

## Chapter 3

### Role Typologies for Foreign Subsidiaries

Differentiated networks consist of heterogeneous organisational units in different countries. Different subsidiaries can play different roles within the MNC network and numerous classifications of generic subsidiary strategies or roles are proposed to clarify those strategies. The aim of this Chapter is to give an overview on existing role typologies and discuss the strengths and weaknesses of the role typologies for international management.

#### Heterogeneous Roles of Subsidiaries

Until the mid-1980s, as Bartlett/Ghoshal (1986) observed, many MNCs treated all their foreign subsidiaries in a “remarkably uniform manner”. In their critique, they labelled this the “United Nations Model” in which the MNC applied its planning and control systems uniformly worldwide, involved each subsidiary’s management equally (weakly) in the planning process, and evaluated them against standardised criteria. This uniformity can be partly explained by the fact that foreign subsidiaries were long (uniformly) seen as only “market access providers”, without major autonomy and without their own contributions to the company strategy (see, e.g., Vernon 1966).

However, it became increasingly obvious that this symmetrical, uniform way of international management limited the exploitation of the benefits of internationalisation (Bartlett/Ghoshal/Beamish 2008, p. 719). The conceptualisation of the *MNC as a differentiated network* (Ghoshal/Nohria 1989), in which different subsidiaries can have individual tasks to fulfil and be assigned strategically important roles, is increasingly acknowledged to be a better design to exploit the capabilities of the different subsidiaries and the advantages of their locations. As has been shown in Chapter 1, in network firms, competitive advantages do not solely stem from headquarters in the home country but can also be created by foreign subsidiaries and then transferred and exploited throughout the network. Instead of a “centre-periphery” view, this evokes a multi-centre perspective of the MNC with distributed resources, capabilities, functions and decision powers (Schmid 2004, p. 238).

Given the premise that each subsidiary has a unique role to play in the MNC (Birkinshaw/Morrison 1995, p. 732) it is a major objective of role typologies to clarify those roles. This includes: to identify the different roles of subsidi-

**Role  
Definition**

aries, to distinguish them clearly, to determine the antecedents and consequences, e.g. regarding the coordination of subsidiaries in different roles and their relations with other actors in the MNC and in the host country.

As a starting point, though, what the “role” of a subsidiary is has to be defined. Roles are closely related to the *task* of a foreign subsidiary in the company network (Andersson/Forsgren 1996, p. 489): most role typologies see roles as *alternative strategies* of foreign subsidiaries (Couto/Goncalves/Fortuna 2003, p. 3). A role can be understood as a statement of purpose. It includes the task, the market, and the customer the division is concerned with (Galunic/Eisenhard 1996, p. 256). It can be “*defined as the business – or elements of the business – in which the subsidiary participates and for which it is recognized to have responsibility within the MNC*” (Birkinshaw/Hood 1998, p. 782). Thus, a role is the specific task of a subsidiary, e.g. “to sell the MNE’s products in Australia, or to manufacture a line of products for the European market” (Birkinshaw 2001, p. 389).

**Roles as  
Subsidiary  
Strategies**

Some authors distinguish between a *role* (which is assigned to the subsidiary) and a *subsidiary strategy* (which is seen to suggest some level of self-determination by the subsidiary) (Birkinshaw 2001, p. 389). Usually, the distinction is difficult and the specific task and activity of the subsidiary is partly assigned by the headquarters, partly self-determined and partly negotiated between the subsidiary and its headquarters. Thus, in this book, the word “role” is seen as synonymous with the subsidiary strategy.

**Different Role  
Typologies**

A large number of role typologies have been proposed in the literature. A few overviews on those typologies can be found (e.g. Hoffman 1994; Schmid 2004; Morschett 2007, pp. 210-254). In most cases, the dimensions along which roles are described are (Morschett 2007, pp. 250-254):

- the *external context* of the subsidiary, e.g. the relevance of the host country or the complexity of the environment
- the *internal context* of the subsidiary, e.g. the strategic orientation of the MNC or the level of local resources or competences of the subsidiary
- *coordination variables*, e.g. the level of autonomy
- the *strategy* or task of the subsidiary, e.g. the primary motives for its establishment, the share of internal or external sales, the knowledge in- and outflows, the markets served, products offered or value-added activities carried out.

In addition to those, many typologies in the literature focus on specific value-added functions, e.g. on R&D or on manufacturing activities. Some of these typologies will be discussed in Chapters 16 and 17. In this Chapter,

four role typologies that represent typical examples of role typologies on the subsidiary level are presented.

## Selected Role Typologies

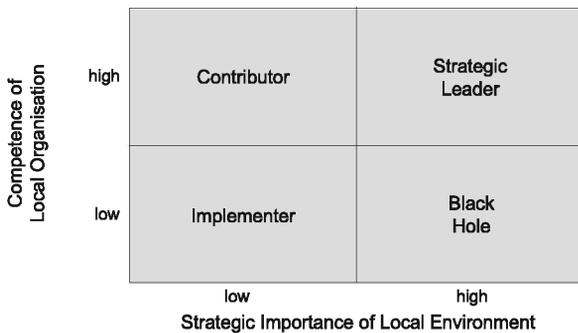
### Role Typology by Bartlett/Ghoshal

Following their critical evaluation of the “United Nations Model”, Bartlett/Ghoshal (1986) have proposed an organisational model of differentiated rather than homogeneous subsidiary roles and of dispersed rather than concentrated responsibilities. More specifically, they suggest a role typology with *two dimensions* (Bartlett/Ghoshal 1986, p. 90):

- The *strategic importance of the local environment* in the host country is the first dimension. Strategic importance can be given due to market size, but also, for instance, due to a particularly sophisticated or technologically advanced market.
- The second dimension considers the subsidiary itself and captures the *level of internal competences* and capabilities.

