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***Creating Flexible Foreign Operation Mode Strategy***

***in an Emerging Economy:***

***The Case of DONG Energy in Poland***

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## **Executive Summary**

The thesis is investigating how a Danish utility company DONG Energy can create operation mode flexibility in Polish wind power market. In order to answer the research question, the theoretical part introduces such concepts as foreign operation modes, mode packaging as well as operating flexibility. The theoretical framework by Petersen and Welch (2002) helps to understand the reasons to why a company decides to combine different operation modes in a foreign market.

During the analysis of the case of DONG in the Polish wind power market, it has been determined that the company has been using mode packaging method: it has used a subsidiary (originally, an acquired Polish engineering consultancy company) and a non-equity alliance (with a Polish company) in the period from mid-2000s until the present time. However, DONG's mode package installation has not been stagnant. In order to achieve the necessary flexibility, the company has been changing the roles played by the single foreign operation modes within the overall mode package.

As a result of applying of the method of systematic combining (Dubois and Gadde, 2002) and due to the fact that DONG has been in the process of internalizing its operations in Poland, the theoretical framework by Petersen and Welch (2002) has been refined the following way: an energy utility company can combine foreign operation modes within an overall mode package in order to achieve the specific goals set for a certain emerging market, and it can do that in steps which would eventually help it to internalize its operations. These steps can be taken by adding or deleting roles of the already existing single modes within the overall mode package.

Finally, the following conclusion has been drawn: DONG's flexibility within the Polish wind power market has two preconditions: 1) mode package in place, 2) ability to switch from one operation mode to another within the overall mode package (i.e. operating flexibility) which comes at a certain transaction cost, i.e. either in the form of financial expenses (e.g. firing / hiring the employees in the subsidiary and compensating them for that), or in the form of time and energy spent on the re-negotiating of the details of the cooperation with the local Polish company (even if no formal contract has been signed).

## **I. Introduction**

Climate change is probably one of the most popular topics of discussions nowadays. In order to tackle this problem, a number of very concrete steps should be taken on different levels, not only political but also business level. One of the ways to lower the consumption of fossil fuels is to use more renewable energy. For example, the energy produced by wind turbines has been experiencing an impressive growth the last several years (European Wind Energy Association).

Sometimes people have an impression that wind power is something that can only be a success in developed countries because of the specifics of the industry: heavy long-term investments demand stability in such areas as, for example, economic and legal. However, there are companies like a Danish utility company DONG Energy that are not afraid to do business in such an emerging country as Poland: DONG is engaged in sales of the energy produced by the wind turbines that it installs in Poland.

One of the specificities of emerging economies is their volatility, i.e. political and economic changes that take place quite often if compared to developed countries. So business operations in an emerging economy puts additional demand on a company's strategic flexibility, i.e. its ability to adjust its operations according to the changes in its external and internal environment, and this is exactly the topic which is in the focus of the thesis.

The thesis is structured the following way. The theoretical part starts with a literature overview of foreign operation modes, then proceeds with description of the specifics of operating in emerging economies, outlining of the concepts of mode packaging and operating flexibility, and finally presenting of the theoretical framework as the basis for the analysis.

The empirical part gives an overview of DONG Energy as a company and the wind power industry as a whole, proceeds with the description of wind power in Europe and Poland, and finally with the overall investment climate in Poland.

The analysis is based on two interviews with the employees of DONG Energy from the Department of Project Development (Wind): Ivan Christiansen (Head of Department) and Kamil Kuninski (Project Developer). DONG's business operations in Poland are

outlined, its value chain in the Polish market is analyzed, and finally its operation mode package is analyzed.

Before the conclusion of the research is presented, the theoretical model is refined and some post-analysis reflexions on the case are offered.

## **II. Research Question**

Many Western companies are interested in starting business operations in emerging markets for a number of reasons, and many are already active in such markets. Some of these companies are more successful and some are less, but achieving strategic flexibility in a certain foreign market is a wish of any company operating abroad. So how can it be done?

The focus of the thesis is on a company from Denmark not because of the cultural differences aspect but because companies from developed countries are used to working in a stable business environment where such factors as transparency and reliability of laws and regulations are taken for granted. So when, for example, a Danish company starts doing business in an emerging market, it might encounter troubles with understanding how the business system functions.

Emerging markets are not homogeneous. They differ in the levels of economic development and the speed of growth. A special group of emerging economies is presented by transition economies which, in turn, can be divided into the EU Member states and those which are not. Being accepted into the European Union means not only extensive financial support for the reforms but also fulfillment of a number of obligations connected – among other things – to the EU energy policy, especially when it comes to renewable technologies. In order to comply with these obligations, Poland, for example, has established a legislative structure which makes it favorable for foreign companies to invest in Polish wind energy sector. That was one of the important factors that attracted DONG Energy to this sector because energy industry as a whole is very sensitive to changes in legislation.

The research question addressed and investigated in the thesis is going to be formulated the following way:

***How can Danish utility company DONG Energy create operation mode flexibility in Polish wind power market?***

### III. Methodology

In order to answer the research question, *case studying* has been chosen as the most appropriate method of investigation. The specificity of the subject of foreign operation modes results in that the existing research is not providing enough explanation on why a particular mode package option is chosen over others (Petersen, KONE case - manuscript). Quantitative research (survey studies) has not been particularly successful to capture subtleties of company's foreign market arrangements due to the fact that simplicity as to what to measure was required (Petersen, Benito, Welch, Asmussen, manuscript).

A case study on foreign operation modes strategy allows to go in depth into company's decision process within this area. Interviewing key people at a company helps to capture the diversity of mode packaging. Case analysis can show the evolution of the strategy which can be overlooked in large dataset analysis (Meyer and Tran, 2006).

However, case studies lacking rigor cannot be considered relevant in management research (Scandura and Williams, 2000 in Gibbert et al., 2008). In order to insure to produce a rigorous case study, Gibbert et al. (2008) mention four criteria to assess the rigor of field research: internal validity, construct validity, external validity and reliability. The case of DONG Energy in Poland has been constructed in compliance with these criteria.

To be more precise, abductive case approach has been adopted in the paper. Dubois and Gadde (2002) suggest an approach grounded in an 'abductive' logic - 'systematic combining' - which they define as "a process where theoretical framework, empirical fieldwork, and case analysis evolve simultaneously" (p. 554). The method of systematic combining focuses more on refinement of existing theories and implies constantly going 'back and forth' between theory and empirical observations in order to gain a deeper understanding of both theory and empirical data. Dubois and Gadde (2002) state that the preliminary theoretical framework should consist of articulated 'preconceptions' which over time will be developed in accordance with what is going to be discovered during the empirical examination. At the same time, empirical observations might raise some unanticipated theoretical issues which can be further investigated, for example, during interviews.

In order to find out how DONG creates operation mode flexibility in the Polish wind power market, first of all, it is necessary to have a closer look at emerging economies and



understand why these economies raise such interest among foreign companies and what problems the companies are faces with.

Different types of foreign operation modes are presented so that to see the array the companies can choose from.

The concept of mode packaging is outlined because this way of strategic combining of modes provides the company with a high degree of flexibility.

The concept of operating flexibility needs to be introduced because it helps to clarify what flexibility means when it comes to combining several operation modes.

The theoretical framework by Petersen and Welch (2002) helps to understand the reasons to why a company decides to combine different operation modes in a foreign market.

DONG Energy as a company as well as the wind power industry as a whole are described in order to understand why DONG certain strategic decisions and what specificity of the industry influence that.

Wind power industry in Europe and Poland, in particular, are described from the point of view of their attractiveness and potential of growth as well as reasons for DONG to enter the wind energy market in such an emerging country as Poland. The same reason goes for the part describing investment climate in Poland.

The interviews with two employees from DONG's Department of Project Development (Wind) were the basis for the analysis part of the thesis. The interviews as a format has been chosen because it allows to go into details of DONG's strategy within the Polish market. All in all, two interviews have been conducted. The first interview was with Kamil Kuninski (Project Developer), and was focusing very broadly on DONG's activities in Poland. The questions were not structured but were very open in order to give the interviewee the opportunity to provide as much information as possible, also that which – in case of a structured interview – might have been considered as irrelevant by Kamil. New questions appeared as the interview proceeded, thus delivering a lot of details to the case.

After that, an investigation on the theoretical part of the thesis was started in order to get a deeper insight on the issues of foreign operation modes and mode packaging. This investigation created a solid theoretical basis as the preparation for the second interview.

The second interview was with Ivan Christiansen (Head of Department of Project Development, Wind). This interview was a more in-depth one, focusing more on “how’s” and “why’s” of DONG’s operations in Poland. The technique was similar to the first interview - with open questions - but with a slight difference because it was necessary to confront the theoretical basis against the real business life in DONG.

After the second interview, enough empirical knowledge has been collected and the analysis could be initiated. DONG’s business activities in Poland and the foreign operation modes by which these activities were organized have been analyzed in the paper in the chronological order, i.e. from the point of primary penetration of the Polish market in early 1990s to the present time. This was done in order to follow closely the evolution of the mode package and to understand when, how and why the roles of the foreign operation modes within the overall package have been changing.

After the analysis was finished, according to the research method of systematic combining, the theoretical model was refined.

Finally, the part of reflexions focused on DONG’s flexibility potential as the additional elaborations necessary to be presented before the conclusion could be drawn.

#### **IV. Limitations**

In order for the thesis to produce an analysis of good quality, the topic of the research has been focused the following way. The thesis has only been dealing with foreign operation modes, but not on how a certain entry mode is chosen by a company.

The term *foreign operation mode* is going to be used in this paper as a company's way of operating in foreign markets or the 'how' part of foreign operations (Welch and Luostarinen, 1988 in Petersen, KONE case), while the term 'entry mode' will mean the mode used on entry to a foreign market but not beyond that point (Anderson and Gatignon, 1986 in Petersen, ?).

The analysis is focusing on DONG's value chain activities in the Polish market but not on DONG's overall international value chain activities. The focus is also only on DONG's business activities within the Polish wind power industry (wind energy industry), and only on the part of the "inbound logistics" activities of DONG's value chain, i.e. the preparational part implying getting the permissions to install wind turbines before any profit can be made from sales of the power produce by those wind turbines.

Finally, the thesis is not focusing on the process of manufacturing of them or the actual physical installation of the ready-made wind turbines.

## **V. Theoretical Part**

### ***1. Literature Overview***

The roles of theory and literature in theory-generating studies (e.g. when applying systematic combining approach) are different than in investigations dealing with confirmation of theory (Strauss and Corbin, 1990 in Dubois and Gadde, 2002). Theory in the former case is developed over time. It is important that the research starts with creating of some background in ‘technical literature’, however there is no need to review all of the literature beforehand. The reason for that is because the empirical fieldwork is undertaken simultaneously with the theoretical conceptualization, so that it might not be possible to identify ‘all the literature’ needed.

