and decision-making processes. A mature product line with established customer relationships can be steered more locally than from the headquarters. Local staff is typically familiar with the customer and brings the benefit of time, locations and cultural proximity. The interviewees stress that there is always a matrix and power continuum. The management of the LC shall be involved and should receive financial incentives to dedicate their own resources as well. In conclusion, this study suggests that the distribution of decision power between the various matrix dimensions is not fixed permanently, but in flux and dependent on the added value, which is influenced by many factors. The added value of each dimension is influenced by various factors such as the following ones mentioned by the interviewees.

- Maturity of the product or service.
- Experience and history of the local subsidiary.
- Type of business, e.g. box or systems business.
- History and experience of the product in the specific local market.
- Cultural aspects of the MNC and the various countries where it operates in.
- Personality, political network and experience of the managers in HQ and the LC.
- Customer relationship and history.
- Competitive environment.

- The general market environment.

#### **4.5.5.5 Practical examples of power distribution**

Subsequently, two sub-themes will be presented that relate to the main theme 'distribution of decision power'. Rather few interviewees provide input for these examples; however, no interview contradicts them explicitly. For that reason, it is decided to show them for reasons of practical illustration.

- Differences in box and systems business.
- Differences between European vs. U.S. multinationals.

##### **4.5.5.5.1 Box versus systems business**

Some interviewees suggest that the distribution of decision power among the matrix dimensions product and region varies greatly between box and systems business. A box business is characterized by largely unified products that are sold throughout the world with no or minor modifications. A typical product of a box business can be technical device that can be carried by an individual person; the end customer can both be a private person, a company or a public institution. A systems business is much more complex. A typical 'system' can be a large industrial plant or its constituents. In the box business certain global strategic decisions such as product and pricing strategy primarily occur centrally in headquarters; however, the implementation of sales and services is almost entirely delegated to the local subsidiaries. By contrast, the roles of headquarters and local subsidiaries are less clearly defined if complex systems are offered, because each customer project is different and requires different involvement of HQ and LCs. Consequently some interviewees suggest that conflicts in decision power distribution in the product-regional matrix are more likely if box and systems businesses are mixed.

Interviewee #20 considers that the decision power is very different in product and systems business.

“In product business 95% of decisions are taken locally. In the business of large power plants 95% of the decisions are taken centrally”.

Interviewee #05 is very explicit about the fundamental differences between box and systems business. He holds the view that complex systems business and product business do not fit together in the same structure.

“Box and systems business need a different structure and approach”.

“Local Managing Directors need targets for all business units and not just targets for absolute values”.

“Complex systems business should be managed out of HQ with strong local involvement and value added”.

“Easy mature box business can be managed locally with clear sales targets”.

“You always need the local involvement because of language and culture”.

“There must be sanctions if targets are missed in some product units, or there must be a very high bonus if having success in a small unimportant product unit”.

Interviewee #14 discusses issues regarding representing a relatively small system-business like unit in Headquarters that struggles to get attention from local CEOs who prefers to sell the easier and more profitable box-type of product.

“The top management of the MNC was reluctant to give the local CEOs specific targets for each product unit, because they were afraid to be made responsible in case of non-performance”.

“I requested to have local sales managers, with whom I could agree on the targets, otherwise I could not commit to the growth and profit targets. The top management agreed that I was right, but they did not want to change because overall the sales organization was working well”.

“If the overall business performance is good there is little willingness for change because overall there is no need for change”.



Consequently Interviewee #14 believes that a matrix works well if comparable business models are put together. At the same time Interviewee #14 sees serious problems if the same structure is used for box and systems business as both business types require a very different involvement from HQs and LCs.

"A matrix will just work if comparable business models are put together; otherwise the weaker parts will lose".

This specific example about the differences between box and systems business is interpreted as further evidence for the previously discussed finding that decision power distribution is dependent on the added value of each dimensions and therefore potentially different for each combination of product and regional dimension.

#### **Practical example of difference between box and systems business:**

As practitioner I share the view and experience that it may be difficult to manage high volume and relatively simple box business together with complex less frequent systems business in the same organizational structure. For that reason it was decided to illustrate the differences between a typical box and systems business using a hypothetical case that was derived from the interview analysis and also includes some of my experiences as practitioner.

A typical price range for a box-business type product ranges approximately from 100 Euros to 100,000 Euros. The central product unit located in Headquarters develops and manufactures the products in few central locations. The research and development unit and the manufacturing unit can potentially be located in some local subsidiaries; however, in these functions they clearly report to headquarters and the local management administers the local legal framework. Sometimes there are also tax benefits due to local research & development and manufacturing. The distribution of decision power in the R&D and manufacturing functions is clearly inclined to headquarters. The unified products are then sold by local sales managers of the local subsidiary or via resale distribution channels. The local subsidiary or the distributor receives either a sales commission for each sale or purchases the products from headquarters for a defined transfer price. If certain sales volumes are reached and if local qualified staff is available, local maintenance and repair services can be provided. Maintenance and repair services can boost customer relationships and increase sales volume,

however they are not necessarily mandatory. Eventually the local subsidiary largely depends on new product developments by headquarters.

A typical price range for a systems-business type product can be from 1,000 Euros up to hundreds million Euros or even more. The system is usually composed of many individual parts and developed and manufactured in headquarter controlled research and development and manufacturing centres. The role of the local subsidiary can cover a wide range of functions, from facilitating the sales process by introducing staff from the headquarters product unit to customers to customizing large parts of the system by local customer specific research and development, engineering and manufacturing. Local services of installation and after sales services are usually mandatory because the customer needs fast local responses. Alternatively, the local subsidiary may attempt to become a greater part of the value chain by local modifications and adaptations of the systems. Local customer specific manufacturing can additionally be viewed as an increase in the chances of winning and maintaining customers and higher profits due to more comprehensive participation in the entire value chain. Table 35 summarizes the differences of the product and systems business for local subsidiaries and the options of involvement. This example shows that the significant differences of the product and systems business increase the possibility of conflict between headquarters and local management if products of both business models are offered in the same country or region.

The management skills required and the processes are very different. Local managers familiar with a systems business approach are used to have a medium to high contribution to the entire value chain with greater decision power allocated to them. They potentially have difficulties accepting that less local involvement and decision power is deemed necessary by headquarters when entering into a box-business model. Vice versa, a local manager of a box business may be overwhelmed by the new additional requirements of value chain contributions as well as local decision or risk taking when entering into a systems business model.

There is less room for interpretation of the roles of the local subsidiary in case of box business. The local office is basically in charge of selling the products and providing some local services. In the case of systems business there is a wider range of responsibility and decision power for the local subsidiary. Consequently there is more uncertainty and a risk for power struggles in systems business environments. This is particularly true if the LC managers are faced with the challenges to manage both box and systems business. For that reason interviewees suggested that the same structure and sales channels for box and systems business does not work well.

**Table 35: Differences of product and systems business for local subsidiaries of MNCs**

	<b>Box business</b>	<b>Systems business</b>
<b>Sales commission</b>	Option 1.	Option 1.
<b>Transfer price, own sales risk for local subsidiary</b>	Option 2.	Option 2.
<b>Installation service</b>	Optional.	Mandatory.
<b>After sales maintenance services</b>	Optional.	Mandatory.
<b>Customer specific engineering, research and development or manufacturing</b>	Not possible.	Optional.
<b>Sales volume per unit</b>	100 Euros to 100,000 Euros.	1,000 Euros to hundreds of million Euros.
<b>Units sold per year</b>	At least 100, more likely 1,000 or even 100,000.	Less than 100.
<b>Duration of acquisition process</b>	Days, weeks or months.	At least one year.
<b>Customers</b>	Local, maybe also global.	Local and global.
<b>Contribution to value vain</b>	Little.	Medium to high.
<b>Decision power distribution about financial investments</b>	Inclined to headquarters.	Strong involvement of HQ and LC.
<b>Decision power distribution about general pricing and profit rules</b>	Inclined to headquarters.	Strong involvement of HQ and LC.
<b>Decision power distribution about customer specific pricing strategy</b>	Mainly local decision making.	Strong involvement of HQ and LC.
<b>Decision power distribution about Human resources</b>	Mainly local decision making.	Strong involvement of HQ and LC.

#### 4.5.5.5.2 U.S. vs. European MNCs

Another theme in the context of distribution of decision power between HQ and LCs is the potential difference between U.S. and European MNC. The theme is addressed by just few interviewees, their messages and views are however very much aligned. It is interpreted that the few number of interviewees addressing the theme results from the fact that just few interviewees feature specific experiences with or in U.S. MNCs.

The following conversation with Interviewee #02 provides further insight into how interviewees addressed this issue.

Interviewee #02:

“The U.S. is a free and tough country with simple rules in the business environment. If you deliver as promised and agreed you receive all credentials and a big bonus and potentially a promotion. If you don’t deliver you are punished and nobody cares why you did not deliver. Make your numbers, no surprises, and no excuses. In Europe and European MNCs there is more of a culture of understanding and listening to reasons for non-performance. So managers and even members of the executive board of big companies in Europe stay in charge even if they did not meet their targets at all”:

“I believe one reason for these different cultures lies in the fact that Europe and European countries are small in comparison to the U.S., so Europeans are used to see different viewpoints of different countries with different cultures and languages. Europeans are more consensus-oriented and in many countries there is a big sense for social responsibility. To fire people is seen as bad and poor management practice”.

“As a consequence U.S. managers have huge problems to get used to not having ultimate control and authority as it is the case in a matrix organization. European managers are more consensus oriented and see value in the additional loop of discussions and potentially slower decision-making”.

Interviewer:

“What do you prefer or recommend? Is there a best way”?

Interviewee #02:

“Maybe the solution is a middle way. I would love to see some more performance orientation and drive for efficiency and less excuses in Europe and more understanding, listening and social orientation in the U.S. Matrix structures are helpful to get all important parties involved, but it must be crystal clear who has the ultimate say. This is in particular true in the area of sales, where quick decisions in local companies must be taken. So it must be clear who has the final say on prices, margins and bidding strategy”.

Interviewee #10 confirms the view that U.S. MNCs typically have more difficulties accepting strong autonomous local subsidiaries and they face difficulties with European diversity of cultures and view.

“My experience with the U.S. MNC was that...the variety of opinions and self-confident managers in various countries and various product lines...was too much”.

Further on Interviewee #10 relates one of the reasons to the fact that U.S. companies have a large national market where business habits and cultures are relatively similar. Consequently U.S. companies can grow significantly and run a successful operation before they enter in non-north American countries like Europe, Asia or MEA.

“We need one man for Europe...and no matrix”.

Interviewee #10 criticizes the intention of managers in U.S. MNCs toward full transparency for each product line in each country as

“...shareholder paranoia”.

In summary the interview analysis suggests that there is potentially a strong difference between European and U.S. based MNCs. This difference has its roots in national cultural characteristics and in the size of the respective home markets. It is recognized that it can be argued whether national cultural characteristics exists at all and if they can be measured. This is in particular true for the large and federal country like the U.S. where there are huge potential cultural and business practice differences between for instance the East and West coast and rather rural centrally located states.

From a practitioners viewpoint it is assumed that national cultural stereotypes and characteristics can be helpful in analysing and understanding different business practices.

#### **4.5.5.6 Need for clear rules for the distribution of decision power**

Another finding of the interview analysis shows that MNCs need clear rules for the distribution of decision power to counteract the matrix flaws of delays, high costs and unclear responsibilities. In particular rules are needed if no agreement is reached.

Some interviewees feel that the distribution of decision power was partially defined because they were aware of a mixture of explicit and unwritten rules, which they knew because of their experience or from internal networks of contacts in the MNC. The interviewees who felt that rules existed all had a very senior position and many years of local experience.

However, most of the interviewees feel that the distribution of decision power is ambiguous. They address the absence of clearly written processes or instructions. Many interviewees claim that there is a constant change of management in the key functions at HQ. This is why the definition of matrix management processes has never been a key priority. Some interviewees even argue that top management fosters competition and negotiation between the two matrix dimensions believing that survival of the fittest principle would best suit the overall interest of the MNC.

All but two interviewees explicitly mention the need for precise processes and rules governing how decision power is distributed between headquarters and local companies. They pointed to the issues of internal negotiations, coordination and power struggles that lead to inefficiencies by occupying managers and staff with solving internal problems. As both matrix dimensions are needed, no matrix dimension should be under the illusion that they have the primary power. As both sides are needed, it is in the interest of the entire organization that basic rules are defined. Clear rules and responsibilities will result in faster decisions and will counteract a typical flaw of matrix organizations. As local management or sales staff should represent various products, MNCs need to define how and where to place their priorities and focus. MNCs should assume that every manager acts primarily according to his or her self-interests. MNCs should not expect that any local manager, in particular a sales manager would promote a difficult low volume product, without proper motivation via (sales) objectives.

Various interviewees suggest that a process how to come to a decision and the final decision maker shall be defined.

“You need rules and a system in case you don’t come to an agreement” (Interviewee #06).

“The final decision maker needs to be defined” (Interviewee #09).

“There shall be a clear process and rules how to come to decisions” (Interviewee #24).

“Each matrix organization needs a clear set of rules of how decisions are taken and in particular which matrix dimension has the ‘last call’. Who takes the decisions if there is disagreement? This must be clearly defined. And it must be a fast process and must not be complex” (Interviewee #04).

Interviewee #18 argues in the same line of argument.

“The power cannot be shared by 100%”.

Interviewee #23 provides further arguments for a clear definition of the final decision maker.

“The biggest risk is to take no decision”.

Various interviewees complain about the lack of clear rules which led to high inefficiencies:

“A matrix is just working well if the rules are clearly defined....We have seen that without clear rules we created a huge overhead....Too many people had a say, but in the end no responsibility for the end results....We had very democratic structures; we needed a unanimous decision....There was a high coordination and reporting effort” (Interviewee #04).

“Lack of definition of rules and a responsibility leads to lack of accountability and unclear communication” (Interviewee #08).

“There were no clear rules or guidelines how to work in the matrix” (Interviewee #09).

“If there are no clear rules, than the local management tries to optimize their own incentives and salary” (Interviewee #28).

Interviewee #06 reflects that the final decision maker was not clearly defined even though it was mostly the local manager.

“The final decision was with one person, usually the local manager; however this was not clearly defined”.