*Dimensions of  
Bartlett/Ghoshal*

#### Role Typology by Bartlett/Ghoshal



*Figure 3.1*

Source: Adapted from Bartlett/Ghoshal 1986, p. 90.

In a typical process for role typologies, the authors assume two dichotomous scale values for each of the dimensions (high/low) and, thus, develop *four roles* by combination (see also Schmid/Bäurle/Kutschker 1998; Rugman/Verbeke 2003a):

*Four Roles of  
Bartlett/Ghoshal*

*Implementer  
as the Most  
Common Role of  
Subsidiaries*

- If a highly competent national subsidiary is located in a strategically important market, it can serve as a *partner* of the headquarters in developing and implementing strategy. In the role of *strategic leader*, the subsidiary can take the lead within the MNC, e.g. for a certain product or a certain value-added function. Other authors that identify this role use labels like “world product mandate”, “active”, “lead-country”, “centre of excellence” for similar roles. It is particularly relevant in MNCs with a “transnational orientation” (see Chapter 2).
- A *contributor* role can be filled by a subsidiary in a small or generally less important market which nevertheless has distinctive capabilities. It can contribute to the competitive advantage of the MNC particularly well if the specialised and unique capabilities that exceed what is necessary in its own local market are used for (limited) projects that have a company-wide relevance.
- A foreign subsidiary in a strategically less important market that has just enough competence to maintain its local operation may be assigned the role of an *implementer*, which is the most common role for subsidiaries. These subsidiaries lack the potential to contribute to the MNC strategy beyond their local function. Thus, such a subsidiary is given the task of efficiently and effectively exploiting the local market potential and *implementing the defined strategy*. This role type is also commonly considered in role typologies, with names like “local implementor”, “miniature replica”, “branch plant”, “receptive subsidiaries”, or, as a similar role, “marketing satellite”. It is a role that typically results from a “global orientation” (see Chapter 2) of a MNC.
- As a fourth situation, some markets are so relevant that they would need a strong local presence to maintain the company’s local and global position, however, the local subsidiary is lacking the capabilities to fulfil this requirement. In this negative situation of a *black hole*, the MNC has to find a solution and “to manage one’s way out of it” (Bartlett/Ghoshal 1986). One possible strategic move here is the choice of a strong local partner which helps to evolve the subsidiary’s competences (Rugman/Verbeke 2003a).

*Roles and  
Coordination*

Often, role typologies indicate which *coordination mechanisms* are appropriate for subsidiaries with different roles (see also Part III). For example, Bartlett/Ghoshal (1986) emphasise that when the roles are differentiated, the MNC must differentiate the way it manages those subsidiaries, depending on the particular role. For example, implementers can be managed by formalisation and similar mechanisms to ensure tight control. Contributors may be centrally coordinated but the headquarters must be careful not to discourage and frustrate local management. For subsidiaries that act as strategic leaders,

however, control should be quite loose and decentralised, and the main task of the headquarters (HQ) is to support the subsidiary with the necessary resources and freedom needed for the entrepreneurial role it has to play.

### Role Typology by White/Poynter

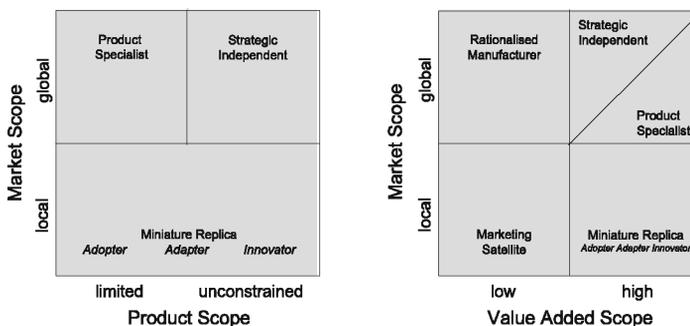
More complex is another role typology that has been suggested by White/Poynter (1984; see also Schmid/Bäurle/Kutschker 1998, pp. 9-10). They describe the role of a subsidiary along *three dimensions*:

- The *market scope* refers to the number of geographical markets on which the subsidiary is allowed to be active. In the typology, a dichotomy between “local” (i.e. a focus on the host country) and “global” is applied.
- With the *product scope* the authors capture the breadth of products a subsidiary manufactures or sells. Here, the distinction is between a limited scope with only single products and an unconstrained scope, where the subsidiary offers many product lines and often is even allowed to introduce further product extensions autonomously.
- The *value-added scope* describes whether the foreign subsidiary only carries out single value-added functions (often either marketing or production or R&D) or whether it realises a broad value-added spectrum, up to a full value chain in the host country.