For the purposes of the thesis, an outline of the research on foreign operation modes choice is going to be presented. The literature within this area can be divided into two streams: an ‘economic-strategic’ stream and behavioral or ‘process-oriented’ stream (Pedersen, Petersen, Benito, 2002).

#### *The Economic-strategic Literature*

This type of literature implies that when a company takes the decision to follow a certain operation mode in a certain foreign country, this mode would be the most suitable under the given circumstances, i.e. the company will unlikely to change it unless the situation changes dramatically. The underlying assumption here is that it is far too difficult and expensive to change the original foreign operation mode (Anderson and Coughlan, 1987): “Foreign market entry choice ... typically involves a significant, and often irreversible, commitment of financial and human resources” (Datta, Herrmann, Rasheed, 2002, p. 85). According to this line of literature, in order to decide which operation mode should be chosen, it is necessary to define what degree of control is appropriate for the company so that its strategic flexibility stays at the necessary level.

Economic international business theories imply that it is not the countries that trade but firms and people, that factors of production such as capital, technology and people are movable, that many markets are imperfectly competitive, and that many critical resources are not given but created (Welch, Benito, Petersen, 2007).

The stream of literature within the economic-based line includes the following theories: market imperfections theory, organizational economics theory (internalization and transaction costs theories), strategic behavior theory, resource-based theory and the eclectic framework.

### *1. Market Imperfections*

This theory was proposed by Hymer (1976 in Welch, Benito, Petersen, 2007), and was one of the first attempts to explain international operations of companies at the firm level. Hymer stated that competition was imperfect as a firm to be multinational had to have an advantage when compared to the local firms. Market imperfections leading firms to make FDI could be the following: imperfections in product markets (e.g. brand names, marketing skills), imperfections in factor markets (e.g. technology, access to resources), economies of scale and learning (leading to the decline of costs), and finally, politically created imperfect competition (e.g. as a result of subsidies or other policy instruments). These advantages can become key drivers of internationalization.

According to this theory, a company chooses a certain foreign operation method depending on the nature of the proprietary advantage it possesses. However, a company can mainly consider the conditions under which it would operate through an equity mode, i.e. FDI, instead of producing at home and then exporting abroad.

### *2. Resource-Based View*

The resource-based view can be considered to be a modern version of the market imperfections theory. According to it, a company can gain a competitive advantage when its valuable resources and capabilities are heterogeneous and relatively immobile (Barney, 1991). Resources can be financial, physical, technological, human, organizational, informational, etc., and can be acquired or developed by a company. For example, companies possessing superior knowledge and considering it to be its competitive advantage, are likely to operate abroad through a hierarchical government structure, e.g. a wholly owned subsidiary. This operation mode would not only provide the necessary level

of control of how the resources are used but also would facilitate the transfer of tacit knowledge (Kogut and Zander, 1993).

### 3. Transaction Cost Theory

According to this theory, the choice of governance structures by a firm is determined by the best way of utilizing of assets and at the same time protecting from hazards (Williamson, 1979). It implies that firms evolve as a result of market imperfections for various types of cross-border transactions (Buckley and Casson, 1981). The transaction costs are the costs of drafting, negotiating, monitoring and enforcing an agreement between economic actors (Williamson, 1979). The key issue is whether cross-border transactions involve specific assets in the form of sunk investments thus making it difficult to switch to another party. Asset specificity can be location specificity or physical asset specificity. In such cases companies would tend to choose to perform activities in-house.

The issue of uncertainty implies on one hand the need of flexibility, and on the other hand the need for coordination, while yet another important issue is the frequency of transactions influencing the operation mode chosen.

### 4. Strategic Behavior

Due to the fact that if a certain market share is lost to a competitor and then it directly influence the company's profit in a negative way, companies try to match the business actions of their rivals. So industry characteristics influence the strategies of companies and constrain their strategic options (Ghoshal, 1987). Sometimes when one company enters a foreign market, then all the other incumbents follow.

If an industry is highly concentrated globally, company's competitive moves can be taken based on strategic objectives that will go beyond just choosing the most efficient operation mode in a certain foreign market (Hill et al., 1990). Companies will likely to prefer wholly owned subsidiaries if they lead global strategy or if the industry they are operating in is a global oligopoly.

## 5. Eclectic Framework

The eclectic framework has been proposed by Dunning (1988) and it synthesizes the various theories on companies' choice of operation modes. It is based on three sets of factors which help to explain the choice of a particular mode: ownership factors (O), location factors (L) and internalization factors (I). The ownership factor concerns whether the company possess certain assets providing it with a competitive advantage over indigenous firms. The location factor implies where the assets should be best placed, i.e. in the country of origin or abroad. Finally, the internalization factor concerns the organization of an activity, i.e. if it is the best if the activity is performed in-house.

All in all, economic approaches help in understanding if a company should export to a foreign market on an arm's length basis, to contract another firm to perform certain activities in a certain foreign market, or to directly invest and set up a wholly owned subsidiary, i.e. to perform the activities in-house.

### *The Process-oriented Literature*

The process-oriented literature (it is also called 'internationalization' stream or behavioral approach), puts the stress on the incremental nature of company's expansion abroad due to bounded rationality, organizational problem-solving, and availability of resources and capabilities (Johanson and Vahlne, 1977; Welch and Luostarinen, 1988). Empirical studies conducted within this approach had a look at the operation methods utilized by different companies at different points in time (Bjorkman and Eklund, 1996). The results showed that most of the companies do present a gradual development in their operation methods over time.

Thus changes in the foreign operation modes are logical due to the nature of the internationalization process as it is. An example can be when companies learn more about a foreign market their perception of benefits and costs of that market changes. So for them moving from one type of operation mode, e.g. with a lower commitment, to another type of operation mode, e.g. with a higher commitment, is natural as they become more familiar with that market and gain more knowledge and experience in it (Pedersen, Petersen,

Benito, 2002). These knowledge and experience take a long time to acquire and then they need to be institutionalized within the company.

The process-oriented stream includes the following theories: the internationalization process perspective, the network approach, and inward-outward connections.

### *1. The Internationalization Process Perspective*

Models of gradual internationalization have been proposed by Johanson and Vahlne (1979) and some other researches. They suggested that firms have a tendency to move to higher commitment operation modes and more distant locations (also in cultural terms). Johanson and Vahlne (1979) suggested that accumulation of knowledge and firm's actions are interrelated. In order to identify opportunities and threats, a company relies on the knowledge it already possesses. The most important type of knowledge is the one which is learned as a result of business activities in a certain foreign market.

There are also a number of firms that fall out of the way described by the internationalization process perspective. For example, Born Globals (Rennie, 1993 in Welch, Benito, Petersen, 2007) are companies that consider the whole world as their marketplace from the very start of their existence.

### *2. The Network Approach*

According to this approach, a company's previous and existing activities as well as future actions are to a high degree dependant on the other actors in the area (Håkansson and Snehota, 1989). It means that establishing, taking care of and expansion of relationships in foreign markets is an integral part of the internationalization process. It is necessary to build relationships with different stakeholders, e.g. customers, financial institutions and government officials. The knowledge and the opportunities in a foreign market extend beyond the single firm which are actually anchored by key actors within that market (Benito and Welch, 1994).



### 3. *Inward-outward Connections*

According to this approach, inward and outward activities have an influence on the internationalization process of a firm. Inward activities include sourcing and importing, while outward activities include exporting and establishment of foreign sales and manufacturing subsidiaries. Welch and Luostarinen (1993) state that the inward-outward connections are often broad, go across operation modes and may develop at different stages of international development. Inward activities can give an opportunity to learn about foreign trade techniques, characteristics and ways of using operation modes.

## 2. *Specifics of Operating in Emerging Economies*

### *Characteristics of Emerging Economies*

Emerging economies are defined by Meyer and Tran (2006) as “economies with high growth or growth potential, but without the sophistication of the institutional framework seen in Western Europe and North America” (p. 179). An additional criteria for this definition is the introduction of government policies favoring economic liberalization and the adoption of a free-market system (Arnold and Quelch, 1998).

Term ‘emerging economies’ is a broad one and it is used for countries spread around the globe: in Asia, Latin America, Africa, and the Middle East (IFC, 1999 in Hoskisson et al., 2000). Among those countries a separate group of ‘transition economies’ can be identified. These are referred to the countries of ex-Soviet bloc in Central and Eastern Europe. In order to avoid a confusion in terms, these countries are also going to be called ‘emerging economies’.

The changes in terms of the pace of political change and the size of economic gains have not been uniform among all of the emerging market economies (Hoskisson et al., 2000). From 1989, after the collapse of Communism, the countries of the Central and Eastern Europe as well as the members of ex-Soviet Union started on the path to liberalization, stabilization and the encouragement of private enterprise in order to strengthen their market mechanisms. It has been difficult for them to achieve macroeconomic stabilization which is a precondition for external financial assistance. As for the development of market institutions, it has been even more problematic.

Additionally, the basis for effective corporate governance is created by, for example, legal infrastructures which takes time to be put in place in order for it to start functioning properly (Hoskisson et al., 2000).

The uncertainty and risk for the emerging countries is increased by economic and political shocks. Other weaknesses are missing institutional features, e.g. shortages of skilled labor, thin capital markets, infrastructure problems, etc. (Hoskisson et al., 2000). Absence of a strong legal framework leads to a lack of well-defined property rights as well as problems with enforcement of property rights (Estrin and Wright, 1999 in Hoskisson et al., 2000).

One of the most distinctive features characterizing, for example, countries of former Soviet bloc was the state owned enterprises, so privatization was an important tool in initiating the process of putting pressure on them to make them introduce the necessary changes in their strategy in order for them to adapt to the competitive pressures of a market-based and open economy (Rondinelli, 1998 in Hoskisson, 2000). It was privatization that allowed for the increased amount of joint ventures to appear as well as acquisitions by foreign firms which would afterwards restructure the acquired companies.

A distinct tendency can be noticed when emerging economy governments are opening their countries to foreign markets and join regional trading associations (Hoskisson et al., 2000). It means that companies strategies in emerging markets are under continuing strong environmental pressures for change.

### *Reasons for Attractiveness of Emerging Economies*

Arnold and Quelch (1998) notice that originally the participation of MNCs in emerging economies was very limited, e.g. eventual establishment of low-cost offshore production operations. However now the focus is on revenue-generating potential of these markets because they possess a huge latent value.

There is a number of reasons to why companies are interested in starting their business activities in the emerging economies. First of all, emerging economies have higher economic growth than others; second, the demand for consumer goods is increasing rapidly (Meyer and Tran, 2006). Two developments have increased the attractiveness of

the emerging markets (Arnold and Quelch, 1998). First, disposable income of people increases which leads to the creating of a new target market. Second, as internet develops, it becomes possible and - as time passes by – easier for small and medium-sized MNCs to reach business customers in the emerging markets.