Even though Interviewee #08 sees the final decision power associated to the product unit in HQs as discussed before he later on specifies that actually the budget holder has the final power, why according to his interpretation is not clearly defined. This eventually leads to inefficiencies.

“In general the last decision power is with the budget holder. However it is not well defined....Due to lack of definition there was a lack of accountability and unclear communications”.

Various interviewees point out the lack of organizational guidance and planning in the distribution of decision power.

"There was no design of power distribution between HQ & LC. The power distribution was rather the result of pure coincidence and historic developments and grown over time. No clear rules existed" (Interviewee #22).

“The power distribution was weak defined, very political, in particular in case of staff decisions” (Interviewee #28).

“There was no good guidance how to manage relationships between HQ & LC. There was a grey responsibility matrix and a lot of negotiations and asking for favours. I did not get things naturally but had to ask for them” (Interviewee #30).

Interviewee #02 provides a suggestion that the distribution of decision power is different depending on whether an organization focuses on either profit optimization or pursuing growth opportunities.

“One shall clearly define who has the final power. The answer shall depend whether the main target is profit or growth. If the answer is growth than you need a regional focused matrix, that is give the regional manager the decision making power. It comes at the cost of



less profit....Customers love you but say that you are behind....If the answer is profit than you need a product focussed matrix” (Interviewee #02).

#### **4.5.5.7 Joint target agreements**

Another theme surfacing in the interview analysis of power distribution between HQs and LCs is the potential challenge of joint target setting in matrix organizations. There is a risk of conflicts of targets between HQ and LC and a risk of optimizing local profits and incentives and sub-optimizing global ones. Joint target setting among the matrix dimensions is strongly recommended among the matrix dimensions such as product, region and global customers. Consequently the interview analysis suggests that MNCs further need clear incentive and training schemes for all dimensions in order to set the right level of motivation for managers and staff.

Interviewee #24 complains about the lack of joint targets.

“Target agreements are not well synchronized”.

The need to eliminate such a flaw is also suggested by Interviewee #27.

“Clear target setting and harmonized incentive schemes are needed”.

Interviewee #07 and Interviewee #17 believe that training and motivational schemes needed to train and motivate managers and staff to work towards the best interest of the entire cooperation.

“Employees need to be trained in soft skills and motivated to work in matrix organizations” (Interviewee #07).

“The challenge is that everybody acts in the best interest of the entire company” (Interviewee #17).

Interviewee #05, Interviewee #28 and Interviewee #24 specifically address the flaw of not penalizing failure. Interviewee #30 for instance suggests to

“...celebrate your success and penalize your mistakes”.

Summarizing the interview analysis suggests using joint and aligned incentive or reward systems that include the coordination and synchronization of the financial, operational and strategic targets of the various matrix dimensions, which all hold a P&L responsibility for their dimension. As the global P&L statement of an MNC is the sum of all product unit P&Ls and equally the sum of all regional P&L there are targets for each product unit in each region. If the third P&L dimension customer is used, then the product and regional targets must be mapped also in the customer dimension.

It is suggested that target achievement should be monitored regularly, and that under-performance should not be ignored as on-target or over-performance will be rewarded. Potentially not all targets for all product units in all regions and all customers will be met precisely as originally planned. Consequently rewarding or penalizing purely on financial figures that usually are defined 12 or more months in advance would be short sighted and would not lead to long term sustainable development.

It is therefore suggested that there must first be an agreement on synchronized targets among the dimensions product, region and customer and secondly a dialog on reviewing the targets with the intention to learn and improve from the knowledge of achieving and not achieving targets. The interviewees further suggest that MNCs should implement an incentive scheme that is agreed upon and communicated with all managers of all matrix dimensions. As there are matrix dimensions involved with some form of decision power, it is vital that the bonus or incentive scheme covers all matrix dimensions. Otherwise MNCs face the risk that managers are not aligned because of their intention to comply with competing incentive schemes.

## **Examples**

The following section provides two examples of the challenges of synchronized target setting. The hypothetical examples are derived from the insights gathered from the literature review and the interview analysis. The examples were not presented in totality by one of the interviewees or in a literature source, but are a blend of all interviews and the literature review with the intention to

provide an example that could occur in a similar way in a typical (German) technology MNC. My experience as practitioner is also added in the composition of these examples:

- Example 1: Own business versus commissions business
- Example 2: Establish rules for under- und over-performance

### **Example 1: Own business versus commissions business**

As shown earlier in Table 35 there are different types of involvement of the local subsidiary. From the global P&L perspective of the MNC there should be no difference in whether the local subsidiary receives a sales commission or whether it would buy the product or system for a transfer price from headquarters and sell it with a mark-up at the same sales price to the end customer.

As shown in Table 36 let's assume a sales price of 100 Euros for a product that is sold to a customer. In case of a commission business the local subsidiary would get 5 Euros as a commission of 5% of the sales price to the end customer. In case of a transfer price business the local subsidiary would buy the product for 95 Euros from headquarters and sell it then to the end customer at 100 Euros. In both cases the sales prices for the end customer are with 100 Euros the same. The local subsidiary would get 5 Euros and the headquarters would get 95 Euros. There may be tax, legal and other local reasons to prefer one or the other variant, but for the global P&L statement there is no difference.

This study reveals potentially significant external and internal political reasons for local subsidiaries and headquarters to prefer one or the other variant. Local subsidiaries may prefer to receive a sales commission in case of a technologically risky system or product or in case of deferred payment arrangement, because a failure of the project could risk the financial stability of the local subsidiary and typically local subsidiaries do not have the capabilities offering large deferred payment agreements.

This study also suggests that apart from these external reasons there may be an internal reason related to the incentive of perceived importance of the local offices. In the abovementioned case the profit for the local subsidiary would be the same, namely 5 Euros. The revenue would however be different. In case of a sales commission the revenue created from the transaction would be 5 Euros in the other case the revenue would be 100 Euros. The revenue for headquarters would vary between 95 Euros for transfer price business and 100 Euros for commission business.

**Table 36: Impact on profit and loss statement of commissions and transfer price business**

	<b>Commission business</b>	<b>Transfer price business</b>
Customer Price	100 Euros	100 Euros
Profit contribution for local subsidiary	5 Euros	5 Euros
Profit contribution for headquarters	95 Euros	95 Euros
Revenue in P&L statement of headquarters	100 Euros	95 Euros
Revenue in P&L statement of local subsidiary	5 Euros	100 Euros
Revenue in P&L statement of MNC	100 Euros	100 Euros
Profit in P&L statement of local subsidiary	Same	Same

The large difference between 5 Euros and 100 Euros revenue for the local subsidiary may tempt local subsidiaries to seek transfer prices in case of low involved risk, because they can show higher sales figures to their superiors in headquarters and eventually increase their level of importance and political decision-making power in other areas of the matrix organization of the MNC. In the final global profit and loss statement these revenues are not counted double; the impact on the global level is the same for profit and revenue. To summarize, this example leads to the following recommendation: Clear joint incentive schemes must be implemented covering all managers of all matrix dimensions.

**Example 2: Establish rules for under- und over-performance**

An exemplary split of sales revenue of an MNC is shown in Table 37. It reveals that overall sales volume of the MNC is 18.72 billion Euros. The sum of all country sales revenue as well as the sum of

all product unit sales revenues adds up to the overall sales revenue of the MNC. Both the country and product dimension are measured with their own profit and loss statements. There is a CEO, general manager or managing director for each of the three product units and also for each of the 10 countries.

**Table 37: Exemplary split of sales per product and country (in million Euros)**

	Product 1	Product 2	Product 3	Total per country
Country 1	2000	100	1800	3900
Country 2	1000	2500	2300	5800
Country 3	3000	1000	50	4050
Country 4	100	200	1500	1800
Country 5	50	150	100	300
Country 6	0	100	50	150
Country 7	150	1500	200	1850
Country 8	100	0	150	250
Country 9	0	250	0	250
Country 10	20	50	300	370
Total per product	6420	5850	6450	18720

The CEO of the MNC agreed first on sales revenue targets – and other financial key performance indicators - with 13 countries or product CEOs. This is not sufficient for the entire target setting process, because the three product CEOs have to agree with the 10 country CEOs on the 30 specific targets for each product in each country. Table 38 shows where the final sales revenues deviated from the original planned values. From a global perspective, the overall CEO may be satisfied if the sales volume is met at the end of the year. When looking at the results per country or product the final outcome can be very different from the planned values.

**Table 38: Exemplary split of sales per product and country with changes (in million Euros)**

	Product 1	Product 2	Product 3	Total per country
Country 1	2000	100	<b>2300</b>	<b>4400</b>
Country 2	1000	2500	<b>2800</b>	<b>6300</b>
Country 3	<b>2500</b>	<b>1500</b>	50	4050
Country 4	100	200	<b>500</b>	<b>800</b>
Country 5	50	150	100	300
Country 6	0	100	50	150
Country 7	150	1500	200	1850
Country 8	100	0	150	250
Country 9	0	250	0	250
Country 10	20	50	300	370
Total per product	<b>4420</b>	<b>7850</b>	6450	18720

In the course of the year the CEO of product 3 may be less successful in country 4 and reach a sales volume of just 500 million Euros. To compensate for this reduction, product 3 may have higher sales at 500 million Euros each in country 1 and country 2. The overall sales volume of product 3 would stay constant. Country 1 and country 3 would have reason to celebrate; whereas country 4 would have a very difficult year, in particular because it is dependent on product 3 and lost more than half of its sales revenue.

Another shift of actual versus planned revenue happened in country 3, where product 1 sold 500 million Euros less than planned and product 3 reached sales revenues of 500 million higher than expected. The overall sales performance for country 3 is on budget. Product 1 missed the targets by 500 million Euros, whereas product 2 delivered 500 million more than expected.

The CEOs of country 3 and product 3 may both claim, that they are satisfied with the sales revenue of the year, because they both reached the exact sales volume as planned in the budget. As both

compensated the losses in one country of product with gains in other countries or products there are country and product CEOs who would be very dissatisfied.

It is suggested that MNCs need to establish clear rules to deal with this situation of over-performance in some areas and under-performance in other areas. A positive aspect of this arrangement is that the CEOs of product 3 and country 3 could compensate losses in some areas with gains in other areas. The over-performance should be analysed to learn the elements of good results and to determine whether these actions or strategies can be transferred to other product units or countries. The CEOs of product 3 and country 3 should receive an (financial) incentive for the over-performance. An equally thorough analysis needs to be undertaken to understand the lower than expected sales revenues. Analysis should be instituted designed to avoid similar under-performance in the following years, other product units or countries.

Such a proceeding is suggested, because all 13 countries or product CEOs have jointly agreed on the budget sales revenues. Due to the matrix structure of the MNC they all depend on each other. The process and the tracking of these target agreements is an inherent problem of MNCs and require attention from the top management of the MNC. There is no exclusive assignment of decision power to either the countries or the product units. But there is a distribution of decision power, which is potentially different for each of the 30 matrix points and the related sales revenue. Any deviation in each of the 30 matrix points affects the profit and loss statements of a country CEO and a product CEO. Due to this dependency there must be an open and transparent process to analyse and learn from these deviations. It is suggested that doing this will foster a culture of cooperation.

#### **4.5.5.8 Summary of sub themes**

The global corporate HQs is seen as representative for the location of the HQs of the global product units, why it is a synonym for the product dimension. LCs are seen as representatives for the regional dimension mainly focussing on sales and service activities. There is no agreement among the interviewees whether the decision power was mainly allocated to HQs or the LCs or the product unit or the region. Neither the product units in HQs nor the LCs have all decision power, there is always power residing with the other dimension. Therefore all dimensions are important and relevant and have at least some decision power, why there is always a matrix organization. There is no fixed distribution of decision power; it changes constantly over time and is dependent on many

factors summarized as contribution to value creation of each dimension for each combination in the product-regional matrix. Contribution to value creation is dependent on the type and maturity of the product, the experience of the managers involved along with their relationship among each other and the internal political network. The distribution of decision power is dependent on the phases of regionalization. The phases of regionalization are not uniquely defined for the entire MNC, but dependent and different for each country or region and product unit. The distribution of decision power was not well defined or defined at all, although there is strong agreement among the interviewees that rules and processes for the distribution of decision power are needed.

#### **4.5.6 Simultaneous matrices**

The interview analysis reveals that MNCs use various kinds of matrix organizations simultaneously in different parts of the organization because matrix organizations offer a flexible and effective way of balancing various competing interests at the same time. There is no single strategy structure fit because different matrix organizations serve different purposes. There may be a different matrix on the highest level, whereas different matrices exist in lower levels of the organization.

Interviewee #01 asserts that there are many matrices and many mixed forms of organization.

“In a practical environment there are many time mixed forms of matrix organizations...You may find at a certain location a matrix and...in parallel different mixed structures...and in other regional offices you find again a different matrix or a mixed organization”.

Interviewee #02 reports about up to 11 levels of matrix dimensions as discussed earlier. Looking at the example it is clear that in this specific situation 11 decision makers, that all have a veto right are interpreted as 11 matrix dimensions. This view can be challenged, and it should be asked whether these 11 decision makers really form a formal matrix organization with 11 dimensions. Likewise the view can be challenged whether the formal abandonment of the matrix structure indeed eliminated all elements of a matrix, namely multiple reporting lines. Interviewee #30 states that an informal matrix structure still existed after the official abandonment of the formal matrix structure. It is interpreted that there must not necessarily exist a formal matrix structure but that there are different formal and informal structures in different parts of the organization.



Whereas Interviewee #04 confirms that there is

“...no single matrix for all part of the organization....There are different matrix organizations in different parts of the company using different matrix dimensions”.

Interviewee #16 stresses that independent from the other matrix dimensions there is always a matrix due to the HR and finance function that is needed in each MNC.

“Each corporation has a matrix structure in one or the other way, just because of the finance and HR component”.

No interviewee states that there is only one single matrix. Multiple reporting lines are considered as commonplace and therefore matrix organizations exist at different parts of the organization. For that reason it is suggested that matrix organizations are standard practice in MNCs and co-exist simultaneously in different parts of the organization.