*Dimensions  
of  
White/Poynter*

*Role Typology by White/Poynter*

*Figure 3.2*



Source: Adapted from White/Poynter 1984, p. 60.

*Five Roles of  
White/Poynter*

White/Poynter (1984, pp. 59-60) explain that the dimensions are influenced, inter alia, by local and global competitive forces and the competence level of the subsidiary. The three dimensions are combined to establish five roles (see Figure 3.2):

- A *miniature replica* serves the host country market with rather comprehensive value-added functions. The product scope can vary. Miniature replicas are, as the name indicates, *very similar* in their design to their *headquarters*. Reasons for this role can be high local demand preferences, high trade barriers, production subsidies in the host country, and/or relatively small scale effects in production in the industry which allow a distributed production. Miniature replica is considered to be a very common role. Depending on the product scope, the autonomy and its own creative activity, the miniature replica might vary from *adopting* to *adapting* to *innovating*.
- A subsidiary that acts as a *marketing satellite* also serves the local market only but focuses on a few value-added functions, mainly marketing & sales. The product scope can vary. Most frequently, products which are produced in the home country are imported and sold in the host country.
- *Rationalised manufacturers* are units that are responsible for a broad geographical area but only limited value-added functions. Often this is the manufacture of a few products (or even just product components) for the world market (or at least a larger number of countries).
- *Product specialists* have the worldwide responsibility for one product or one product line within the MNC and realise the full value-added chain for this product. Regarding this product, the subsidiary has a so-called *world product mandate*. This role is emphasised in many role typologies. It is considered to have high decision autonomy, but since there is a high interdependency with other units (who might buy and sell the products in their specific countries, or who might produce other product lines and sell them to the product specialist), this autonomy cannot be unlimited (Roth/Morrison 1992, p. 718). The empirical relevance of this role is the subject of controversy. Some authors argue that many headquarters hesitate for strategic reasons to assign their foreign subsidiaries such broad responsibilities and that – besides some exceptions – this role is still mainly filled by the headquarters itself (D’Cruz 1986, pp. 84-86).
- Subsidiaries that act as *strategic independents* also carry out many value-added activities and they do this for a very large number of markets. The product scope is unconstrained. Here, the subsidiary is seen to be only loosely coupled to headquarters, which in this situation acts more as a financial holding, giving very far-reaching autonomy to the subsidiary.

*World Product  
Mandates*

### Role Typology by Gupta/Govindarajan

A very different role typology has been presented by Gupta/Govindarajan (1991). They understand the MNC as “a network of capital, product, and knowledge transactions among units located in different countries” (Gupta/Govindarajan 1991, p. 770), following the network perspective of authors like Bartlett/Ghoshal and others.

To reduce complexity, they focus on knowledge flows for their typology. One reason for this choice is that the modern literature on MNCs has shown an increasing share of complex, transnationally-oriented MNCs (see Chapter 2), and it is specifically in the case of *transnational MNCs* that knowledge flows across subsidiaries become particularly significant. Moreover, most modern economic theories on the MNC suggest that FDI occurs predominantly because of a desire to internalise knowledge flows, and thus, an analysis of knowledge flows investigates the core of the MNC (Gupta/Govindarajan 1991, p. 772).

Focusing on variations in knowledge flow patterns, the authors have proposed that MNC subsidiaries could be categorised along *two dimensions*: Subsidiaries can engage in different levels of knowledge outflows to the rest of the corporation and in different levels of knowledge inflows from the rest of the MNC.

*Knowledge  
Flows*

*Dimensions of  
Gupta/  
Govindarajan*

*Role Typology by Gupta/Govindarajan*

Outflow of Knowledge from the Local Subsidiary to the Rest of the Corporation	high	Global Innovator (Knowledge Provider)	Integrated Player (Knowledge Networker)
	low	Local Innovator (Knowledge Independent)	Implementor (Knowledge User)
		low	high
		Inflow of Knowledge from the Rest of the Corporation to the Local Subsidiary	

*Figure 3.3*

(In brackets, the terminology of Randøy/Li (1998) is displayed.)

Source: Gupta/Govindarajan 1991, 1994.

*Four Roles of  
Gupta/  
Govindarajan*

From those two dimensions they derive *four generic subsidiary roles* (Gupta/Govindarajan 1991, pp. 774-775) which were also used by Randøy/Li (1998), with a slightly different terminology (see Figure 3.3):