### *Strategic Flexibility in Emerging Economies*

One of the most important risks that the companies entering emerging economies are facing is high volatility due to frequent changes in institutions, industry structure and the macro-economy (Meyer and Tran, 2006). This specificity of the emerging economies puts additional pressure on the foreign company's strategic flexibility and its abilities to react to changing circumstances.

In order to achieve the necessary levels of flexibility, foreign companies have to think creatively when designing their entry modes, i.e. choosing among conventional entry modes such as greenfield, acquisition or joint venture might not bring the expected result (Meyer and Tran, 2006).

### 3. Foreign Operation Modes

Foreign operation modes (methods) in a broad sense refer to “the way of operating in foreign markets used by internationalizing organizations” (Welch, Benito, Petersen, 2007, p. 3). They can be classified as contractual, exporting or investment modes (Figure 1).

Contractual Modes	Exporting	Investment Modes
<ul style="list-style-type: none"> <li>• Franchising</li> <li>• Licensing</li> <li>• Management contracts</li> <li>• Subcontracting</li> <li>• Project operations</li> <li>• Alliances</li> </ul>	<ul style="list-style-type: none"> <li>• Indirect</li> <li>• Direct: agent/distributor</li> <li>• Own sales office/subsidiary</li> </ul>	<ul style="list-style-type: none"> <li>• Minority share (alliance)</li> <li>• 50/50</li> <li>• Majority share</li> <li>• 100% owned</li> </ul>

Figure 1: Major foreign operation mode options

(Welch, Benito, Petersen, 2007)

#### *Franchising*

Franchising is based on transferring of full business system to the franchisee who is operating an independent business under a guidance of the franchisor’s business framework with a strong marketing emphasis (Welch, Benito, Petersen, 2007). Franchisor continues to be actively involved in the business relationships with the franchisee. Usually advertising, registering of trademarks, and defending the intellectual property is taken care of by the franchisor. Training transfer as a part of transferring knowledge, skills and business system is sometimes very extensive; it is a way of ensuring the consistency of operations no matter which country or culture it takes place.

### *Licensing*

Licensing involves “the sale of a right to use certain proprietary knowledge (so-called ‘intellectual property’) in a defined way” (Welch, Benito, Petersen, 2007, p. 97). Licensing includes different activities and users. This foreign operation modes is used by both individual inventors and large multinationals. Licensing covers technology and its exploitation, commercial rights to use famous names, symbols and entertainment vehicles. It can perform different roles in a foreign market, e.g. for control purposes regarding a company’s foreign subsidiary. Very often licensing is used for penetration of a foreign market if a company feels it does not have enough resources or knowledge to use other modes of operation.

### *Management Contracts*

A management contract has been defined as “an arrangement under which operational control of an enterprise (or one phase of an enterprise) which would otherwise be exercised by the board of directors or managers elected or appointed by its owners is vested by contract in a separate enterprise which performs the necessary managerial function in return for a fee” (Pugh, 1961, p. 49 in Welch, Benito, Petersen, 2007). Management contracts imply long-term managerial involvement on a contractual basis for a specified period of time. The contractor undertakes the implementation process within the foreign organization and has a direct control over know-how transfer, foreign business activities and the outcomes of the organization.

### *International Subcontracting*

The subcontracting activity means that the principal “arranges for an activity that it might have carried out itself, and may even currently be doing, to be undertaken instead by another party in a foreign location” (Welch, Benito, Petersen, 2007, p. 164). The marketing and the output are handled by the principal in a particular market. The idea of international subcontracting is to use one company’s facilities by another company rather by its own in order to serve a foreign market. It means that international subcontracting is a low-

commitment operation mode similar to licensing but greater control and responsibility and the retention of the ultimate marketing role.

### *Project Operations*

Project is “a complex transaction covering a package of products, services and work, specially designed to create capital assets that produce benefits for a buyer over an extended period of time” (Cova et al., 2002, p. 3 in Welch, Benito, Petersen, 2007). Project operations may cover a broad mix of activities and mode combinations, e.g. elements of foreign direct investment, contracts covering the transfer of technology, international financing arrangements, product, system and service exports / imports, etc. The mix of the mode content very often changes during the project development. Projects possess several characteristics that distinguish them from other forms of business operations: discontinuity, uniqueness, complexity, and certain levels of risk and uncertainty.

### *Exporting*

Exporting is a major mode option which is used by companies with the aim of achieving a foreign market penetration. It covers different activities dealing not only with physical goods but also services. Exporting tends to be one of the most often used foreign operation modes in the early stages of companies’ internationalization. It is viewed as a relatively easy and low-cost way. However, it can be used at all stages of international expansion. Exporter can utilize a home market-based intermediary or undertake an extensive part of the exporting process on its own (i.e. direct or own exporting). Foreign-based intermediaries are still a key component of exporting activity.

### *Alliances*

Alliances are a foreign operation mode which is important for internationalizing companies. They can be defined as “arrangements where two or more companies engage in collaborative activity, while remaining independent organizations, and result in foreign operations” (Welch, Benito, Petersen, 2007, p. 277). This mode is used extensively even

though it is difficult to operate. Alliances can be made in different forms depending on the creativity of the partners and their goals. They can be informal cooperations within a certain business activity or formal agreements. Sometimes terms like ‘collaboration’ or ‘cooperation’ agreements are used to describe alliances. This operation mode is often a part of a broader mode combination package. No matter which specific form alliances are used, for companies it is another way of operating in a foreign market by using the capabilities of the partner firm or firms instead of doing that on their own.

### *Foreign Direct Investment*

Foreign direct investment occurs when a home enterprise’s ownership via equity in a host enterprise reaches a certain level defined in that specific host country and which allows the home enterprise to exercise a significant influence on the host enterprise (Welch, Benito, Petersen, 2007). That implies that investments can range from a wholly-owned foreign subsidiary, joint ventures with majority, 50:50 or minority (large or small) equity levels. Investments can be enacted via two paths: acquisition of an equity stake (part or full) in an operating company within the target market, or establishment of a new company (‘greenfield’ investment). A special in-between form of acquisition is a ‘brownfield’ acquisition when the acquired company is restructured extensively by the foreign company sometimes to such a degree that it starts to resemble a greenfield operation.

Legally, FDI establishments can be a ‘branch’ or a ‘subsidiary’. A branch remains legally connected to the parent firm, while a subsidiary is legally established in a foreign market and is legally separate from the parent company.

#### ***4. Foreign Operation Mode Packaging***

##### *Definition of a Mode Package*

When entering a foreign market, companies can choose a certain foreign operation mode from a variety of those ranging from contractual to exporting to investment modes. However, it is very common that companies choose *a mode combination* (or *a mode package*) rather than a singular mode for their foreign market operations. Doing that allows to increase substantially the flexibility of the strategic decisions (Welch, Benito, Petersen, 2007).

A foreign operation mode package means that a company combines individual foreign operation modes so that to achieve the most effective penetration of the foreign market (Welch, Benito, Petersen, 2007). The mode which a company uses when starting its activities abroad, can be considered a primary mode, while later the company might consider adding some associate modes to better fulfill the market objectives.

Petersen (KONE case) states that companies are using foreign operation modes in a range of creative ways: e.g. to extend control over the foreign operations in order to enhance managerial control (by adding a management contract to a JV, or a licensing agreement to a JV), or to provide an additional revenue stream when adding licensing to FDI.

For the purposes of the thesis, 'mode package' is going to be defined as the sum of all foreign operation modes by which a company is present in a foreign market. Thus, in order to avoid the confusion of whether mode additions or deletions have altered the whole original mode package to such a degree that it should be considered a different package, the 'mode package' will be an umbrella term covering the evolution of company's forms of foreign market activities.



### *Mode Changing (Addition / Deletion) within a Package*

Depending on how external and internal environment changes, company's strategy in the foreign market has to be adjusted accordingly. For example, a company might consider reassessing its mode package and add a certain mode or modes, or delete some of the present modes. Petersen (KONE case) states that very often mode changes can develop in almost evolutionary ways.

External factors that can force a company to change its mode package can be the following: government regulations, pressures on the market (e.g. type and level of competition), or availability of suitable partners; while internal factors can include level of control, resources, or experience from abroad (Luostarinen, Welch, 1990 in Petersen, Welch, 2002).

### *Role Changing within a Mode Package*

As time passes, the specific role for a given mode within the package can be subject to change. Adding or eliminating roles – from a theoretical perspective – may be considered an unacknowledged form of a company's adjusting in foreign market involvement (Petersen, KONE case).

Due to the fact that mode packaging is a very complex phenomenon, it can be difficult to clearly identify the nature of the mode use and mode changes over time, as modes can be combined in a foreign market for various reasons, e.g. foreign market penetration or getting added revenue as well as fulfilling other objectives defined for a certain foreign market (Petersen and Welch, 2002).

All in all, changing the form of a company's presence in a foreign market by adding or deleting a mode, or by changing the role of a mode within an overall package, is a very dynamic process and a much more effective way of adapting company's strategy in a certain foreign market when compared to a complete mode switch which can lead to disruption of operations and – as a result – high transaction costs (Petersen and Welch, 2002).

### *Managerial Implications*

The topic of mode packaging raises some managerial challenges. For example, companies have a tendency to stick to the foreign operation methods they have learned and are used to, even though one of the most important abilities of a company is the ability to quickly respond to changes in the market which can be done through mode flexibility (Welch, Benito, Petersen, 2007). So how do managers make sure to achieve the mode flexibility?

Another example can be described as following: transaction costs play an important role when it comes to decisions concerning the choice of the operation mode, so managers have to make a decision whether to incur low transaction costs but have low flexibility in operations or to have increased transaction costs with the result of increased flexibility. So the question is: how to strike the balance?

### ***5. The Concept of Operating Flexibility***

According to Kogut and Kulatilaka (1994), operating flexibility is “an advantage gained by being a multinational corporation” (p. 124) and is achieved as a result of the coordination of a network of subsidiaries dispersed throughout the world. Operating flexibility provides the company with the option to respond to uncertain events, e.g. government policies or competitors’ decisions.

Companies operating across borders have the options to coordinate flexibly their multinational activities within a network thus adding value to the firms because that gives them managerial discretion to respond profitably in the circumstances of uncertainty. A very important issue is whether a company’s operating flexibility provides a discretion to exercise the option to withdraw from a country or whether it is restricted by, for example, legislation concerning laying-off employees.

Kogut and Kulatilaka (1994) state that the network structure of the multinational firm is an evolutionary response to the uncertainty of international markets. Similarly, it is possible to say that the uncertainty of emerging markets can potentially force companies to use mode packaging when operating in those markets in order to cope with the uncertainty. At the same time, while in their article the two authors look at operating flexibility when it

comes to switching between two geographical markets, it is also possible to look at a company's operating flexibility when it comes to switching between different foreign operation modes within the same mode package used in a particular geographical market.

