E-ARBITRATION AS A DISPUTE RESOLUTION MODEL FOR THE ARMENIAN IT SECTOR

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I Introduction

The Republic of Armenia is a landlocked post-soviet country in the southern part of the Caucasian region with limited access to natural resources.

Because of several geopolitical issues and yet unresolved regional conflicts with neighboring countries two main land borders of Armenia (the western with the Republic of Turkey and the eastern with the Republic of Azerbaijan) have now been closed for more than 25 years. Unfortunately, at this moment there is almost no real perspective for the solution of the mentioned border issues.

For the purposes of this study it is important to note that during "Soviet period" the Armenian economy was just a part of a unitary economic entity such as the USSR. The main characteristic feature of this system was the interconnected economic ties, in case of destruction of which none of its parts separately could preserve its functionality. Thus, unsurprisingly, after the collapse of the Soviet Union, Armenia's economy was cut off from the supply of energy resources and raw materials. In these conditions in the beginning of 1990s the entire Armenian industry (basically heavy industry and chemical industry) became non-operational within one-two years. This generated a high level of unemployment and respectively triggered a huge wave of migration from the country, which is going on even nowadays.

These specific conditions escalated the realization of the need for rapid development of the specific branches of the economy, which would not be affected (or would be affected less) by the above mentioned factors (closed land borders, lack of natural resources, no direct access to sea etc.). One of such branches was the sector of information technology (hereinafter referred to as "IT sector").

The roots of development of IT in Armenia were coming from the 1950s (Soviet period) and by the end of the 1980s achieved remarkable results. This factor later had a crucial contribution for the further growth of the sector during post-soviet period.

In order to facilitate further development of this strategically important sector in 2008, the "Information Technology Sector Development strategy" plan was adopted and mostly successfully implemented by the government of the Republic of Armenia. Of course in this process Armenia was also assisted by the World Bank, the USAID and many others.

All above mentioned made it possible for Armenian IT Sector to make a rapid "catch up" with all temporary developments in the global IT industry. As a result the Armenian IT sector started to demonstrate

dynamic growth during the following years. According to the "Armenian ICT sector State of the industry report"-s in last 7 year Armenian IT industry recorded an average annual growth respectively of

- 2009 - 27% in comparison to 2008[1],
- 2010 - 27% in comparison to 2009[2],
- 2011 - 27% in comparison to 2010[3],
- 2012 - 23% in comparison to 2011[4],
- 2013 - 20% in comparison to 2012[5],
- 2014 - 25.2% in comparison to 2013[6],
- 2015 - 21% in comparison to 2014[7],

In 2015 the total turnover of IT sector reached 559.1 million U.S. dollars[8]. Armenian IT sector attracted a number of large multinational IT companies such as Microsoft Corporation, IBM, LEDA Systems Inc., D-Link etc. to invest in the Republic of Armenia. In 2019 Armenia would host the World Congress on Information Technology. Now already 450 companies operate in the Armenian IT sector[9]. The many of those companies are local startups which are selling their products in foreign and primary US market.

Another important remark for this study is the fact that a tangible segment of the Armenian educated population employed (self-employed) in this area created Armenian IT community which became a unique environment mostly build on such principles as mutual respect and trust. It is important to mention that this community is characterized with a considerably high level of consolidation. Many of the above mentioned IT companies are now members of Union of information and communication technology enterprises established in 2000 (UITE).

1 EIF, (2010). "ICT sector in Armenian 2009 State of industry reports". < http://www.eif.am/eng/researches/report-on-the-state-of-the-industry/> accessed on 13 March 2016
2 EIF, (2011). "ICT sector in Armenian 2010 State of industry reports". < http://www.eif.am/eng/researches/report-on-the-state-of-the-industry/> accessed on 13 March 2016
3 EIF, (2012). "ICT sector in Armenian 2011 State of industry reports".< http://www.eif.am/eng/researches/report-on-the-state-of-the-industry/> accessed on 13 March 2016
4 EIF, (2013). "ICT sector in Armenian 2012 State of industry reports". < http://www.eif.am/eng/researches/report-on-the-state-of-the-industry/> accessed on 13 March 2016
5 EIF, (2014). "ICT sector in Armenian 2013 State of industry reports". < http://www.eif.am/eng/researches/report-on-the-state-of-the-industry/> accessed on 13 March 2016
6 EIF, (2015). "ICT sector in Armenian 2014 State of industry reports". < http://www.eif.am/eng/researches/report-on-the-state-of-the-industry/> accessed on 13 March 2016
7 EIF, (2016). "ICT sector in Armenian 2015 State of industry reports".< http://www.eif.am/eng/researches/report-on-the-state-of-the-industry/> accessed on 13 March 2016
8 Report 2015, Supra p.2
9 Report 2015, Supra p.2

However, for more rapid grow of the IT industry in Armenia there is still much need to be done. First of all the proper business environment should be developed. In this respect it is hard to disagree that one of the key elements of the business environment is the existence of the sustainable dispute resolution mechanisms that, among other things, can provide fast and effective solution of the commercial disputes and further enforcement of commercial contracts.

The reality in Armenia is that the most commercial disputes are now resolved by the three-level judicial system. That system, notwithstanding some positive developments, now is still far from being trustful by Armenian population and especially by IT community. This is not without reason: several independent agencies expressed their concern in this regard in their reports, for example "Human Rights report 2014"[10] described the Armenian judicial system as corrupted and subjected to political pressure. Transparency international's "Global Corruption Barometer 2013 survey"[11] states that 69% of respondents in Armenia felt that the judiciary was corrupt/extremely corrupt.

However the strange fact, in this situation is that even in all above mentioned conditions[12] Armenian IT companies are reluctant to submit their disputes to arbitration. The situation is the same (or almost the same) also with other alternative dispute resolutions mechanisms such as mediation[13], conciliation, expert determination, etc. There are several factors such as costs and mistrusts (basically because lack of information) that hider the development of the alternative dispute resolution mechanisms and especially commercial arbitration.

That is why in this study, among other things we would also discuss whether the e-arbitration as such can offer a solution to the above mentioned issues and become a popular means of dispute resolution for Armenian IT companies. This paper would include four consecutive chapters (and a conclusion) which respectively, would discuss the concept of E-arbitration, international legal framework of E-Arbitration, E-arbitration under current legal Regime in Armenia, perspectives of E-arbitration as a popular ADR for Armenian IT companies.

For that reason first of all within this paper the essence of "e-arbitration" would be described. What are the main characteristics of this type of arbitration?. What are the advantages and disadvantages of it?

10 "Human Rights report 2015< http://www.state.gov/j/drl/rls/hrrpt/humanrightsreport/index.htm#wrapper> accessed on 13 March 2016
11 "Global Corruption Barometer 2013 survey" < http://www.transparency.org/gcb2013/country/?country=armenia> accessed on 13 March 2016
12 The authors point here is that the discussed conditions in ordinary situation should become a "fertile soil" for the popularity of Arbitration.
13 However, mediation practitioners in Armenia now argue that Armenian IT companies now a little bit more inclined to use the mediation as a dispute resolution mechanism primarily because of its ability to provide "soft and business oriented solutions".

Respectively in this part of the study more theoretical issues related to the concept of e-arbitration would be discussed.

Second - current international legal regime and basically the New York Convention "On recognition and enforcement of foreign awards" would be analyzed in order to understand whether the "E-arbitration" is permissible under this instrument at all, particularly taken into account the fact that the convention was drafted and adopted in 1958 when even most prominent people can hardly imagine the opportunities that now are provided by internet. We would analyze this issue also taking into consideration the UNCITRAL recommendation, which although being more generic, can contribute to the permissibility of e-arbitration from the perspective of the New York Convention.

Within this context the latest developments proposed by UNCITRAL in respect of the promotion of the e-solutions in the area of commercial legislation such as model laws on e-commerce and e-signature would be discussed. This is done primarily because we believe that those proposals can also contribute to the establishment of a proper legal framework for the E-arbitration.

As the next step current legal regime (applicable legal acts as well as some case law) on commercial arbitration of Republic of Armenia would be scrutinized and evaluated in order to understand what is the current status of "arbitration environment" in Armenia? And whether the e-arbitration is possible in Armenia? To what extent can the e-solutions penetrate in the process of commercial arbitration, both from the legal and practical point of view?

For that reason we would proceed step by step in hypothetical commercial arbitration with the seat of arbitration in Yerevan (capital of Republic of Armenia) between local entities. In this hypothetical example, we would reveal the obstacles that the "E-arbitration" procedure can meet as per the current legal regime in Armenia. In this way can have some picture what is permitted and what is prohibited or not regulated under applicable legislation.

Based on these facts and analyses some proposal would be made regarding the further amendments and modifications of the legislation on commercial arbitration.

Finally, this study would touch upon the question of current obstacles that hinder the popularity of commercial arbitration within the Armenian IT sector and whether the E-arbitration is capable to overcome these obstacles.

This research would primarily concentrate on the so called “binding commercial arbitration”, thus we would not discuss the other forms of alternative dispute resolution such as mediation, conciliation, expert determination, etc. Although from time to time some comparisons between those mechanisms or observations related to their application are to be made.

II Definition, the main advantages and disadvantages of e-arbitration and certain specific issues related to e-arbitration

1. The definition of e-arbitration

The official start of e-arbitration was dated back in 1996 when within Virtual Magistrate project a decision on the dispute was rendered after entirely electronic proceedings were conducted[14]. Now gradually becoming more and more popular, e-arbitration could be a future of small and medium claims arbitrations taking into account the certain advantages of e-arbitration discussed below.

In a very perfectionist way the e-arbitration also called "online arbitration" or "cyber arbitration" could be defined as a type of arbitration where the entire process of arbitration from A to Z (from the beginning to the end) is conducted with the application of information and communication technology solutions such as emails, video conferencing, e-signatures, real-time communication systems (chats), special software etc.

This definition implies that each element of arbitration such as the conclusion of the arbitration agreement, commencement of arbitration, selection and appointment of arbitrators, submissions, document production, hearings, deliberations, rendering of arbitration award should be conducted through exchange of some digital information subject to certain criteria.