#### **Example: Various matrix structures co-exist, no single strategy structure fit**

Following will be discussed an example of a typical complex organizational diagram of a large MNC as shown in Figure 30. This example is derived from the interviews of this study in order to illustrate the existence of various parallel matrix structures at the same time. It can also be regarded as an example of the findings presented so far in a complex matrix organization of a large MNC. My experience as practitioner is also partly used for the composition of this example. The main input is however coming from the interview analysis and my experience is used primarily for interpretation of for extracting implicit statements. At the top of the organization is the group Chief Executive Officer (CEO) of the MNC. His direct reports are composed of four types of functions.

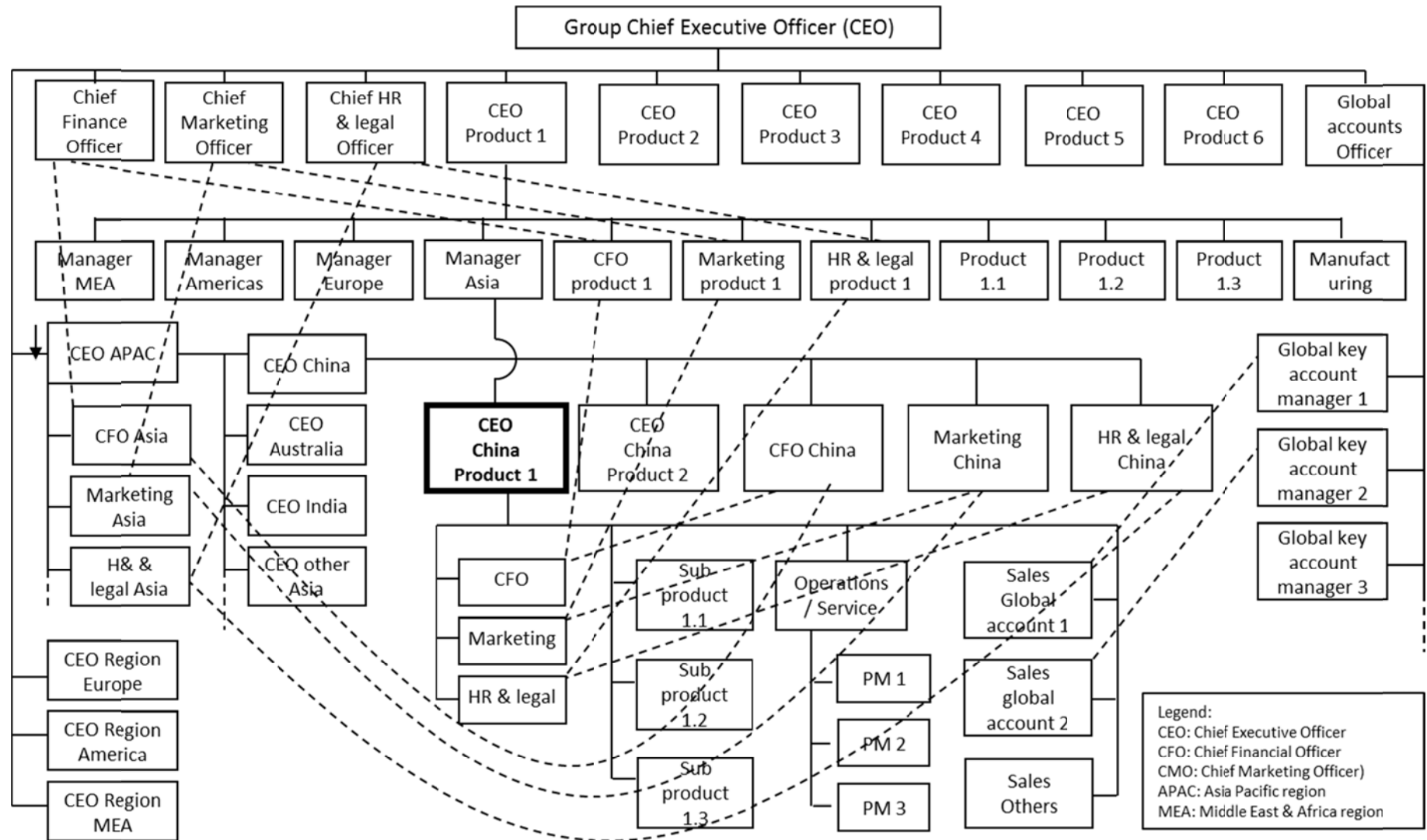
- CEOs of global product units with worldwide P&L responsibility for their line of products.
- CEOs of the geographic regions Asia Pacific (APAC), Americas, Europe and Middle East & Africa (MEA) who hold the P&L responsibility for all product lines in their region.
- Global accounts officer being responsible for the main key customers of the MNC.

- Support functions like the Chief Finance Officer (CFO), Chief Marketing Officer (CMO) and the Chief Human Resources (HR) and Legal affairs officer.

One can argue whether the CEO title should be used at various levels as in this example or whether there is just one CEO, namely the person at the very top of the organization. It is decided as a result of this study to use the CEO title on several levels as these managers are measured via a profit and loss statement for their particular area of responsibility. This study suggests that the CEO title is used on lower levels below the group CEO to demonstrate that these managers are responsible for their area of concern as an independent unit and that excuses due to the dependency on other matrix managers are hardly accepted. The CEO of product 1 in China is expected to solve all problems and issues and meet or exceed targets although he is highly dependent on several managers who report to him in a matrix structure or managers to whom he reports to in a different matrix. This is illustrated by Figure 30. In what follows it will be explained further in detail the multiple dependencies of some selected managers of the organizational chart as shown in Figure 30.

The CEO of product line 1 has a similar set of direct reports like the group CEO. The world is divided into the same four regions Asia Pacific (APAC), Americas, Europe and Middle East & Africa (MEA) and headed by a regional manager. There are dedicated support functions Chief Finance Officer (CFO), Chief Marketing Officer (CMO), Chief Human Resources (HR) and Legal affairs officer exclusively for product line 1. Those supporting managers do report to the CEO of product 1 and at the same time to the group managers of their particular function. The additional reporting lines are shown as 'dotted lines'. In the diagram of Figure 30 dotted lines are used to show the additional reporting lines without making any statement about the preferable or adequate distributions of decision power between the matrix managers. It is suggested that in several MNCs, the CFO of product line 1 may report via a solid line to the CEO of product line 1 and dotted line to the group CFO. In other MNCs, or in the same MNCs responding to change, it is the other way around in which a solid line reports to the group CFO and dotted line to the product CEO.

Figure 30: Organizational chart of a MNC with various overlaying matrix organizations



In Figure 30 it is further shown that the product line 1 is divided into the three sub-products product 1.1, product 1.2 and product 1.3. This is just one example and there could be much more or less sub-products or sub-product lines. The managers for these sub-product lines are responsible for research and development, product management, professional services and technical sales. These sub-products themselves could also be managed as global product units with its own profit and loss responsibility. This is indicated in Figure 30 where the managers for the three sub-products report to the China CEO of product line 1 and at the same time to the managers of the sub-products. The matrix in some MNCs is even more complex if the functions research and development, product management, professional services and technical sales also report to a functional manager overseeing all these functions for product line 1 or even the entire MNCs. This additional complexity is not shown in Figure 30 for reasons of intelligibility. Finally there is a manufacturing manager reporting to the CEO of product line 1. There could be also a manufacturing manager in each of the three sub product units or even a global manufacturing manager. Clarity prohibits illustration of this additional complexity in Figure 30.

The key focus of this doctoral study is the product-regional manager in a two-dimensional product-regional matrix. In Figure 30, this function is occupied by the China CEO of product 1. This manager reports in the product dimension via the Manager Asia to the global CEO of product line 1. In the regional dimension he reports to the China CEO of the MNC. Figure 30 shows that the China CEO does not report directly to the group CEO, but first to a regional CEO, who overlooks the entire Asia Pacific (APAC) region. The decision whether this additional hierarchical layer is implemented depends on the size of the MNC and the number of product units and countries in which the business operated. Some large MNCs operate in 150 or more countries of the world, which renders it impossible for a group CEO to manage 150 country CEOs.

In all regions and countries the three support functions finance, marketing and HR and legal are represented with their own managers. These managers have similarities in the product units multiple reporting lines. The CFO Asia reports to the CEO Asia; the other two support functions also report to the group CFO. Following the same logic, the marketing manager of China does report to the CEO of China and as well to the marketing manager for Asia. The CEO China for product line 1 has the extraordinary importance of the strategy-structure relationship of MNCs because this function has to balance the interests of the two profit and loss statements that comprise the profit and loss statement of the entire MNCs. That is the profit and loss statement of the MNC is the sum of all regional profit and loss statements and also the sum of all product line profit and loss statements. Global accounts may also have their own profit and loss statement; however, they don't represent the sales volume of the entire MNC.

In the hierarchy below the China CEO of product line 1 the matrix structures are even more complex. The CFO of product line 1 in China may have three reporting lines as shown in Figure 30. He reports to the China CEO of product line 1 and as well functionally to the CFO of China and the worldwide CFO of product line 1. Alternatively the Asia manager of product 1 may have a CFO reporting to him. In this case the CFO of product line 1 in China would report to the Asia CFO of product 1 and not to the CFO of product 1. Analogous to the CFO, the marketing and HR and legal manager of product line 1 in China have three reporting lines. In case of the existence of global key accounts being customers of product line 1 in China the sales managers of these customers would also report to the global key account manager for these customers. It is further suggested that the increasing importance of key accounts in MNCs may add an additional dimension to the matrix. A global key account manager also needs an own CFO if he needs to report his results in form of a profit and loss statement. In this case the CFO of product line 1 in China would have a fourth reporting line. This is particularly important if the distribution of decision power is allocated primarily with the global key account manager and removed from the regional and product dimension.

In summary this example is used to illustrate the various overlaying matrix organizations that exist in contemporary MNCs. Many managers share staff with other managers and thus act as one of various matrix bosses. Simultaneously, these managers also report to various matrix bosses themselves.

#### **4.5.7 Acceptance of matrix organizations**

As last finding of the interview analysis it is suggested that staff and managers are accustomed to coping with the ambiguity and stress caused by matrix organizations. Even though the interviews expressed great criticism about the implementation of matrix organizations in their work environment there was general consent that the matrix structure as organizational design principle is accepted. The question is not if to use a matrix but rather how to implement and operate it in an efficient way avoiding the potential flaws and disadvantages.

Interviewee #09 for instance believes that matrix organizations are common practice.

“I am not aware of any German MNC that is not using a matrix in a certain way”.

Interviewee #13 holds a similar view.

"Matrix organizations are the only choice and needed to survive in a global world".

Interviewee #16 stresses that matrix structures are generally common in MNCs due to mainly practical reasons and he further suggests that this fact shall rather be seen positively.

"A matrix structure actually cannot be avoided in international corporations....I mentioned that theoretically one could live without it...but the practical experience shows that it is inevitable".

"From a certain point of internationalisation multi-dimensional structures appear necessarily....But this is actually good news, one shall not worry at all...because in the light of global markets one needs various dimensions of decisions in order to be able to take good entrepreneurial decisions".

Matrix organizations are seen as common practice and necessary, however various interviewees also discuss the challenges faced with the implementation of matrix organizations. Interviewee #12 for instance believes that

"...there is no alternative to the matrix; one has to recognize the problems and management needs to pay attention constantly to keep the matrix running".

Interviewee #16 supports this view by stating that

"...matrix organizations cannot be avoided; they must be implemented in a smart way".

Interviewee #25 even believes that

"...you need a matrix to reduce chaos".

Interviewee #30 also concludes with a positive outlook stating that

"...it is possible to run a matrix".

Interviewee #10 however warns that the best theoretical structure, which he sees is a balanced product-regional matrix organization, may not be implemented because of the absence of adequate management capabilities. He refers to German family owned “Mittelstand” companies – recurrently world market leaders in their field of operation – which choose deliberately not to grow because of the complexity of matrix organizations that would be necessary to pursue an expanded growth strategy:

“There are many German Mittelstand companies that do not want to grow further and become more international, because they feel that this would be too complex and surpassing the management capability of their firm”.

Further Interviewee #10 warns that these German Mittelstand companies may face a risk, because international growth and diversification might be needed for long time survival.

The availability of cheap and reliable high-speed broadband Internet connections facilitates the creation of virtual teams around the globe as Interviewee #21 reports.

“If an employee is equipped with a standard powerful computer and a high speed internet connection, then he can access to all company data and systems from everywhere around the world ... To bring teams together they still can work from many distributed locations”.

Interviewee #4 however also warns that

“...there are limits of decentralisation and limits of virtualisation”.

He discusses the failed use of matrix organizations when they possess too many virtual teams. Team members rarely meet in person. Interviewee #4 continues to report that as reaction of the problems of virtualization teams were moved together physically.

Summarizing the interview analysis shows that there is great consent among the interviewees that managers and staff have learned to get used to matrix organizations. Matrix organizations offer unmatched possibilities to cope with the fast changing competitive environments.

## 5 Conclusions, limitations, contribution and future research

In this chapter the conclusions drawn from the interview analysis are presented and reflected upon the literature review. It will be discussed how the research questions and literature gaps identified are addressed by these conclusions. Further on this chapter discusses how this thesis contributes to academic theory and the world of business practitioners. It terminates with a presentation of the limitations of this doctoral research and providing recommendations for future research.

### 5.1 Relation to theory of the conclusions of this thesis

The conclusions of this thesis relate to theory in one or more of the following ways:

- Current theories are refined, slightly changed, expanded or précised.
- Current theories are rejected wholly or in parts.
- New theory is suggested.
- Current theories are confirmed.
- Further research is suggested.

As discussed in chapter 3 this study does not explore statistical relevance in a positivist sense. This thesis is not trying to prove that the statements regarding existing or new theories are true. From the realist's stance this study suggests that certain statements can be viewed as valid generalizations and prove true or relevant for certain environments (Saunders et al., 2009; Symon & Cassell, 2012). This approach is from a practitioner's point of view and is similar to the manner that professional managers would approach the research questions of this study in a business environment. Managers face the challenge of making decisions in changing circumstances, i.e. a manager always has limited time, resources and information in order to make any decision (Covey, 2004; Mintzberg, 2007; Schein, 1997; Welch & Welch, 2007). This research explicitly focuses on German technology MNCs; the results as presented may however be applied to other MNCs located in different countries of



origin and operating in a different industry segments. Consequently the results are treated as eligible to be potentially viewed as valid generalizations. It is however recommended to consider and reflect on potential country, MNC and industry particularities.