Thus, operating flexibility for the purposes of the thesis is going to be defined as the flexibility to switch from one foreign operation mode to another within an overall mode package under the circumstances of uncertainty in a specific emerging market.

## ***6. The Theoretical Framework***

In such volatile markets as emerging markets, the degree of control for successful operations in such markets should be high. The necessary degree of control can be achieved by – for example - a greenfield or brownfield investment (Meyer and Tran, 2006).

However, sometimes it is not possible to acquire a local company or make a greenfield investment due to the local rules (Meyer and Tran, 2006), so it is necessary to think in alternative ways. For example, the home company can enter an emerging market by a certain mode which - at that point of time – fits the company's strategy best. Later on, depending on how the external (and internal) situation is changing, the company can start adding new operation modes (which, in turn, can be deleted further in time) - thus creating a mode package - that would fulfill the new strategic goals. As a result, by adjusting its foreign operation mode package the company can achieve its goals and be flexible in the emerging market at the same time.

The theoretical framework proposed by Petersen and Welch (2002) is going to be used as a platform for the analysis of DONG's operation mode package in Poland. The framework examines the nature of mode combinations thus making it possible to establish the underlying reasons for an observed mode combination in a certain foreign market.

The framework is based on the value chain approach by Porter (1985) and takes an individual value chain activity as the unit of analysis, and not the activities in the foreign market as a whole. It suggests that foreign operation modes should be organized for each individual value chain activity and be combined in a mode package.

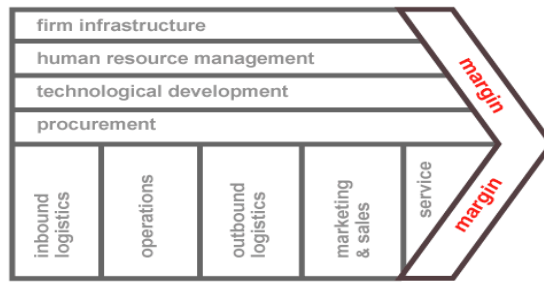


Figure 2: The generic value chain (Porter, 1985)

A firm may combine modes for different reasons: to operate different value chains in a foreign market (unrelated modes), to serve different customer segments (segmented modes), to increase efficiency without being based on any specific segmentation (complementary modes), to bolster commitment and control (hybrid modes), or to benchmark local operators (competing modes). Different types of mode operations are presented in Figure 3.

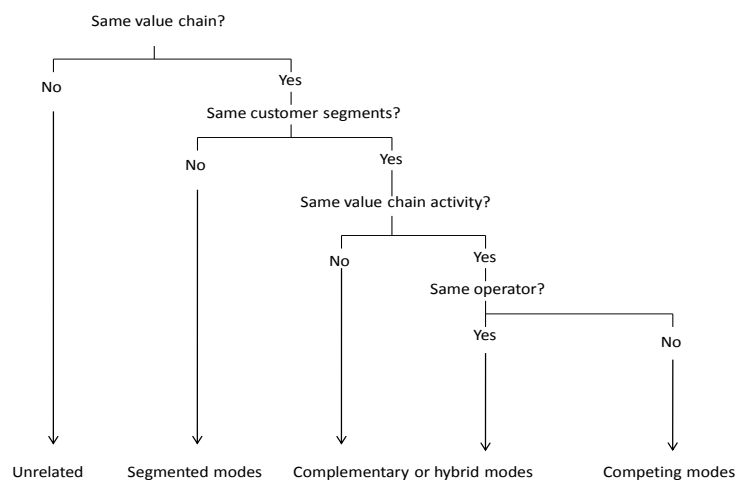


Figure 3: Different types of multiple mode operations

(Petersen and Welch, 2002)

## **VI. Empirical Part**

### ***1. DONG Energy: Company and Wind Power Industry***

#### *Company*

DONG Energy is a company within the energy industry operating across the entire energy value chain (Annual report, 2008). DONG is a leading energy producer in Denmark and is also presented in a number of important Northern-european markets. It has more than 5000 employees working in not only Denmark but also in different countries such as the UK, the Netherlands, Norway, Sweden, Germany and Poland. Power and heat are generated at a number of thermal power stations in Denmark and supplied from renewable energy sources primarily in Denmark, the UK, Sweden and Poland.

“ DONG Energy’s overall goal is to create value for its shareholders by building on the company’s strong positions in oil and gas exploration as well as thermal and renewable energy generation” (Annual report, 2008, p. 12).

The specifics of the business implies that in order to be successful and profitable the company needs to either be large and strong at the top of the pyramid (sales and distribution) or bottom (producing). Due to the fact that DONG is not that large compared to some other European energy producers, its strategic strength lies within *an integrated business model* (personal communication with Ivan Christiansen), i.e. include all the steps from procuring and producing to distributing and trading in energy and related products. The report from Datamonitor (July 31, 2009) mentions that the company’s presence in every link of the energy chain it its strength which reduces its business risks.

The ever-changing conditions and challenges in the commercial and the financial markets have an influence on DONG just like on many other companies. This influence is especially obvious at the times of the slowdown we experience today when uncertainty is higher than previously.

In 2008, DONG’s strategy was focusing on the following goals:

- investment-driven growth,
- actively addressing the climate challenge,
- optimization of existing activities,
- development of the organization’s knowledge resources.

For the purposes of this paper, two strategic areas will be of special interest: addressing the climate challenge and development of the organization's knowledge resources.

### *DONG Energy and Wind Power Industry*

Growing awareness of climate change is resulting in that DONG is going to make substantial investments in expansion of renewable energy sources and reduction of CO<sub>2</sub> emissions from the energy production based on fossil fuels, i.e. coal, oil and gas. A concerted effort is going to be put into tripling renewable energy capacity to approximately 3 000 MW by 2020 which requires heavy investments in wind turbine projects, particularly offshore wind farms in the UK.

Christian Kjær, CEO of the European Wind Energy Association, mentions three arguments highlighting the attractiveness of using wind energy (Energy Industry News Europe, website). First of all, building a wind farm is quicker than building a coal or a gas fired power plant. Second, starting from 2013 a fee will be charged the coal and gas power plants for every ton of CO<sub>2</sub> emitted. Finally, in order to understand the cost of operations, the future prices for fuel should be taken into account by coal and gas power plants, i.e. nobody knows how high those prices are going to be, while one of the main benefits of wind power is that the cost of carbon and fuel prices will be zero over the next 20 years of operation.

All in all, the European Union will need 350, 000 megawatts of energy production capacities to be build over the next 12 years, and with the current outlook for fuel prices, wind energy seems to be an increasingly attractive investment.

DONG has a long history of working with wind power which is experiencing the most rapid growth. In 2008 wind power accounted for 14% of the power generated by DONG. The company is engaged in extensive research and development: for example, wind turbine size is being regularly enhanced, locations are being scrutinized in order to maximize wind utilization, wind turbines are installed offshore as opposite to onshore.

In order to put DONG's strategy into practice, development of the organization's knowledge resources has to take place, so the company has been building up knowledge

and skills within the energy value chain for many years. Thanks to that DONG's power stations are among the most energy efficient in the world. At the same time, the company is a world leader in construction and operations of offshore wind turbines.

## ***2. Wind Power in Europe***

According to the 2009 report "Pure Power" launched by European Wind Energy Association (EWEA), wind power has been witnessing extensive growth during the last several years. No other electricity-generating technology, including coal, gas and nuclear technology experienced so many installations in 2008. The European Commission sees the expansion of different types of renewable energy as a way to fight climate change, to enhance Europe's energy security as well as to improve its competitiveness. Reducing dependence on fossil fuel exporting nations is another very important argument.

During the coming decades, Europe must prepare for the large scale exploitation of its largest indigenous resource – offshore wind power - the report states. It is necessary to change the perception of the electrical grids as national infrastructure and start developing them to become European corridors of electricity trade. This development has to start now because the quicker it is done, the quicker a substitute will be in place to protect from future fuel import supplies disruptions or in case the fuel prices become prohibitively expensive as it happened in 2008.

The European Union has set the target that 20% of the overall energy mix must be produced by renewable energy by 2020. To reach this target, 34% of Europe's electricity needs must be met by renewable technologies with wind playing the leading role.

However, there are some significant obstacles for meeting the targets. First of all, Europe needs a Europe-wide electricity grid and interconnectors between Member States. At the same time, in order to cope with larger amounts of wind power, electricity markets should be functioning properly. Yet another issue is streamlining of the planning processes for wind farms.

Wind energy is developing rapidly all around the world: the global annual market for wind turbines increased by 37% in 2008, while 2006 and 2007 saw 31% growth and 40% growth in 2005. Over the past four years, the annual global market for wind turbines has

more than tripled from 8.3 GW in 2004 to 27.1 GW in 2008. The total installed wind power capacity increased from 48 GW to 121 GW over the same period.

In 2008, more wind energy capacity was installed in the EU than any other electricity generating capacity. Europe's leaders in terms of total installed wind energy capacity are Germany (24 GW) and Spain (17 GW) – 63% of the EU's installed capacity is located in the two countries. Even though Germany and Spain continue to attract the majority of the investments, a second wave of European countries is investing in wind power, partly as a result of the EU Renewable Electricity Directive passed in 2001.

Wind energy is the most affordable of the renewable energy technologies in most Member States, however when compared to the first-mover countries, many geographically large Member States, e.g. France, the UK, Sweden, Finland, Poland and Italy, still have very low wind power densities.

### ***3. Wind Power in Poland***

The aim of the “Pure Report 2009” (European Wind Energy Association) is to provide national governments with guidance on wind power's contribution to meeting their binding national targets. At the same time, the 2009 EU Renewable Energy Directive requires all 27 EU Member States to submit to the European Commission the estimates of their gross final energy consumption of all types of energy (both renewable and non-renewable) as well as a target for each renewable energy technology including both onshore and offshore (specifying installed capacity (MW) and electricity production (GWh)). The directive sets out indicative trajectories for renewable energy for each of the years 2010, 2012, 2014, 2016 and 2018 to make sure that the efforts are not pushed towards the end of the target period.

The “Pure Report” considers Poland as the most attractive of the Eastern markets because of the state support, good wind conditions and the availability of land. According to the European Bank of Reconstruction and Development ([www.ebrd.com](http://www.ebrd.com)), Poland's technical and economical factors for renewable energy are very favorable. Political and public support is aimed toward the development of renewable energy sources. A target of 14% of energy production from renewable sources has been established by Poland by 2020, even though this target has not yet been enforced, discouraging large scale



renewable development. In spite of that, this target together with strong economic growth provide a healthy investment atmosphere for renewable energy developers. In Poland, purchasing electricity from renewable sources is required for utilities, however prices are not regulated by tariffs. Additionally, there are some of the best documented wind resources in Central and Eastern Europe.