However, in real life there could be situations when some of the above mentioned elements could be done in the traditional way. For example the arbitration agreement can be concluded by way of signing one document containing the consent of the parties to submit the dispute or future dispute to arbitration, but then the parties may agree to conduct all further steps by the use of ICT solutions in order to benefit from the certain advantages that the e-arbitration offers. Thus the arbitrations where the ICT solutions are used even partially can still be defined as e-arbitration. However, it would also make no sense to call something e-arbitration if only notice or request of arbitration is submitted through email. For that reason, our view is that at least the substantial part of the process, especially the procedural steps that generate most of the costs, and those that are most time consuming, should be conducted through the electronic way in order to be classified as an e-arbitration.

For that reason more realistic definition of e-arbitration could describe it as a type of arbitration where at least certain essential steps of arbitration procedure are conducted through electronic means.

14 Gabrielle Kaufmann-Kohler Tomas Schultz, Online Dispute Resolution Challenges for Contemporary Justice (Kluwer Law International, 2004), p. 27

2. Main advantages of e-arbitration

A. Costs:

As we would see in further chapters cost efficiency of the arbitration proceeding can be a crucial issue for small and medium enterprises such as Armenian IT companies especially those that are in the early stage of development. The 2015 Survey "Improvements and Innovations in International Arbitration" indicates "Cost as the worst feature" of arbitration[15]. For that reason we consider this specific aspect of arbitration extremely important in the assessment of overall efficiency of e-arbitration.

In the article "Controlling the rising costs in Arbitration: Where technology can help (and Where it can't)" the author divided the arbitration costs into five categories [i] arbitrators' fees and expenses; [ii] administrative costs; [iii] expert fees; [iv] legal costs; and [v] witnesses, management and other logistical costs[16].

Some of the above mentioned costs are (could be) fixed fees the others are more negotiable. However, in our view the ICT solutions in any case could contribute in decreasing or mitigating them.

In case of arbitrators' fees, at first glance it is hard to imagine how ICT solutions can contribute to mitigating them as those are usually stipulated by the arbitration institutions (in case of institutional arbitration) or the arbitrators themselves (in case of ad hoc arbitration). These fees are traditionally considered as remuneration for the intellectual work done by the arbitrators. However the situation is different with the arbitrators' expenses in this case apparently the parties would avoid at least the travel and accommodation costs of arbitrators if they chose to conduct the proceedings with ICT solutions.

In case of administrative fees which are usually fixed by institutions in published cost schedules, the ICT solutions cannot automatically eliminate or decrease costs. However, this can be done if specifically provided by the rules of the institutions. One can propose that the arbitration institutions need to consider amending the published cost schedules with separate calculations in case the parties select to conduct e-arbitration instead of traditional arbitration, because, apparently use of the ICT solutions can decrease the routine workload done by staff of arbitration institutions.

15 Queen Mary University of London, 2015 Survey "Improvements and Innovations in International Arbitration" < http://www.arbitration.qmul.ac.uk/research/2015/ > accessed 18 March 2016'

16 Daniel E. Gonzalez, Maria Catalina Carmona, and Roland Potts, | "Controlling the rising costs in Arbitration: Where technology can help (and Where it can't)" | [2015] | VOL 1, No.1 | Journal of technology in international arbitration | < https://www.ciarb.org/docs/default-source/south-east/journal-of-technology-in-international-arbitration.pdf?sfvrsn=0 > | 18 March 2016

In case of expert fees and expenses the situation is almost identical to reimbursement of costs and fees of arbitrators, here again ICT solutions can mainly contribute to the elimination or decrease of the costs related to travel and accommodation of the experts.

In case of legal costs the ICT solutions can affect them as much as document circulation and the more important the document production can be done through electronic means this may result to decrease of some expenses (of course to the certain extent). It could also be argued that the ICT solutions can decrease the need for legal assistance while dispute resolution, for example the institution's web page providing e-arbitration can have an some smart instrument which will enable the unsophisticated users to fill requests for arbitration without assistance of legal advisers.

Finally, witnesses, management and other logistical costs these are the type of costs, which can be affected mostly by the usage of ICT solutions in arbitration. Apparently witness testimony can be concluded online through videoconferencing, thus travel and accommodation expenses would be avoided. The argument is the same also for the venue of hearing as there would be no need to rent a hall and other facilities to conduct the arbitration, instead everyone can participate from his/her own workroom through joining to videoconference.

It is also interesting that the rapidly developing information and communication technologies can provide more radical and revolutionary solutions such as at least partial substitution of human participation (basically arbitrators and experts) with artificial intelligence. For example, during our research we come across with the one of the IBM projects called "Watson". IBM Watson is described as a technology platform that can analyze unstructured data, use natural language processing to understand grammar and context, it is also able to understand complex questions and after evaluating all possible meanings and determining what is being asked it can present answers and solutions based on supporting evidence and quality of information found[17]. In future "Watson" can also be used to cover some part of the work done by the arbitrators and experts, this can decrease the cost of e-arbitration even more.

B. Speed:

Traditionally the speed of the procedure (because of its flexible nature, and finality of the award) is considered as one of the advantages of arbitration (in comparison to litigation). However the arbitration

17 "What is Watson", http://www.ibm.com/smarterplanet/us/en/ibmwatson/what-is-watson.html, accessed on March 24, 2016

is also sometimes criticized for lack of speed[18] (probably because the proceedings are not conducted as fast as the parties expected).

In any case it is apparent that the application of ICT solutions can escalate the procedure. It is hard to disagree that notification and other document circulation made through the email correspondence within several seconds, or videoconferencing instead of suspension of proceeding in order to provide the presence of witnesses or experts, could essentially diminish the delays that could occur while implementing more conventional methods.

C. Trust:

In our view the use of ICT solutions can also increase transparency in arbitration proceedings. Under this light one can argue that the party of the e-arbitration proceeding can feel some kind of control over the proceeding, if he or she would have an opportunity to access his/her profile at any time and check the status of the proceeding, steps taken by the adverse party and other participants of the proceeding. Our view is that all this could increase the trust towards this specific subtype of dispute resolution.

3. Main disadvantages of e-arbitration

Despite generally being considered as a positive phenomenon the main disadvantage of e-arbitration, in our view, could be the inability of the parties to have access to technical devices with similar (or almost similar) parameters, similar quality of connection etc.

This problem has an importance for the arbitration where equality of the parties is considered as a crucial cornerstone of the procedure. This is the factor that the parties and especially arbitrators should be very careful because unresolved this problem could lead to setting aside or non- recognition and subsequent problems in enforcement of the arbitration award.

Another characteristic of the e-arbitration that could be considered as a disadvantage is the lack of personal/physical appearance of the parties or witness, experts in front of the arbitrators. One can argue that physical appearance can have crucial importance for the arbitration taken in its adjudicatory nature. For example, sometimes arbitrators need to understand the emotional context within which the witness testifies in order to make an assessment of the credibility of testimony.

Some authors[19] consider the security as a disadvantage of e-arbitration, they even describe it as a serious problem of e-arbitration. However the same authors further suggest that certain technology such as

18 2015 Survey "Improvements and Innovations in International Arbitration", Supra

encryption, digital signatures and the use of secure - password protected services and other technologies may solve this problem.

4. Certain specific issues related to e-arbitration

Because of its delocalized and non-materialized nature, there are several issues that arise in relation to the permissibility of e-arbitration under the applicable legal regimes,. J. Herboczková in her article "Certain aspects of online arbitration"[20] mentions validity of the arbitration agreement concluded by email, determination of the place of arbitration, determination of applicable procedural and substantial laws, validity of an arbitration award rendered in e-arbitration and further recognition and enforcement of it as interesting topics related to e-arbitration. We also found these issues interesting within the context of this paper thus each of them would be shortly described in below.

A. Validity of arbitration agreement concluded by email:

In the world of arbitration it is commonly accepted that the agreement of the parties to submit their dispute (or future dispute) to arbitration should be in writing. The idea behind this rule is that parties who agree to arbitration give up their right of recourse to the courts of law. It is not unreasonable to require written evidence that they have, in fact, agreed to do this[21]. For that reason more traditional approach is that the written evidence implies physical existence of a document (or documents) that will express the consent of the party.

However, within the e-arbitration it is reasonably possible that no written document expressing the consent of the party (ies) exists at all[22]. Instead, there could be a wide range of possibilities to express the consent of the contracting party with exchange of certain digital data. Thus the question here would be whether those mechanisms of exchange of certain digital data would be considered as written consent under applicable legal regimes. These issues would be considered in further chapters when discussing the different instruments constituting legal regime applicable to international arbitration.

19 Julia Ho¨rnle (2003) Online Dispute Resolution: The Emperor's New Clothes?, International Review of Law, Computers & Technology, page 6, DOI: 10.1080/1360086032000063093 < http://dx.doi.org/10.1080/1360086032000063093> accessed on 21 April 2016
20 Jana Herboczkova, Certain aspects of online arbitration, [2001], Journal of American Arbitration, Vol. 1, No. 1, , p 5.
21 Redfern and Hunter on International Arbitration (Sixth Edition), Blackaby, Partasides, et al. (2015), p
22 Although here it is important to mention that in the e-agreement as such is not a precondition for e-arbitration, as it is discussed above, it is also possible to have an e-arbitration in case the agreement to arbitrate was concluded in the traditional way.

B. Determination of the place of arbitration in case of e-arbitration:

In literature the online dispute resolution (including the e-arbitration) is described as having "placeless or dematerialized" nature[23] within this context, it is argued that the concept of place of arbitration is becoming even more abstract and as in fact a "strictly legal concept"[24].

The issue of determination of the place of arbitration is becoming important when the arbitration agreement does not cover this issue and the parties cannot agree on this after the dispute arises.

The fact that the arbitration is conducted in cyberspace in our view can undermine the more traditional territorial approach which is inclined to link the place of arbitration to the place where the parties have a domicile or the place of the seat of the online arbitration institution[25], etc. In following chapters (when discussing the New York convention) we would discuss the solutions that applicable legal regime could provide for this issue.

C. Procedural law:

The issue of determination of the place of arbitration in case of e-arbitration is closely related to another crucial issue which is the determination of procedural law applicable to e-arbitration (from the perspective of territorial approach).