In the following section the conclusions of this thesis will be formulated. It will be shown how these conclusions refer to the themes of the interview analysis and the current literature in order to verify how this study is contributing to the present body of academic and business knowledge. As a reminder the themes discussed in the interview analysis are:

1. Definition of a matrix organization.
2. Advantages and disadvantages of matrices.
3. Matrix design and dimensions.
4. Conflict and decision areas.
5. Decision power distribution between HQ & LC.
6. Simultaneous matrices.
7. Acceptance of matrix organizations.

## **5.2 Conclusions as supported by the interview analysis**

Some themes are very closely but not exclusively linked to a certain conclusion. The themes one and two provide a frame for the general definition and understanding of matrix organizations why they provide input for all conclusions and in particular for conclusion one. Themes six and seven primarily provide input for conclusion one. Themes three is linked to conclusion four, theme 4 to conclusion 3 and theme five to conclusion two. Conclusion five is based in conclusions one, two and five. Conclusion 6 is not exclusively linked to a specific theme, but to all seven themes. Table 39 provides an overview how the themes of the interview analysis are linked to the conclusions.

**Table 39: Linking the themes of the interview analysis to the conclusions**

Conclusion	Theme which provides most input
1	1, 2, 6, 7
2	5
3	4
4	3
5	1, 2, 5
6	1, 2, 3, 4, 5, 6, 7

### 5.2.1 Simultaneous permanent matrices because of trained staff

As first conclusion this thesis suggests is that contemporary MNCs use various kinds of permanent matrix organizations simultaneously in different parts of the organization because matrix organizations offer a flexible and effective way of balancing various competing interests at the same time and staff is getting used to the potential matrix flaws. There is no single strategy structure fit for the entire MNC because different matrix organizations serve different purposes at different organizational levels or parts. There may be a different matrix on the highest level, whereas different matrices exist in lower levels of the organization. Currently, staff and managers are getting more and more accustomed to coping with the ambiguity and stress caused by matrix organizations, which traditionally has been seen as fatal flaw of matrix organizations since the appearance of matrix reach in the 1950s until today. It is worth mentioning that the ambiguity is still and will be a challenge as it works against human traits that according to Nicholson (1998) can hardly be unlearned.

This conclusion is derived from theme 6 (Acceptance of matrix organizations) and theme 7 (Acceptance of matrix organizations). Theme 1 (Definition of a matrix organization) and theme 2 (Advantages and disadvantages of matrices) provide further evidence and support for this conclusion.

The definitions (theme 1) as well as advantages and disadvantages of matrix organizations (theme 2) are in line with early and more recent literature about matrix organizations as presented in the literature review and shown in Table 6. The challenges to properly managing matrix organizations still exist and potentially will exist also in the foreseeable future, however the advantages are prevailing why it is rather a question 'how' and not 'if' to implement a matrix organization. The existence of simultaneous matrices (theme 6) is rather poorly covered in the existing literature. The common acceptance of matrix organizations (theme 7) is originally first predicted by only few authors from the 1980s and is stronger supported by more recent literature. There exists however still a large body of academic literature and management books that question the use of matrix organizations. Conclusion 1 of this thesis is composed of three sub-conclusions that will be presented and referred to the existing literature further below.

### **Simultaneous matrices**

According to the first sub-conclusion of conclusion one research is rejected that attempts to analyse and predict a single relationship between structure and strategy for MNCs. These studies are mainly based on a quantitative approach covering large samples of MNCs that operated in different industries (for example Adzic, 2006; Channon, 1973; Stopford & Wells, 1972; Wolf & Egelhoff, 2001). The work of J. R. Galbraith (2009) is one of the few literature sources suggesting the existence of various overlaying matrix structures at the same time. This doctoral study provides further evidence in support for the view of J. R. Galbraith (2009) and makes therefore an important contribution to the academic and practical world.

### **Matrix structures in MNCs are permanent**

The second sub-conclusion of conclusion one rejects the statements of those authors who associate the matrix structure just as a temporary state towards one of the extreme worldwide product structure or regional structure (W. H. Davidson & Haspeslagh, 1982; Hout, Porter, & Rudden, 1982; Verdin, Subramanian, De Koning, & Van Poeck, 2003) and confirms those authors that assert matrix structures as stable and permanent (Burns & Wholey, 1993; Egelhoff et al., 2013). Although this study supports Burns (1989) in his statement of matrix being a permanent structure, it also rejects the statement that "matrix programs remain structurally stable and do not evolve over time" (Burns & Wholey, 1993, p. 107). In a divergent view, this study clearly shows that matrix structures indeed evolve and change constantly over time and it therefore rejects research that take a rather static

view on matrix organisations. This study therefore makes an important contribution to the debate about the potentially permanent nature of matrices.

### **Acceptance of matrix organizations**

This research confirms literature that views matrix organizations as currently common practice in MNCs because managers and staff have become accustomed to working in matrix organizations (Egelhoff et al., 2013; K. Hall, 2013; Metcalfe, 2014). After the widespread use of matrix organizations in the 1960s, the literature in the 1970s and 1980s is highly critical about matrix organizations (Birkinshaw & Terjesen, 2003; Peters & Waterman, 2004), regardless of the successful implementations in many major MNCs. The common criticism is that the multiple line of command opposes human nature and consequently will always put a high level of stress and ambiguity on the shoulders of managers and staff (Bartlett & Ghoshal, 1990; Burns & Wholey, 1993; S. M. Davis & Lawrence, 1978).

Very few authors in the 1960s through the 1990s predict that managers and staff would become acclimatized to matrix organizations over time and that newer generations would find working in matrix organizations less problematic. Pitts and Daniels (1984, p. 53) cite a “matrix advocate” predicting the widespread use of matrix organizations. Burns and Wholey (1993) make a similar comment by stating: “We believe that in the future matrix organizations will become almost commonplace and that managers will speak less of the difficulties and pathologies of the matrix than of its advantages and benefits” (p. 53). Likewise Pfeffer (1981) as a rare example of an author not stemming from the traditional IB research also suggests already in the 1980s the use of matrices in particular in MNCs because they structurally fit to the inherent conflict and need for the use of power and politics in MNCs.

The problematic nature of matrix organizations is however still confirmed by more recent literature (for example Czinkota et al., 2009; Harris & Raviv, 2002; Worren, 2012). On the other hand other recent management books and studies suggest that the pro-matrix predictions were correct and argue that matrix organizations are existent in almost all form of organizations, not just commercial enterprises but also not-for-profit organizations and public administrations (Egelhoff et al., 2013; K. Hall, 2013; Metcalfe, 2014). Nadler, Tushman, and Nadler (1997, pp. 99-101) for instance argue that matrix structures are complex but allow the simultaneous coordination of various dimensions and Worren (2012) in a similar fashion suggests that “many large organizations today are structured along multiple dimensions” (p. 110). This study confirms the view that matrix organizations are

currently a common form of organizational structure. 50 years after the appearance of matrix structures managers and staff have become more familiar with working in matrix organizations and are able to cope with the ambiguity and uncertainty. The importance of technology for the management and control in MNCs has been recognized by earlier studies such as Prahalad and Doz (1981b) and in particular by Leksell (1981) who study the structure and capability of the financial reporting system and is confirmed by more recent studies (Cantwell, 2009). The widespread availability of high-speed Internet and mobile communication eases interaction and the exchange of data and one can access all relevant company data in real time from practically any locations of the world; teams don't necessarily need to work from the same physical location (Bekkerman & Gilpin, 2013; Lin et al., 2008). As suggested by only few recent publications (Aghina et al., 2014; Mocker et al., 2014) this study confirms that the digital age of high speed internet and mobile smart phones has changed the way global MNCs operate in a way that the physical location of employees and organizational parts becomes less important. Consequently working in a matrix organization is much easier than it was in past decades. Linking the recent technological developments and changing end-user and employee patterns to the acceptance of matrix organizations in MNCs has largely been ignored in the literature, why this conclusion of the present study provides a significant contribution to theory and practice.

### **5.2.2 Decision power distribution between HQ & LC**

As a second conclusion this thesis suggests that there is no permanent and universally applicable point of power distribution, but rather a constantly changing continuum; power depends on many factors such as maturity of the product, capabilities of the local subsidiary, the national historic heritage of the MNC and the general market environment. Consequently there is a continuum and all matrix dimensions are important particularly because of legal, tax and national regulations or because of customer requests.

This conclusion is mainly derived from theme 5 (Decision power distribution between HQ & LC). The interview analysis shows that there is no agreement whether the decision power is rather to be associated with the product units in HQs or the regions. The interviewees rather suggest that all dimensions are important and relevant even though one dimension may be associated with more decision power. As the decision power is linked to the perceived added value for each dimension as well as the political network and personal relationships of the representatives of the dimensions

there is no single universal point of power distribution but rather a different distribution for each combination of the matrix dimensions.

Power is implicitly defined as the capacity of actors or interest groups to influence actions and decisions in the desired way. Using the view of power as presented by Lukes (1974) all three dimensions of power are observed however the use of power is largely but not exclusively associated with decision making. Consequently following the sub-conclusions and practical examples are presented using the simplified view of power in the decision making process. Further on in the presentation of conclusion 6 this thesis will reflect on in more detail how the three dimensional view of power is supported by the interview analysis.

### **There is always a matrix, all dimensions are important**

As first sub-conclusion of conclusion two this study suggests that there is always some form of matrix even if the decision power is principally allocated to one dimension. Independent of the power distribution between the matrix dimensions, all dimensions have some form of decision power. Using a previous example it is suggested in contrary to authors suggesting a balanced matrix (for example J. R. Galbraith & Downey, 2002; Mintzberg, 1979; Pfeffer, 1981; Worren, 2012) that a matrix does not only exist in the balanced middle point C of Figure 18 but also in the points inclined to either of the two dimensions.

The other dimensions also hold some power that may, in certain situations be of critical importance. Therefore, this study recommends that it should be recognized that there is always power with all matrix elements and that proper processes and procedures should be implemented to define the interaction between the various dimensions. In other words, there is a continuum of power distribution between the matrix dimensions that is not always equal. The importance of the regional dimension as suggested by this study confirms the view of Baron and Besanko (1996, p. 1) who consider that the “actual firm behaviour is the result of a myriad of decentralized decisions” and the reflexion of “asymmetric local markets” (Baron & Besanko, 1996, p. II). Each dimension of the matrix has at least some form of decisions power and influence. It is important, that managers of all matrix dimensions are made aware of this and do not endeavour to gain all the power.

For example the regional dimension of the product-regional matrix always has a degree of decision power because many customers are local and require to be attended to in the frame of the local cultural context, such as language and customs. The employees of the subsidiary of the MNC will need to have local contracts and will have a measure of dependency in the local CEO or country

manager. The local subsidiary has to declare their financial reports like the profit & loss statement according to local requirements and comply with local taxation rules. The manager of the global product unit also has certain decision power and influence. He can decide or influence transfer prices, priority in production schedules, and pre-financing of projects or initial investments.

Consequently both matrix managers retain some extent of decision power and it is consequently suggested that MNCs should make their managers explicitly aware of the fact that the cooperation and joint solutions are viewed as a mandatory attitude or “frame of mind” (Bartlett & Ghoshal, 1990) and management practice. This study further proposes in contradiction to most MNC and matrix studies that a purely regional or worldwide product organization as originally suggested by Stopford and Wells (1972) and later on proposed by various authors (for example Elango, 2004; Franko, 2003; Westney, 2003) does not exist. Both dimensions, regional and product, and potentially as will be discussed later also the customer dimension have at least some form of decision making power. Consequently a matrix does not only exist in case of high level of product and regional diversity as suggested in a recent study by Qiu and Donaldson (2012) confirm the findings of Stopford and Wells (1972) about structural options for MNCs.

It can be argued whether the definition of the term ‘matrix’ is to be used if the power is primarily allocated to one dimension. Using the matrix definition of two – or multiple – boss structure that has been used over the last 50 years consistently (for example Boddy, 2012; Mee, 1964; Mintzberg, 1979) this thesis suggests that using the term matrix is appropriate because all bosses have significant impact on decisions and day-to-day operations. This is for instance manifested in the right to veto a project, offer or decision by a potentially relatively powerless country manager due to local legal or tax implications.

In summary the conclusion of this study that there is always a matrix in MNCs is challenging most research about MNCs and the work of J. R. Galbraith (2009) is considered a rare exception providing arguments in the same direction.

### **Decision power continuum is constantly changing**

Building on the first sub-conclusion of conclusion two it is further suggested that the distribution of decision power is not stable over time and likely different for each combination of the matrix dimensions, because the added value of the different matrix dimensions is different for each combination of these dimensions.

This conclusion partly confirms and partly rejects or refines the findings of J. R. Galbraith (2000) with regard to the “relative distribution of power” (p. 41) between the product and the regional dimension as discussed in the literature review and shown in Figure 19 and Figure 20 . This study agrees that the power distribution changes over time (J. R. Galbraith, 2000, p. 41) and that the power distribution is different depending on the business units as shown in Figure 20. This study however rejects the notion that power distribution is universal for one MNC as shown in Figure 19 why each combination of product and region has a potentially different power distribution.

A rare example of literature that presents findings in the same direction is the study of Bartlett and Ghosbal (1987) who present an example of “Unilever’s differentiated organization” (p. 46) where the responses to the pressures of “global coordination [and] national differentiation” (p. 46) are differently for each business, function and geography. Bartlett and Ghosbal (1987) further claim that the MNC responds for each business, for instance detergents, to the pressures of global integration and local responsiveness in the same way throughout the entire MNCs. The present conclusions of this study rejects this view and suggests that the response to global integration and local responsiveness is not necessarily homogeneous for the entire MNC, but potentially different for combination of different geographies and other dimensions like customers. As will be seen in a later the conclusions this study further suggests that the matrix dimensions business, geography and customers need to be separated from the numerous functional dimensions.