#### ***4. Investment Climate in Poland***

##### *Country Characteristics*

Polish economy can be considered to be one of the most attractive for foreign investors (Polish Information and Foreign Investment Agency). The country has 38 million in population – one of the largest in Europe. It has a well-developed infrastructure including road and rail systems. It is located in the center of Europe which makes it possible to export goods to all European countries reaching more than 500 million consumers. Some of the largest trade partners are Germany, Hungary, Spain, Russia, France and China.

Polish population is well-educated: economists, engineers, IT specialists and scientists are highly appreciated by employers such as, for example, IT companies, R&D centers and scientific institutes. A large number of young people graduate each year from Polish universities from departments popular among companies investing in advanced technologies (Polish Information and Foreign Investment Agency).

##### *Economic Characteristics*

Poland rests on a solid economic foundation. The Polish economy is experiencing a significant growth which has solid institutional foundation. According to the global rating agency Fitch Ratings, from the beginning of 2000s Poland has been experiencing an impressive 5% annual economic growth and 30% export level (Polish Information and Foreign Investment Agency). The Polish economy is considered to be the best and most transparent among all ex-Soviet states because it relies heavily on the country's democratic mechanisms.

Poland is a credible, safe and reliable business partner for foreign investors also due to its membership in NATO and the European Union. One of the most important challenges in the nearest future is the adoption of euro and connected to that obligations to meet the criteria for that. The finance minister of Poland states that Poland will be able to meet the requirements and thus join the euro zone in 2012 or 2013.

### *Legal Characteristics*

After joining the EU in 2004, Poland adopted EU legislation which allowed it to reform the regulations for its economy and restrict the intervention of the government in the private sector (Polish Information and Foreign Investment Agency). A better environment for business was created as a result of changes in such areas as financial markets, company and competition law, as well as in accounting and intellectual property rights, leading to economic growth (U.S. Department of State). Becoming an EU Member State has helped to reduce Poland's country and investment risks.

The Polish government has cancelled subsidies for industry and price supervision. It is also possible for foreign investors relatively easy to transfer the profits from the business operations in Poland. Almost the entire market is open for foreign investments though there are certain restrictions concerning prior approval of foreign investments (World-wide Tax and Finance).

A foreign investor coming from a Member State of the EU or the European Free Trade Area, has the following corporate forms available according to the Commercial Companies Code of 2000: joint-stock companies, limited liability companies, limited joint-stock partnerships, professional partnerships, registered partnerships, and limited partnerships.

There are some specificities concerning certain types of organizations of business activities with regards to the Law on Freedom of Economic Activity. For example, a 'branch office' can perform any activity within the scope of business of the parent foreign investor that established the branch, while a 'representative office' is allowed to engage only in promotion and advertising for the parent foreign investor.

Certain activities will demand obtaining governmental concessions, licenses or permits to be initiated. A number of sectors require a concession: broadcasting, aviation, energy, mining, weapons, and private security services.

### *EU Funding*

Additionally to the investment incentives provided through local authority councils as well as various forms of aid (e.g. within the Special Economic Zones), foreign investors – those already present on the market and those just entering it – can count on direct support from the EU structural funds (Polish Information and Foreign Investment Agency). Poland will jointly receive over 67 billion euro from the EU budget between 2007 and 2015, so Poland is going to be the largest beneficiary of the EU funding in the nearest future. The capital will go to, for example, projects to increase economic competitiveness through, for example, a transport infrastructure reform. Projects from virtually all sectors of the economy will be allocated the EU grants.

Structural funds are the basic instrument of the EU's structural policy. They are intended as a support for less developed regions and help them to solve their urgent economic problems. The largest part of the funding will be for improvement infrastructure, i.e. transport, environmental and energy infrastructures.

## **VII. Analysis**

### ***1. DONG's Business Activities in Poland***

Before the analysis of DONG's foreign operation modes in Poland can be started, it is necessary to present an outline of DONG's business activities from their start at the beginning of 1990s and to the present days.

#### *Beginning of 1990s*

It was in early 1990s that DONG (to be exact, the company Elsam which is now part of DONG) became interested in Poland. The company considered the newly opened Polish energy market as having potential, maybe not in the short term but definitely in the long term, and pursued with the opportunity to acquire a Polish engineering consultancy company. This company was focusing on providing consulting services to Polish power generators.

A company can invest in a firm abroad either by an acquisition of an equity stake (part of full) in it or by establishment of a new company – a greenfield investment (Welch, Benito, Petersen, 2007). It is also possible to execute a so called 'in-between' variant – a brownfield investment, i.e. when an acquired company is restructured to a point that it starts to resemble a greenfield operation.

DONG acquired the engineering consultancy company in full, however it did not initiate the process of restructuring. After being acquired, the company simply continued with what they had been doing previously.

FDI establishments can differ from the point of view of legal terms, e.g. an important distinction lies between 'branch' and 'subsidiary' arrangements (Welch, Benito, Petersen, 2007). A branch continues to be legally connected to the parent firm, while a subsidiary is legally separate from the parent firm and the legal responsibility within the local context applies only to the operations and asset of the local subsidiary.

As it became clear from the interview with Ivan Christiansen, the engineering consultancy has a status of a subsidiary in Poland.

### *Beginning of 2000s*

Approximately ten years later, a major change happened among the external factors influencing the EU energy market: the EU Renewable Electricity Directive was passed in 2001, stimulating a second wave of European countries – including Poland - to invest in wind power (“Pure Power” report). It meant that a new market – a wind energy market – was established in Poland.

For DONG, the decision to go to a new foreign market largely depends on how attractive the support regime of that particular country is (interview with Kamil Kuninski). Polish government provided a favorable support regime partly due to pressure from the EU, partly due to understanding that a reliable regulatory system is a necessity if Poland is to attract foreign investors.

Even though during the interviews with DONG it has not been possible to find out the exact reasons, it was probably because of the new development in the EU legislation concerning renewable energy that DONG saw potential in this new business opportunity within the newly established Polish wind energy market. As a result, DONG started a cooperation with the Polish project developer – EPA – within the area of wind farms projects. EPA became interested in cooperation with DONG because it needed to secure a large customer for its services on a quite small Polish market for land for wind turbine projects.

According to Shy, utilities (including energy providers) belong to network industries just like airlines, telecommunications, and the banking sector, which all share unique characteristics such as network externalities and the role of government (Shy, 2002 in Laanti et al., 2009). In the case of the wind power industry, network externalities imply installation of wind turbines before any profit can be made from selling the wind-produced energy. The role of government is vital because of its influence on the industry and, for example, the way the permissions to build wind turbine farms are given. The specificity of working with the governmental organizations can potentially become a hurdle for a foreign company, so help from a local partner can be very important.

EPA possessed the knowledge of the Polish market when it comes to developing a new wind turbine site. It was in charge of the contacts with the Polish authorities and all the necessary paperwork (e.g. different permits and environmental approvals) as well as

technical details (e.g. grid access) which could take up to several years to prepare. As soon as that was done, DONG proceeded on its own with the actual building of the wind turbine park.

The product in Poland that DONG is focusing on is not the physically installed wind turbines, but the actual energy they produce. DONG sells the energy produced by the wind turbines to large international companies. It also trades it on power exchange (similar to a stock exchange). However, selling the power is not as complicated as actual building windmill parks. DONG has power purchase agreements with large energy companies for 10 – 15 years.

In the words of Ivan Christiansen, the nature of the cooperation with EPA reminded of a “series of contracts” or a “non-binding” cooperation, i.e. loosely structured relationship which from approximately 2003 was organized in a “partnership” of a kind. From the theoretical point of view, it is a little bit of a challenge to determine how to define such a way of organizing business relationships.

On one hand, the cooperation with EPA can potentially be considered to be within the *international subcontracting* area, according to which “the principal arranges for an activity that it might have carried out itself, and may even currently be doing, to be undertaken instead by another party in a foreign location” (Welch, Benito, Petersen, 2007, p. 164).

On the other hand, the way the relationships between DONG and EPA are described, they can be considered to be within the *project operations* area, because EPA has – after the agreement with DONG – to deliver permissions for installation of wind turbines on a specific site, and as soon as that is done, EPA has nothing to do with what is happening after that, i.e. EPA’s contribution for that specific project is over.

Yet another way of looking at this cooperation can be from the point of view of *alliances*: “arrangements where two or more companies engage in collaborative activity, while remaining as independent organizations, and result in foreign market operations” (Welch, Benito, Petersen, 2007, p. 277).

Keeping in mind the “loose” nature of their collaboration, it seems like the best way to define it theoretically is the concept of alliance, to be more specific – a non-equity alliance, which in many cases lack even a formal, signed agreement between parties

(Welch, Benito, Petersen, 2007). One of the reasons that make this form of cooperation attractive for DONG operating in such an emerging economy as Poland is that a non-equity alliance can be easily adjusted in accordance with the changes in circumstances unlike formal arrangements which involve structured contractual commitments. Such loose informal alliances are often in a constant state of evolution.

#### *Mid-2000s*

After several year of working with EPA, DONG felt that it acquired extensive knowledge of the Polish wind energy market and decided to hire two people for its Polish subsidiary to deal with different strategic business activities: sales of wind power, buying second stage wind farms development projects (i.e. projects developed up to the building stage) as well as first stage ('greenfield') wind farms development projects (where no permissions have been acquired).

At the same time, the alliance with EPA was not terminated but continued along with the new activities of DONG's subsidiary.

#### *End of 2000s*

Recently DONG and EPA have mutually decided to move away from the loosely structured alliance and are now in the process of working on how to build a *partnership around each project* they are working on (personal communication with Ivan Christiansen). They are doing that because on one hand, DONG is seeking more control over the decisions which before only EPA could decide on (e.g. access to information, the amount of wind turbines to be placed per site, the size of the turbines, etc.). On the other hand, EPA is not ready to let go of one of its largest, stable and reliable customers, so it is going along with DONG's demands.

All in all, it can be concluded that DONG's operations in Poland can be divided into the operations in the overall Polish energy market (with its consulting services provided by the Polish subsidiary) and the operations within the Polish wind energy market (first, by

the alliance with EPA, and then by the two people hired in the subsidiary). Additionally, during its almost twenty years in Poland DONG's operation modes have been undergoing an evolution due to both external and internal reasons.

## ***2. DONG's Value Chain in Poland***

According to the theoretical framework by Petersen and Welch (2002), foreign operation modes of a company should be organized for each individual value chain activity. According to Porter (1985), value chain activities can be divided into primary activities (inbound logistics, operations, outbound logistics, marketing and sales, and service) and support activities (procurement, technology development, human resource management, and firm infrastructure).

The analysis of DONG's operations in Poland has shown that DONG has been active in two energy markets: the overall energy market and the wind energy market. Due to the fact that DONG considers its activities within the wind energy market of more strategic importance than its consulting activities within the overall energy market, the analysis is only going to focus on the value chain activities within the wind energy market.