As per the more common comprehension, based on the New York convention, the issue of determination of the place of arbitration can be a precondition for the determination of the procedural law applicable to the arbitration (Lex arbitri), in case parties did not agree and cannot come to agreement regarding this issue. It is argued that the choice or determination of the seat of arbitration is nothing else but implied choice of procedural law applicable to the arbitration. In our view, this approach can be applied also for e-arbitration, as it is more or less predictable, taken into account that this approach is based on the convention[26].

Based on this logic, it is also interesting that some authors argue in favor of the approach, according to which it should be possible to grant the administering institution a mandate to determine the seat of e-

23 Julia, Salasky, "Jurisdiction, Sovereignty and the creation of a Global System for online dispute resolution", [2015] | VOL 1, No.1 | Journal of technology in international arbitration | < https://www.ciarb.org/docs/default-source/south-east/journal-of-technology-in-international-arbitration.pdf?sfvrsn=0 > | 18 March 2016

24 O. Cachard, INTERNATIONAL COMMERCIAL ARBITRATION, 5.9 Electronic Arbitration, [2003], United Nations Conference on Trade and Development (UNCTAD) module, < http://unctad.org/en/docs/edmmisc232add20_en.pdf| 25 March 2016

25 Jana Herboczkova, Certain aspects of online arbitration, [2001], Journal of American Arbitration, Vol. 1, No. 1, , p 7.

26 Article V.1 (d) Recognition and enforcement of the award may be refused, at the request of the party against whom it is invoked, only if that party furnishes to the competent authority where the recognition and enforcement is sought, proof that the composition of the arbitral authority or the arbitral procedure was not in accordance with the agreement of the parties, or, failing such agreement, was not in accordance with the law of the country where the arbitration took place.

arbitration from the predetermined list thus also determining the applicable procedural law[27]. This can be solution taking into account that the e-arbitration supposedly needs to be a more affordable way of arbitration, which might be used by unsophisticated parties, such as startups or small and medium size legal entities.

Under the light of above mentioned considerations, in our view, another doctrine such as "delocalization theory" can find a fertile soil within the context of e-arbitration[28]. The delocalization theory argues that international arbitration should be freed from the constraints of the procedural laws of the place of arbitration. The supporters of this doctrine argue that the parties to international arbitration often choose a place of arbitration because it is convenient and this has nothing to do with the parties' preference for the local rules of arbitration of that particular place[29].

D. Substantial law:

Here again we have a traditional approach which in case of absence of mutual agreement between two parties is the national laws (usually this is the law of the place of arbitration) need to be considered as substantial law which need to be applied when assessing certain issues related to e-arbitration (the law governing the arbitration agreement). However the national law is not the only possibility as one may also argue here in favor of using Lex mercantoria as a substantial law, but more innovative approach here is application of Lex informacia.

Lex informacia is described as a body of transnational substantive rules of law and trade usages and the method of their application to international economic transactions[30] in cyberspace. Lex informacia, although not being too well developed and sometimes too unclear, however, is more adapted for needs of cyberspace (in comparison to national laws or Lex mercantoria) and in the future can become more and more popular and "can facilitate online arbitrators in the resolution of disputes" [31].

Some authors when discussing determination of the applicable substantive law (in case of absence of mutual agreement between two parties regarding this issue) also mention the law governing the parties'

27 Julia, Salasky, Supra, p 22

28 Here it is important to note, that the "delocalization theory" can be considered as contradicting with the legal framework established by the New York Convention.

29 Jan Paulsson, "Delocalisation of International Commercial Arbitration: When and why it Matters" | [1983] | VOL 32, Issue 01 | International and Comparative Law Quarterly | http://journals.cambridge.org/abstract_S0020589300040185> | 25 March 2016

30 Patrikios, Antonis, Resolution of Cross-Border E-Business Disputes by Arbitration Tribunals on the Basis of Transnational Substantive Rules of Law and E-Business Usages: The Emergence of the Lex Informatica University of Toledo Law Review, Vol. 38, Issue 1 (Fall 2006), P 273,
<http://heinonline.org/HOL/PrintRequest?handle=hein.journals/utol38&div=21&start_page=271&collection=journals&set_as_cursor=5&men_tab=srchresults&print=section&format=PDFsearchable&submit=Print%2FDownload> accessed on 25 March 2016.

31 Patrikios, Antonis, Supra, pp 277-281

underlying contract or international principles as a version of the substantive laws[32]. Our approach is that although this discussion is in the context of traditional arbitrations, however, those two alternatives of the substantive law also can be applied to e-arbitration.

E. Awards rendered during e-arbitration:

Another interesting issue related to the concept of e-arbitration is an award rendered during e-arbitration. It is hard to disagree that the ultimate goal of the arbitration is having an award which would be recognized and enforced.

The problem with the e-arbitration is that the award rendered may not be signed on a paper as in traditional arbitration, but provided in some electronic format, it may have e-signatures. It is reasonably expected that this factor may arise some problems while enforcement. Here the main approach is that the award should be in accordance to the laws of the place where it was rendered, however, it would be too naive to ignore the requirements of the laws of the place where the e-award needs to be enforced this issue also would be specifically discussed in further chapters when discussing applicable legal instruments.

Taken into consideration all above mentioned, inspired by the observation found in the article "Online Dispute Resolution: The Emperor's New Clothes?" (although here the author made more general comparison between ODR to ADR)[33] in the conclusion of this chapter, we suggest that the e-arbitration is a subtype of traditional arbitration, thus it has the same advantages (over litigation and even some forms of ADR's) as traditional arbitration does.

However, what is more interesting is that the advantages of e-arbitration basically due to use of ICT technologies becoming even more tangible and essential (although there are also some disadvantages discussed above) and can argue in favor of preferring e-arbitration even to traditional arbitration in certain situations.

32 Gary B. Born, International commercial arbitration 189-95 (3d ed. 2009) p.37

33 Julia Ho¨rnle (2003) Online Dispute Resolution: The Emperor's New Clothes?, International Review of Law, Computers & Technology, page 28, DOI: 10.1080/1360086032000063093 < http://dx.doi.org/10.1080/1360086032000063093> accessed on 21 April 2016.

III E-arbitration under the current international legal framework

Within this chapter we would consider two international conventions and certain proposals (recommendations as well as a set of model laws) developed by the UNCITRAL from the perspectives of their relevance to the e-arbitration.

The main focus would be on the issue whether the instruments discussed (some provisions contained in those instruments) hinder or facilitate the e-arbitration. Finally, we would answer the ultimate question of this chapter "whether the e-arbitration is possible under the current international legal framework or not?"

1. The New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards convention and E-arbitration

The Convention on the Recognition and Enforcement of Foreign Arbitral Awards (New York, 1958) (the "New York Convention") was adopted by the UN diplomatic conference in 10June 1958 it entered into force on 7 June 1959.

The New York convention is considered as one of the most successful international legal instruments created by the international community as on 01 April 2016 the 156 countries are parties of the convention.

The success of this convention is also guarantiees the effectiveness of arbitration as a mechanism of dispute resolution especial when considering disputes between international entities or in any other cases when the arbitration will end with rendered award which will be classified as foreign under the New York Convention.

The New York Convention, in spite of its title "Convention on the Recognition and Enforcement of Foreign Arbitral Awards", by its substance is considered as "*traité double*" which means that it includes two treaties within one. The point is that the convention regulates not only issues related to the recognition and enforcement of foreign arbitral awards, as the title of the convention suggests, but also issues related to the conclusion and recognition of arbitral agreements.

The relation of the Convention to e-arbitration is not a simple issue because of the fact that more than a half century before most of the possibilities provided nowadays by the information and communication technologies could be classified under the category of the science fiction.

Different authors approach this issue (relation between New York Convention and e-arbitration) from the different perspectives for example in his article "online arbitration and e-commerce" Schellekens, discussing the permissibility of e-arbitration under the framework of New York Convention, basically focuses on formal aspects of e-arbitration and requirements of convention (mostly acceptable perspective). Thus he suggests three groups of formal requirements, those are the requirement of writing, the requirement of signatures and the requirement of originality. In order to understand how convention "treats" e-arbitration the author of the article proposes that each of these requirements should be analyzed in regard to three main elements regulated by the convention those are 1. the arbitration agreement; 2. the proceedings; and 3. the arbitral award[34].

In this chapter, however, we would consider the relation between the e-arbitration and New York convention from a broader perspective. Thus we would also (together with the three elements discussed by Schellekens) shortly touch upon issues of the determination of the seat of e-arbitrations as well as the law applicable to e-arbitration as per the New York Convention.

A. Arbitration agreement:

It is well known that the article II of the New York Convention states strict requirement regarding the arbitration agreement stipulating that the agreement to arbitrate should be in writing. The second part of the mentioned article elaborates this issue further stating that the term "agreement in writing" shall include an arbitral clause in a contract or an arbitration agreement, signed by the parties or contained in an exchange of letters or telegrams.

As it is discussed in the previous chapters, this requirement is prima face in contradiction with the concept of the e-agreement. This in its turn implies two groups of issues; the first one is when instead of traditional paper (handwritten) agreement signed by the parties there could be a digital file which can carry e-signatures or scanned signatures of the parties and the second group of issues when the agreement is concluded by means of exchange of emails.

Apparently the first group of issues implies the determination of the legal status of the e-signatures and files containing scanned signatures of the parties, which can be done as per the applicable national laws. In other words, whether this means of consent can be valid contractual consent, should be reviewed under the applicable domestic laws of the parties. This path of analyses is possible under the New York Convention based on the article VII part 1 of the convention as well as UNCITRAL Recommendation

34 M.H.M. Shellekens, | "Online Arbitration and E-commerce" | [2002] | Electronic Communication Law Review 9 pp 113-125| p 8, Kluwer Law International

adopted on 7 July 2006 which in combination give an opportunity for the parties to rely on more favorable /relaxed legal regime stated by their domestic legislation as well as case law.

Because of its universal nature the analyses mentioned in the above paragraph can also be useful for considering the permissibility of emails as a means of concluding the agreement to arbitrate. This approach again will lead us to applicable domestic laws of the parties. However, there is also another approach regarding this issue, according to which drafters of the convention when incorporating in the text of the article II the possibility to conclude the agreement by consenting to it in a way of exchange of letters or telegrams (which are the most advanced data transferring technologies at that time) impliedly also accepted another technological solution with the same ultimate aim of transfer of data[35].