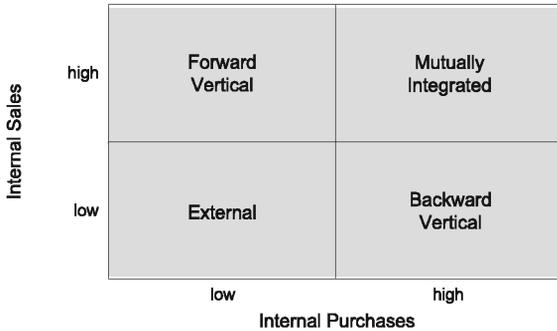
- A *global innovator (knowledge provider)* is predominantly a source of knowledge for other subsidiaries and the headquarters. An example of such a knowledge-providing subsidiary might be *SAP Labs US*, in which a significant portion of *SAP's* technological innovations have originated. The subsidiary that is located in Palo Alto, California, maintains strategic relationships with local organisations such as Stanford University, and its mission is to leverage the valuable assets within Silicon Valley to drive innovation (see the motive of *strategic asset seeking* in Chapter 4).
- An *integrated player (knowledge networker)* is also responsible for creating knowledge that can be utilised by other subsidiaries: However, the knowledge networker additionally has to rely on knowledge from others and thus receives and sends high levels of knowledge to and from the subsidiary. With this bi-directional integration in knowledge flows, it can be considered a “centre-of-excellence” that is tightly embedded in the MNC and at the same time in its local environment (Frost/Birkinshaw/Ensign 2002).
- The *implementor (knowledge user)* relies heavily on knowledge inflows from the headquarters and from sister subsidiaries, and exploits the competitive advantages stemming from that knowledge in its host market without initiating high knowledge outflows to the rest of the corporation.
- Finally, the *local innovator (knowledge independent)* role implies that the subsidiary is isolated from knowledge flows in the MNC and has to take local responsibility for the creation of the necessary know-how itself. Referring to the network models, companies with a *multinational orientation* (Bartlett/Ghoshal 1989) consist mainly of subsidiaries that can be considered as knowledge independents.

### Role Typology by Andersson/Forsgren

Similar to the idea of Gupta/Govindarajan (1991), Andersson/Forsgren (1994) consider transactions between the subsidiaries and the rest of the MNC as relevant dimensions but they focus on *product flows* instead of knowledge flows.

## Role Typology by Andersson/Forsgren

Figure 3.4



Source: Andersson/Forsgren 1994, p. 15.

Andersson/Forsgren characterise the role of the subsidiary along *two dimensions*:

- *internal sales*, i.e. share of output of the foreign subsidiary that is not sold to external customers but to the headquarters or peer subsidiaries, and
- *internal purchases*, i.e., the share of inputs like raw materials, components, semi-finished products and intangible goods, that is not delivered by external suppliers but by the headquarters and other units of the MNC.

From these two dimensions and the dichotomous scale values high/low, *four roles* are distinguished (see Figure 3.4; Andersson/Forsgren 1994, pp. 14-15):

- An *external subsidiary* is a subsidiary that receives and sends a low share of its inputs and outputs to the rest of the MNC. Thus, it produces with a low integration in the MNC and sells its products to external customers. Such a subsidiary role is particularly common in MNCs with a *multinational orientation* (see Chapter 2).
- Contrarily, a *mutually integrated subsidiary* is very tightly integrated in the MNC, on the sales and on the supply side.
- A *backward vertical subsidiary* supplies a major part of its inputs from the MNC and sells its products to external customers. This is the traditional role for many subsidiaries which act as sales units in the foreign market (or units with a minor value-added of their own), in particular in MNCs with a *global orientation*.

*Dimensions  
of Andersson/  
Forsgren*

*Four Roles of  
Andersson/  
Forsgren*

- Inversely, a *forward vertical* is a foreign unit which buys its material, products, and components from external sources in the host country and delivers its products mainly to the rest of the MNC. Here, the sales objective of the subsidiary is not dominant, but rather *efficiency-seeking* in production or *resource-seeking* in the host country (see Chapter 4).

## Weaknesses and Deficits of Role Typologies

Looking at the large number of role typologies that are offered in the literature, one can consider this a proof of their relevance but one could also consider this an apparent weakness. New role typologies frequently propose new dimensions for categorising subsidiaries but they seldom discuss why those new dimensions should be superior to the dimensions previously used in other typologies. A theoretical foundation for the dimensions is often missing and the dimensions seem to be chosen by plausibility, not by a thorough analysis. A certain level of *arbitrariness in the selection of role dimensions* can be observed (see Schmid 2004, pp. 246-248 with a comprehensive critique). Consequently, publications and suggestions for role typologies are frequently non-cumulative, neglect prior research results, and are not connected to each other (Hoffman 1994, p. 82). It remains unclear which of the various dimensions that are considered for role typologies are really crucial for international management, e.g. for the coordination of the subsidiary or for its performance.

Another major point of critique is the *over-simplification of subsidiary roles* that might emerge from the typologies. With mostly two dimensions and usually two values per dimension, most typologies offer four different subsidiary roles. One important reason is obviously the easy visualisation of four-role typologies. Nevertheless, this can obviously be seen as a defect, in particular, since four roles are most likely too few to describe the great "heterogeneity of subsidiaries" which is the starting point of the models.

In particular if at least some of the many typologies really have managed to describe subsidiaries along relevant dimensions, then it becomes clear that a large number of relevant characteristics of a subsidiary exist along which the role can be fixed, and multi-dimensional role typologies might be superior.

## Benefits of Role Typologies

Even when accepting their deficits, role typologies have shifted the focus of international management research to the level of the subsidiary as research unit to understand better the different strategic roles that a subsidiary can take. The typologies emphasise that MNCs consist of a large number of

organisational units in different countries in the form of a differentiated network which can take on particular roles within the MNC. Thus, role typologies contribute to a change of perspective in international management.