### **Primary Activities of DONG**

#### ***1. Inbound Logistics***

Inbound logistics include activities concerning receiving, storing, and disseminating inputs to the product, i.e. material handling, warehousing, inventory control, vehicle scheduling, and returns to suppliers (Porter, 1985).

In the case of DONG, inbound logistics activity would be getting the permits for the installation of the wind turbines.



## *2. Operations*

Operations include activities associated with transforming inputs into the final product form, i.e. machining, packaging, assembly, equipment maintenance, testing, printing, and facility operations (Porter, 1985).

In the case of DONG, operations in the Polish wind energy market would be physical installation of the wind turbines on different sites in the country.

## *3. Outbound Logistics*

Outbound logistics include collecting, storing, and physically distributing the product to buyers, such as finished goods warehousing, material handling, delivery vehicle operation, order processing, and scheduling (Porter, 1985).

In the case of DONG, outbound logistics includes running of the wind turbines.

## *4. Marketing and Sales*

Marketing and sales includes such activities as providing a means by which buyers can purchase the product and inducing them to do so, such as advertising, promotion, sales force, quoting, channel selection, and pricing (Porter, 1985).

In the case of DONG, marketing and sales activities imply securing contracts with large clients for buying the energy produced by the wind turbines.

## *5. Service*

Service includes providing service to enhance or maintain the value of the product, such as installation, repair, training, parts supply, and product adjustment (Porter, 1985).

In the case of DONG, serving activities imply making sure that the wind turbines do not break down and in case if they do not function properly, they get repaired quickly.

## Support Activities of DONG

### *1. Procurement*

Procurement is the function of purchasing inputs used in the firm's value chain, not to the purchased inputs themselves and include raw materials, supplies, and other consumable items as well as such assets as machinery, laboratory equipment, office equipment, and buildings (Porter, 1985).

In the case of DONG, procurement activities are partly performed from Denmark and partly in Poland by its subsidiary.

### *2. Technology Development*

Technology development includes a broad array of activities from the technologies used in preparing documents and transporting goods to the technologies embodied in the product itself and are directed at improving the products and the processes (Porter, 1985).

In the case of DONG, all the steps of the technology development within the wind energy are taking place outside of Poland.

### *3. Human Resource Management*

Human Resource Management includes recruiting, hiring, training, development, and compensation of all types of personnel (Porter, 1985).

Recruiting, hiring and compensation takes place in the subsidiary in Poland, while training in development can be done in Denmark or in DONG's offices in other countries.

### *4. Firm Infrastructure*

Firm infrastructure consists of such activities as general management, planning, finance, accounting, legal, government affairs, and quality management (Porter, 1985).

The structure of the Polish subsidiary is decided upon in Denmark, while finance, accounting, legal and government affairs are performed by the subsidiary itself.

All in all, DONG has decided to perform all its value chain activities within the Polish wind energy market in-house except for the ‘inbound logistics’, i.e. getting the permits for the installation of the wind turbines.

### ***5. Analysis of DONG’s Operation Mode Package***

Due to the fact that DONG started its operations in Poland with a singular foreign operation mode, it is necessary to start the analysis with the examination of this primary penetration mode which proceeds with DONG’s mode package as it looked at the beginning of the 2000s, in mid-2000s, and finally, at the end of the 2000s.

#### *Primary Penetration Mode of the Polish Energy Market*

The primary market penetration mode in Poland was an acquisition of a Polish engineering consultancy company at the beginning of the 1990s. According to Gatignon and Anderson (1988), companies – other things being equal – have a tendency to prefer investing money in wholly owned operations because that allows them to have a higher degree of control over the enterprise.

It has not been possible to find the information concerning the reasons to why exactly that Polish company had been selected as the acquisition target (even though it did not deal with wind power at all at that point of time). However, it is known that DONG felt that there might be potential in this newly opened energy market. Additionally, the nature of the energy industry demands extensive investments which will be paying off during a longer period of time (up to 15 – 20 years), so even though the prospects of profit might be quite vague at the beginning of the operations, it is important to think long term and make strategic moves early in the process.

The reason to why that particular type of entry mode was chosen is that because it allowed DONG to acquire a platform on the Polish energy market to start collecting the knowledge about the specificities of operating on it.

### *DONG's Mode Packaging*

The alliance with EPA was an additional foreign operation mode to DONG's primary penetration mode with a subsidiary. So from this point it is possible to say that DONG started to operate by *a foreign operation mode package* on the Polish energy market (Figure 4).

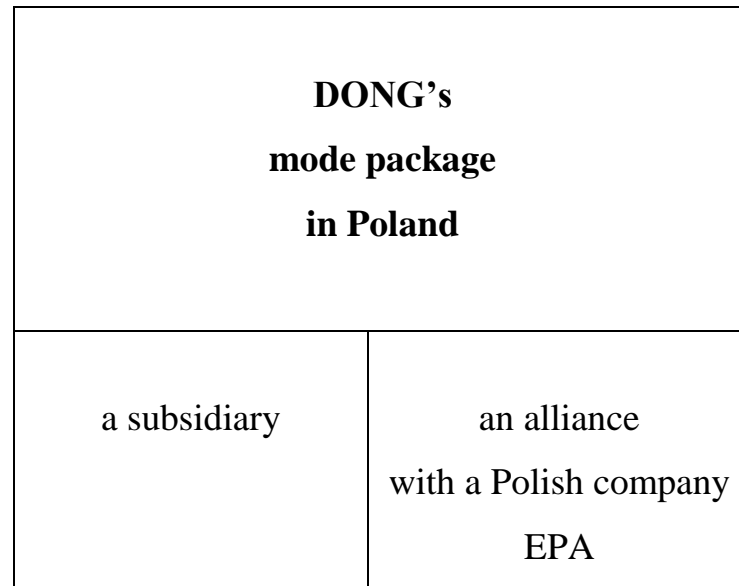


Figure 4: DONG's mode package in Poland.

This mode package consisting of two operation modes continues to exist until the present time. However, the roles played by these modes in DONG's strategy in Poland have been changing over time. That is why it would be logical to follow the chronological time line and analyze this mode package as well as the evolution of the roles of the separate operation modes over time which is going to be presented and discussed in the following sections.

### *Mode Package at the Beginning of the 2000s*

At the beginning of the 2000s, DONG's foreign operation mode package within the Polish market consisted of a subsidiary and an alliance with a Polish company EPA. According to the theoretical framework by Petersen and Welch (2002), in order to understand the underlying reasons for an observed mode combination in a foreign market, it is necessary first to establish whether these operation modes serve the same value chain.

At the beginning of the 2000s, the Polish subsidiary of DONG was only focusing on providing engineering consulting services to the Polish power generators and thus operating within the overall Polish energy market. At the same time, the alliance with EPA was aimed at providing DONG with the permissions to install wind turbines, and thus operating within the Polish wind energy market. Due to the fact that the two foreign operation modes were creating value within their separate markets, it can be concluded that they were not operating within the same value chain. According to the theoretical framework by Petersen and Welch (2002), such form of mode combination is called *unrelated*.

The role that the alliance with EPA played was to help DONG to understand how to operate within the Polish newly established wind energy market. According to the process-oriented stream of literature (Johanson and Vahlne, 1977; Welch and Luostarinen, 1988), knowledge acquiring is a vital part of being successful in a foreign market: EPA was assisting DONG with the practical issues necessary to be settled in order to get a permission to build a wind farm in a certain spot in a certain area of Poland (Figure 5).

<b>Mode Package</b> <b>(beginning of the 2000s)</b>	
subsidiary (primary mode)	alliance (associate mode)
<ul style="list-style-type: none"> <li>collecting the knowledge of the Polish overall energy market</li> </ul>	<ul style="list-style-type: none"> <li>collecting the knowledge of the Polish wind energy market</li> </ul>

Figure 5: DONG's mode package in Poland  
at the beginning of the 2000s.

*Mode Package in the Mid-2000s*

After a few years since the alliance with EPA had been initiated, DONG made a decision to hire two Polish people who would be based in the subsidiary and work exceptionally with the business issues within the Polish wind energy market. The reason for that decision was to be closer to the market in order to be able to monitor it more tightly because when working in an emerging market it is vital to be able to respond very quickly to the changes which can be complicated when the decisions are to be taken from Denmark.

These two new people were dealing with a number of activities within the wind energy market: acquisitions of second stage wind farm projects (i.e. projects which already received all the permissions and building of a wind farm can be started), sales of wind power, and even development of greenfield wind farms projects (development of a project from scratch, i.e. from getting the permissions to the actual installation of wind turbines). This means that from this point of time, a new role was appointed to the DONG's subsidiary additionally to the original role of providing consulting services to the Polish energy generators.

DONG made a decision to start working with wind farm projects on its own because the company felt that it had gained enough knowledge of the local market. However, the alliance with EPA was not dissolved, but continued on the previous terms (Figure 6).

<b>Mode Package (mid-2000s)</b>	
<p>subsidiary</p> <ul style="list-style-type: none"> <li>• collecting the knowledge of the Polish overall energy market</li> <li>• <b>new role:</b> starting to collect the knowledge of the Polish wind energy market on its own</li> </ul>	<p>alliance</p> <ul style="list-style-type: none"> <li>• collecting the knowledge of the Polish wind energy market</li> </ul>

Figure 6: DONG’s mode package in Poland  
in the mid-2000s.

According to the theoretical framework by Petersen and Welch (2002), in order to determine the type of the mode operations, it is necessary to find out whether these two operation modes (i.e. the subsidiary and the alliance) served *the same value chain*. On one hand, the original role of the alliance remained the same: getting the permissions for the wind farms projects, i.e. operating within the wind energy market. On the other hand, the original role of the subsidiary remained the same: providing consultancy services within the overall energy market. However, the new role added to the subsidiary implied adding value within the wind energy market. Thus the alliance and the new role of the subsidiary were serving the same value chain.

Next step, according to the framework, should be to determine whether the operation modes were serving *the same customer segment*. In the case of the alliance between EPA and DONG, it is DONG that is ‘the customer’ because it is the recipient of the services from EPA and - along with it - of the knowledge of the Polish wind energy market. So when looking at the new role added to the subsidiary and the services provided by the alliance, it can be said that they are aimed at the same customer – DONG.

Next step is to find out whether the operation modes served *the same value chain activity*. Both the alliance and the new role of the subsidiary were aimed at performing all the activities within the preparational phase for installing wind farms, so according to the logic of Porter’s (1985) value chain analysis, such activities can be considered to belong within the value chain activity of ‘inbound logistics’. Thus, both operation modes were performing the same value chain activity.

Finally, due to the fact that both the alliance and the subsidiary were servicing the same value chain, the same customer segment and were performing the same value chain activity, it can be concluded that these modes were *competing*.

