

Research Project - Brief Report

„Comparison of different control mechanisms of building contracts with regard to an optimised processing and minimised conflict potential using the example of VOB, NEC and FIDIC“

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1 Research objective

The construction industry is affected by the execution of complex projects. Thereby, investors focus on cost certainty and the adherence to schedules.

Resulting from this demand, it is desirable to employ companies, which offer and carry out the complete service, regularly combined with the execution of large parts of the design services. Furthermore, investors seek to integrate the contractors' know-how already during the period of conceptual design in order to optimise costs and schedule by using their construction experience. Currently, the following issues come to the fore: supervision of projects after taking-over of the building by the facility management, the operation of properties as well as partnership between public authorities and the private industry in the context of the operator model of PPP-projects (Public-Private-Partnership).

In order to structure these technically, organizationally, and legally complex projects there are - according to German law - different legal basic principles available. However, each of them regulates only one part of a project. Besides the limited practicability of the different comprehensive bodies of legislation, they also show a lack of actuality since they do not reflect the current development in construction industry, as shown above.

Therefore, assessment of necessary adaptations of the German agreements to today's needs is part of this research. A similarly important part is the handling of disputes since the increasing number of claims between employer and contractor relating to the volume of work and the following commitment of resources reduces the efficiency of the project. Thus, it is necessary to develop appropriate agreement categories for the different types of projects (e.g. PPP, GMP), which also should reduce the number of potential disputes.

This research project focuses particularly on this part of the private building law which is regulated by the following different legal orders in Germany:

- the German Civil Code (BGB)
- the law for the regulation of general terms and conditions (AGBG)
- the Official Scale of Fees for Services by Architects and Engineers (HOAI)
- the Code of Commercial Law (HGB) provided that the contracting parties are business people
- company law: the laws for limited liability companies respectively for joint stock companies, as far as the companies are belonging to these categories (civil law partnerships, limited partnerships and general partnerships are ruled in the BGB)
- VOB (construction contracts procedures), VOL (contract regulations for supply) and VOF (professional services contract regulations) for the awarding of planning and construction services.

The following agreements that are analyzed in this work: FIDIC (*Fédération Internationale des Ingénieurs Conseils*), NEC3 (*New Engineering Contract*) as well as contractual rules concerning the operating period of a building, are based on other legal orders that have not been explained in detail and are not part of this research project.

The objective of this research project is to develop proposals for conceptual changes in the German construction contract law with special consideration of their potential to reduce conflicts and to increase efficiency of the building process. Therefore, the rules of the international contracting models that are identified to be constructive and to reduce conflicts are analysed in terms of their appliance in German law.

A fast implementation of this work's results into legal practice or into changes of the VOB/B cannot be expected. However, what can be expected is that the developed guidelines will, primarily in the mentioned alternative and current contracting models, be regarded and at least considered in their core ideas.

2 Research Approach

In order to investigate the demand for appropriate rules in the demanded abstractness, an analysis of needs has to be carried out. For this purpose, past developments in the construction industry have to be examined and the modified requirement profiles for a successful execution of a building project have to be determined. Therefore, it is necessary to distinguish between the current contracting models, the standard contracts (priced contract and lump sum contract), and other modern contracting models as well as to establish their specific characteristic.

The necessity for further regulation of each agreement category has to be determined and systemized on the basis of problems that are emerging during the project. Knowledge that is gained via this analysis can be used for both: changes or extensions of the BGB or VOB/B and for necessary rules that have to be included into the respective agreement category.

Abroad experiences concerning the particular laws and contract laws were useful in order to improve this analysis.

In order to provide a basis for the concluding formulation of this work, the results are composed of five phases:

- Phase 1 – International literature research and information gathering
- Phase 2 – Characterization of organization and history of the different agreements
- Phase 3 – Analysis of selected rules of the different agreements
- Phase 4 – Survey's development in order to verify the practical need for new regulations
- Phase 5 – Elaboration of central topics following the phase 3 and 4
- Phase 6 – Results summary

3 Results summary

3.1 Methodology

This project contains a comparison analysis between FIDIC, NEC3 and VOB/B as well as an evaluation of questionnaires that have been gathered via a survey about conflict potential in the building industry.

In order to determine the general need for action concerning the improvement of building project execution by normative control mechanisms, a questionnaire was developed and sent to 2712 recipients. Already the high rate of return of 11% indicates the actuality of the problem.