While the traditional perspective clearly saw the home country organisation as “centre” and the subsidiary as “periphery”, new concepts of the MNC – and the related role typologies – emphasise that subsidiaries can take on highly relevant strategic tasks within the company network and develop into strategic decision centres in the MNC. While it remains open whether these roles are still assigned by the HQ in a hierarchical manner or *subsidiary initiative* is the origin of the subsidiary role (Birkinshaw 1997), most typologies focus on the dimensions and characteristics along which subsidiaries can be distinguished. One benefit of the typologies surely is to illustrate the vast dimensions of distinction.

## Conclusion and Outlook

Role typologies are one way of analysing the heterogeneity of MNC networks. In doing so, all role typologies are based on similar assumptions (Schmid 2004, p. 244):

- Different subsidiaries can take on different roles.
- There is a limited number of roles for subsidiaries which can be used to describe the actual or intended behaviour of the subsidiary.
- The roles can be distinguished by a rather limited number of role dimensions.

While these assumptions obviously pose the risk of adopting a simplified perspective of a very complex problem, the exercise has contributed to a better understanding of the “differentiated network” view of the MNC.

Based on the role of the subsidiary, it becomes easier to decide other central questions of international management, e.g. the coordination of subsidiaries, or, more generally, the appropriate headquarters-subsidiary relations, since a uniform treatment of heterogeneous subsidiaries has been demonstrated to be inadequate.

Considering the criticism that role typologies over-simplify, one might recall the Indian tale of the six blind scholars and the elephant. In this story, six blind scholars attempt to understand and to describe what an elephant is. The first blind man comes from the side and feels that it is sturdy, large and straight. He declares the animal a “wall”. The second feels the trunk in his hand, that is round and bending and states that the elephant is like a snake. The third feels the leg and thinks the elephant is similar to a tall tree. The

*The Blind  
Scholars and  
the Elephant*

other three declare the elephant as a rope (based on the tail), a sharp spear (based on the ivory tusk) and a fan (based on the ear). Mintzberg, Ahlstrand and Lampel (2005) have taken this parable about *the many-sidedness of things* to explain *the many facets of corporate strategy*. It illustrates that basically, all of them are right, and at the same time all of them are wrong, because they only see part of the truth. The same holds true for the investigation and analysis of a complex organisation like a MNC. It seems to make sense to analyse a subsidiary from very different angles and through different lenses, without forgetting that this is not the whole picture. Role typologies should thus be considered as lenses through which subsidiary strategies within a MNC can be viewed. Eventually, these lenses have to be combined into a more comprehensive analysis, but role typologies can be a good starting point for analyses in international management.

### Further Reading

BARTLETT, C., GHOSHAL, S., BEAMISH, P. (2008): *Transnational Management*, 5<sup>th</sup> ed., Boston, MA, McGraw-Hill, Chapter 7.

SCHMID, S. (2004): The Roles of Foreign Subsidiaries in Network MNCs – A Critical Review of the Literature and some Directions for Future Research, in: LARIMO, J. (Ed.): *European Research on Foreign Direct Investment and International Human Resource Management*, Vaasa, Vaasan Yliopiston Julkaisuja, pp. 237-255.

## Case Study: ABB<sup>1</sup>

### Profile, History, and Status Quo

#### *Pre-Merger History*

Headquartered in Zurich, Switzerland, *ABB* is a global leader in power and automation technologies, offering a vast product portfolio ranging from light switches to robots, and from huge electrical transformers to control systems that manage entire power networks and factories. The company was formed in 1988 through a merger between *Asea AB* and *BBC Brown Boveri AG*.

*Asea AB* was founded in 1883 by Ludvig Fredholm as a manufacturer of electrical lights and generators, and was a major participant in the introduction of electricity into Swedish homes and businesses as well as in the development of Sweden's railway network. In the 1940s and 1950s, *Asea AB* diver-

<sup>1</sup> Sources used for this case study include different country web sites of ABG, [www.worldbank.com](http://www.worldbank.com), [www.cia.org](http://www.cia.org), [www.ec.europa.eu/eurostat](http://www.ec.europa.eu/eurostat), [www.onvista.de](http://www.onvista.de), various annual and company reports as well as explicitly cited sources.

sified into the power, mining and steel industries. Initially founded as *Brown Boveri & Cie.* and later renamed *BBC*, *Brown Boveri AG* was formed in Switzerland in 1891 and specialised in power generation and turbines. In the first half of the twentieth century, the company expanded its operations throughout Europe and broadened its business operations, offering a wide range of electrical engineering activities. In January 1988, *Asea AB* and *BBC Brown Boveri AG* decided to combine almost all of their businesses in the newly formed *ABB Asea Brown Boveri Ltd.*, of which they each owned 50 per cent. At the time of the merger, *Asea AB* generated revenues of 46 billion SKR (equals 5.7 billion USD) and employed 71,000 employees while *BBC Brown Boveri AG* generated revenues of 58 billion SKR (equals 7.3 billion USD) and employed 97,000 employees. *ABB* can therefore be seen as a “merger of equals”.

Revenue and Employee Development from 1996 until 2009

Figure 3.5



Source: Various annual reports of ABB.

