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**Abschlussarbeit zur Erlangung des akademischen Grades**

## **Bachelor of Science**

**im Studiengang Wirtschaftsinformatik**

**Thema:** Exploring the offshoring approach of German Companies compared to to the U. S. American approach

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## List of Acronyms

<b>FDI</b> Foreign Direct Investment .....	6
<b>NAFTA</b> North American Free Trade Agreement .....	7
<b>WTO</b> World Trade Organization .....	7
<b>EEC</b> European Economic Community .....	7
<b>ICT</b> Information and Communication Technology .....	7

## 1. Introduction

## 2. Offshoring in Literature

Offshoring has been widely studied in the past decades. There are two major branches of research: the first describes reality through statistics or case studies (e.g. Rottman and Lacity, 2008 and Pedersen et al., 2013) while the second branch designs trade models to explain the discovered correlations (e.g. Antràs and Helpman, 2004, Grossman and Rossi-Hansberg, 2008 and Helpman, 1999).

This wealth of existing knowledge has been used for the following section, where the relevant terms of the subject are defined first. Furthermore, a brief history of offshoring is given before describing offshoring in the USA first, then offshoring in Germany.

### 2.1. Definition and Terms

In existing literature, there is no single definition of the term offshoring nor one precise delimitation to the term outsourcing. Both terms refer to sourcing decisions in companies.

For example, according to Knolmayer, 2007, pp. 1f, outsourcing is buying services from other companies. Offshoring is defined as a special form of outsourcing, in which the service is bought from a foreign company. On the other hand, Alebrand, 2013, p. 2 defines outsourcing and offshoring as mutually exclusive: outsourcing is the provision of services by external companies, offshoring is the internal execution of tasks in a foreign country.

These contrasting definitions may serve as an example for the lack of distinct terms in this field of research. Nevertheless all the definitions agree that outsourcing pertains to external service provision and offshoring refers to service provision in a foreign country. This Bachelor's thesis will use the following definition of the term offshoring by Andersson, Karpaty, and Savsin, 2016, p. 321:

“Offshoring [is the] disintegration of the firms’ production processes across national borders[...]

This means, offshoring is not only a description for the state of an organization, but also the process to relocate business processes.

The term outsourcing is derived from “Outside Resource Using” (Specht and Lutz, 2007, p. 46). It is acquiring intermediate inputs from external businesses (Specht and Lutz, 2007, p. 46).

Therefore, the terms offshoring and outsourcing do not have a direct relation; both terms are independent and describe different possibilities of entrepreneurial organization. In figure 1, the delimitation between outsourcing and offshoring is clearly shown. A company can choose to offshore, outsource or both; every single possibility has its own term.

Offshoring, in the context of this thesis, means foreign outsourcing and Foreign Direct Investment (FDI), unless otherwise specified.