The existing FIDIC and NEC3 agreements are analysed in comparison to the VOB/B in order to evaluate if the detected demand for control mechanisms can be covered by adaption of certain rules out of these agreements. A consequence of such an adaption would not only be an improvement of German rules but also an adjustment of the German law to international agreements.

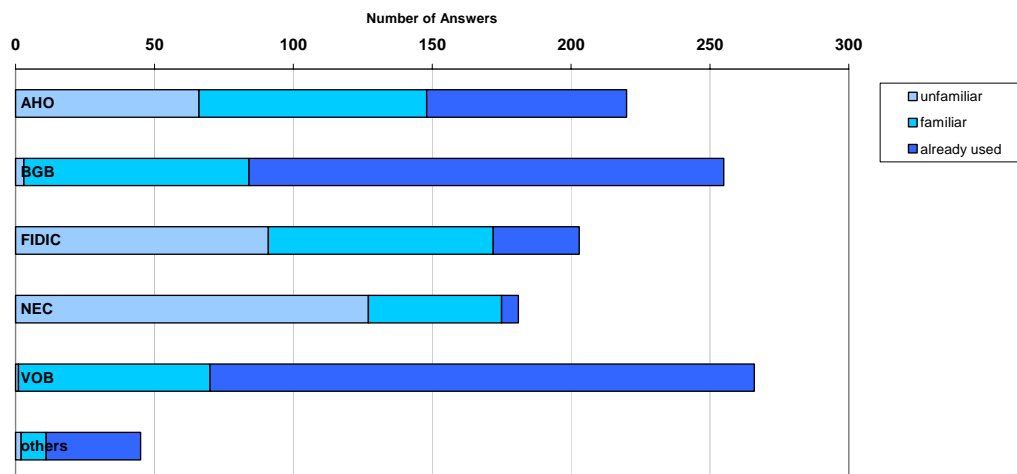


figure 1: Degree of popularity of selected agreements

As shown in figure 1, the participants of the survey classify the VOB/B as the best known agreement which was also used most frequently. Similarly high rates can only be seen with the BGB as the German basic law. Agreements as FIDIC or NEC3 are categorised as less known, what can be observed by both: the number of classifications as ‘unknown’ and by the absolute number of answers concerning this topic.

The conclusion of the survey is that its participants, who can be regarded as representatives of the building industry, are not as concerned with international agreements as they are with the German comprehensive body of legislation. Therefore, one part of this project is dedicated to the history and the system of these agreements, while in a next step selected rules of VOB, FIDIC and NEC3 are compared to each other in order to evaluate potential for improvements for the German agreement based on FIDIC or NEC3.

The result of this analysis show several potential improvements that can be classified into three categories:

- integration of parties involved in the building process
- detail level of process parameters
- flexibility of the agreements

3.2 Integration of parties involved in the building process

There is an essential difference between German and international standard contracts concerning the institutions of the different parties. Employer and contractor together with their pursuant agents like designer, subcontractor, and supplier are equally known in all of the considered agreements.

In addition to that, FIDIC and NEC3 include the institutions of

- *Engineer* (FIDIC)
- *Project Manager* (NEC3)
- *Supervisor* (NEC3)
- *Dispute Adjudication Board* (FIDIC)
- *Adjudicator* (NEC3)
- *Arbitrator* (FIDIC).

Each of them has to fulfil an independent function in the course of a building project.