After the merger, the newly-formed *ABB* pursued an aggressive growth strategy, acquiring about 40 companies in its first year and almost simultaneously commenced an extensive expansion programme in Central and Eastern Europe following the removal of the Iron Curtain in 1989. The growth strategy was replaced by a phase of restructuring and downsizing, starting by the end of the 1990s and lasting into the first years of the new millennium. The downsizing involved, for instance, the divestment of the nuclear

*Post-Merger  
History*

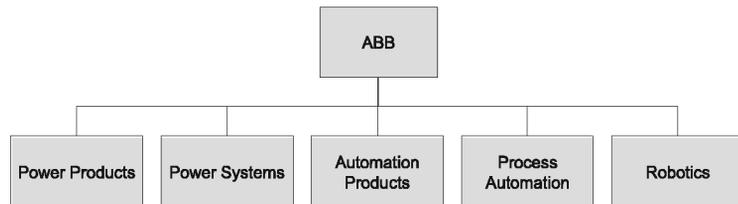
power generation and rail businesses in order to focus on market strengths in alternative energies. The emphasis on alternative energies is also underpinned in the company's vision statement: "As one of the world's leading engineering companies, we help our customers to use electrical power efficiently, to increase industrial productivity and to lower environmental impact in a sustainable way. Power and productivity for a better world." However, as displayed in Figure 3.5, the reorganisation endeavours left their mark in the revenue and employee figures of the group. After successfully refocusing its operations, the company returned to a healthy growth track in 2003, generating revenues of 31.8 billion USD and employing 116,000 people in 2009. The majority of revenues were generated in Europe (41 %) followed by Asia (27 %), the Americas (19 %) and the Middle East/Africa (13 %).

## Company Structure

*ABB Ltd.*, Switzerland, is the ultimate parent company of the *ABB Group*, which principally comprises 323 consolidated operating and holding subsidiaries worldwide.

Figure 3.6

Divisional Structure of ABB



Source: ABB 2010, p. 59.

The operative business of *ABB* is managed through a divisional structure. *ABB* comprises five divisions: Power Products, Power Systems, Automation Products, Process Automation, and Robotics (see Figure 3.6).

- *Power Products* are key components to transmit and distribute electricity, such as switchgear. The division's primary customers are utilities, distributors, wholesalers, installers and original equipment manufacturers (OEMs) in the utilities, transportation and power-generation industries. In 2009, the division had about 33,300 employees, generated revenues of 11.2 billion USD and its EBIT was 1,969 million USD. *Power Products* is the company's most profitable division with an EBIT margin of 17.5 %.

- *Power Systems* deliverables include, for example, network management, utility communication, transmission and distribution substations, and flexible alternating current transmission systems. The division sells primarily to utilities and power generation industries. In 2009, the division had about 16,000 employees, generated revenues of 6.5 billion USD and contributed an EBIT of 388 million USD to the overall financial result.
- *Automation Products* comprises a wide range of products and services including, for instance, low-voltage switchgear, breakers, and switches. As a whole, the division manufactures approximately 170,000 different products and has more than 100 manufacturing sites in 50 countries. The majority of these products are used for industrial applications, but also in buildings and in markets such as utilities and rail transportation. In 2009, the division had about 35,000 employees, generated revenues of 8.9 billion USD and gained an EBIT of 1,330 million USD.
- The *Process Automation* division delivers industry-specific solutions for plant automation and electrification, energy management, process and asset optimisation, analytical measurement and telecommunications. The industries served include oil and gas, power, chemicals and pharmaceuticals. In 2009, the division had about 25,500 employees, and generated revenues of 7.3 billion USD and an EBIT of 685 million USD.
- The *Robotics* division offers robots, services and modular manufacturing solutions for use in assembly, finishing and machine tending. ABB has installed more than 160,000 robots worldwide. Key markets include the automotive and manufacturing industries, in addition to applications in foundry, packaging and material handling. In 2009, the division had about 4,200 employees, and generated revenues of 970 million USD and an EBIT of -296 million USD.

## Strategic Importance and Competence as Dimensions of Subsidiary Roles

The role typology by Bartlett/Ghoshal (1986) is arguably the best-known and most cited role typology in the field of International Management (Kutschker/Schmid 2008, p. 342). As a consequence, this case study aims to illustrate the role of four ABB subsidiaries of ABB<sup>1</sup> by using this framework (see Figure 3.7).

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<sup>1</sup> All subsidiaries presented in this case study are wholly-owned subsidiaries of ABB.

Figure 3.7

Selected ABB Subsidiaries According to the Role Typology by Bartlett/Ghoshal

Competence of Local Organisation	high	Contributor ABB Schweiz AG Baden (Switzerland)	Strategic Leader ABB AG Mannheim (Germany)
	low	Implementer ABB AG Vienna (Austria)	Black Hole ABB S.A. Madrid (Spain)
		low	high
		Strategic Importance of Local Environment	

*Strategic Leader*

Germany is the world's fourth largest economy with a GDP of 3,650 billion USD in 2008. Hence, just considering the pure size of the market, Germany is doubtless a market of major strategic importance. Moreover, Germany is also well-known as a sophisticated and technologically advanced engineering market. The CIA world fact book, for instance, describes the German economy as "affluent and technologically powerful". With revenues of 3,185 million EUR and 10,600 employees in 2009, the German market is of major importance for ABB in terms of revenues, as well as in terms of manpower.