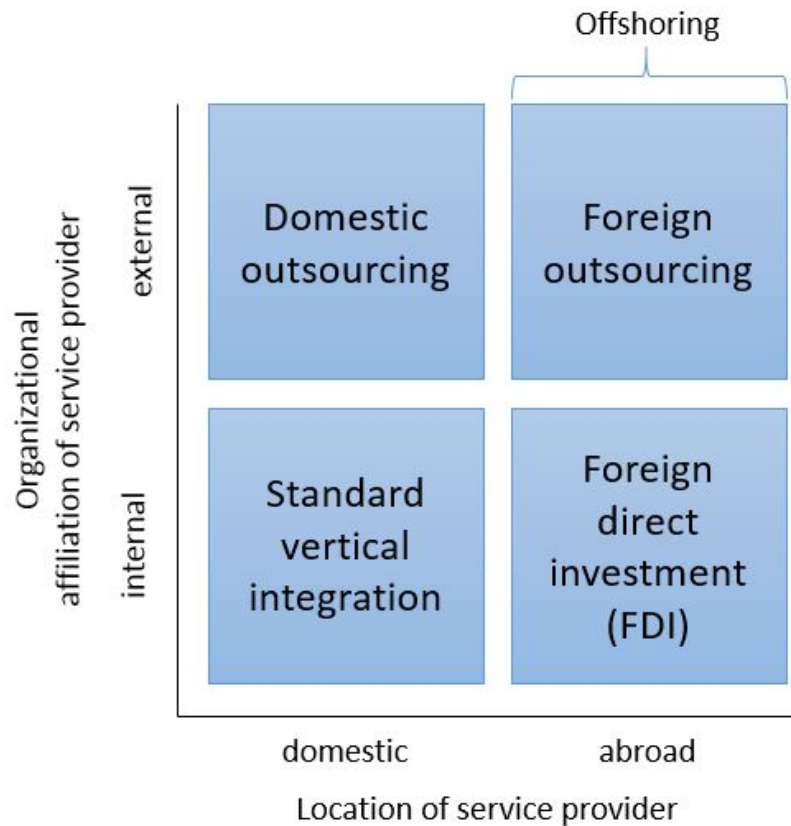


Figure 1: Definition of terms, based on Antràs and Helpman, 2004, pp. 552f

Some publications add a geographical dimension to their definition of offshoring. Jahns, Hartmann, and Bals, 2007 state that there must be shores between the customer and the supplier in order to call the transaction offshoring, otherwise the correct term would be Nearshoring. Cappallo and Da-Cruz, 2006 postulate a need for a relatively high distance ("relativ hohe räumliche Distanz", p. 487) between the partners. Dressler, 2007 defines offshoring only as transaction between partners on different continents. Given the ambiguous and arbitrary nature of the distinction between offshoring and nearshoring, this thesis refrains from using the term nearshoring. All provision of services outside the captive country of a company are called offshoring.

## 2.2. Factors for the Development of Offshoring

Globalization, and offshoring as part of the development, had its early beginnings in the 1970s and gained traction once the Iron Curtain had fallen in 1989 (Sachs and Warner, 1995, p. 1). This section describes the various factors that enabled the development of offshoring to the point it is today.



**Political and Historical Developments** After the end of the Second World War, countries belonged to one of three distinct sectors of the world: the capitalist western countries, communist eastern countries or developing countries that sought a way to not get crushed between the two super powers and proclaimed state-led industrialization, a third way between capitalism and communism. (Sachs and Warner, 1995, pp. 12f)

With the majority of world population in countries without market-based economic mechanisms in place and most of the currencies not freely convertible, international trade was basically nonexistent in the post-war world. While western countries systematically restored their trade relations, developing countries were much slower to open their economic systems to international trade. By 1994, most countries had opened their trade policies through removing trade barriers, ensuring the free convertibility of their currencies and disestablishing state monopolies. (Sachs and Warner, 1995, pp. 12-25)

In the last twenty years, global trade relations have only increased. Trade agreements and organizations such as the World Trade Organization (WTO)<sup>1</sup>, the North American Free Trade Agreement (NAFTA)<sup>2</sup> or the European Economic Community (EEC)<sup>3</sup> (a predecessor of the European Union) further facilitated global trade and created a stable environment for long-term business agreements across borders.

**Information and Communication Technology** Innovations in Information and Communication Technology (ICT) have been paramount in enabling offshoring. Beginning with the invention of the first computer in 1941, the rapid development of computing power, data storage and particularly data transmission removed the need for local completion of tasks. The Internet necessitated a quick standardization and modernization of communication systems on a global scale – the prerequisite for offshoring. (Hutzschenreuter, Dresel, and Ressler, 2007, pp. 9f and Jahns, Hartmann, and Bals, 2007, p. 93)

**Organizational Factors** In order to efficiently offshore tasks or processes, the work has to be well-defined and standardized. In this way, economies of scale can fully be utilized and completion of work can be managed across multiple involved companies or subsidiaries. (Hutzschenreuter, Dresel, and Ressler, 2007, p. 11)

The aforementioned developments in ICT remove the need for local presence of the service provider (Uno-Actu-Principle) for most services. Digitalization enables organizations to detach tasks from specific locations. In a first step, those tasks are centralized and standardized. The second step is often offshoring the tasks. (Hutzschenreuter, Dresel, and Ressler, 2007, pp. 12f)

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<sup>1</sup>For further information please see the website of the WTO, <https://www.wto.org/>, last viewed 05. August 2016

<sup>2</sup>Further information: <https://ustr.gov/trade-agreements/free-trade-agreements/north-american-free-trade-agreement-nafta>, last viewed 05. August 2016

<sup>3</sup>Established 1957 with the Treaty of Rome <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=URISERV:xy0023>, last viewed 05. August 2016

**Macroeconomic and Socio-Demographic Factors** ICT developments, organizational and political factors are enablers for offshoring, but the main driver for offshoring decisions in companies are the differences in salaries, taxes, and interest rates between industrialized and developing countries that result in cost arbitrage. In Jahns, Hartmann, and Bals, 2007, p. 89, the example of engineering wages in 2000 is given: while German and American engineers earned 31 \$ and 36 \$ per hour, an Indian engineer made only 6,5 \$ per hour<sup>4</sup>. It is obvious that companies want to use this disparity to their advantage.