One of the research gaps and current debates discussed in chapter 2.10 (Gaps in the literature addressed by this research) is the disagreement of Bartlett and Ghoshal (1989, 1998) with J. R. Galbraith (2009) about the use of matrix organizations. As part of the present conclusion this thesis suggests that even though Bartlett and Ghoshal (1989, 1998) avoid using the term matrix they actually still recommend the use of matrices. It is further interpreted that the term ‘matrix’ became out of fashion among academics because of the reported failure of matrix organizations in prominent MNCs and because influential authors like Bartlett and Ghoshal (1989, 1998) claim to abandon matrix research. Or in other words the abandonment of matrix research was rather because of political considerations and group think effects among – mainly U.S. based - academics and has not been reflecting corporate practice. This research suggests that matrices failed not because of the complexity imposed by matrix organizations, but because MNCs responded to the complex and fast changing competitive environment with rigid inflexible structures. The present conclusion of this thesis proposes that matrices have been since the 1960s the best answer to manage large MNC in a complex environment as suggested by Pfeffer (1981). It is further suggested that Bartlett and Ghoshal (1989, 1998) did not realize that this complexity of environment cannot be responded with a ‘one-fits-all’ structure and distribution of decision power. The complexity of the environment results



in a different implementation of the matrix organization, namely in a different distribution of decision power, for each combination of the matrix dimensions.

In summary the conclusions that the decision power continuum is constantly changing is different for each combination of matrix dimensions is challenging most research about MNCs and matrices and is considered an addition to theory and practice.

### **5.2.2.1 Practical examples of power distribution**

#### **Box vs. systems business:**

Linking the second conclusion to a practical example this study suggests that the power continuum among the matrix dimensions varies greatly between box and systems business. In the box business certain global strategic decisions such as product and pricing strategy primarily occur centrally in headquarters; however, the implementation of sales and services is almost entirely delegated to the local subsidiaries. By contrast, the roles of headquarters and local subsidiaries are less clearly defined if complex systems are offered, because each customer project is different and requires different involvement of HQ and LCs. Consequently this study suggests that conflicts in decision power distribution in the product-regional matrix are more likely if box and systems businesses are mixed. The specific difference of box and systems business has hardly been addressed in the current literature why this aspect of the conclusion is an important addition to theory and in particular to the practical business world.

#### **U.S. vs. European MNCs:**

As another practical example for the relevance of conclusion two this study further provides evidence confirming work by authors like Wolf, Egelhoff, et al. (2008) who claim that European MNCs tend to use formal matrix structures much more than U.S. MNCs. The authors explain that the difference methodology resides in the fact that managers in European MNCs have adapted to ambiguity and different views, cultural backgrounds and languages in relatively small diverse markets. Consequently European and U.S. MNCs have a different heritages of international expansion which also impact there way of management of matrix organizations (Bartlett & Beamish, 2011). As this thesis focuses on German MNCs and the distribution of power between HQs and local

subsidiaries it is not the primary concern to seek for further evidence of this claim nor to investigate on the underlying reasons for it. Due to the limited available time per interviewee, the potential difference was not explicitly addressed. However some interviewees who had experience working in both European and U.S. MNCs addressed this point when asked for the reasons of adopting matrix organizations and for the specific level of distribution of power.

In summary this is interpreted as supporting evidence for the findings of the academics Wolf, Egelhoff, et al. (2008) and the practitioner Agthe (1990, p. 38) suggesting that U.S. MNCs have a much more central focus than European MNCs. The distribution of decision power is much more balanced in European MNCs than in U.S. MNCs. It is further interpreted in a more speculative way that elements of the theory of varieties of capitalism (P. A. Hall & Soskice, 2001) are also supported by this study. Managers with experiences in countries with a complicated institutional setting such as Germany are accustomed to balance various interests and different viewpoints of national institutions, why it is perceived by them to apply this flexibility also when dealing with a similar complexity from different matrix dimensions. The difference of U.S. and European MNCs may therefore not just the result of different national cultures (Hofstede, 1980) and different way of implementing capitalism (P. A. Hall & Soskice, 2001) but also a result from the different heritages of international expansion (Bartlett & Beamish, 2011). By this conclusion this thesis presents a largely ignored link between various different research streams to better understand the management of matrix organizations in U.S. and European MNCs.

#### **Partly confirmation of the theories of Rugman and Hofstede:**

It is consequently further interpreted that the findings of the differences between European and U.S. based MNCs also confirm Rugman (2005), who suggests that most global MNC still have rather a regional focus. Rugman (2005) suggests that only nine out of the 500 largest MNCs are truly global companies. To be termed 'global' a MNC needs to have at least 20% sales volume in each of the "triad" (Rugman, 2005, p. 1) region North America, Europe and Asia. This study provides further evidence of the view; sizeable sales volume and a presence in multiple countries is insufficient criteria to be called a global company. Most of the 500 MNCs studied by Rugman (2005) are particularly strong in their home country and their home region. The MNCs covered in this study are very strong in Germany and Europe. They are also robust in particular countries with particular business units, but they are not strong in most countries with most business units. The MNCs covered in this study are therefore in line with the theory of Rugman (2005) that MNCs are usually very strong in their home country and the home region of the triad. Among the key executives there

is a majority who are originally nationals of the country where the MNC is headquartered. As Hofstede (2001) points out there are major cultural differences even between neighbouring countries in Europe. The cultural differences greatly impact the relationship between managers and staff why the cultural dimension “power distance” (Hofstede, 2001) should be considered. Based on this the conclusion is drawn that the distribution of decision power in any kind of matrix organization largely depends on the cultural basis of the managers and staff. Even though Hofstede (2001) has been highly criticized for IBM biased data sampling and positivist methodology one of the main statements of Hofstede (2001) namely the importance of potential significant national cultural difference that then have an impact on organizational research is confirmed.

By confirming and linking the works of Rugman (2005) and Hofstede (2001) this study provides an important contribution to the academic and practical world for a better understanding and managing of MNCs.

### **5.2.3 Conflict and decision areas**

As a third conclusion this study suggests that the distribution of power is applied principally to decisions about financial investments, human resources and customer strategy because these represent the three most important stakeholders of a MNCs namely shareholders, employees and customers and have the biggest impact on the P&L statement of a MNC.

This conclusion is mainly derived from theme 4 (Conflict and decision areas) and the decision or conflict areas and the link to the P&L and stakeholder impact are rather based in implicit than explicit information. The literature has covered for instance the use of power in organizations (Brown & Agnew, 1982; Salancik & Pfeffer, 1974), strategic decision making (Eisenhardt & Zbaracki, 1992), changing decision environment in MNCs (Bartlett, 1979) and influencing factors for MNCs decision (J. R. Galbraith, 2000, 2009). A financial investment into a new plant or centre of competence (U. Andersson, Forsgren, & Holm, 2001; U. Andersson et al., 2002) provides career opportunities and job security for local and expat managers and decisions about people have the greatest mid and long impact on organizations (Drucker, 1985; Rogers & Blenko, 2006). And naturally gaining and retaining customers that provide a stable stream of business are a pre-requisite (Fox, 2001). These literature sources have however rather peripherally addressed the conflict and decision area and the underlying reasons or just covered single areas and one can try to interpret literature about matrices

and management (Gottlieb, 2007; Gunn, 2007) on the specific concept of relevant categories for decision areas in matrix organizations. The need for a holistic view about all of the main decision areas specifically relevant in matrix organizations of MNCs has however largely been ignored by the present literature. No literature has been found specifically suggesting the three categories as concluded by this study and neither the link to the economic reasons measured by the P&L statement and stakeholder interests are made at the same time.

As discussed earlier Collinson and Morgan (2009) for instance criticize the lack of literature that is linking the two main MNC literature streams, namely economic IB and sociologists studies, that bridge the gap as shown by Hymer (1970) and Vernon (1966). The present study follows the recommendation of Collinson and Morgan (2009) and the present conclusion suggests that economic reasons focussing on performance and efficiency as well as non-economic reasons representing the interests of the main stakeholders have to be considered to analyse and understand processes in MNCs. By this approach this study also follows the largely neglected actor centred approach as suggested by Geppert and Dörrenbächer (2011, 2014)

Summarizing the present third conclusion about conflict and decisions areas contributes to theory and practice in various ways. It suggests the main categories of conflict decision areas in matrix organizations and provides economic and non-economic actor centred arguments for the selection of these categories. The suggestion of the main categories, the arguments, the link between economic and non-economic reasons and the actor centred approach all individually have largely been ignored by classical IB and sociologist studies.

#### **5.2.4 Matrix design and dimensions**

The main dimensions are product, region and customer because they can be measured with its P&L statement and therefore represent the main power holders in the organization. The other functions of sales, finance, marketing, research and development, product management, purchasing, logistics, manufacturing, service, project management and legal do also exist and can even be associated to an own matrix dimension. They are however operated rather as cost centres and not as profit centres with an own P&L statement, why they are essential for the MNC, however less relevant for the design.

This conclusion is mainly derived from theme 3 (Matrix design and dimensions) and is based on partly implicit and explicit decision information. This study confirms the importance of the product and regional dimension as suggested by previous authors (for example Qiu & Donaldson, 2012; Wolf & Egelhoff, 2001). In addition it refines the view of the above mentioned literature by suggesting that a new dimension customer needs to be added. Hereby this study confirms a rather small number of research (for example Agthe, 1990; Toulan et al., 2006) that also predicts the importance of the third dimension customer.

Little empirical evidence is provided in the literature to support this suggestion and it lacks adequate reasoning. This study fills this gap and provides as main explanation for the relevance of these dimensions the possibility to run them as almost autonomous measured by an own P&L statement. Functions like marketing, purchasing, finance, Human Resources and Public Relations – to name some of the most prominent ones - are managed as cost centres. These functional dimensions also exist in some of the many simultaneously existing matrix organizations. In this aspect this study suggests a new theory as the P&L argument has been largely ignored in the reviewed literature.

This thesis can be criticized for the conclusion that the product and regional dimension are among the most important dimensions for matrix organizations. It could be argued that this conclusion is a result of the design of the research questions and the interview guide. As an response one could argue that the importance and relevance of the product and regional dimension has been confirmed in all previous studies about MNCs (for example Donaldson, 2009b; Egelhoff, 1988b). These studies follow a quantitative approach in contrast to the qualitative approach of this study and they suggest similar explanations as Stopford and Wells (1972). Many of those studies however also suggest a similar importance of customers and functions. J. R. Galbraith and Downey (2002, p. 169) for instance suggest that MNCs “want to design an organization where power is shared equally among two or more dimensions. These dimensions are most often functions, geographies, customers, or products.” It seems logical that the product and regional dimension are considered important because MNCs by definition offer numerous products in many countries, why the key stakeholders are product and regional representatives. In summary, to criticism that the fourth conclusion is a self-fulfilling prophecy is responded as follows. The significance of the product and regional dimension in a MNC is a logical conclusion and was confirmed by this study. This study however suggests a refinement or correction of the current theory by stating that the relevant matrix dimensions are explicitly products, regions and customers. The other dimensions have lower relevance, because these other functions cannot be measured by their own P&L statement and treated as quasi-independent companies. Hereby this study also confirms the assessment of those authors (for example Starbuck & Nystrom, 1981; Worren, 2012) that the aspects of organizational

design and structure have a greater impact than recognized by the mainstream business and management literature.

### **5.2.5 Need for clear rules for the distribution of decision power**

The fifth conclusion of this thesis suggests that MNCs need clear rules for the distribution of decision power to counteract the matrix flaws of delays, high costs and unclear responsibilities. Additionally, this thesis suggests that MNCs further need clear incentive and training schemes in order to set the right level of motivation for managers and staff.

This conclusion is primarily based on theme one (Definition of a matrix organization), theme two (Advantages and disadvantages of matrices) and theme five (Decision power distribution between HQ & LC). In particular the subtheme five of five (Need for clear rules for the distribution of decision power) as well as subtheme six of five (Joint target agreements) provide input for this conclusion.

Already early literature about matrix organizations such as S. M. Davis and Lawrence (1978) strongly suggests that companies should avoid typical matrix flaws such as a tendency towards anarchy, uncertainty, power struggles and delayed decisions by the implementation of process and rules as well as training and initiatives for cultural changes. Other studies not exclusively focussing on matrix organizations but organizational behaviour and design specifically address the point that clear mandates for “decision-making power” (Hinings et al., 1974, p. 22) or “decision making authority” (Garnier, 1982, p. 893) enhance the performance of organizations (Garnier, 1982; Rogers & Blenko, 2006). Regardless of this very clear advice in the academic literature this study reveals that MNCs partially lack the implementation of clear rules, guidelines or processes of how their staff and managers shall operate in the day-to-day business in the various matrix structures that were implemented. As discussed in earlier conclusions, all matrix dimensions have a significant part to play in the various decisions to be made; this speaks to the necessity for the involvement of representatives from all matrix dimensions in the decision-making process. Building on this the present study suggests that MNCs need clear rules to define which manager has the power of final decision in case of disagreement between the matrix dimensions. The recommendation of clear rules is suggested in the matrix literature as mentioned above. The specific recommendation of assigning the final decision-making power to a specific person or function is however not apparent in the reviewed literature.

Nicholson (1998) appropriately asks “How hardwired is human behaviour?” (p. 134) and suggests that “you can take the person out of the stone age, ..., but you cannot take the stone age out of the person” (p. 134). Building on this argument and translated to matrix organizations in MNCs this study suggests that MNCs should not solely rely on the right way of setting and reviewing targets, but should establish an organization culture that works on the “frame of mind” (Bartlett & Ghoshal, 1990, p. 138) rather than purely on processes or structures. Martin (2003) criticizes Bartlett and Ghoshal (1990) claiming that “matrix management is much more than a frame of mind. It is a disciplined approach to managing the two dimensions” (Martin, 2003, p. 13). This study suggests that both elements are important. Staff and managers need time for reflection and continuous motivational training to adapt to the ever and new changing challenges of matrix organizations.

In summary conclusion five suggests that MNCs need ensure to combine synchronized targets among the various matrix dimensions with establishing a culture of working on the joint overall MNC success and as well establish clear rules for the final decision making authority in case of disagreement. The combination of these suggestions has not been presented in the literature and this thesis consequently makes an important contribution to theory and in particular management practice.

## **5.2.6 The use of power for conflict resolution and decision making**

The sixth conclusion is derived from all themes of the interview analysis and refers to the role of conflict and the use of power and politics in MNCs. Mainstream IB literature (for example Marin & Verdier, 2009) ignore the complexity of issues like power and politics in MNCs. This thesis suggests that conflict is an inherent feature of matrix organizations that reflect the complexity of the business environment. It further suggests that the three dimensional view of power of Lukes (1974) best describes the way of distributing decision power in matrix organizations of MNCs.