B. Place of E-arbitration under the New York Convention:

As it is discussed in the previous chapters the determination of the place of E-arbitration (in case of absence of the parties' agreement as well as the institution which may determine the place) is an important issue for the effectiveness of the arbitration proceeding. How the New York Convention treats this issue are there any specific regulations in the convention that may restrict or impose specific regulations upon e-arbitration from the perspective of this issue.

As per our analyze the New York Convention does not contains any rules that could be interpreted as directly imposing on the e-arbitration the requirement to have a certain place or a seat.

However, prevailing approach here is that several provisions of the convention contain strong links that connect the arbitration to the certain place[36].

For example Article I [1] states that "This Convention shall apply to the recognition and enforcement of arbitral awards made in the territory of a State other than the State where the recognition and enforcement of such awards are sought".

Another example is the article V [1] (e) of the convention which states that "Recognition and enforcement of the award may be refused, at the request of the party against whom it is invoked, only if that party furnishes to the competent authority where the recognition and enforcement is sought, proof that the award has not yet become binding on the parties, or has been set aside or suspended by a competent authority of the country in which, or under the law of which, that award was made".

35 O. Cachard, INTERNATIONAL COMMERCIAL ARBITRATION, 5.9 Electronic Arbitration, [2003], United Nations Conference on Trade and Development (UNCTAD) module, p. 23 < http://unctad.org/en/docs/edmmisc232add20_en.pdf| 28 March 2016

36 Can Online Arbitration Exist Within the Traditional Arbitration Framework?, P.462,

Analyzing these provisions some authors argue that the convention sets the main criteria of its applicability referring to a certain place[37], others stress the "substantial link" between the jurisdiction and the arbitration award[38] and argue that it is a strong indication of the territorial principle stated in convention.

In other words, if we want that an e-arbitration procedure be considered under the New York convention, it simply (notwithstanding its unmaterialized nature) needs to be connected to certain location, it needs to have a seat (contrary to delocalization theory discussed in the previous chapter), otherwise a delocalized e-arbitration runs the risk to be deprived all the benefits that the convention provides.

C. Procedural law:

From the perspective of the applicable procedural law during the E-arbitration the New York Convention contains several provisions which refer to the law of a country where the arbitration took place, if the parties did not agree on the law applicable.

Based on this provision it can be argued that in case of absence of the parties' consent the procedural law of the place of arbitration should also be applicable to the e-arbitration.

D. Substantive law:

Convention sets certain rules also for the applicable substantive law in article V [1] providing the possibility to refuse the recognition and enforcement of the award if the parties under the law applicable to them are under incapacity or the arbitration agreement is invalid under the law chosen by the parties or failing any indication thereon, under the law of the country where the award was made.

We can assume from this provision that in case of e-arbitration, several possibilities of applicable substantive law. While deciding the capacities of the parties here we have only one option to apply the substantive law applicable to the parties, which mainly implies the application of the law of the domicile of the party. In order to decide the validity of the arbitration agreement the substantial law agreed by the parties or the law where the award was made should be applicable.

E. Awards rendered during e-arbitration:

The New York Convention literally does not contain any requirement for the award to be in writing so from this perspective the convention would not affect the e-arbitration. However article IV of the

37 S. Halla: Arbitration Going Online - New Challenges in the 21st Century? [2011] p. 219.
38 Hong-lin Yu and Motassem Nasir: Can Online Arbitration Exist Within the Traditional Arbitration Framework?, Journal of International Arbitration 20(5): 455–473, 2003., Kluwer Law International supra paragraph 1 P.462,

convention states that in order obtain the recognition and enforcement of the award the party applying for recognition and enforcement shall, at the time of the application, supply the duly authenticated original award or a duly certified copy thereof. In other words, for awards it is not a written requirement that is imposed by the convention, but the requirement of originality that we need to deal with. Here the e-arbitration faces the reality of providing an e-award, which would be considered as an original as in practice the award can be rendered in digital form which can be signed by the arbitrators with their e-signatures and this, in our view, can be considered enough from the perspective of the New York convention. Although the convention does not specify under which country's law the originality should be checked, however, in our view, in any case this issue needs to be considered under the prism of the law of the country where the award is going to be enforced.

The other issue here, that ought to be taken into account, is the fact that in practice this originality requirement means that the courts would need to be able (from a technical point of view) to make sure that the award submitted for recognition/enforcement is the original one (the same problem also exists in the case of the written requirement for the arbitration agreements concluded via electronic means). This implies that the courts need to check the e-signatures contained in the files submitted[39]. In our view, whether the courts would do this or not would mostly depend on the specific regulations of the national (local) legislation as well as the question whether the overall environment in concrete country is arbitration friendly or not.

2. UNCITRAL Model Law[40] (2006)[41] and e-arbitration

In order to avoid repetition of the discussions in further chapters in this part of the paper, we will consider mainly the modifications made in the text of Model law on commercial arbitration which can have an impact on e-arbitration. Within this context, especially the first options of the article 7 purposed by the UNCITRAL will be considered.

Proposal of UNCITRAL for amendment of Model Law on commercial arbitration adopted on 7 July 2006, among other things contained the revision of the article 7. As it is argued by UNCITRAL this

39 Other issues related to the, problem of interface between e-arbitration and the courts would be discussed in the following chapters of this paper (particularly when considering the national legal framework).
40 UNCITRAL Model Law on International Commercial Arbitration (1985), with amendments as adopted in 2006,
41 RA law on commercial arbitration discussed in the following chapters is in accordance with Model law 1985, for that reason here we would consider only the provision of the 2006 edition of Model law.

revision was proposed in order to keep the requirements of the law in line with the needs of current commercial practice and technological developments[42].

From this perspective, it is particularly important to mention the 4th part of the article 7 (option one) which states that "(4) The requirement that an arbitration agreement be in writing is met by an electronic communication if the information contained therein is accessible so as to be useable for subsequent reference; "electronic communication" means any communication that the parties make by means of data messages; "data message" means information generated, sent, received or stored by electronic, magnetic, optical or similar means, including, but not limited to, electronic data interchange (EDI), electronic mail, telegram, telex or telecopy."

The importance of the amendment, especially the first part of it, is hard to underestimate. This rule provides a possibility to conclude the arbitration agreement with the any variety of means that is currently available and may in future be developed subject to one criteria such as the information contained therein (in the agreement) need to be accessible so as to be useable for subsequent reference.

In our view, such amendment of national arbitration acts at least with the above mentioned clause (although it regulates only the issue of arbitration agreement, which however could be considered as an element of e-arbitration) can have an impact on the creation of the proper environment for further development of the e-arbitration in its complete form (from e-agreement with e-award).

3. UNCITRAL Model law on e-signature [43]and e-arbitration

From respective of successful integration of e-arbitration into national legislations the legal framework established by the model law on e-signature can have a critical importance.

Apparently the regulations of the model law may facilitate not only validation of the arbitration agreements expressed in electronic documents, but also for the validation of electronic award and other procedural documentation.

This in our view can facilitate the procedure of integration of e-arbitration into the traditional legal framework provided by the national legislations. For example the article 6 part 1 of the discussed model law provides that where the law requires a signature of a person, that requirement is met in relation to a data message if an electronic signature is used that is as reliable as was appropriate for the purpose for

42 UNCITRAL, "Explanatory note by the UNCITRAL secretariat on the Model Law on International Commercial arbitration", [2006], p 24 < https://www.uncitral.org/pdf/english/texts/arbitration/ml-arb/07-86998_Ebook.pdf> accessed on 01 April 2016.
43 UNCITRAL Model Law on Electronic Signatures (2001), date of adoption: 5 July 2001

which the data message was generated or communicated, in the light of all the circumstances, including any relevant agreement.

As we may see further (when considering the requirements of the arbitration acts to the award) the main criteria that usually the national arbitration acts set for the arbitration award is that it should be signed by the arbitrators. With the approach suggested by the above mentioned clause one may argue that the arbitrators can also sign the award in electronic format with the e-signatures and this should be regarded as in complacence with the requirement of arbitration act.

Furthermore, we believe that the e-signatures can also be useful while implementation other steps/elements of arbitration procedures such as identification of the participants of e-arbitration, document production, submissions etc.

4. United Nations Convention on the Use of Electronic Communications in International Contracts (New York, 2005)[44] and e-arbitration.

Although the Republic of Armenia is not a party to the United Nations Convention "On the Use of Electronic Communications in International Contracts (New York, 2005)" but we will consider this instrument because the very first article of the convention determines wide spectrum of possibilities for its application. As per the convention, it can apply when at least one party has its place of business in a Contracting State or if chosen by the parties.

It is interesting that as per the official description of this instrument suggested by UNCITRAL the purpose of the discussed convention, despite its title, is facilitation of the use of electronic communications in international trade not only for contracts concluded but also for other communications exchanged electronically[45.]

Another important remark made by UNCITRAL is that the effect of this instrument would be the removal of formal obstacles in the form of certain formal requirements contained in widely adopted treaties such as "the Convention on the Recognition and Enforcement of Foreign Arbitral Awards" etc. (article 20)[46].

44 United Nations Convention on the Use of Electronic Communications in International Contracts (New York, 2005), date of adoption: 23 November 2005, entry into force: 1 March 2013
45 United Nations Commission on International Trade Law official website, 'UNCITRAL Model Law on Electronic Commerce (1996), paragraph 2 < http://www.uncitral.org/uncitral/en/uncitral_texts/electronic_commerce/1996Model.html> accessed on 05 April 2016.
46 United Nations Commission on International Trade Law official web site, Supra paragraph 2.

Several articles of the convention can have a universal implementation, for example article 8 which establishes the general principle that communications are not to be denied legal validity solely on the grounds that they were made in electronic form or article 9 which sets out criteria for establishing the functional equivalence between electronic communications and paper documents, as well as between electronic authentication methods and handwritten signatures.

Based on the above mentioned observations, our view is, that this convention can have an impact (at least can be useful) on e-arbitration not only from the perspective of the validation of arbitration agreements concluded by electronic means, but also validation of different processes and documents generated in e-arbitration procedure (such as statements, expert opinions, evidences etc.).