In addition to the wage differences, socio-demographic factors such as education, motivation and age distribution in developing countries influence offshoring supply. High social prestige connected to working for large western companies contributes to a higher ratio of academics that apply for offshoring related jobs and motivates employees. Thus, the quality of work is often very good and may be better than in the original country. (Jahns, Hartmann, and Bals, 2007, p. 93)

## 2.3. Offshoring in the USA

Offshoring first emerged from US-American companies.

## 2.4. Offshoring in Germany

According to Eickelpasch, 2015, p. 70, only 9,3 % of business services have been imported in 2010<sup>5</sup>. This may seem like a very low number, even though it is expected that fewer German companies offshore, compared to the USA. However, Eickelpasch only accounts for Foreign Outsourcing as his definition of offshoring does not include FDIs (Eickelpasch, 2015, p. 56). This information is therefore not sufficient to draw any conclusions concerning offshoring in Germany.

Further insights into the prevalence of offshoring in Germany can be found in a survey that has been conducted by German Statistisches Bundesamt in 2008. For this survey, 9361 manufacturing and service companies answered a questionnaire focusing on drivers, scope and results of offshoring on firm-level (Statistisches Bundesamt, 2008, p. 7). Of the polled companies, 16,5% had offshored one or multiple corporate functions until 2006, and 10,4% planned to do so in the time span 2007 - 2009. The percentage of companies that offshore grows with the number of employees. (Statistisches Bundesamt, 2008, p. 11)

Regarding cooperation partners, the survey found that 84,3% of companies practiced or planned FDI and only 26,7% chose Foreign Outsourcing, transferring tasks to external partners. Most often, a new subsidiary has been established (50,6%). (Statistisches Bundesamt, 2008, p. 18)

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<sup>4</sup>The authors refer to United Nations Secretary and Industry Labor Office (2002) as source of these wages, which could not be verified at the time of writing this thesis.

<sup>5</sup>The author cites input-output tables of Statistisches Bundesamt and calculations of DIW Berlin.

## **2.5. Significant Differences between Germany and the USA**

### **2.5.1. Maturity of Offshoring**

### **2.5.2. Difference 2**

## 3. Case Studies

### 3.1. Interview Technique

In order to complement theoretical findings from literature research, expert interviews have been conducted. A structure for the interviews has been defined (see appendix). In this way, statements from different experts can be compared and evaluated, which allows for a comprehensive review. Even though interviewees may share their native language (German) with the interviewer, interviews have always been conducted in English. Thus, any inaccuracies that may occur during translating the statements were prevented and comparability of interviews has been improved.

The interviews were held remotely, either via an Internet VoIP-Service such as Skype, or via using WebEx, the standard communication platform used at T-Systems when interviewing employees of this company. Considering the often tight schedules of experts in their fields, the duration of interviews was limited to 45 minutes.

To further document the interviews and the steps leading up to them as well as the steps of refinement that follow, a process (see figure 2) has been defined and adhered to.