### **Conflict is inherent to matrix organizations and MNCs**

Matrix organizations are still criticized for being too complex and too difficult to manage by classical IB literature (for example Franko, 2003; Harris & Raviv, 2002). Other authors however suggest that matrices cannot be avoided and therefore conflict cannot be avoided and shall be accepted with the

intention to minimize the costs. This position has been rarely taken in the literature and Naylor (1985) is an example that is confirmed by a more recent study of Schotter and Beamish (2011).

This study confirms the view that matrix organizations are just a reflection of the complex environment in which organizations operate and conflicts are a natural consequence. It is further concluded that clearance of conflict and decision making does not follow purely objective economic reasoning as suggested by Fisher, Ury, and Patton (1999). Pure rationality does not (always) exist but is based on subjective interpretation. Consequently the use of power and politics comes into play together with rational objective, mostly economic criteria.

Pfeffer (1981) and later on Prahalad and Doz (1987) as rare examples suggest that matrix organization may be best suited for MNCs because they explicitly force conflict and the use of power. The importance and beauty of conflict due to the inherent different interest in matrix organizations of MNCs is confirmed by the sixth conclusion of this study.

The criticism that Pfeffer (1981) overstates or even glorifies the role of conflict is also shared and it is recommended to work on avoiding the downsides of conflict as suggested and shown in the literature review (for example Amason, 1996; Eisenhardt & Zbaracki, 1992; Schweiger et al., 1986). The largely implicit recommendations of the interviewees can be summarized as “functional...conflict” (Amason, 1996), “programmed conflict” (Schweiger et al., 1986, p. 66) “optimal...conflict” (Eisenhardt & Zbaracki, 1992, p. 34).

In reference with the findings of this thesis it is recommended that MNCs shall force “cognitive conflict” (Amason, 1996, p. 134) between the various matrix dimensions acknowledging the fact that all dimensions have certain levels of power. By this it is transparent for all actors that debate and conflict for the best mutual option is desired as conflicting interests and views are a direct result of the organizational design of the matrix organization. At the same time it is clear to all actors that in the end a decision has to be made and that consensus may be desired but not all costs. By this the typical negative results of conflict such as “anger, frustration and animosity” (Eisenhardt & Zbaracki, 1992, p. 34) can be avoided.

In summary the first part of conclusion six suggests that for conflict resolution and decision making in matrix organizations rational economic models are used in combination with power and politics. Support for the applicability of the “garbage can model” (Cohen et al., 2012) is not found. Eisenhardt and Zbaracki (1992) comes to a similar conclusion, however by explicitly focussing on strategic decision making. This study suggests that these particular findings can be expanded also on conflict resolution and decision making in matrix organizations of MNCs.



By this statement the present thesis presents an expansion of the theory about conflict in MNCs and thus makes an important contribution to the academic and practical world.

### **Using the three dimensional view of power**

As discussed earlier power is implicitly defined as the capacity of actors or interest groups to influence actions and decisions in the desired (Haugaard & Clegg, 2013; Yukl, 2009). The three dimensional view of power as originally suggested by Lukes (1974) as “visible power,...hidden power...[and] invisible power” (VeneKlasen & Miller, 2002, p. 40) also described as “power cube” (Gaventa, 2006, p. 25) is confirmed by this thesis although not explicitly mentioned by the interviewees. One reason lies in the fact, that this study confirms the literature (for example Clegg et al., 2006; J. K. Galbraith, 1986; Russell, 1986) that power is assumed to be understood but also a topic to be avoided to explicitly talk about.

The visible use of power occurs is the process of decision making, which is the explicitly most recognized form of power. It is illustrated in the conclusion about conflict and decision areas. Power is used in a hidden form by influencing the decisions to be made and the actors that take part in the decision making process. This occurs for instance when defining the main organizational dimensions as discussed in conclusion four, where for instance functional dimensions are excluded because of the only indirect impact of the P&L statement. The hidden use of power occurs for instance by actors in both HQs and LCs trying to influence the culture of the MNC accepting the need for either centralization of decision making due to the inherent financial strengths of HQ or decentralization due to direct access to customers and direct link to the financial success of the MNC. The changing and diverse distribution of decision power as mentioned in conclusion two is an example for the hidden use of power. In addition conclusion four can also be used as an example for the use of invisible use of power because without questioning other options the economic impact is installed as the main need and driving force for the organization. It can be argued that the minds of stakeholders are shaped in the way that economic interests are the overarching interests of the MNC.

### **Summary: The three dimensional view of power for conflict resolution**

In summary this thesis further suggests that rational economic reasons remain important for conflict resolution and decision making, however the use of power and politics, even if officially disliked and ignored by most IB research and management books, exist and play an important role. The three

dimensional view of power presented by Lukes (1974) is well known in the social science and largely ignored in IB research. This thesis suggests that it is best suited to describe the use of power in matrix organizations of MNCs.

By this the sixth conclusion of this thesis makes an important contribution to theory and practice because it bridges findings of the two main MNC literature streams, namely IB and sociologist studies. The suggestion using the three power dimensions Lukes (1974) for conflict resolution and decision making as well as the actor centred approach for understanding matrix organizations in MNCs is a rather novel approach that largely has not been addressed in the literature.

### **5.3 Summary of conclusions**

In a brief form the six conclusions of this thesis can be summarized as follows:

1. Several matrices co-exist permanently, because of huge benefits and trained staff.
2. All matrix dimensions are relevant in a variable power continuum, because of the added value which is dependent of many influencing factors.
3. Conflicts and decisions are about investments, human resources and customer strategy to respond to the interest of the three main stakeholders.
4. MNC focus on product, region and customer because they can be run as own P&L .
5. MNCs need clear rules and incentive schemes to avoid delays, high costs and unclear responsibilities.
6. Conflict resolution and decision making in MNCs are based on economic models and the three dimensional use of power.

In other words the six conclusions can be also summarized in the following two sentences:

In MNCs there are always various overlaying matrix organizations and the distribution of decision power is dependent on rational economic factors and the use of power and politics.

The dimensions in which the strategy-structure is implemented and the categories of the main dispute about decision power depend on the P&L impact: namely region, product and customer dimensions as well as staff, financial investments and customer strategy.

### **5.3.1 Linking conclusions with the research questions**

This section will subsequently show how the conclusions answer the two research questions and it will then also review how the literature gaps are covered. As shown in Table 12 this thesis aims to answer the two research questions of how German MNCs do distribute decision power in between headquarters and local subsidiaries and why German MNCs distribute the decision power in this particular way? The research questions of this thesis are basically trying to answer the 'how' and 'why' questions. The six conclusions answer the two research questions as shown below. It can be seen that all conclusions answer both the 'why' and the 'how' part of the research questions.

#### **Conclusion 1:**

MNCs nowadays use various kinds of matrix organizations simultaneously in different parts of the organization. There is no single strategy structure fit. Matrices offer a flexible and effective way of balancing various competing interests at the same time. For that reason they are implemented in different parts of organizations. Staff and managers are used to work in matrix organizations.

#### **Conclusions 2:**

There is no permanent and universally applicable point of decision power distribution, but rather a constantly changing continuum. There is always some kind of matrix and all matrix dimensions are important. Decision power depends on added value which is dependent on many factors such as maturity of the product, capabilities of the local subsidiary, the national historic heritage of the MNC and the general market environment. All matrix dimensions are important because of legal, tax and national regulations or because of customers' requests.

#### Conclusion 3:

Conflicts and decisions are about financial investments, human resources and customer strategy. These three categories represent the three most important stakeholders of a MNCs namely shareholders, employees and customers which have the highest P&L impact.

#### Conclusion 4:

MNCs implement the strategy-structure fit primarily in the matrix dimensions product, region and customers. These matrix dimensions can be run and measured with an own P&L statement and therefore treated as quasi-independent companies run by an own CEO within the MNCs.

#### Conclusion 5:

MNCs need clear rules and incentive schemes to avoid the matrix flaws of delays, high costs and unclear responsibilities.

#### Conclusion 6:

Conflict resolution and decision making in MNCs are based on economic models and the use of power. Conflict is an inherent feature of matrix organizations due to the competing interests of matrix dimensions why purely economic models are not sufficient. Power and politics are a natural consequence and shall not be ignored and disregarded.

The two research objectives as shown in Table 12 are first to investigate the organizational structure of German MNCs and to understand how the MNCs operate the various matrix organizations and how decision power is distributed between headquarters and the local subsidiaries. The second research objective attempts to determine the key objectives and criteria used when deciding upon the organizational set-up and distribution of decision power in German MNCs. In summary it can be seen that the two research objectives are met by the six conclusions as presented above.

### 5.3.2 Research gaps addressed by this thesis

This sub-section will review how the eleven research gaps identified in chapter 2.10 are addressed by the conclusions of this thesis.

The first research gap identified is around the question whether matrices are common and when to use matrices. As suggested by the first conclusion matrices are common in modern MNCs because they are a natural answer to the competing interests inherent in any organization that sell various product lines in various countries. Organizations are not complex because of matrix organizations but matrix organizations reflect the complex environment in which organizations operate as illustrated in the explanations of conclusion six. Conclusion six shows that this is in contrast to the mainstream IB literature which treats MNCs with pure rational logic, ignoring that competing interests, conflicts and consequently the use of power cannot be avoided, which is addressed in the second research gap. Conclusion six shows that conflict resolution and decision making economic objective criteria and also power and politics are used which partly addresses the third research gap. Conclusion three adds to the questions of decision making illustrated in research gap three a proposal of main areas of decision making. The potentially changing and unclear role of the subsidiary as highlighted in research gap four is primarily answered by conclusion two which suggests that all matrix dimensions are important and that the power distribution between HQ and LCs depends on the product line and may also change over time. Consequently there is no universal point of power distribution and no universal role of the subsidiary. Conclusion two suggests that the subsidiary and in particular the country manager will continue to play an important role in the foreseeable future. Research gap five about the main matrix dimensions is answered by conclusion four that suggests the primary dimensions as product unit, regions and customers. The design of the present study follows the various recommendations of the literature review. A qualitative methodology by conducting semi-structured interviews is used in contrast to the main-stream body of quantitative surveys. A geographic and industry focus was chosen to reduce the risk of national cultural and industry specific aspects influencing and tainting the results of this study. Additionally this study fills a research gap of lacking recent studies about matrices and studies performed by practitioners. Finally as suggested the study links the two mainstream MNC literature streams of IB and sociologist research. As discussed above in particular conclusion two and six show that MNCs are neither purely economically driven nor power run organizations, but that both aspects must be considered when trying to understand how and why MNCs operate matrix organizations in a certain way.

## 5.4 Contributions of the research

Following the advice of Easterby-Smith, Antonacopoulou, Simm, and Lyles (2004), Canbäck (2002) and Rosenberg (2010) the contributions of a thesis shall be evaluated in the categories theory, practice and methodology. In the following sections the detailed contributions in each of these categories is outlined.

### 5.4.1 Contributions to theory

This doctoral study contributes to a better understanding of the challenges faced by German technology MNCs who operate a matrix organization. The problems of the distribution of power between headquarters and local companies are analysed focusing on the manager/CEO of a division in a certain region. It suggests that the current strategy-structure models need to be refined and extended, which should be the basis for further research projects. In addition it gives some practical recommendations for the management of MNCs. Due to the lack of recent studies about matrix organizations in MNCs, this study adds to the current academic and management knowledge as it confirms, rejects and refines the existing theory about matrix organizations in MNCs and also provides new theories that require additional testing in future research projects. This thesis suggests six main conclusions that contribute to the current theory about matrix organization and management of MNCs in various ways by confirming, refining and rejecting existing knowledge and theory and also by creating new theory as discussed in the following paragraphs.

First this thesis confirms the literature that considers matrixes as a standard organizational form for MNCs and as well for many other types of organizations. Managers and employees have adapted to the ambiguity and the need of balancing multiple interests at the same time, which was viewed as the fatal flaw of matrix organizations in the 1970s and 1980s. This study encourages researchers and managers to avoid general questions regarding the existence of matrix organizations and to focus on how and why they can be applied in the most beneficial way. Additionally, this study contributes to theory by confirming the work of authors that suggest that there are more than one type of a matrix organization, but several matrix organizations at different levels or parts of the organization simultaneously in project environments or permanent structures. Future research should seek to

abandon single strategy structure relationships and accept the increased complexity and focus on specific matrix organizations.

Secondly, this thesis contributes to knowledge by rejecting the literature that defines matrix organizations as existent only if there is an equal balance of power. In contrast, this study suggests that there is always some form of matrix organization. Referring to Stopford and Wells (1972) and the subsequent studies this doctoral research suggests that MNCs with a worldwide product division, area division or international division rarely exist any longer because the regional and product dimensions consistently have some sort of decision power. Consequently, there is always some form of matrix. The point of decision power distribution is changing constantly over time and is dependent on many factors such as maturity of the product, management experiences of the local subsidiary and general market and competitive environment. This study therefore suggests that future research should focus on the distribution of decision power between the various matrix dimensions rather than trying to categorize MNCs in non-matrix structures.

Thirdly, this study contributes to theory by specifically addressing the categories in which conflict occurs and where decisions are taken. According to this study, the categories are financial investments, human resources and customer strategy because these represent the three most important stakeholders of a MNC namely shareholders, employees and customers. They also have the biggest impact on the P&L statement of the MNC. Future studies should expand research beyond the changing point of power distribution and address that this concept is in flux and different depending on the kind of decision category. They should also address that decisions are not exclusively following objective rationalities but also potentially non-economic reasons serving the interests of the various stakeholders.

As a fourth contribution this thesis suggests that MNCs implement the strategy-structure fit primarily in the matrix dimensions product, region and customers, because these dimensions can be run and measured with their P&L statement. Many studies have also suggested that other functional dimensions should be considered such as marketing, human resources, manufacturing, purchasing, finance or public relations. This study adds to theory by suggesting that these dimensions are either part of the previous three dimensions customer, region or product or that they are of secondary importance in the operation of matrices. The foundation for this concept lies in the fact that only the products, regions and customer dimensions can be measured with their own P&L statement and consequently each dimension can be managed and monitored as profit centre as quasi-independent company. The sum of all product P&L statements is the overall P&L statement of the MNC. The same applies for the dimension region and if applied universally in the MNCs and also for the dimension customers. The other dimensions are cost centres rather than profit centres.