5. UNCITRAL Model Law on Electronic Commerce[47] and e-arbitration.

From the first sight it can be argued that the direct contribution of the Model law on Electronic commerce on development of e-arbitration can be minor (except from the validation arbitration agreement concluded via electronic means).

However, this is not the case, because this UNCITRAL proposal has very broad scope of application. Several provisions of this model law can have direct influence on different aspects of e-arbitration.

The law defines very fundamental terms, such as "Data message", "Originator" of a data message or "Addressee" of a data message that may be useful for any type of e-activities including e-arbitration.

Another important provision can be found in article 5 which defines the legal status of the "data massage" stating that the information shall not be denied legal effect, validity or enforceability solely on the grounds that it is in the form of a data message.

Furthermore the 6th article sets the same criteria that we have already seen in the 7th article of revised version of Model law on commercial arbitration (2006) stipulating that where the law requires information to be in writing, that requirement is met by a data message if the information contained therein is accessible so as to be usable for subsequent reference. Article 8 defines the concept of the originality of the data massage. It is interesting that the 9th article contains the rule on the admissibility of the data massage during the legal proceeding.

47 UNCITRAL Model Law on Electronic Commerce, date of adoption: 12 June 1996 (additional article 5 bis adopted in 1998).

It is important to note that this model law, initially drafted in 1996 (amended in1998), is described as the first legislative text to adopt the fundamental principles of non-discrimination, technological neutrality and functional equivalence that are widely regarded as the founding elements of modern electronic commerce law[48].

In our view the e-arbitration of IT disputes can completely fall under the classification of "trade related use" thus we found this instrument directly applicable in the area of e-arbitration.

Unfortunately, at this moment the Republic of Armenia does not have adopted the suggested model (there is no law on e-commerce at all).

At the end of this chapter, we would like to conclude that generally e-arbitration is possible under international legal framework. Although initially this framework was designed for the traditional arbitration, however different UNCITRAL initiatives discussed above already provided some legal basis for the conduct of e-arbitration, we also believe that this process would go on in the future providing more sophisticated regulations designed particularly for e-arbitration.

48 United Nations Commission on International Trade Law official web site, 'UNCITRAL Model Law on Electronic Commerce (1996) description, paragraph 2 < http://www.uncitral.org/uncitral/en/uncitral_texts/electronic_commerce/1996Model.html > accessed on 04 April 2016

IV E-arbitration under the National legal framework

In this chapter several legal acts of the legal system of the Republic of Armenia that directly or indirectly, may have an impact on e-arbitration would be considered.

The main issue that shall be analyzed below is "whether e-arbitration (in its complete or partial forms) is possible under the current national legal framework?"

The approach adopted below would be based on fundamental principle "Everything which is not forbidden is allowed" for that reason we will look through the considered legal acts in order to find any restrictions that may hinder or ban the use of ICT solutions while arbitration procedures.

We would also reveal those regulations that may be used in order to overcome formal requirements imposed by the applicable legal acts.

In the meantime, several amendments to current editions of applicable legal acts would be proposed.

1. The decision of the Constitutional court of the Republic of Armenia on the conformity of the New York Convention 1958 to the Constitution of the Republic of Armenia

Because the New York Convention was analyzed in previous chapters in this part of the paper, we will not consider it again as a part of national legal system (Armenia joined the Convention on 1997) instead we will shortly discuss the decision No ՍՂՈ-63 of the Constitutional court of the Republic of Armenia as of 26 September 1997 on conformity of "Convention on Recognition and enforcement of foreign Arbitral Awards" (New York Convention 1958) to the Constitution of the Republic of Armenia.

We deemed appropriate to invoke this instrument within this paper because in our view it can have some value in the interpretation process. Basically, in its short reasoning part the constitutional court stated that the Ney York Convention is in conformity with the RA Constitution, especially with the provision of article 9 (basic principles of foreign policy of the Republic of Armenia) and which is more important the court here ruled that the conventions is contributing to the purposes of free economic development.

In our view, this ruling may have an interpretative value as in any case of direct or indirect application of the Convention any equivocal issue needs to be analyzed from the perspective of this very fundamental statement.

2. Law on commercial arbitration of the Republic of Armenia[49]

A. General overview:

The arbitration act of Republic of Armenian, (official title the "Law on Commercial arbitration of Republic of Armenia" (hereinafter referred to as "Armenian arbitration act") was adopted by the National Assembly of Republic of Armenia on 25 December 2006, it came into force on 10 February 2007.

The Arminian arbitration act is created based on the UNCITRAL model law on commercial arbitration. The Armenian arbitration act replaced the "Law on intermediary courts and intermediary litigations of Republic of Armenia" adopted in 1998.

The adoption of the Armenian arbitration act had an objective to trigger the rapid development of commercial arbitration in line with international best practice. However, during the following 7 years after the adoption of the Armenian arbitration act no much progress has been made in the field of development of commercial arbitration.

Although the two permanent institutions were established such as Arbitration Courts at Chambers of Commerce and Industry (2007) and "Financial arbitrage of the Union of Banks of Armenia", those hardly can be considered as widely popular (probably the situation is comparatively better in case of "Financial arbitrage" because of that fact that it is mentioned in standard and usually non-negotiable provisions of contracts between banks and consumers).

Another indication of slow development of arbitration in Armenia could be considered the fact that the Armenian arbitration act had not been revised until 2015 and there had been almost no case law developed in this area until 2014. In our view, this slow dynamic was basically due to the little practical pressure.

However, as it is mentioned above, starting from 2014 there process lunched inclined to revise and develop the arbitration legislation in Armenia.

Everything started from the court of Cassation of Republic of Armenia which in 2014 delivered a contradictory judgment according to which the judicial means is the most guaranteed means for the

49 "The law on commercial arbitration of the Republic of Armenia", Number ՀO -55-Ն, adopted on 25.12.2006, effective from 10.02.2007, < http://www.arlis.am/DocumentView.aspx?DocID=98883> accessed on 20 May 2016

protection of civil rights[50] and the issue of the validity of the contract need to be considered by the courts.

This decision is not accepted by "arbitration community" of Armenia. The arbitration practitioners argued that such an approach undermines the jurisdictional basis for arbitration at all. M.Manukyan in his article "Eleven Months without Jurisdiction to Decide on the Invalidity of a Contract" criticized this approach, arguing that in many cases arbitration is chosen exactly for the same reason mentioned by the Cassation court – to find out the circumstances which are important for the case and to ensure the execution of the rights of the parties[51], so the argumentation of the Court in this regard according to the author cannot be considered as persuasive.

This controversial decision, however, triggered the first major revision of the Armenian arbitration act and several other instruments related to arbitration. The package of revisions[52] (already adopted) provided amendments most of which can be considered as revolutionary and arbitration friendly meanwhile the effectiveness of the others are more debatable.

Thus, one of the most important amendments made in the first article of the arbitration act broadens the scope of applicability of the mentioned act not only to "commercial disputes" (as it was before) but also to non-commercial disputes in cases where dispute settlement by arbitration is authorized by law.

Amendment package mentioned above is also criticized because of imposition of certain limitations such as the amendment of the article 14 of the Law, on protection of consumer rights included in a new part 4 which provided the consumer with the right to refer a dispute arising out or in relation to a contract to the court if the contract concluded with it did not reasonably provide an opportunity for a consumer to negotiate its terms.

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50 Seiran and Ruzanna Mantashyans, Iskuhi Avagyan v "Prometey bank" LLC| [2014] | Cassation court of the Republic of Armenia| case EKD/1910/02/13 - In this case the Court confronted with a question whether an arbitral tribunal was entitled to decide the matter of invalidity of the contract. The court eventually held that only state courts had jurisdiction over the invalidity issue. In its reasoning part the court made a statement that the protection of civil rights could be done through judicial, administrative and public (arbitration) means, from which the most guaranteed options was the judicial option because in such case the protection was conducted in accordance with the judicial procedure strictly envisaged by the law, which included firm guarantees to find out the circumstances which were important for the case and to ensure the execution of the judicial rights of the parties. The Court relied on art. 91 of the Constitution which stated that only courts could provide justice in Armenia. The Court also referred to art. 14 and art. 303 of the Civil Code whereby a way to protect civil rights is to reserve only for courts to have jurisdiction to recognize the contract as invalid, but not for arbitral tribunals. The Court gives two main reasons for its Decision to assign the exclusive jurisdiction to state courts to decide on the invalidity of contracts: 1. Exclusive grounds for invalidity of contracts provided in the Civil Code, the existence or absence of which, according to the Court, may be discovered only through the execution of certain judicial steps, and 2. Contracts are made to create, modify, or terminate civil rights and obligations, and therefore disputes connected with them shall require a more guaranteed and effective procedure, which is, according to the Court, the judicial protection.

51 Mushegh Manukyan, "Eleven Months without Jurisdiction to Decide on the Invalidity of a Contract" 2006, Kluwer Arbitration blog <http://kluwerarbitrationblog.com/2015/10/27/eleven-months-without-jurisdiction-to-decide-on-the-invalidity-of-a-contract-2> accessed on 12 April 2016

52 "The law on modification of the law on commercial arbitration of the Republic of Armenia", Number ՀՕ -76-Ն, adopted on 19.06.2015, effective from 18.07.2015, < http://www.arlis.am/DocumentView.aspx?DocID=98844> accessed on 20 May 2016

Another novelty is the amendment of the article 28 of the Armenian arbitration act (which before the amendment was literally the same as in Model law) with the following wording "in case when the law chosen by the arbitral tribunal is other than the law of the seat, the tribunal must substantiate its choice" (emphasis added). So with new amendment the rule imposes on arbitrators an additional requirement to justify the use of conflict of laws rules other than the rules of the seat.

Furthermore the same article was also amended with part 2.1 stating that if the seat of arbitration is in the Republic of Armenia and a party to the arbitration is a citizen of, or a legal entity registered in the Republic of Armenia, the arbitral tribunal in any case shall apply the norms of the law of the Republic of Armenia in deciding the dispute.

M.Manukyan in his other article "New perspectives and challenges for international arbitration" criticized this amendment (part 2.1) and stated that "the legislator overlooked the fact that the choice of substantive applicable law based on conflict of laws rules is possible not only when a foreign subject is present, but also in cases when an object of the relations is in a foreign country, or when the legal fact takes place in a foreign country". The author further considered that if the rational is to restrict Armenian parties to circumvent the application of Armenian law when no international element is present in the relationships, then an appropriate approach should be applied which will consider the full spectrum of private international law – 1) foreign subjects, 2) foreign objects, and 3) legal facts[53].