So why is it that DONG decided to have a mode package with two competing operation modes? Mostly because DONG did not want to get rid of EPA as an alliance partner due to the fact that it continued to add value by helping DONG to reach its targets set in the amount of wind turbines installed in Poland each year. For example, if EPA could deliver 4 projects out of the target of 10, DONG would only have to focus on working with the rest 6. Otherwise, DONG would have to put the time and resources of its employees on working on all 10 projects.

#### *Mode Package at the End of the 2000s*

Finally, DONG’s mode package in Poland at the present time still consists of two operation modes, i.e. the subsidiary and the alliance with EPA. However, while no new roles have been added to the subsidiary, the alliance with EPA is starting to change its nature. DONG has initiated restructuring of the “loose” non-equity alliance into a more “tight” one (Figure 7). This is going to be done by making a “partnership around each project” that these companies are working on (personal communication with Ivan Christiansen).



Unfortunately, there is no more detailed information on how exactly it is going to be put into practice, however it is clear that DONG is continuing to go in the direction of increasing its control over its business activities on the Polish wind energy market.

According to the framework by Petersen and Welch (2002), the two foreign operation modes continue servicing the same value chain, the same customer segment and performing the same value chain activity, thus representing the competing type of multiple mode operations. However, the activities of the subsidiary seem to become of more strategic importance for DONG than the alliance with EPA.

Strategic installation of “partnership around each project” will allow DONG to influence a number of decisions that the company could not influence before, for example , decisions concerning the locations for the installation of the wind farms, their size and power, etc. and thus gain more control of what is going on (Figure 7).

<b>Mode Package (end of the 2000s)</b>	
<p><b>subsidiary</b> (“more importance”)</p> <ul style="list-style-type: none"> <li>• collecting the knowledge of the Polish overall energy market</li> <li>• collecting the knowledge of the Polish wind energy market on its own</li> </ul>	<p><b>alliance</b> (a more “tight” cooperation)</p> <ul style="list-style-type: none"> <li>• collecting the knowledge of the Polish wind energy market</li> <li>• acquiring more control over a number of important strategic decisions that DONG had no control of before</li> </ul>

Figure 7: DONG’s mode package in Poland

at the end of the 2000s.

Such a way of structuring the alliance with EPA can potentially give DONG much more flexibility to change the conditions of working with the company as well as DONG's decisions from one project to another without being stuck in previous arrangements. At the same time, the negotiation costs of switching from one "project partnership" to the next one can be kept down.

The reason to why both party agree to work together under such unstable conditions is that they both could have potentially continued each on their own, but EPA would lose a large reliable customer, while DONG would lose a reliable long-term partner which helps with delivering the necessary volume of wind farms projects. So both parties are interested in carrying on working together.

Another potential way for DONG to achieve high level of control (according to Ivan Christiansen) would be to make an 'exclusive partnership' agreement with EPA. However, this option had been declined by both parties because it would have narrowed the strategic and business opportunities of both in the future, i.e. first of all, it would imply that neither DONG nor EPA are allowed to work with other companies, and second, in case if one of the parties is not satisfied with the partnership anymore, it would be difficult to get out of it due to a number of transaction costs (e.g. time, financial expenses, business reputation, etc.). Neither of the parties is interested in such a scenario.

All in all, while the roles played by the two foreign operation modes have remained the same (deeper market penetration within the wind farms projects), the alliance with EPA is undergoing a structural change bringing more control over the operations to DONG.

## **VIII. Refining the Theoretical Framework**

The theoretical framework by Petersen and Welch (2002) helps to understand the reasons to why a company decides to combine different foreign operation modes. At the same time, the authors point out that a more detailed analysis of the mode use is necessary. In order to do that, the changes in roles of the single modes within the overall mode package should be studied.

During the process of analyzing DONG's mode package, the following tendency has been spotted: DONG originally entered the Polish overall energy market with an acquisition, i.e. a strategy that allows the company to have maximum control over the business operations and strategic decisions. Later, even though DONG was forced to enter in an alliance with a local company within the Polish wind energy market, as soon as DONG felt that it acquired the necessary knowledge, it initiated its own activities within this market.

The strategic process when a company switches from having an external operator to perform certain business activities for it to using the company's own internal capabilities to perform those activities is called *internalization process*. Thus the development when DONG hired new people in its Polish subsidiary to perform the activities which had been previously performed exclusively by the alliance with EPA can be considered to be internalization process.

### ***1. Internalization: Theoretical Framework***

According to the theory, when a company enters a foreign market, the costs of using local independent operators might be low. However, over time these costs can increase, thus putting a pressure on the company to internalize its activities. Petersen, Welch and Benito (manuscript) outline four drivers of internalization which are prominent in the business economics literature: 1) increasing asset specificity, 2) increasing sales volume or market size, 3) reduced market uncertainty through experiential learning, and 4) release of management resources.

Petersen et al. (manuscript) argue that internalization “unfolds as the need grows” (p. 4), i.e. a company combines different foreign operation modes until a complete internalization (if ever) is achieved.

If a company engages in gradual internalization in contrast to a one-off operation at foreign market entry, it can bring the following benefits: for every additional internalization step, the sub-optimal usage of the resources diminishes. Petersen et al (manuscript) also point out that there is a trade-off between production costs savings obtained through frequent internalization steps, on one hand, and the additional transaction costs presented by renegotiation costs, on the other hand.

## ***2. Analysis of the Internalization Process at DONG in Poland***

In the case of DONG, the first market entry mode was with an acquisition, so formally the alliance with EPA was not the primary entry mode into Poland. However, it is possible to talk about two primary penetrations of two markets at two points of time within the same country: first, the penetration of the overall energy market in Poland – by the acquisition of a Polish engineering consultancy company, and second, the penetration of the wind energy market (which was established later) – by the alliance with EPA.

Out of four drivers of internalization, the driver that fits best in the case of DONG is “reduced market uncertainty through experiential learning” (Petersen, Welch, Benito, manuscript). DONG possesses extensive knowledge within the wind power industry: both within the installation of wind turbine farms and the sales of the power produced by the wind turbines. However, the new wind energy market in Poland was a completely unknown territory for DONG. Different permissions, application procedures, ways of dealing with Polish bureaucracy as well as other complicated practical and cultural issues demanded that DONG did not engage in business operations alone. That is why, in order to be successful on the market and not to run into problems with the first stages of the projects – preparational phase up to the start of the actual installation of the wind turbines - an alliance with EPA was started.

As time passed, more and more experience was gained, and it became possible for DONG to consider going solo, i.e. internalize its operations when it comes to working with

the first stage of the wind farms projects. So two people were hired to deal exclusively with the wind energy, and thus creating a potential substitution for EPA.

Petersen et al. (manuscript) states that internalization "unfolds as the need grows" (p.4), and in the case of DONG the "need" can be described as the necessity to gain more control over the process of getting the permissions, decisions about the locations where the wind turbines will be placed, etc.

### ***3. Theoretical Framework Refined***

The theoretical framework by Petersen and Welch (2002) only focuses on the reasons to why a company decides to combine different operation modes, but does not go into details about the mode use. The case of DONG has shown that the company introduced an additional operation mode – an alliance with a local partner - when a change in the external environment took place. However, DONG used this new mode to acquire the knowledge, and as soon the necessary learning was achieved, the company internalized its operations.

So one possible extension of the theoretical framework by Petersen and Welch (2002) within the mode use area can be the following:

***An energy utility company can combine foreign operation modes within an overall mode package in order to achieve the specific goals set for a certain emerging market, and it can do that in steps which would eventually help it to internalize its operations. These steps can be taken by adding or deleting roles of the already existing single modes within the overall mode package.***

## **IX. Reflexions**

### ***1. The Issue of Transaction Costs vs. Operational Flexibility***

Any company with business activities abroad would like to have a perfect balance between the high level of strategic flexibility (or, to be more exact, operational flexibility) and lowest possible transaction costs. High level of operational flexibility implies the ability to switch from one foreign operation mode to another within an overall mode package as soon as it becomes necessary due to the external or internal changes. Low transaction costs – in broad terms – implies low financial costs or any other types of hindrances which would complicate the process of switching from one operation mode to another.

The case of DONG Energy in Poland shows that DONG was not replacing one operation mode with another, but having started at the beginning of 1990s with a single operation mode (through an acquisition of a local company) by a subsidiary and after adding another operation mode – an alliance with a local partner, continued with this mode package until the present days. However, the case analysis has showed that the nature of this mode package has been changing over time.

According to Ivan Christiansen, DONG did not have any difficulties with making its first mode addition, i.e. starting an alliance with the Polish partner. Even though it has not been possible to obtain the details of how that process was happening, it can be assumed that even though transaction costs in financial terms might have been low, DONG must have incurred certain transaction costs in terms of the times spent by its employees in order to negotiate the agreement with EPA, even if no formal agreement concerning the alliance had been signed.

As for the addition of a new role to its subsidiary which ended up being in direct competition with the role of the alliance with EPA, DONG, again, probably did not incur many transaction costs in terms of compensating EPA in any way for that strategic move (because the alliance was on very “loose” terms), but DONG did have to start paying salaries to the two new full-time employees hired in the subsidiary to work with the new area of wind farms projects.

Finally, now DONG is in the process of rethinking the terms on which the alliance with EPA has been functioning until recently. According to Ivan Christiansen, both parties

have engaged in the dialogue willingly because both are interested in continuing to work together: DONG is one of EPA's largest customers, while EPA is interested in DONG from the point of view of delivering the "volume" of wind farms projects. So, again, here it is not so much the question of purely financial expenditures but a broader costs in terms of time and energy spend on the negotiating.

So, when trying to achieve the maximum operational flexibility, the ultimate goal is not about eliminating transaction costs completely - because it seems to be impossible - but to try to strike the balance between keeping the transaction costs to a minimum, while attaining the necessary level of flexibility.

## ***2. Scenarios of DONG's Operating Flexibility***

If to try to take the discussion of transaction costs vs. operating flexibility a step further and try to establish the level of DONG's operating flexibility, it will be necessary to try to analyze different scenarios where DONG could try to change the structure of its mode package in Poland consisting of a subsidiary and an alliance with EPA.

### *"Divesting the Subsidiary" Scenario*

For example, if to test DONG's flexibility by imagining whether it can divest its Polish subsidiary, then the answer would be "yes", i.e. DONG can divest its Polish subsidiary and, technically, nothing can stop it from doing that. However, if to look closer, then it would become obvious that certain transaction costs will be connected to that, first of all, in terms of the firing of the Polish employees. So that to determine the amount of those transaction costs, it would be necessary to look at the conditions on which those employees work at the subsidiary.

### *"Expanding the Subsidiary" Scenario*

It seems to be quite realistic if DONG decides to expand its activities in the Polish market by expanding its subsidiary. In this case, the transaction costs would be the expenses incurred to recruit the new employees with the right qualifications or to train

them if they need any additional knowledge and skills specific for DONG. Besides, a more enduring expense of paying their salaries should also be included in the calculation of the transaction costs.