ABB AG (Germany) is arguably the most important subsidiary and simultaneously represents the German headquarters of ABB. ABB AG (Germany) is located in Mannheim and with a share capital of 167.5 million EUR it is one of the biggest subsidiaries worldwide. Apart from the country and functional management, Mannheim is also the location of various engineering and service units, further underpinning the competence of the subsidiary. Those units are closely connected to the corporate research centre in Ladenburg, Germany, and not only from a geographical perspective. As part of the ABB global automation laboratory, the corporate research centre in Ladenburg is one of seven corporate research centres worldwide. The facility supports ABB operations in product and system development as well as in services and consultation with basic research, new technologies and innovative solutions.

Combining the obvious strategic importance of the German market with the level of responsibility and internal competence of ABB AG (Germany), this subsidiary can be considered a sound and credible example of a "strategic leader".

Besides the corporate headquarters, several *ABB* subsidiaries, for instance *ABB Schweiz AG* in Baden, are located in Switzerland. Although being among the richest countries in the world, when using GDP per head as a ranking tool, the total GDP of Switzerland was just 492 billion USD in 2008. Considering the limited size of the market, Switzerland is, as a market, of minor strategic importance for *ABB*. More than 95 % of the company's total revenues are generated outside Switzerland. The strategic importance of *ABB Schweiz AG*, which has a share capital of 41 million EUR, for the *ABB Group* does therefore not stem from the importance of the market, but clearly from its competence, more precisely, its R&D activities.

Like Ladenburg in Germany, Baden is home to one of the seven *ABB* corporate research centres. Founded in 1966, the Swiss corporate research centre focuses on power electronics, sensors and instrumentation, electrical insulation, simulation and software solutions for power utilities and industrial automation. From the roughly 6,300 employees of *ABB* in Switzerland, about 170 work at the corporate research centre. The corporate research centre unites employees from around 25 countries, of which almost 70 % are holding a doctoral degree. Furthermore the centre maintains strong ties with leading universities like the Massachusetts Institute of Technology (MIT), University of Cambridge and the Swiss Federal Institute of Technology (ETH). Major scientific achievements of the Swiss corporate research centre include the invention of self-blast circuit breaker technology, the first fibre laser pressure sensor, the first high-temperature superconducting fault limiter, and the world's leading generator breaker.

The importance of R&D to prevail in business is outlined by the company: "R&D is crucial for a high-tech company such as *ABB*, and our steady investment paid off in 2009 with the introduction of several new technologies" (*ABB* 2010, p. 3). Taking into account the competences and capabilities of *ABB Schweiz AG*, as displayed in the scientific achievements, one could categorise it as a "contributor" subsidiary.

The situation of Austria is comparable to the situation in Switzerland. It is a high income country in terms of GDP per head, but has a rather small domestic market with a GDP of about 414 billion USD. Thus, solely judging by market size, the Austrian market is characterised by a low strategic importance. In contrast to Switzerland, this small market is not the home country of the MNC. *ABB* only generated revenues of about 111 million EUR in 2009, compared to 127 million EUR in 2007 and 150 million EUR in 2006 (*Industriemagazin* 2008, p. 35). *ABB* has about 400 employees in Austria. The subsidiary in charge of the Austrian operations is *ABB AG* (Austria). *ABB AG* (Austria) is located in Vienna and has a share capital of about 15 million EUR.

Sharply declining sales and limited share capital as well as the limited workforce indicate that *ABB AG* (Austria) has just enough competence to maintain its local operations and cannot substantially contribute to the overall strategy of the company or boost the competitiveness of the company. Hence, *ABB AG* (Austria) is a true “deliverer of the company’s value added” (Bartlett/Ghoshal 1986, p. 91). Considering the low strategic importance of the Austrian market as well as the rather low competence of the Austrian headquarters, *ABB AG* (Austria) could probably be considered to fulfil the role of an “implementer”.

### *Black Hole*

Although *ABB* has been very successful in recent years, some subsidiaries of the company find themselves in a strategic position that is not acceptable. One example is *ABB S.A.* (Spain), the subsidiary in charge of the Spanish operations. Spain is, according to the World Bank, the ninth largest economy in the world with a GDP of 1,604 million USD in 2008. Moreover, according to Eurostat, Spain clearly exceeded other major European economies in terms of GDP growth rates in recent years. For instance, while Germany had an average annual growth rate of 0.6 % between 2005 and 2009, the Spanish GDP annually grew by 1.7 % on average in the same time period. Considering the present size of the market as well as the growth prospects of the country, the Spanish market is of major strategic importance for *ABB*.