That was the short overview of the Arminian arbitration act and its recent developments under which we would consider below the perspectives of development of e-arbitration in Armenia.

B. Armenian arbitration act and e-arbitration:

How the Armenian arbitration act treats the e-arbitration would be effectively analyzed within the "theoretical module" discussed further in this chapter. However, here we would stress several provisions of the arbitration act that can be considered problematic for the concept of e-arbitration.

The first restriction that we have come across while scrutinizing the Arminian Arbitration act is the written requirement for the arbitration agreement stated in the second sentence of the 2nd part of the article 7, which states that "An agreement is in writing if it is contained in a document signed by the parties or in an exchange of letters, telex, telegrams or other means of telecommunication which provide a record of the agreement …" (emphasis added).

53 Mushegh Manukyan, "New perspectives and challenges for international arbitration", 2006, Kluwer Arbitration blog, <http://kluwerarbitrationblog.com/2016/02/26/new-perspectives-and-challenges-for-international-arbitration-in-armenia/> accessed on 12 April 2016

Thus, here the question would be whether the exchange of emails or the digital files can be deemed as corresponding to the criteria set by the provision under the expression "other means of telecommunication"? In our view in any case of reasonable interpretation the response here would be positive. This provision can hardly be considered as a restriction for the e-arbitration.

The Article 9 of the Armenian arbitration act suggests that the parties can apply to the courts for interim measure. Here the e-arbitration can in practice confront to some problems. It is unclear how the parties of e-arbitration can apply by electronic means to local courts for interim measure because the application is usually need to be submitted to the court as per the traditional/handwriting way. Although theoretically this can be done because the RA Civil procedural code doesn't contain any formal requirements for the applications on interim measures furthermore taken into consideration the possibilities established by the Law on e-documents and e-signatures discussed below parties can generate the application in the form of electronic document sign it and send to the court which would (may) proceed it.

Moreover nether chapter 14 ("Interim measures") of RA Civil procedural code[54] nor any other chapters of the same code contain any formal requirements, even for the decision on the interim measures, thus the court can in theory deliver a decision to the parties by e-mail (especially taken into consideration the perspectives of integration of official e-mail system discussed in the following subchapters).

Thus, from this point of view the e-arbitration would (most probably) not meet any "resistance" (this would be the case in all other provisions of the arbitration act that regulate issues related to judicial intervention (articles 13; 14; 16 ….) at least based on literal interpretation of the applicable provisions.

The article 11 of the Armenian arbitration act states the process of convening of the arbitration tribunal, including the possibilities of judicial assistance to avoid deadlock situations. However, it is interesting, that neither this provision nor the RA Civil procedural code states any formal requirements for this procedure, thus in theory there could be no restrictions why the application for judicial assistance to appoint the arbitrator or to decide on the procedure on the applicable procedure of arbitrators appointment cannot be conducted through the use of ICT solutions. However, from the other side the courts would probably be extremely reluctant to do this (unless the Civil Procedural code would be amended as it is discussed further).

54 "Civil procedural code of the Republic of Armenia", Number ՀՕ -247-Ն, adopted on 17.06.1998, effective from 01.01.1999, < http://www.arlis.am/DocumentView.aspx?DocID=99929> accessed on 20 May 2016

Another formal requirement that can hinder the integration of e-arbitration into the Armenian legislative framework could be found in article 13 of the arbitration act which regulates the challenge procedure. First of all the second part of the article requires that in order to initiate the challenge procedure a written statement should be submitted to the tribunal. Here again we are dealing with the "written" requirement which traditionally implies that the paper document should be provided. However, as we will see in following subchapters, there is a way out in Armenian legislation based on the e-documents and e-signatures law which states that the e-document or soft copy of the document (subject to certain technical requirements) can be considered equal to document in hard/handwritten copy.

The last (as per our observations) restrictions that can be imposed by the Arminian arbitration act regarding e-arbitration can be found in the first part of article 31. This provision literally states that the award shall be made in writing and shall be signed by the arbitrator or arbitrators. Again, here we would be dealing with the issues related to the contradiction between "ICT solutions" and concepts of "writing" and "signed" which as per our view (also discussed above) can be solved taken into consideration the – possibilities provided by the Law on e-documents and e-signatures.

3. International best practice and proposed amendments to the Armenian arbitration legislation

In this part of the paper, we deemed important to consider the several relevant regulations of the foreign arbitration acts that one way or another touch upon the issues of implementation of the e-solutions while arbitration procedures.

Article 1031 (5) of the German arbitration act[55] states that the written form pursuant to sentence 1 (B2C arbitration) may be substituted by electronic form pursuant to section 126a of the Civil Code. This rule, supposedly to certain extent inspired by the Model law 2006 (discussed in Chapter 3) is definitely a deliberate step towards the injection of e-solutions into arbitration procedures.

However the most remarkable breakthrough was made by the Dutch legislators who amended the Dutch arbitration act[56] with the provision 1072b which basically provides a possibility to submit a dispute to arbitration online and have court proceedings and hearings of parties, witnesses and experts online by use of e-solutions. It is hard to disagree with the argument that these changes were purposed in order to

55 Tenth Book of the Code of Civil Procedure of the German Federal Republic, Arbitration Procedure, Sections 1025 – 1066, < http://www.dis-arb.de/de/51/materialien/german-arbitration-law-98-id3> accessed on 30 May 2016

56 Dutch code of civil procedure, book four – arbitration, articles 1020 – 1076 < http://www.nai-nl.org/downloads/Text%20Dutch%20Code%20Civil%20Procedure.pdf> accessed on 30 May 2016,

make (and we believe that they would make) the Netherlands more attractive (as a seat of arbitration) for international arbitral institutions[57].

We consider the wording and format of the above mentioned provision (1072b of Dutch arbitration act) very pertinent to be incorporated (literally copied) into the Armenian arbitration act. We purpose the specific feature of this article is that it has a universal nature and does not request the amendment or revision of other provisions of the legal act[58].

Another critical amendment, we want to purpose here is a special provision in the Civil Procedural code that would harmonize the procedural issues[59] between the judicial institutions and the e-arbitrations (arbitration procedures conducted via implementation of e-solutions). The proposed provision may have the following wording "All the applications, motions, awards as well as the other documents may be submitted to the courts both in hard copy and in soft copy provided that the last would be signed with the e-signature."

4. Law on e-documents and e-signature[60]

The law on electronic documents and electronic signatures of the Republic of Armenia was adopted on 14 December 2004. This legal act contains the definitions and the main characteristics of the electronic documents and the electronic signatures.

The one important provision we wanted to stress here is article 4 of the discussed law which basically states that electronic documents protected with the electronic-digital signature has the same legal status as a traditionally signed (signed with pen/handwritten) document, further the provision elaborates on the presumptive validity of e-documents.

However, it is important to note that the same provision states certain requirements that the physical and legal entities need to comply as precondition for obligatory nature of e-documents. The rule stipulates that the physical and legal entities are not obligated to accept the e-document if they do not have proper technical facilities, which in our view is a vague concept and can lead to further manipulations.

In any case the existence of this law and its provisions can be useful in different steps of e-arbitration.

57 H.W. Wefers Bettink, 'Online arbitrage in de nieuwe Arbitragewet', TvA, 2013, 32, p. 1

58 Although here we admit that the incorporation (copy/paste) of the discussed article into the body of a Model law 1985 such as Armenian Arbitration act may require additional and more meticulous research.

59 Here we mean the irregularities discussed above (p._), as well as in the following parts ("theoretical module") of this paper.

60 "The law on the electronic signature and electronic digital signature of the Republic of Armenia", Number ՀՕ -40-Ն, adopted on 14.12.2004, effective from 27.01.2005 , < http://www.arlis.am/DocumentView.aspx?DocID=98388> accessed on 20 May 2016

5. Law on ID cards[61]

Another legal act, we would like to consider here is the Law on Personal identification cards of the Republic of Armenia which, in our view can have a huge practical impact on the e-arbitration procedures.

In literature, there are some discussions depicting the problem of the identification of the participants of e-arbitration[62]. However, in our view, this issue is no longer a problem in Armenia basically due to the discussed legal act and ID cards (which are currently basic identification document for Armenian population).

This law provides for the personal identification cards that contain technical biometric elements. The law defines these identification cards as unique cryptographic keys that can be used for identification of persons[63]. In practice this is done with the special devices called card readers, which, by the way, are now very widely used in Armenia by all types of enterprises while submitting tax reports[64].

6. Law on public and personal notifications via Internet[65]

For the purposes of this paper, it is worth to describe another very interesting legal instrument in Armenian legislation which is the Law on public and personal notifications (adopted on 09 April 2007).

We found this legal act essentially relevant to e-arbitration, because, among other thing is states the definition and legal basis for the official emails and legal value of notifications through official emails. Thus the part 7 of the 2 article defines what is the "official email" as an email given with the ID – for the physical entities and the email registered in the state registry for the legal entities. Furthermore, which is more important" the 1st part of article 10 of discussed legal act states the rule according to which in any case when the laws require the person to be notified the person shall be deemed to be duly notified when the information is sent to the official email address, and there is an electronic confirmation of the reading.

These regulations can be very useful when discussing several logistic issues further in the "theoretical module" of this chapter.

61 "The law on the identification cards of the Republic of Armenia", Number ՀՕ -286-Ն, adopted on 30.11.2011, effective from 01.06.2012, < http://www.arlis.am/DocumentView.aspx?DocID=101640> accessed on 20 May 2016

62 Daniel Girsberger and Dorothee Schramm (2002). Cyber-Arbitration. European Business Organization Law Review, 3, pp 620-621 doi:10.1017/S1566752900001075, < http://journals.cambridge.org/abstract_S1566752900001075> last accessed on 17 Apr 2016.