As the fifth contribution to theory this thesis suggests that MNCs need clear rules and processes regarding the distribution of decision power and how to take decisions. Furthermore, MNCs need joint and harmonized incentive schemes that cover all three main matrix dimensions products, regions and customer in order to counteract the matrix flaws of delays, high costs, and unclear responsibilities. Such incentive schemes should go hand-in-hand with training schemes that establish a culture of cooperation working toward the best interest of the entire MNC. This study contributes to theory by suggesting that the design of such incentive and training scheme needs further research principally in relation to the relevant matrix dimensions and changing points of power distribution as mentioned in the previous contributions.

As sixth and final contribution to theory this thesis suggests that for conflict resolution and decision making the use of power and politics is common alongside objective economic arguments. Competing interest are a direct consequence of MNCs selling various product lines in various countries. Consequently conflicts cannot be avoided and shall not be ignored; however the downsides of conflicts must also be managed appropriately. The use of all three power dimensions as proposed by Lukes (1974) are confirmed and a more actor centred approach for MNC analysis is suggested. By this the present study challenges traditional IB and sociologist studies and offers a rarely presented link between the two main separate MNC literature streams.

## **5.4.2 Contributions to practice**

The contributions to theory as discussed here have also a great impact to management practice and it is not always possible to exclusively separate a contribution between theory and practice. In addition, this doctoral study contributes to better management and understanding by providing three specific examples that can be used by managers in matrix organizations for a more efficient management of MNCs:

- Differences in box and systems business
- Establish rules for under-performance and over-performance
- Own business versus commissions business



The specific focus on the product-regional matrix in German technology companies will be useful to large German MNCs and many medium sized companies called Mittelstand. Those Mittelstand companies are usually family owned and considered the “backbone” (Young, 2011, p. 29) of Germany’s economic strength and many of them provide technological products (Randow & Kirchfeld, 2010). Globally MNCs have grown significantly and gained immense economic influence (Navaretti et al., 2004). Several authors suggest that also the German MNCs and in Mittelstand companies have to expand internationally in order to survive long-term (Berghoff, 2006; Krüger et al., 2006). This study will be helpful for managers in German technology MNCs and also companies of the “Mittelstand” sector that have the ambition to develop towards an MNC type of organization.

Equally important, this study provides new and revised insight for academics researching MNCs and matrix organizations. As discussed previously, this study suggests applying care when translating management and academic findings from one country to another as the cultural differences may be greater than anticipated. Managers and academics that are aware of these differences may try to translate the findings of this study to other cultures and national environments. For instance the findings of this study may be applicable to British or French technology MNCs.

### **5.4.3 Contributions to methodology**

This study also adds to the current knowledge due to my background as practitioner in matrix organizations of MNCs and my role as a part-time researcher. Most of the previous studies about MNCs and matrix organizations were mainly based on a quantitative approach covering large samples of MNCs that operated in different industries and countries. This study suggests a different way of gaining understanding the underlying processes and motivation of the various stakeholders by conducting qualitative research. This study suggests that the processes and interdependencies are very complex and different per country, industry, date of research and personal background of the researcher and participants. Consequently this study recommends that the use of quantitative studies should be considered very carefully. Studies with a qualitative approach shall be given particular consideration.

## 5.5 Limitations of the research

This research is subject to many limitations. This thesis has its limitations due to the focus on German technology MNCs, the selection of interviewees and the previous knowledge and bias of my role as the interviewer. The most obvious limitation comes from the decision to conduct semi-structured interviews. A researcher following a qualitative approach cannot be independent from the research. By interviewing managers about their work experiences, which in some cases I shared with them, I potentially influenced their answers. Consequently, interviewees may not have revealed information that they considered unimportant or relevant because they were aware of our shared professional experiences. This research is further limited due to the selection of the interviewees, which had to fulfil certain criteria as outlined in chapter 3. Further limitations in form of missing depth or content may arise from conducting telephone interviews and by limiting the interview time to approximately one hour. The qualitative research design of gathering information from a limited number of only 31 semi-structured interviews versus analysing a large quantity of data with quantitative statistical methods may also be viewed as a flaw. This thesis however follows those researchers and literature sources that suggest that subjective matters like power and relationships can hardly be analysed using statistical methods (Parkhe, 1993). The decisions and strategies are defined by managers that act in very different ways. In order to understand 'what' happens one first has to ask the question 'how' and in particular 'why' things happened (Covey, 2004)

From a practitioners point of view it is considered that studies - like this doctoral study - that quote statements given by interviewees regarding certain opinions on why decisions were made - as potentially more helpful to draw conclusions for the work environment than rather pure statistical studies. By exactly understanding the context of the study one can adapt and translate the findings to one's own work environment. This is the proposal rendered this study and it is hoped that many practitioners see it in a similar way. These limitations result in the suggestion of various areas for further research as outlined in the following section.

## 5.6 Recommendations for future research

There are multiple areas where this study recommends conducting future research. The literature review reveals that there are very few studies following a narrow focus. It is therefore suggested

that further research should be performed about MNCs in specific industries in specific countries and focusing on one matrix structure by using a qualitative approach such as conducting semi-structured interviews. The summary of recommendations for future research is listed below followed by a more detailed explanation for each of the recommendations.

1. Method and methodology: More qualitative research, no quantitative.
2. Focus on more research by practitioners.
3. Focus on other industries.
4. Focus on other countries.
5. Focus on North American versus German or European MNCs.
6. Focus on MNCs from emerging economies.
7. The influence of the third dimension customer or global accounts.
8. The role of conflict and power in decision making.
9. The dimensions of power used in MNCs.

### **1. Method and methodology: More qualitative research, no quantitative**

This research project reveals that rules for a strategy – structure fit depend on many factors that make it difficult to come to conclusions by conducting survey based studies. It is therefore suggested that researchers should perform further qualitative studies by conducting semi-structured interviews.

### **2. Focus on more research by practitioners**

Almost all research studies have been conducted by full-time academics. Practitioners who have worked for many years in matrix organizations have done very little formal research. Although it is acknowledged that this recommendation is subject to a particular bias it is recommended that further studies shall be conducted by researchers who approach the subject matrix organizations from the practical side.

### **3. Focus on other industries**

This study reveals that there are significant differences of the relationships and power distribution between the headquarters and the local subsidiaries depending on the market maturity and experiences of the products sold, the experience and network of the local management and size of the business. The differences can be immense in the same technology MNC; they are therefore not necessarily comparable when covering different industries. It is strongly suggested that additional research should be undertaken focusing on specific industries.

### **4. Focus on other countries**

Further this thesis suggests that the above mentioned studies should have a country focus. The assertions of for instance Hofstede (2001) are confirmed when predicting that the cultural dimensions as for instance "power distance" (p. 29) must be taken into account. It is therefore recommended that further research investigate the differences within MNCs of different country of origin or location of the headquarters.

### **5. Focus on North American versus German or European MNCs**

This study suggests that there are significant differences between North American and European MNCs. This study therefore would like to encourage researchers to further investigate those particularly in the light of the distribution of decision power between HQs and LCs. It is suggested that further research is needed to investigate the different levels of application of matrix organizations in European and U.S. MNCs. A particular focus of this research shall be made in the underlying reasons for such a potential different management culture.

### **6. Focus on MNCs from emerging economies**

Most of the original research about MNCs and matrix organizations is originated from North America and Europe. Matrix organizations are considered to have its origin in the 1960s U.S. aerospace industry; however there is also evidence that the multidivisional structure as predecessors of the matrix organizations also appeared in for instance Japanese MNC in the beginning of the 20<sup>th</sup> century such as in North America and Europe. Emerging economies such as Brazil, Russia, India and China,

called BRIC, as well as other countries like Malaysia, South Africa, Turkey and Colombia have seen significant growth in the last years (Marinov & Marinova, 2013). This growth has been accompanied with the appearance of MNCs from those countries why this study recommends further research about MNCs from emerging economies.

#### **7. The influence of the third dimension customer or global accounts**

This study proposes that the influence of MNCs on the world economy is increasing. MNCs are therefore more frequently customers of other MNCs and consequently require a global account management. This attaches an additional dimension to the existing dimensions regions and product and the study suggests that the decision power lies to a great extent in that new third dimension. This study therefore would like to encourage other researchers to investigate further on this topic.

#### **8. The role of conflict and power in decision making**

This doctoral study suggests that conflict in matrix organizations of MNCs cannot be avoided due to the inherent competing interests of the various matrix dimensions. It is further suggests that for understanding and predicting conflict resolution and decision making a combination of both rational and power models shall be used, whereas bureaucratic model and the garbage can theory are less supported. Conflict shall be fostered, however not at all costs. This recommendation is however largely ignored by traditional IB research and management books, why it is recommended to conduct further research about the use of conflict in decision making and the combination of rational and power models.

#### **9. The dimensions of power used in MNCs**

This thesis suggest that all three dimensions of power as suggested by Lukes (1974) can be observed, namely visible, invisible and hidden power. As discussed the topic of power is however largely ignored in traditional IB research and management books. It is mostly used as synonym for decision making authority, defined as the legitimate right to take certain decisions. In particular the invisible and hidden form of power does hardly receive any attention. This thesis however suggests that power is as existent as rational economic behaviour why further research is suggested investigating the potential use of all three power dimensions. Hereby this thesis joins the recommendations for

future research of for instance Collinson (2009) and Geppert and Dörrenbächer (2014) to perform studies that combine the two MNC research streams of IB and sociologists studies.

## 6 Summary

### 6.1 Motivation for this thesis and contextualisation

Supported by my engineering and MBA studies, I have been operating with a lot of intuition and learning by doing, and become quite successful in my management career working in matrix organizations of German technology MNCs. However, I always have felt that I have been lacking in sufficient depth of theoretical insight in the fundamental principles of matrices in MNCs, for which reason I have been continually asking 'how' and 'why' questions. This sincere desire for better understanding was the primary motivation for doing formal research and pursuing a doctoral degree.

As identified in the literature review, modern MNCs have their origin in the period of the industrial revolution of the 19<sup>th</sup> century when they emerged from basic functional U-form structures and evolved towards large divisionalized M-form structures in the early 20<sup>th</sup> century (Chandler Jr, 1977). The widespread use of matrix organizations is associated with the shortage of resources (time, human, financial) in the U.S. aerospace industry in the 1960s caused by the moon landing project, the Vietnam war and the growth of the commercial airplane industry (S. M. Davis & Lawrence, 1977). Various projects had to be managed in parallel while at the same time meeting criteria of time, cost and quality. The classical functional U-form structure with the single employee-manager relationship was considered insufficiently flexible and too slow. Consequently, the introduction of a second reporting line toward the project managers of the various parallel running projects created a project-matrix structure (Mee, 1964).

The successful use of these project-based matrices made this new organizational form popular among academics and practitioners and consequently many MNCs adopted permanent matrix structures in various forms (Bartlett & Ghoshal, 1989; Laslo & Goldberg, 2001; Stopford & Wells, 1972). In particular from the 1960s until the 1980s, a large number of research projects were performed with the principle aim of seeking a single and universal relationship between the strategy and the structure of the MNCs.

Those studies have mainly followed a quantitative approach, and covered MNCs that operated in various industries and countries. Few country-specific or industry-specific studies have been performed, and there is hardly any research emphasising a specific industry in a specific country. There are two main reasons why many of these studies had such a broad focus. First, positivism derived from the natural sciences and in particular physics was, until the 1970s, also predominantly

used in management research and the social science (Burrell & Morgan, 1979; Kuhn & Hacking, 2012). This explains why most studies about MNCs and matrix organizations have followed a positivist approach. Second, in the process of liberalisation of markets, globalisation and increased competition (M. E. Porter, 1986b) many large MNCs from North America, Europe and also Japan (and later Korea) grew rapidly and gained increased global importance, political attention and power (Ghemawat, 2001; Rugman, 2005). Consequently there was an interest among researchers and practitioners in better understanding the principles and rules for managing an MNC. As so many different MNCs from different industries and countries grew at the same time, the only viable way to gain a better understanding of this was considered to be conducting studies incorporating a large – supposedly representative – quantity of participants. The outcome of these studies suggested that MNCs primarily have to balance the forces for global integration and local responsiveness (Bartlett & Ghoshal, 1989). Global integration refers to the need to take advantage of economies of scale in trying to produce the global product at the lowest possible cost. On the other hand local responsiveness reminds us that the world is not one global uniform market, and there are many aspects that require a local adaptation of products, such as political, tax, logistical, and ethical considerations (Ghemawat, 2007b).

After widespread use of matrix structures in many MNCs (Agthe, 1990; Goggin, 1974), many MNCs and other organizations such as hospitals (Burns, 1989) had serious problems in the implementation of matrix structures (Harris & Raviv, 2002; Pitts & Daniels, 1984). This resulted in the equally prominent abandonment of matrix structures and since the late 1980s and early 1990s researchers have lost interest in matrix organizations of MNCs (Egelhoff et al., 2013). This can be explained by the fact that the underlying principle of MNCs -- namely global integration and local responsiveness -- was considered solved. Regardless of the declining interests of researchers, MNCs have continued to try and refine the use of matrix organizations, as, for example, illustrated by Agthe (1990). Recent literature sources claim that today matrix organizations are widely used in almost all kinds of organizations, not only MNCs (J. R. Galbraith, 2009; K. Hall, 2013).

Siemens AG can be used as an example for a large German technology MNC (Dyas & Thanheiser, 1976; Financial Times, 2013), that has changed the use of matrix organizations frequently over the past few years. Siemens describes for example in the report to its shareholders of 2002 the use of the two-dimensional divisional-regional matrix as primary structure (Siemens, 2002). After a new outside CEO joined in 2007, more decision-making power was allocated to the global product units at company headquarters and all countries were organised in regional clusters, for which reason the country CEOs lost relative power and influence (Hesse, 2011). After a long time company veteran became CEO in 2013 the regional clusters were dissolved again, and the country CEO once again



gained more power (Maier & Werres, 2013). Another German MNC, Nokia Siemens Networks (NSN) was discussed in the media with regard to its struggles using the matrix structure. The main critique related to the unclear power distribution among the various matrix dimensions (Hoefle, 2012). These examples illustrate that matrices are commonly used in German MNCs; however, the optimal use of matrix organizations and the distribution of decision power are still the subject of constant debate and subject to change.