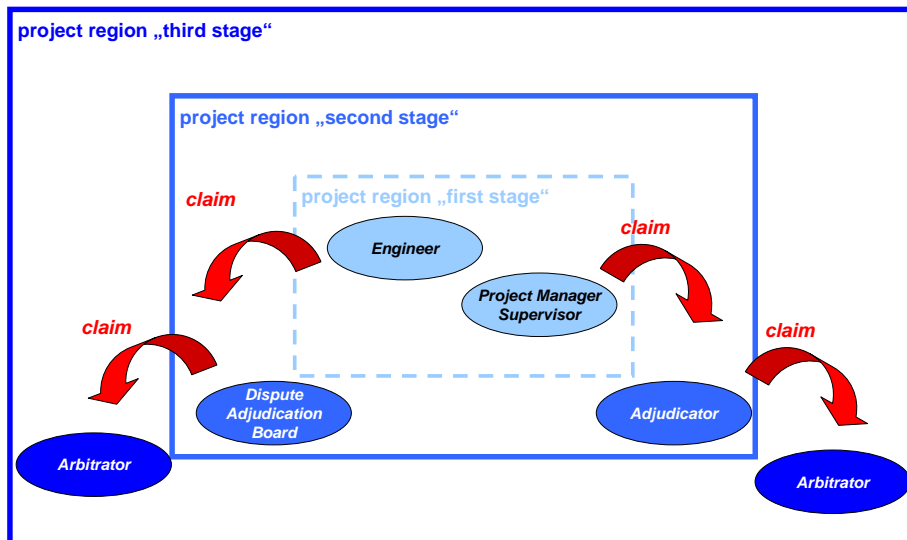


figure 2: Project regions with involved parties

In a first stage – before third-party-notice – the *Engineer* as well as the *Project Manager* and the *Supervisor* are representing the role of an independent decision maker. They come to a decision based on both: their professional competence and on the basis of the contract agreements. These decisions are temporary binding for both contracting parties.

If one of the parties does not agree with the independent's¹ decision, it has the opportunity to claim during a defined term. The claim is done by a third-party-notice concerning the respective decision. After the third-party-notice, the decision is transferred to a second stage of determination: the *Dispute Adjudication Board* respectively the *Adjudicator*. The decision that ends this second stage also has to be made during defined terms and is temporary binding. If none of the parties declares their disagreement with the decision within a certain term, the decision becomes binding; however, it cannot be enforced by implication until further notice. The *Adjudicator* gets, according to the analysed agreements, the possibility to make his own tests in order to support his decision, which means that there is no limitation of the documentation used by the *Adjudicator* in order to come to his decision. Also the *Adjudicator* is allowed to integrate an expert which leads to an increased subjectivity of the *Adjudicator's* decision in comparison to the decision made by an *Arbitrator*.

The survey's results confirm that the representatives of the building industry are convinced that a quick decision would rather minimize than increase loss (see also figure 5). On the other hand this procedure is criticized as *rough justice*² because of the very short period that precedes the decision. The negative effect of the quick decision is the possibility that, due to a longer period of examination, additional circumstances that would have influenced the *Adjudicator's* decision if he had been aware of them could have become visible.

In the authors' opinion, the decisions concerning topics that can be differently interpreted by the contracting parties should be made by an independent third party to eliminate potential conflicts precociously. Of course, the acceptance of the decision by the contracting parties depends significantly on the quality of the decision itself as well as on the acceptance of the decider who has

¹ ,Independent' means in this research the institutions of *Engineer*, *Project Manager*, *Supervisor*, *Adjudicator*, *Dispute Adjudication Board* and *Arbitrator*. The last three parties involved are only introduced into the project if the limit between the phases is trespassed. The first three parties have to fulfill the duty to provide the works in accordance with the contract which means that they have to act independent because of their function as defined in the contract.

to substantiate his qualification. As can be seen in figure 3, more than 50% of the participants of the survey do not think decisions by the “Projektsteuerer” or the lawyer (the possible institutions for independent decision-making in Germany) could be a reasonable way of reducing conflicts. Thus, the necessary qualification of the decider as well as the procedure of his assignment needs further investigation.

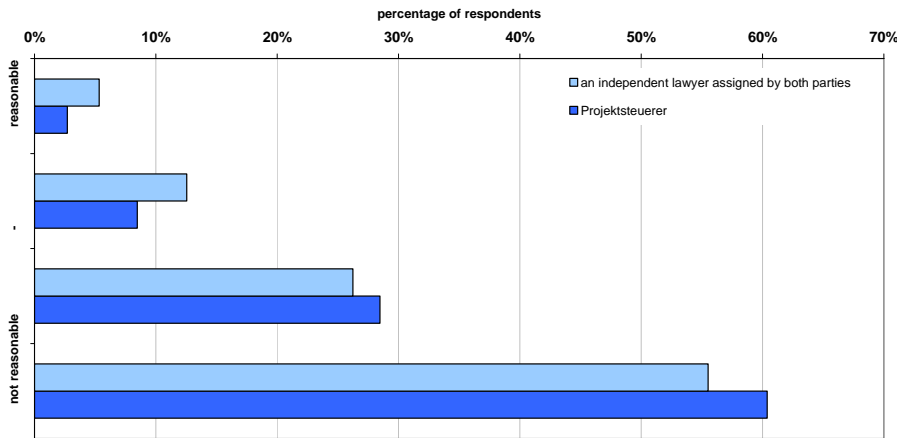


figure 3: Determination power in case of disputes

In addition, the remaining question: who could fulfil the role to determine independently should be investigated. Moreover, the next level of determination after a claim has to be analysed concerning the necessary procedure. Although the termination for the decision making process seems to be reasonable, the necessary qualifications of the independent party and acceptable documentation need to be explored and concretised.