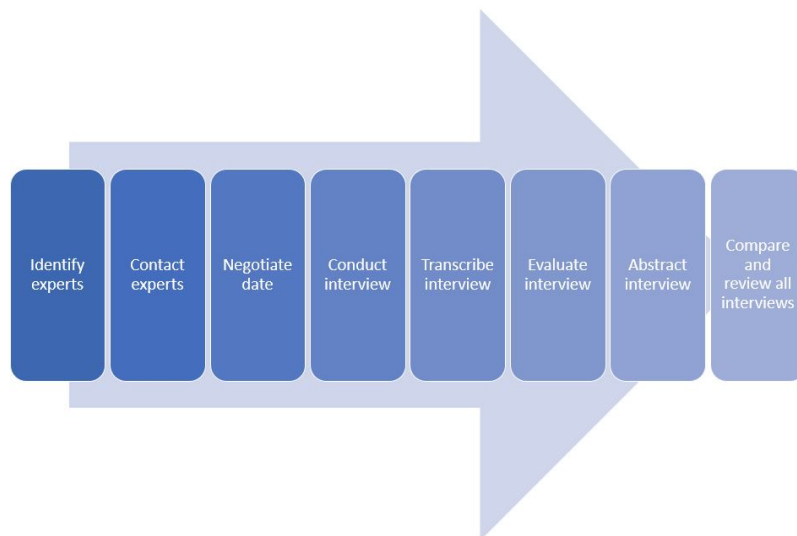


Figure 2: Interview process

**Identify experts** The experts are identified by conducting a network-based search. Initial contacts are asked to identify persons they consider an expert on the topic, who are in turn asked to provide further contacts.

**Contact experts** Initial contact to the expert is established via an email sent by the expert's contact. Included is a standard email explaining the topic, duration and process of the interview and providing the researchers' contact details.

**Negotiate date** Once the expert has agreed to participate in the interview, the researcher contacts them directly in order to set up date, time and method of communication for the interview. Note that all interviews are conducted using at least voice-based communication. Video can be added to further facilitate the communication between the expert and the researcher.

**Conduct interview** The interviews are conducted in five phases with defined leading questions. This means, the leading questions will be asked, but the researcher will also ask further questions as appropriate to the course of the interview. These phases are:

- Introduction
- Offshoring Experiences in the USA
- Offshoring Experiences in Germany
- Comparison of Experiences in Germany and the USA
- Finalization

During the interview, audio has been recorded. The audio files form the primary source of knowledge gained from the experts.

**Evaluate interview** The recordings are evaluated and any important passages are noted. These evaluations are added to the appendix.

**Abstract interview** For each interview, an abstract is developed. The abstracts are included in the thesis.

**Compare and evaluate all interviews** Finally, an overview and comparison of all interviews is generated to derive common statements and areas of disagreement.

## **3.2. Case Study Title 1**

### **3.2.1. Background**

### **3.2.2. Results of Interview**

### **3.2.3. Conclusions**

## **3.3. Case study Title 2**

### **3.3.1. Background**

### **3.3.2. Results of Interview**

### **3.3.3. Conclusions**

## **3.4. Summary and Evaluation**

## **4. Conclusions and Limitations**

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# Appendix

## A. Interview Structure

### Introduction [10 Minutes]

Hello, thank you for participating in this expert interview! I'd like to preface with a short introduction to what my thesis is all about. However, before we start I need your consent to me recording this conversation. Do you agree with recording the interview?

– Wait for answer –

Thank you.

First, let me introduce myself. My name is Veronika; I'm currently in the last leg of studying Information Systems and working on my Bachelors' Thesis. This thesis is about comparing offshoring approaches in the US and Germany. The following questions are all about learning as much as possible from your experience, so please take the freedom to answer as detailed as you deem appropriate.

First of all, I'd like to learn something about you. Please introduce yourself and tell me about your international working experiences.

### Offshoring Experiences in the US / with the US [10 Minutes]

- In what way did you experience offshoring in U.S. companies? (Internal / Provider)
- In your experience, how do U.S. American companies approach offshoring?
- How is the working relationship between the US and the offshoring destination?
- If you think about offshoring in U.S. companies, is there any significant anecdote you'd like to share? Why is this a typical situation in this context?

### Offshoring Experiences in Germany [10 Minutes]

- In what way did you experience offshoring in German companies? (Internal / Provider)
- In your experience, how do German companies approach offshoring?
- How is the working relationship between Germany and the offshoring destination?
- If you think about offshoring in German companies, is there any significant anecdote you'd like to share? Why is this a typical situation in this context?

### **Comparison [10 Minutes]**

- In your opinion, what are the most significant differences between US American and German companies when it comes to offshoring?
- Further questions to clarify points as needed

**Finalization [5 Minutes]** Thank you again for taking the time to answer my questions today. It was a great help! Is there anything you would like to add, or any feedback you might have regarding this interview?

It was great to learn from your experience today. I'll be in touch should there be any points that need further clarification, is that all right for you?

Thank you again, have a great day/evening/weekend!

## **B. Interview Summaries**

### **B.1. Michael Scheitza**

### **B.2. Viswanathan ??**

### **B.3. Ingo Kümmeritz**