#### *“Getting Rid of EPA” Scenario*

If to imagine whether DONG can get rid of its alliance partner EPA, it would be necessary to predict EPA’s reaction to that. In order to do that, it would be necessary to know the details of the alliance contract. Due to the fact that it is not known whether such a contract exists at all or - if it does - what the conditions are, it is difficult to predict the consequences of DONG’s leaving the alliance installation.

As it became clear from the interview with Ivan Christiansen that EPA seems to be more interested in DONG than DONG in EPA, it can be concluded that DONG has more negotiating power in this alliance, i.e. DONG will probably not have to suffer much.

However, DONG will have to incur certain transaction costs in the form of lost “volume” of the wind farm projects being processed in the “pipe line” for getting the permissions for the installation of the wind turbines.

#### *“Diminishing the Collaboration with EPA” Scenario*

If to try to imagine a scenario where DONG informs EPA that it is going to put the alliance cooperation “on hold” for some time and start using EPA’s services again later, it is possible to assume that - due to the fact that DONG has more negotiating power – there is a chance that EPA will have to go along with this decision, even though it probably will not be happy with this turn in their relationships.



*“Expanding the Collaboration with EPA” Scenario*

If to try to imagine a scenario in which DONG has plans to expand its collaboration with EPA, then it would imply that DONG expects EPA to process more projects for the installation of wind farms. EPA would probably be happy with such development even though they would have to hire more people to cope with the extra work load.

However, here an external factor would step in: the specificity of the wind power industry in Poland. First of all, the amount of projects which can be approved for installation and thus receive all the necessary permissions, is limited every year. Second, even if there had been no limit to the amount of wind turbines to be installed, the Polish electricity grid has also to “catch up”, and to expand it takes time.

Thus, “the expanding the collaboration with EPA” scenario has its limitations due to external factors and not in the form of transaction costs for either of the parties.

All in all, as the analysis of different scenarios has shown, DONG’s operating flexibility is on one hand, quite extensive when it comes to the coordination of the activities of DONG’s Polish subsidiary or the alliance with EPA. On the other hand, however, DONG’s flexibility can be limited by other factors beyond the alliance, i.e. the specificity of the energy industry (e.g. network externalities).

### ***3. DONG's Operation Mode Flexibility in Polish Wind Power Market***

DONG's flexibility within the Polish wind power market has two preconditions: 1) mode package in place, 2) ability to switch from one operation mode to another within the overall mode package (i.e. operating flexibility). The first precondition implies that DONG organizes its business activities in Poland not through a single operation mode but two: a subsidiary and an alliance, i.e. by a mode package. The second precondition implies not only the switch between modes, but also any changes in the roles that those modes are playing within the mode package.

A number of external and internal issues can force such an energy utility company like DONG to introduce changes in its operations in wind power market in such an emerging country as Poland. Among the external factors, for example, the specificity of Polish wind energy market can be mentioned. It implies that this market is influenced not only by the Polish regulations but also the regulations issued by the European Union. Another example is that all emerging markets are volatile, even though Poland is one of the countries where volatility is more or less of decent proportions. Yet another example is the network externalities. The specificity of the energy industry is that before any profit can be made from the selling of the energy produced, it is necessary to install the power grid which is going to connect the power generators (be it renewable or non-renewable energy generators) with the final customers (private and corporate). Finally, operating within the energy industry implies heavy investments which will be paid off in a very long run: between 15 and 20 years. That puts high demands for control of the business operations.

As for internal factor forcing changes on DONG, it can be, for example, acquisition of knowledge of how to operate in Polish wind energy market. Or a change in the strategic targets for that specific market which can force DONG to rethink the scale and scope of its alliance with the Polish partner EPA.

Both external and internal issues are summarized in Figure 8.

<b>External Factors</b>	<b>Internal Factors</b>
<ul style="list-style-type: none"> <li>• Changes in laws and regulations</li> <li>• Volatility of emerging market</li> <li>• Network externalities of the energy industry</li> <li>• Heavy and long-term investments putting special demands on control</li> </ul>	<ul style="list-style-type: none"> <li>• Experiential learning within a market</li> <li>• Change in strategic targets for a specific market</li> </ul>

Figure 8: External and internal factors influencing changes.

As for DONG's flexibility in practice, it became clear from the interview with Ivan Christiansen that DONG feels quite confident that it is able to adjust its foreign operation modes as the necessity comes. Due to the fact that it has not been possible to obtain the contracts neither for the subsidiary nor the alliance with EPA, it not possible to determine whether that claim is true. At the same time, if to suppose that DONG can actually freely change its operation modes within the overall package, this flexibility come at a certain cost. The amount of the transaction costs can come not only in the form of the financial expenses (e.g. firing / hiring the employees and compensating them for that), but also in the form of time and energy spent on the re-negotiating of the details of the cooperation (even if no formal contract has been signed).

## **X. Conclusion**

The research question of the thesis was: “How can Danish utility company DONG Energy create operation mode flexibility in Polish wind power market?”. In order to answer this question, a number of theoretical and empirical issues have been investigated.

First of all, the literature on foreign operation modes has been reviewed. Two streams of literature have been determined: an ‘economic-strategic’ stream and behavioral or ‘process-oriented’ stream. The economic-strategic stream (Anderson and Coughlan, 1987; Datta et al., 2002) states that in order to decide which operation mode should be chosen, it is necessary to define what degree of control is appropriate for the company so that its strategic flexibility stays at the necessary level. The process-oriented literature (Johanson and Vahlne, 1979; Bjorkman and Eklund, 1996) puts the stress on the incremental nature of company’s expansion abroad and implies learning from operating in certain foreign markets.

Next step was to outline the specifics of operating in emerging economies. It has been determined that they are highly volatile due to high uncertainty and risk that are caused by economic and political shocks. Another characteristic of such economies is that certain institutional features can be missing, e.g. shortages of skilled labor, thin capital markets, infrastructure problems, etc. (Hoskisson et al., 2000). Thus, companies wishing to do business in emerging economies are faced with constant pressure for change. However, in spite of all the problems, emerging economies present a lucrative market due to high economic growth as well as increasing demand for a variety of goods and services.

Mode packaging is the concept that can help coping with the instability the companies have to struggle with in – for example – emerging economies by providing flexibility in company’s operations. Mode packaging implies combining different modes - ranging from the contractual to exporting to investment modes – to achieve the most effective penetration of the foreign market (Welch, Benito, Petersen, 2007). Flexibility can be achieved, first of all, by adding new operating modes or deleting some of the existing operating modes within the overall mode package depending on the changes in the strategic situation the company is in, which – in turn – is influenced by a number of external and internal issues. Another way of achieving flexibility is by leaving the installation of the modes within a package unchanged, but changing the roles those modes are playing in a certain market. This allows the company to avoid disruption of operations

(compared to a complete mode switch) and to keep the transaction costs low (Petersen and Welch, 2002).

In order to clarify the issue of a company's flexibility, the concept of operating flexibility has been introduced. Kogut and Kulatilaka (1994) presented operating flexibility when it comes to company's flexibility to switch between two geographical markets, but for the purposes of the thesis this concept has been applied to company's flexibility to switch between different operation modes within the same mode package in a particular geographical market, especially under the circumstances of uncertainty within emerging markets.

Finally, a conceptual framework by Petersen and Welch (2002) has been proposed for the analysis of DONG's operation modes in Poland. The framework examines the nature of mode combinations thus making it possible to establish the underlying reasons for an observed mode combination in a certain foreign market. The framework is based on the value chain approach (Porter, 1985) and takes an individual chain activity as the unit of analysis.

In the empirical part of the thesis the description of DONG Energy and the wind power industry has been presented. DONG Energy is an energy utility company which is a leading energy providing company in Denmark. The company's strategic goals are (among others) actively addressing the climate challenge and development of the organization's knowledge resources. DONG has a lot of focus on renewable technologies, especially within the wind energy. As for the wind power industry, it is a very promising industry due to its rapid growth. DONG has a long history of working with wind power.

To present a picture of the wind power industry in Europe and – particularly – in Poland, it has been mentioned that the European Union expects the high growth in the industry to continue and has set ambitious targets for all the Member States (EWEA), including Poland.

The overall investment climate in an emerging country is also of high importance when a company makes a decision to start its business activities there. Poland is considered to have one of the most favorable investment climates among ex-Soviet bloc countries when it comes to its economic, legal and institutional characteristics (Polish Information

and Foreign Investment Agency). Besides, foreign investors can count on direct support from the EU structural funds.

During the interviews with Ivan Christiansen and Kamil Kuninski the details of DONG's operations in Poland have been presented. In the analysis part of the thesis, the company's activities in Poland have been outlined. After that, DONG's value chain in Poland have been analyzed: it has been determined that it has decided to perform all of its primary value chain activities within the Polish wind energy market 'in house' except for the 'inbound logistics', i.e. getting the permits for the installation of the wind turbines.

Due to the fact that DONG started its activities in Poland at the beginning of 1990s with a singular foreign operation mode – by acquisition of a Polish engineering consultancy company (which received a status of a subsidiary), this primary penetration mode has been analyzed separately. The analysis has determined that this mode has been used to penetrate the overall Polish energy market because the acquired company was not dealing with wind energy issues, and thus the wind energy market was penetrated later, to be more exact, by an alliance with a Polish company EPA. From this point of time – at the beginning of the 2000s - it is possible to talk about "mode packaging" as a strategic activity used by DONG.

DONG's mode package consisted of two foreign operation modes: a subsidiary and an alliance with EPA. This installation has not changed until the present times, however, the roles of the single modes have been changing over time. First change happened at the mid-2000s when the subsidiary – additionally to its original role of providing consulting services to the Polish power generators – got an additional role of dealing with different issues within the wind energy market – along with the same activities performed by the alliance with EPA. Second change happened at the end of the 2000s, when DONG decided to change the nature of the alliance with EPA, i.e. to change the "loose" non-equity alliance into a more structured "partnership around each project" within the wind farms area.

As a result, a clear tendency has been established: DONG has been internalizing its activities. Thus, the theoretical framework by Petersen and Welch (2002) has been refined the following way: an energy utility company can combine foreign operation modes within an overall mode package in order to achieve the specific goals set for a certain emerging market, and it can do that in steps which would eventually help it to internalize its

operations. These steps can be taken by adding or deleting roles of the already existing single modes within the overall mode package.

Finally, it has been determined that DONG's flexibility within the Polish wind power market has two preconditions: 1) mode package in place, 2) ability to switch from one operation mode to another within the overall mode package (i.e. operating flexibility). As the analysis has showed, DONG's mode package is in place and is working. However, DONG's ability to actually freely change its operation modes within the overall package, comes at a certain cost. The amount of the transaction costs can come not only in the form of the financial expenses (e.g. firing / hiring the employees and compensating them for that), but also in the form of time and energy spent on the re-negotiating of the details of the cooperation (even if no formal contract has been signed).

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