63 The 2nd article of the law "On personal identification cards".

64 Starting from 2010 the main tax reports in Armenia need to be submitted electronically by using e-signatures, (ID card and ID card readers). http://taxservice.am/Content.aspx?itn=OSOnlineReportingSystem

65 "The law on public and personal notifications via internet of the Republic of Armenia", Number ՀՕ -172-Ն, adopted on 09.04.2007, effective from 26.05.2007, < http://www.arlis.am/DocumentView.aspx?DocID=87385> accessed on 20 May 2016

7. "Theoretical module"

Below we would analyze how the above mentioned legal framework would work in case of e-arbitration.

Facts of our hypothetical case are the following.

"Softdeveloper" LLC is a start-up company established and operating in Gyumri (second largest city in the northern part of Armenia) dealing basically with the development of mobile applications.

"Armepayment" CJSC is a company established and operating in Yerevan (the capital city of Armenia) dealing with the supply of universal online financial services to physical and legal entities.

They concluded contract, according to which the "Softdeveloper" LLC as a service provider should develop a mobile application for android smartphones for the "Armepayment" CJSC. The contract contains the dispute resolution clause according to which states that "All disputes arising out of or in connection with the present contract shall be finally settled by Online Arbitration."

A dispute arises between "Softdeveloper" LLC and "Armepayment" CJSC. Where the first one argues that the services were provided properly and now the "Armepayment" CJSC should make a payment, whereas the "Armepayment" CJSC that the services were not provided as the application is defective it is not working.

First of all, the having some information that "Armepayment" CJSC's financial situation is not good, "Softdeveloper" LLC applies for the interim measures to the Central district court of Yerevan. Here the "Softdeveloper" LLC would send the email with the attached e-document signed by director's e-signature to official mail of the Court. The court, after granting the request, would have two options (at least theoretically) first is to make a decision and "enforcement paper" in the form of digital file signed by the judge by e-signature and send it via email, with the same logic the "Softdeveloper" LLC will proceed this decision and enforcement paper to the Compulsory Enforcement Service of the Ministry of justice of the Republic of Armenia. As a second option (which is more probable) the court would send the decision and the enforcement paper in the traditional way in paper format by postal service.

As a next step the "Softdeveloper" LLC sends an email with the request for arbitration to "Armepayment" CJSC with the proposed appointment of the co-arbitrator suggesting the "Armepayment" CJSC to appoint its co-arbitrator. In case the tribunal formed based on the agreement of the parties the procedure goes on to the next step, if not, then the arbitrators would be appointed either

by the institution (if any) or by the Central district court of Yerevan (in practice with the same document circulation model as described for the interim measures procedure).

During the very first meeting the identity of the parties needs to be established with the assistance of their ID cards. The same model of personality identification would also be applied in the case of identification of the experts, witnesses and other participants of e-arbitration.

All notifications and communication can be conducted through the use the mechanisms provided by the law on public notification via the internet (official emails, notification in a public portal etc.).

Further steps in e-arbitration in our case would also be conducted through the use of ICT solutions (further submissions (by email), document production (by email), hearings (by conference calls, video conferencing) etc. conducted through use of communication technologies) which generally is not a problematic issue subject to the one very important condition which is equality of technical parameters of the devices that parties use while e-arbitration procedures, in order to provide the proper level of equality of the parties.

As a final stage of e-arbitration the tribunal would deliver the award on the merits. Here again the tribunal ideally would deliver the final award in digital document signed by the e-signature (which should be considered as equal to hard copy / paper version signed by the tribunal). However, if, supposedly, "Softdeveloper" LLC prevails in this hypothetical case and the "Armepayment" CJSC need to be enforced to make the payment, what should be done.

In case of internal enforcement (within the borders of the Republic of Armenia) based on the law on e-document and e-signature, we may have some possibilities of enforcement of e-awards. Although from a practical point of view the parties of our hypothetical module may meet some problems such as reluctance of the compulsory enforcement services to work on the base of e-applications, e-enforcement paper.

However, we should admit that not all countries have the analogous legal instruments which will give the e-documents signed by e-signatures legal status equal to paper based/hard copy documents containing handwriting signatures of the arbitrators. This would apparently hinder the recognition and enforcement of the e-awards under the New York convention (this issue is discussed in previous chapters). For that reason the most pragmatic solution here would be combination of e-award and

traditional paper based award, when as per the request of the parties the tribunal would provide the requesting party also a hard copy of the award rendered initially in the form of e-document.

Summarizing this chapter we propose that the current legal framework applicable, at least in theory, provides possibilities for almost complete e-arbitration. However, in our view, the better development would be amending of current legal acts with the special provisions that would adjust all the irregularities discussed above and would re-qualify e-arbitration from extraordinary dispute resolution model to usual one.

As a final observation, concluding this chapter, we suggest that the combination of the ICT solutions with the traditional documentation (handwritten) techniques at this point could facilitate the entire process of integration of e-arbitration into the realm of practical application; otherwise the e-arbitration runs the risk of remaining the pure theoretical concept.

V. E-arbitration as a dispute resolution model for Armenian IT sector.

Based on the analyses all above mentioned statements and observations, we would finally answer the main question of this paper, "Whether the e-arbitration can be a preferable dispute resolution model for Armenian IT sector?"

1. What models of dispute resolution are currently popular in Armenian IT and what are their advantages and disadvantages.

Although there aren't any analyses that will discuss the issue of dispute resolution models that would be mostly preferred by Armenian IT sector. However, based on the dispute resolution clauses that we may observe in the contracts related to IT sector the following generalizations can be made

- in case of internal transactions/contracts (between Armenian resident entities) the parties mostly prefer to solve their disputes by negotiations (sometimes mediation by more sophisticated parties) as the first layer and if not successful the clauses further elaborate that the disputes would be solved by the common jurisdiction courts of the Republic of Armenia as the second layer. This type of dispute resolution clauses can be seen in many (if not most) internal contracts.
- Situation is different in case of cross-border transactions/contracts, when one party of the contract is usually an Armenian IT company, the other party is a foreign entity (this can be medium size as well as a huge multinational company). In this type of transactions, we can see that the parties usually prefer negotiations (mediations) as the first layer and if not successful the second layer dispute resolution model that we would mostly face is the institutional arbitration in the renowned arbitration centers (mostly in England, sometimes in the US).

These preferences (second layer) can be explained with the following (advantages);

- In case of the judicial model - this is more traditional, well known, cost efficient/publicly funded and permanently operating dispute resolution mechanism. In fact, most of the in-house counsels, legal advisors (or other personnel engaged in contract drafting) of IT companies have no idea what is the arbitration how it works. The several other practitioners who are familiar with the arbitration are cautious while preferring this dispute resolution mechanism because of high costs and lack of experience of judicial institutions in handling all kinds of issues related to arbitration (particularly in case of ad hoc arbitration).
- In case of dispute resolution model provided by institutional arbitrations (particularly in case of renowned arbitration centers) - those are well developed, elaborated mechanisms, that can be

characterized by high degree of neutrality, professionalism, trust, internationally accepted pro-enforcement regime.

However, the reality is that both the above mentioned dispute resolution models – the Armenian courts (for internal transactions) and the institution arbitration in renowned arbitration centers (for cross border transactions) have some specific features discussed below that may hinder their overall effectiveness of those dispute resolution models.

A. Courts:

Armenian tree tire judicial system consists of courts of common jurisdiction (first instance), courts of appeal (civil court of appeal, criminal court of appeal and administrative court of appeal)[66] as well as cassation court (third and the higher instance). In our view, this system because of below discussed reasons (this issue is also considered in the introductory part of the paper) can hardly be deemed as an effective mechanism for IT dispute resolutions, when for example the core essence of the dispute would be related to the development, commercialization of IT products.

The first of the above mentioned reasons we would like to discuss is the "specialization problem". It is, indeed, hard to imagine how the judge with general legal education (mostly from the soviet or post-soviet era law schools), with 10-20 years of professional experience of state prosecutor or in any other law enforcement agency (mostly related to the area of criminal law) would now consider the issue whether a certain IT product such as for example mobile application (just like in our hypothetical case) is on its initial or final stage of development or whether it is defective or not.

The second reason that can affect the process of IT disputes resolution by the judicial institutions is the "generational problem". This issue also touches upon by the authors of the article "Online Dispute Resolution: Present Realities, Pressing Problems and Future Prospects" where it is called as "age bias" and argued that because of the fact that younger people have grown up with the technology, are more receptive toward any kind of IT solutions[67]. The fact is that the judges in Armenian judicial institutions are from different generations and lots of them was born somewhere between 1950 and 1970. Thus, they have completely different level of perceptions of IT. Particularly for the most people from older generation something that is not tangible, something that can be used only in cyberspace cannot be fully comprehended.

66 The Official web portal of the judicial system of the Republic of Armenia < http://www.court.am/?l=en> accessed on 26 April 2016.
67 Eugene Clark , George Cho & Arthur Hoyle (2003) Online Dispute Resolution: Present Realities, Pressing Problems and Future Prospects, International Review of Law, Computers & Technology, 17:1, 7-25, DOI: 10.1080/1360086032000063084 < http://dx.doi.org/10.1080/1360086032000063084> accessed on 20 April 2016

We admit that these are very extreme examples, we also admit that now among the Armenian judges there are several (both from older or younger generations) with very advance educational and private law experience, background who (with the proper expert assistance) can handle any type of technical and commercial issues, with high level of complexity. Unfortunately the number of such judges is very small and you always run the risk that your case would be assigned to some of those judges from the above extreme examples. In reality, this to the certain extent can lead to unpredictability in IT disputes.

Another negative aspect we want to stress here is the huge workload of the common jurisdiction courts. Many judges complain that in practice they are not really "working on the case", the decisions are very often drafted by the assistants. Because of this workload the speed of each individual proceeding (especially if it would be proceeding with a lot of technical issues to be clarified and analyzed by the experts) is affected. Thus, in average a not complicated judicial proceeding can take 2-4 years on average, which is considered as too slow, taking into consideration the actual needs of business (high costs of legal assistance, long period of freezing of assets etc.) particularly in IT sector.

The last but not least aspect that we wanted to consider here is the huge mistrust that the Armenian IT community has towards the judicial institutions. Although some recent positive developments, the Armenian judicial system can still be characterized as an area with high corruption risks (discussed also in the introductory part of this paper). This fact, in combination with the formal requirements and complications of procedural law creates some sort of "veil of mistrust".