The next crucial point of this discussion that obtains further relevance based on the analysis of the assessment of the provided service in another part of the survey concerns an independent party involved in the building process who is authorized to make binding decisions in case of a conflict between employer and contractor. Participants of all survey’s groups shared the same opinion about the completion of work. Only 84% confirmed that the scope of work was fulfilled on the date of taking-over (see also figure 4).

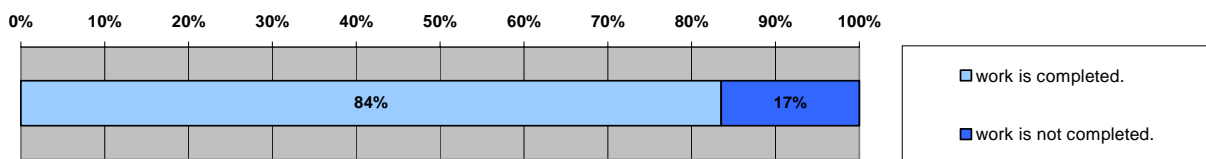


figure 4: Assessment of the completion of works at the date of taking-over

Since the taking-over represents the intersection between service performance and Defects Liability Period, it is associated with several important legal implications. Therefore, the result of the survey depicted in figure 4 represents an enormous potential for conflicts which could be reduced by the inclusion of an independent decider who would have the necessary authority to make binding decisions.

² Schulze-Hagen, Alfons: Plädoyer für Adjudikation in Deutschland. In: Baurecht. 12/2007, p. 1957.

3.3 Detail level of process parameters

Detailed regulations of the procedural steps that are necessary to maintain one's own claims define extensive requirements to fulfil by the contracting parties at the beginning of the contract. This results in an equal level of information for both parties during the time of the contract and, as a consequence, it means that both parties know exactly which requirements they have to fulfil in order to maintain their claims. If one of the parties is omitting actions because of default operation, it knows the consequences of this omission immediately. Accordingly, conflicts that are due to omitted actions of the contracting parties as well as resultant number of lost disputes can be reduced by defining processes that are necessary to maintain claims.

An often complained number of long-lasting judicial proceedings in Germany could be reduced by clearly defining certain structures of processes. In this way, the respective contracting partner is informed about deficiencies or the necessity to come to a decision within a short period of time. If this information is missing within a defined time, no further claim can be raised. The respective case to resolve becomes more clear without the interaction of numerous, interdependent facts and circumstances. Ideally, it can be solved without integration of the jurisdiction.