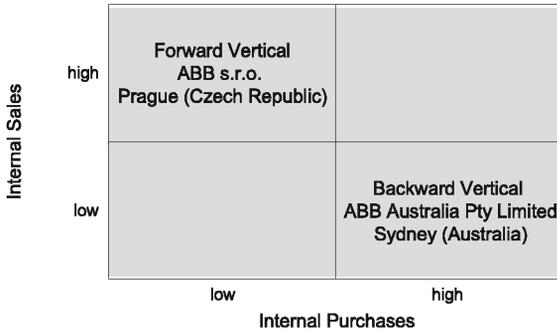
In total, *ABB* has 2,500 employees in Spain and generates revenues of about 811 million EUR in the Spanish market. *ABB S.A.* (Spain) has a share capital of about 33 million EUR, less than the Swiss subsidiary *ABB Schweiz AG*. Considering that the core market of *ABB*, in which the company generates 41 % of its total revenues, is Europe, the performance of *ABB* in Spain as one of the major and fastest growing European economies cannot be satisfactory. *ABB*’s presence in Spain is based on sales offices across the country. Furthermore, *ABB* operates six production plants in Spain, most of which were founded prior to 1950. *ABB* does not run any major research operations in Spain. Considering the overall disappointing financial performance of *ABB* in *Spain*, as well as the lack of operations with company-wide impact, *ABB S.A.* might be seen as a “black hole” among the subsidiaries of *ABB*.

## Internal Sales and Internal Purchases as Dimensions of Subsidiary Roles

Focussing on transactions between the subsidiaries and the rest of the MNC, Andersson/Forsgren (1994) distinguish four subsidiary roles. Two roles, the “forward vertical” role and the “backward vertical” will be considered with regard to *ABB* (see Figure 3.8).

*"Forward Vertical" and "Backward Vertical" at ABB*

Figure 3.8



Like in most MNCs, the *"backward vertical"* is the most frequent subsidiary role at ABB as most of the 263 subsidiaries fulfil that role. One example is *ABB Australia Pty Ltd*, located in Sydney. The subsidiary has a share capital of roughly 84 million EUR and is the headquarters of ABB's operations in Australia. In order to obtain and sell the company's products effectively to external customers, and as a major part of its eBusiness strategy in Australia, the company runs a 2,200 m<sup>2</sup> logistics centre at Notting Hill (Victoria). The highly computerised facility handles dispatch operations for motors, drives, low voltage switchgear, and robotic systems businesses. By operating a centralised logistic centre, the company "reduced the time it takes for Australian customers to receive equipment imported from Europe or elsewhere" ([www.abbaustralia.au](http://www.abbaustralia.au)). Hence, *ABB Australia Pty Ltd* is characterised by a very high percentage of internal purchases and mainly external sales (i.e., low internal sales) and can therefore be seen as a *"backward vertical"*.

In sharp contrast to the *"backward vertical"*, the *"forward vertical"* is not established to sell to external customers but to deliver products to the rest of the MNC. An example of a *forward vertical* is *ABB s.r.o.* headquartered in Prague, Czech Republic. *ABB s.r.o.* employs about 2,700 people and rests upon the "long-standing experience of traditional Czech producers" ([www.abb.cz](http://www.abb.cz)). Major manufacturing facilities are located in Prague, Brno, Trutnov, Jablonec n. Nisou, and Ostrava. The Czech subsidiary performs manufacturing tasks for all divisions of ABB, but focuses on the robotics division, as the European arc welding centre (EAWC) and the robotics refurbishment centre are located in Ostrava. Performing basic manufacturing tasks, such as welding for the robotics division, *ABB s.r.o.* is characterised by "high" internal sales, as well as "low" internal purchases (apart from company-wide know-how).

*Backward  
Vertical*

*Forward  
Vertical*

## Summary and Outlook

By applying role typologies, one has to bear in mind that these tools are of a simplifying nature. It is, for instance, almost impossible to capture the complexity of a MNC like *ABB* by solely applying the four options of Bartlett/Ghoshal. Classifying a subsidiary as a “black hole” or “implementer” is therefore always a rather subjective decision. Hence, this case study may only serve as a starting point for further investigations and discussions.

## Questions

1. The case study introduced four subsidiaries of *ABB*: *ABB AG* (Germany), *ABB Schweiz AG* (Switzerland), *ABB AG* (Austria), *ABB S.A.* (Spain) and assigned different roles to the subsidiaries, applying the role typology of Bartlett/Ghoshal 1986. Please further analyse the mentioned subsidiaries by using the terminology of Gupta/Govindarajan 1991.
2. Another wholly-owned subsidiary of *ABB* is *ABB Inc.* This subsidiary is located in Norwalk, Connecticut, in the USA. Apply the terminology of White/Poynter 1984 to determine the role of *ABB Inc.*
3. Put yourself in the position of a host country. What subsidiary roles are especially attractive for the host country? What roles are unattractive and why? (Please consider the role typologies of White/Poynter 1984, Bartlett/Ghoshal 1986 and Gupta/Govindarajan 1991).

## Hints

1. Examine the respective country websites: [www.abb.de](http://www.abb.de) (Germany), [www.abb.ch](http://www.abb.ch) (Switzerland), [www.abb.at](http://www.abb.at) (Austria), and [www.abb.es](http://www.abb.es) (Spain).
2. Information about the US subsidiary can be found at [www.abb.us](http://www.abb.us) and the annual reports of the company.
3. Think not only in terms of number of employees, but also about potential benefits that stem from sophisticated, value-adding activities.