B. Institutional arbitrations (traditional);

Whether the traditional international arbitrations conducted in renowned arbitration centers (usually administered by the leading arbitration institutions LCIA, ICC, AAA, etc.) can be an affective dispute resolution mechanism for Armenian IT sector?

In order to answer this question we should note that as it is discussed in the introductory part of this paper most of the IT companies in Armenia are startups. In other words, we are talking about teams of 2-5 young programmers who have just established their small business. Thus, they usually do not possess enough financial resources to proceed with the disputes in those arbitrations. Whereas the cost of traditional institutional arbitrations (particularly those that are provided by the leading arbitration institutions) as suggested in the previous chapters is a major problem because of extremely high.

Furthermore, these types of arbitrations are usually too "inaccessible" for this type of companies basically due to lack of information and a general understanding of these dispute resolution models.

These are the factors that need to be considered when assessing the overall picture of dispute resolution mechanisms that are currently most widely used by Armenian IT sector. The reality is that in many cases the Armenian IT companies prefer not to proceed with their disputes and abandon them, then to sink into the time consuming, unpredictable proceedings suggested by Armenian judicial institutions and extremely costly institutional arbitrations.

2. What the e-arbitration can offer to the Armenian IT sector.

Once the executive director of Union of information technology enterprises Mr. Karen Vardanyan said "the Armenian IT sector is a State inside the state" from that perspective, it would be reasonable that the Armenian IT sector have "its own" dispute resolution mechanism (probably one of the dispute resolution models alternative to litigations) that will fit its needs as much as possible.

As it is discussed in the introductory part of this paper IT is a dynamically developing sector in Armenia. It can be characterized as the most "export oriented" segment of the Armenian economy, because most of Armenian IT companies are generating most of their income by selling their products to foreign companies. Apparently disputes related to this area would very often require a specific package of knowledge of technical as well as the commercial nature in order to fully comprehend the disputed issues.

Which model would be most successful in this field is a matter of question. However, we believe that in any case it should have certain principles, such as suggested by the American Arbitration Association (AAA) in dispute resolution protocol for e-commerce B2B disputes[68].

The principles are;

- fairness, that provides access to neutral dispute resolution providers continuity of business, so that disputes are resolved with minimal disruption to business activity
- a range of options, that includes a variety of dispute methods to resolve disputes as early as possible
- a commitment to technology that will aid the swift and economical management of disputes.

Taken into consideration above mentioned principles as well as statements and analyses made in previous chapters here we would argue in favor of the e-arbitration (complete and partial). Below we would discuss several reasons in this regard;

68 Eugene Clark , George Cho & Arthur Hoyle (2003) Online Dispute Resolution: Present Realities, Pressing Problems and Future Prospects, International Review of Law, Computers & Technology, 17:1, 7-25, DOI: 10.1080/1360086032000063084 <http://dx.doi.org/10.1080/1360086032000063084 accessed> 20 April 2016

First of all e-arbitration is an arbitration, which means that the parties of this dispute resolution model would benefit from the entire spectrum of "privileges" offered by the traditional arbitration such as

- The possibility to appoint the arbitrators with the proper background in IT sector instead of having your case decided by the randomly appointed judge.
- Tailored procedure that can lead to better and more effective solution of the IT dispute, instead of being obligated to use procedure stated by the civil procedural legislation.
- The finality of the arbitration awards, with very limited grounds for setting aside, instead of having additional two tires of review with usually unlimited reversal possibilities.
- Possibilities of almost worldwide recognition and enforcement of the awards provided by the New York convention 1958.

Second - the e-arbitration is more than a traditional arbitration – which means that this model of dispute resolution can also suggest solutions for the main problematic aspects of the traditional arbitration, such as costs; speed etc. (discussed in more details in previous chapters).

3. What the Armenian IT sector can offer to the e-arbitration.

From the other side the Armenian IT community in its turn can be a fertile soil for the development of online arbitration. Below we will consider several aspects of the sector that may contribute in favor of this statement.

First of all it is very important to stress the specific "chemistry" that this community has. Because of the fact that IT companies generate their income mostly from the cross border transactions, they (their personnel) are more independent from any kind of state supervision. Thus, they can openly criticize any kind of irregularities and illegalities that can take place in Armenia and furthermore, they are very suspicious towards any state funded and administered initiatives.

In the meantime, representatives of this community are very perceptive for any new developments and initiatives of reforms (particularly those promoted by the private sector or international organizations) that can bring better qualities for development of business environment. For that reason we can argue that the idea of e-arbitration (no matter partial or complete) where the state intervention would be as minimal as possible would probably be welcomed by the Armenian IT sector.

Another peculiarity that may argue in favor of e-arbitration as a dispute resolution model for IT sector could be the objects of IT disputes and evidences that would probably be considered during those

proceedings. As it is also mentioned above, very often the IT disputes can be related to some intangible substances which can be used, tested exceptionally in cyberspace. Logically the evidences regarding those disputes would also (most probably) exist in cyberspace. Thus, for parties and arbitrators of e-arbitration would be no need study those evidences in real live.

One particular aspect we want to consider here (in favor of e-arbitration) is the fact that the Armenian IT companies are more equipped with the proper devices with the minimal technical specifications necessary for the proper organization and conduct of online arbitration than any other entities in the country.

The possibility to avoid face to face confrontation is also very important factor. In our view from a psychological perspective (particularly when we are talking about IT people) actual face to face confrontation that may take place in litigation or in traditional arbitration, mediation etc. can be a very stressful, awkward and unpleasant event. From that perspective, it is hard to underestimate the possibilities provided by the e-solutions. Indeed the parties of IT disputes can solve their disputes directly from their work desks or from their offices.

One can argue that all above mentioned factors can be considered as very favorable also for other types of dispute resolution such as mediation, conciliation etc.. Because of the very specific atmosphere of mutual respect existing inside Armenian IT community, practitioners often argue that IT people prefer those dispute resolution mechanisms over the arbitration the ultimate result of which is the decision binding for the parties.

Above considered argument may be acceptable in case of transactions when the both parties of the contract are residents of Armenia, although, in our view even in this situations the best solution may be a combination of those with the e-arbitration in two tier dispute resolution clauses, which can provide more accessible arbitration (from costs perspective) as a second tier.

However, as it has already been mentioned in different parts of this paper Armenian IT sector is mostly export oriented. Most of the local small and medium size IT companies generating their income by selling their products to foreign entities. From this perspective, we argue that, the e-arbitration can be better dispute resolution mechanisms than any other simply because it provides cheaper arbitration, and furthermore e-arbitration is still an arbitration which means that the parties may benefit from the pro-enforcement regime provided by the one of the most popular conventions in the world such as New York convention.

In this section of the paper, we would like to shortly consider the role that the institutions and the arbitration rules can play in the process of making the e-arbitration a popular dispute resolution model for Armenian IT sector. It is hard to underestimate the importance of the institutions that would administer and institutional rules that would provide for the e-arbitration as a preferable model of dispute resolution. The point is that even if there would be amendments (in arbitration act and in civil procedural code) suggested in the previous chapter the detailed steps of the arbitration procedures are usually regulated not by the arbitration acts (or other legal acts adopted by the state legislator) but by the institutional rules under administration of an arbitration institution. Thus we argue that without having arbitration rules and arbitration institution practically it would be difficult to conduct an e-arbitration procedure in proper levels. For that reason, in this part of the paper, we would also purpose a possibility to establish a permanent arbitration institution for the Armenian IT (or technological) sector within the "Union of information and communication technology enterprises" (UITE) (discussed in the introductory chapter). The purposed UITE arbitration institution may have its own arbitration rules where the prevailing provisions may provide for the use of e-solutions during the arbitration proceeding as the preferable and more cost efficient alternative.

As an assumption for this chapter we suggest that partial or complete e-arbitration with its cost-efficient, high-speed, more transparent and to the certain extent more predictable nature can serve as a unique possibility for an Armenian IT community to keep the dispute resolution process in "its own hands" subject to mandatory provisions of applicable legislation.

VI. Conclusion

To sum up all the previous chapters we propose that E-arbitration as a dispute resolution mechanism can have a crucial importance for the establishment and further development of sustainable business environment for Armenian IT sector as one of the fastest developing fields of economy in Armenia.

The environment in Armenia can in its turn encourage the development of e-arbitration because of the adversary advantages that this dispute resolution model suggests in comparison to litigation and even to traditional arbitration.

In this thesis the e-arbitration is defined as a form of traditional arbitration, which possess all the advantages of it. However, we also suggested that e-arbitration due to certain specific characteristics discussed can even overcome some disadvantages of traditional model making arbitration more effective and preferable dispute resolution mechanism. Although there are some theoretical/practical complications that need to be taken into account such as determination of the place of arbitration, procedural law, substantive law in case of absence of parties specific agreements regarding this issues as well as problems that the parties may face when enforcing the e-awards.

The research of the applicable international legal framework revealed the fact that main international instrument in the feald of arbitration such as the "New York convention on the recognition and enforcement of the foregin arbitral award" does not contain any provisions that directly hinder the conduct of arbitration by use of electronic means. Furthermore, several UNCITRAL proposals discussed in the 3rd chapter of this paper can be considered as tools that facilitate the conduct of arbitration by using different ICT solutions. However, we also suggest that for the further development of the e-arbitration specific proposals (maybe another recomendation) need to be developed which will directly regulate all the aspects of this specific dispute resolution model.

The Armenian national legislation also provides some percpective for the conduct of e-arbitration. However, because of the fact that with the current legislation the e-arbitration runs the risk to confront with the non pro-arbitration attitude of the local courts, we suggest some modifications of the current Armenian arbitration act as well as the Civil procedural code in order to diminish the discretionary power of the courts in this respect and make the concept of e-arbitration more grounded in Armenian realities.

Based on these findings, we analyzed the relations between the e-arbitration and Armenian IT sector from both perspective, what Armenian IT sector would give to e-arbitration as well as what the e-arbitration could give to Armenian IT sector, we also positively assessed the contribution that specialised arbitration institution and properly drafted rules providing for the e-arbitration may have for the further popularization of e-arbitration within Armenian IT sector. Ultimately it was suggested that the e-arbitration can be described as an effective dispute resolution model for the Armenian IT sector and can have certain perspectives for the further development.

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