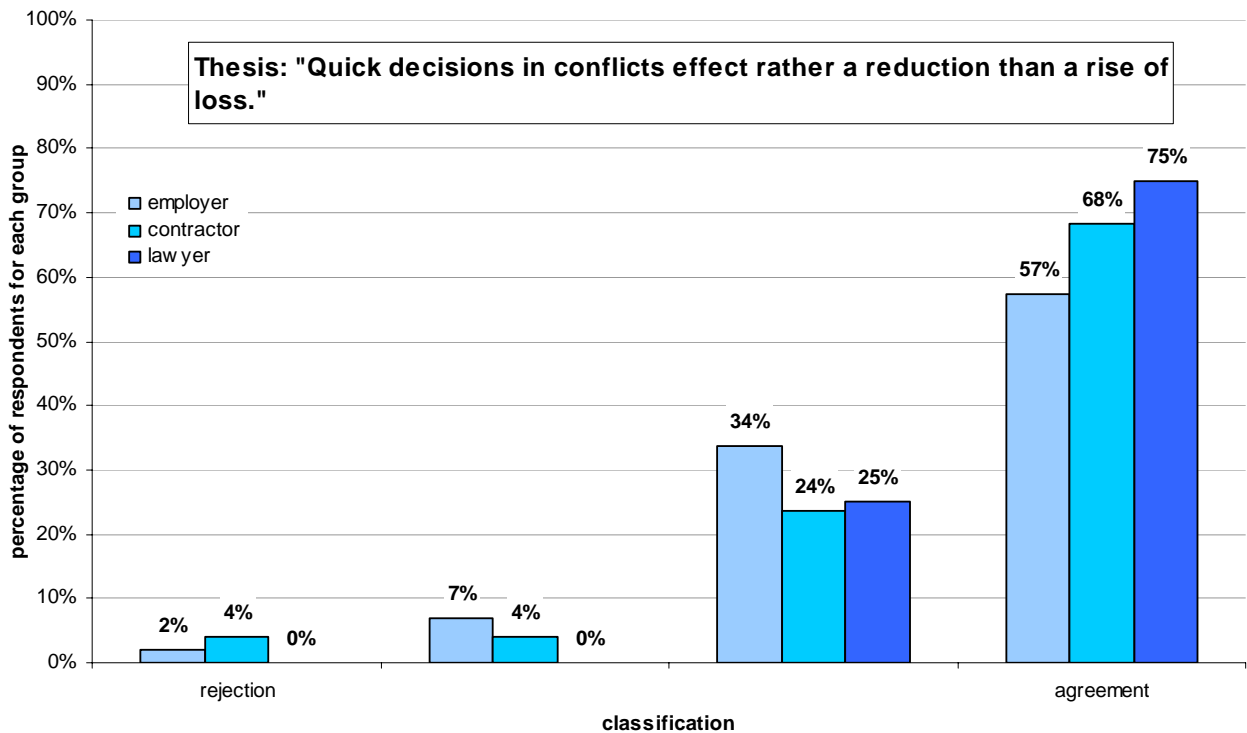


figure 5: Effects of a quick decision on the amount of loss

The success of a project depends strongly on its organisation, which contains not only the right selection and staffing of the project team but also numerous other parameters such as the communication and information management, which are regulated more explicit in international agreements compared to the VOB/B.

3.4 Flexibility of the agreements

Flexibility and simplicity are two of the main characteristics of NEC3 This intention is achieved by implementation of different types of contracts which are coordinated and complete each other. As can be seen in figure 6, not only different agreements for the different parties are involved but it is also possible to assemble a contract for one project out of the different options.