## 6.2 Research design

This thesis adds to the product-country debate, and fills a paradoxical gap; little recent literature is available about the use of matrix organizations in MNCs, despite the fact that matrixes are used widely in MNCs. In contrast to the previous studies it is decided to narrow the focus with regard to country of origin, as well as industry, and decided to research German technology MNCs. The competing interests of global integration and local responsiveness can also be described as a struggle for decision power between headquarters -- representing the interests for global integration -- and local subsidiaries representing the interests of local responsiveness. The research questions of this thesis are designed to gain deeper understanding and address 'how' and 'why' questions:

1. How do German MNCs distribute decision power in their matrix organizations between headquarters and local subsidiaries?
2. Why do German MNCs distribute the decision power in this particular way?

As this research asks 'why' and 'how' questions, semi structured interviews were selected as the most appropriate method for collecting qualitative information (Bryman & Bell, 2011; Saunders et al., 2009). 31 semi structured interviews were conducted with experienced managers in order to gain a deeper understanding of the challenges faced, and to reach recommendations and conclusions with regard to the ideal fit between strategy and structure. The method of semi-structured interviews enabled me to rephrase questions and cover specific- and new topics and ideas that arose during the interview. The primary interviewee target group for this research project were managers in German technology MNCs, who represent either the interests of a global product unit or of a local company. I have built up an extensive network of business and personal contacts, which was used to recruit the

interviewees. In the interview analysis a combination of conversation analysis; discourse analysis, hermeneutic analysis, narrative analysis and mainly thematic analysis was used (Bryman & Bell, 2011; Saunders et al., 2009).

The philosophy by which this research project is guided is best represented by realism between the extremes positivism and interpretivism (Bryman & Bell, 2011; Saunders et al., 2009). Using the grid of Burrell and Morgan (1979) the paradigm of this study is positioned in between the functionalist and interpretivist quadrant, with a slight tendency towards interpretivism. Positivism and the functionalist paradigm is discarded, because of the common criticism that research in the area of business and people management cannot be entirely value free, and the perception that the researcher is not independent from the research. In particular positivism or the functionalist paradigm does not fit the research questions or support a qualitative approach. Interpretivism is rejected because problems in business are not entirely unique and subjective. Statements made by interviewees are therefore considered to be representative of real world situations. It is likely that certain patterns are similar in different organizations and common rules for solving problems can be derived (Bryman & Bell, 2011; Saunders et al., 2009). A practitioner and realist is by nature critical with regard to extreme positions, which is why the research philosophy of this study is considered as 'realism' and not 'critical realism'.

### **6.3 Conclusions and contribution**

This thesis fills various gaps in the present literature and is an addition to current knowledge in academia and practice. It suggests that the current strategy-structure models need to be refined and extended, which should be the basis for further research projects. The six conclusions are:

1. Several matrices co-exist permanently, because of huge benefits and trained staff.
2. All matrix dimensions are relevant in a variable power continuum, because of the added value which is dependent of many influencing factors.
3. Conflicts and decisions are about investments, human resources and customer strategy to respond to the interest of the three main stakeholders.
4. MNC focus on product, region and customer because they can be run as own P&L .

5. MNCs need clear rules and incentive schemes to avoid delays, high costs and unclear responsibilities.
6. Conflict resolution and decision making in MNCs are based on economic models and the three dimensional use of power.

Potentially the most challenging and provoking conclusion is that the traditional search for a single strategy-structure fit as proposed by large parts of the mainstream IB research is likely to be a failed attempt, because MNCs use different matrix organizations at the same time at various points in the organization. There is, consequently, no such thing as a single strategy- structure fit in practice, as suggested in early as well as more recent studies (for example Chandler Jr, 1962; Qiu & Donaldson, 2012; Stopford & Wells, 1972; Wolf & Egelhoff, 2012). This study confirms the argument and the recent matrix book by J. R. Galbraith (2009), which comprises experiences from the academic and practical world. J. R. Galbraith (2009) is one of the few authors predicting the simultaneous use of various matrix structures in MNCs. Matrices are used because they offer the ability to respond to the need for speed, flexibility and cost efficiency, to name some of the most relevant advantages. 50 years have passed since the successful use of matrix organizations in the U.S. aerospace industry in the 1960s, the most prominent outcome of which was the lunar landing in 1969. The society as such, staff, management practices and technology have seen many gradual and disruptive changes, and thus staff and managers nowadays are much more accustomed to ambiguity and conflicting interests. Consequently matrix organizations nowadays work much better than in 1970s and 1980s, during which time their implementation was later reported to be a failure. The fact that matrix organizations are common practice in many MNCs and other organizations is confirmed by some recent literature (for example Gottlieb, 2007; K. Hall, 2013). The existence of various parallel matrices is much less mentioned; for that reason this thesis opens up a new field of theory and research.

The second conclusion also challenges most present IB literature that cover matrix organizations in MNCs. It suggests that there is no constant and general form of decision power distribution between the different matrix dimensions, but rather a constantly changing continuum that is different for each combination of the matrix dimensions. For instance the distribution of decision power in a product-regional matrix is potentially different for each product in each region. The reason for this lies in the fact that the distribution of decision power mainly depends on the added value of each dimension in each of the combinations. The added value is dependent upon many factors such as maturity of the product, capabilities of the local subsidiary, and the national historic heritage of the

MNC, the general market environment, and the personal political network and relationships of the involved managers. Consequently it is suggested that there is always some kind of matrix, and all matrix dimensions are important because of legal, tax, and national regulations or because of customers' requests. In this respect this study contradicts most of the early and present literature about MNCs whose authors allocate the matrix to the middle of the continuum, where there is a balance of power (Mintzberg, 1979; Saracoglu, 2009). In contrast it is suggested that there is also a matrix if the decision power distribution is not balanced, because all dimensions remain important even with less influence and power. They have to be addressed and managed in a similar way, in particular considering that the power balance is potentially different for each combination of the matrix dimensions. This finding of the present thesis has not been suggested by other literature that has been reviewed. In addition this study (as a specific example) suggests that there are significant differences in box and systems businesses. Firstly, those two business types require different levels of distribution of decision power and secondly, they increase the complexity and difficulty for MNCs in managing both business types in the same MNC. The specific example describing the fundamental differences between the most prevalent business types in technology MNCs has been largely ignored by researchers. Another specific example is given in the differences between U.S. and European MNCs. U.S. MNCs have a much larger home market, which is why they move internationally much later than European MNCs, which traditionally have home markets too small for a sustainable operation of long duration. This finding is in line with the suggestions of the Uppsala model (Johanson & Vahlne, 1977; Johanson & Wiedersheim-Paul, 1975; Vahlne & Johanson, 2013). European MNCs have to manage matrix organizations in a more balanced way to be successful than American MNCs, which may be tempted to apply their home market structure in worldwide operations as well. Consequently the distribution of decision power and the power continuum is potentially very different between American and European MNCs. Few other studies have addressed the particular differences between European and U.S. MNCs.

As a third conclusion this study suggests that most decisions in matrix organizations are about financial investments, human resources and customer strategy. This seems logical as these decisions correspond to the three most important stakeholders of a MNC -- namely shareholders, employees and customers -- and they have the greatest impact on the P&L statement of the MNC. Several studies discuss the power struggles between HQ and LCs. Rather few studies, however, have attempted to categorise these decisions (J. R. Galbraith, 2009). Not any literature has been found suggesting the same three categories. For that reason this conclusion is considered an important addition to the present literature.

The fourth conclusion suggests as main matrix dimensions products, regions and customers. It partly confirms the present literature (for example Adzic, 2006; Qiu & Donaldson, 2010; Wolf & Egelhoff, 2002) and can be potentially be seen as a result of the design of this doctoral study. At the same time this conclusion is to some extent also a contradiction of, and an addition to, the same existing literature. It seems obvious that MNCs primarily seek to implement any strategic structural fit in the product and regional dimension, because MNCs by definition offer several different products in several different countries. This study confirms that regions and products continue to represent the key dimensions of the overall matrix organization in MNCs. In combination with conclusion two, it is important to remind oneself that a matrix still exists when one dimension has significantly more power. In addition, this study uncovers a rather recent trend that has been hardly mentioned in the present literature: namely, the appearance of (global) accounts that in addition form the customer dimension. The classical example is that the key customers of MNCs are MNCs themselves, who require central attention for their global needs. Not all (global) accounts buy all products, nor are they present in all regions, which is why the third-dimension customer is to be seen in combination with the previously-mentioned product and the regional part of the matrix. These three dimensions have in common, that they can be measured with their own P&L statements, and consequently can be managed as semi-autonomous companies within the MNC. As previously pointed out, there are several parallel and overlapping matrix organizations in MNCs, in particular involving the functions finance, HR, marketing, purchasing, manufacturing, and legal. Those functions cannot, however, be run with one's own P&L, nor are they part of the other three dimensions, which is why the most relevant dimensions are product, region, and customers. With this specific classification and description the present study presents a novel argument largely ignored in the literature.

As fifth conclusion this thesis suggests that managers and staff in MNCs express their desire for clear rules and motivational measures, such as incentive schemes and training, to make working in the matrix organization easier and more efficient (S. M. Davis & Lawrence, 1977; Nicholson, 1998). One of the main concerns expressed was the need to clearly define who has the ultimate decision power. This should not be seen as contradicting conclusion two, which suggests that all dimensions are important, the reason there is always a matrix. As suggested by the interviewees, it is important to get all matrix dimensions involved in an organised fashion; there are, however, often conflicting interests from the different dimensions of the matrix, and thus the desire for unanimous decisions is not always realistic and often too costly and time-consuming. Clear rules for the ultimate decision maker are therefore highly desirable. As a second part of this final conclusion it is suggested that the setting of synchronised targets and incentive and training schemes are needed. The P&L of a MNC is the sum of the P&L of all regions and all product units. The dimension of customers is not necessarily considered, since not all customers buy all products in all regions, and not all customers are global

accounts. Consequently local or regional customers may be covered in the regional matrix dimension. The literature has seldom addressed the specific challenges of preventing managers from sub-optimising their regional or product P&L, at the expense of the P&L of the representatives of the same or other dimensions.

As sixth and final conclusion this thesis suggests that conflict in matrix organizations of MNCs cannot be avoided because it is a direct consequence of the competing interests of the various matrix dimensions. MNCs are not (too) complex because of the use of matrices as suggested by main IB research and management books but they are a reflection of the complex environment in which MNCs operate. As interests are not always aligned also power models need to be used alongside economic rational models in order to understand the processes of conflict resolution and decision making. This thesis further suggests that power is used in the three dimensions visible, invisible and hidden as suggested by Lukes (1974). This study is therefore providing a largely ignored link of traditional economic IB research with sociologist studies.

## **6.4 Limitations and future research**

This study has its limitations due to the nature of the research design, and the limited number and the specific background of the interviewees. There is a natural bias of research following a qualitative approach. In this study it is due to my personal background as a manager in German technology MNCs. It is however suggested that this potential disadvantage is balanced against the benefit of gaining a better and much clearer understanding of 'how' and 'why' things happen in organizations. It is further suggested that the findings of this study are potentially also applicable in different environments, why this doctoral thesis makes an important addition to the existing knowledge in the academic and practical world.

This study recommends that further research is needed using a similar research design to that in this study, focusing on MNCs from other countries and different industries. The potential specific differences between European and U.S. MNCs deserve and need further attention as well. As MNCs from emerging countries in Asia, but also other BRIC countries gain increasing importance, it is proposed to dedicate further studies to them. It is further suggested that the recent appearance of global accounts, forming new matrix dimensions, must also be analysed further by researchers. Finally it is suggested to perform more research bridging the two main MNC literature streams of IB and

sociologists studies by focussing on the role of conflict in decision making and the use of power alongside traditional rational economic arguments.

## 7 Appendix

### 7.1 Informed consent form

All participants of this study received an 'Informed Consent Form' which most of the interviewees returned. All interviews agreed at the beginning of the interview about the content of the informed consent form. No interviewee withdrew from the study.

#### Informed Consent Form

This research study is being performed to investigate and understand how and why German MNCs operate the various matrix organizations as well as how and why decision power is distributed between headquarters and the local subsidiaries. The study further tries to determine the key objectives and criteria used when deciding upon the organizational set-up and distribution of decision power in German MNCs. You are invited to participate in this study. If you agree, your participation will consist of participating in an approximately 60 minute interview where you will be asked questions related to your experience as working in a matrix organization of a German MNC. It is clear that your answers reflect your personal opinion, and the information will not be used or published in a way that could leave the impression that the given answers reflect in any way the opinion of your current or former employers.

Your participation is voluntary and you do not have to answer any of the questions which you do not wish to. You can withdraw any time if you wish. In such a case, all information pertaining to you will be destroyed. The interview will be audio recorded and transcribed afterwards if this is acceptable, otherwise written notes will be made. Before using any of the gained interview information the transcript of the audio recording will be sent to you for review and approval. The interview will only be used for research purposes. Everything will be anonymous and kept confidential. It will be stored securely and will be deleted when no longer required for research purposes. To obscure your identity, pseudonyms will be used. Your identity will not be disclosed at any point in time. If direct quotes are used, any identifying information will be removed in order to protect your identity. The information gained in this study might be published in research journals or presented at research conferences, but your identity will be kept strictly confidential.



This project conforms to the Handbook of Research Ethics of the University of Gloucestershire. If you are willing to participate in this research study, please sign the statement below and return this form (electronically or by mail) to the following address: Andreas Schroeter, Libellenweg 3A, 21521 Wohltorf, Germany, email: andschroeter@gmail.com.

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to be a participant in this study. I have received a copy of this Consent Form.

Name of Participant \_\_\_\_\_

Signature of Participant \_\_\_\_\_ Date \_\_\_\_\_

I certify that I have explained to the above individual the nature and purpose of this study. I confirm that I have answered any questions raised and have verified the signature above. A copy of this Consent Form has been provided to the participant.

Name of Interviewer \_\_\_\_\_

Signature of Interviewer \_\_\_\_\_ Date \_\_\_\_\_

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