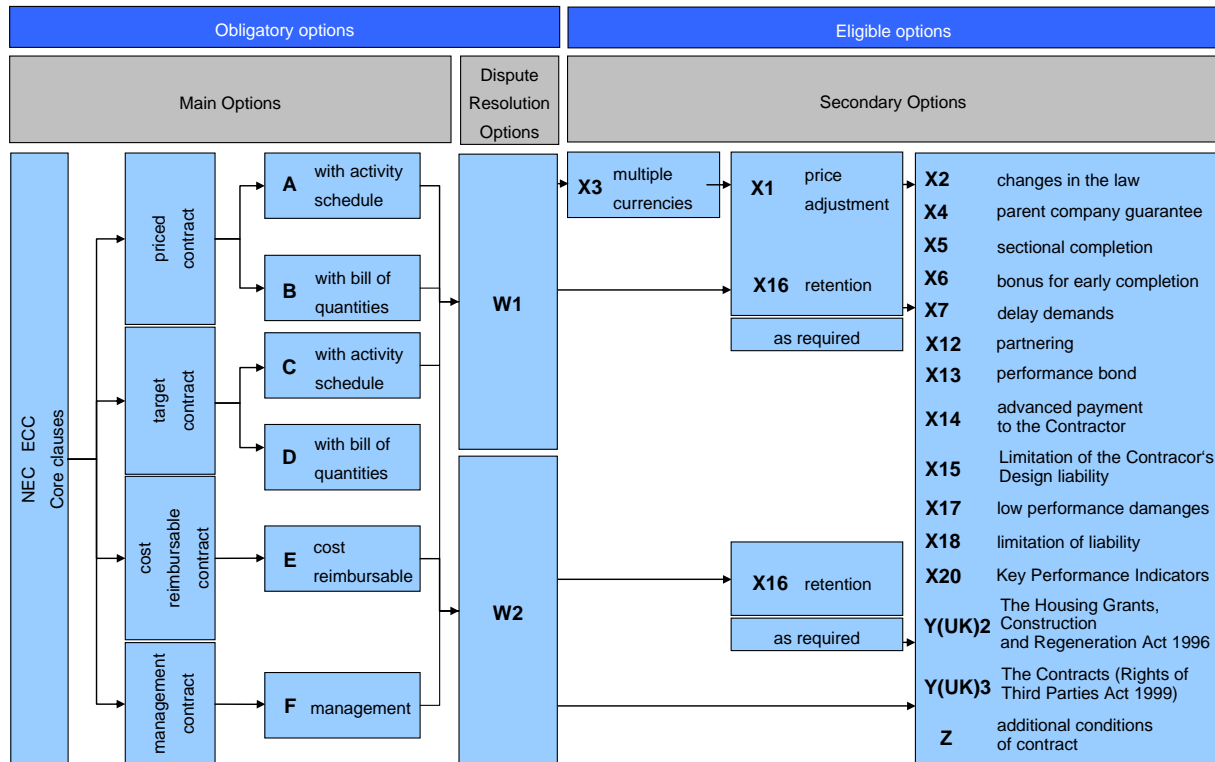


figure 6: Structure and possible combinations of NEC ECC

Since FIDIC regulations are composed of four different contracting models (*Green, Red, Yellow and Silver Book*) available for design and construction work, FIDIC contracts offer a flexible structure in comparison to the VOB. They can be chosen depending on the necessary distribution of duties and the favoured form of payments. Supplementary contracts are available for contracts between further parties involved besides employer and contractor.

Regarding the range of performed services, the international agreements are available for a larger scope of service than the VOB/B is, since the VOB/B is only intended to manage the execution of the physical building work. While FIDIC contracts with the MDB Harmonised Edition provide regulations of financing that is secured by the World Bank and, accordingly, cover the range from financing up to operation of a building, the NEC3 contracts are adjusted to the scopes of design and construction (see also figure 7).

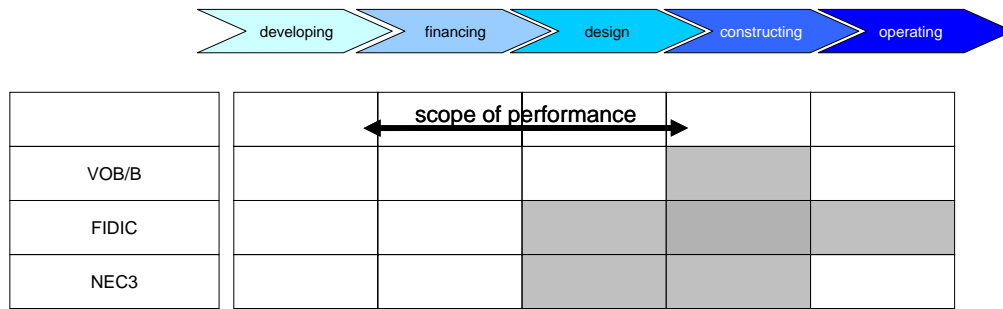


figure 7: Covering of the range of services by the different, analysed agreements

As can be seen in figure 7, there are no standardisations concerning the scopes of development and only a few concerning the operation of a building. In the phase of financing only the regulations of the FIDIC contracts existing order to secure financing by the World Bank. Therefore, further research is required to satisfy necessary demand for regulation.

3.5 Necessity for further research

As a conclusion, one can say that this survey as well as surveys by different other institutions have shown that there is a demand for the introduction of alternative or additional regulations concerning building contracts in Germany.

In the authors' view it is not enough to concentrate on extrajudicial dispute-settlement after the conflict has arisen. In fact, an analysis of possibilities can be used in order to improve single regulations concerning their conflict potential. Furthermore, it has to be examined how the latitude of interpretation that exists in every contract can be used for the advantage of both contracting parties.

Moreover, strategic approaches should be developed in order to increase the awareness level of the international agreements in Germany. This would not only enhance the attraction of the German construction and real estate market for international investors but also use existing potential for regulations instead of reinventing the wheel.

In order to adapt international regulations that have a different basic legal system to German law it is necessary to review their concordance with the German regulation of general terms and conditions. Further investigations are necessary for each selected regulation that should be adapted to German law, to determine if it implicates an immoderate discrimination of one of the parties.