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DIGITAL EVIDENCE IN INTERNATIONAL COMMERCIAL ARBITRATION

Bachelor's thesis

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ABSTRACT

The aim of the research is to point out the underlying problem that there are no adequate evidentiary rules relating to the use of digital evidence in International Commercial Arbitration. In this Bachelor Thesis it is going to be explained what are the main problems relating to the lack of specific evidentiary rules relating to the use of digital evidence in International Commercial Arbitration. It is also discussed the issue, if International Commercial Arbitration distinguishes digital and documentary evidence as equal and if they are treated in the tribunals as being equal. The research focuses also on the future of the Arbitration Institutions in the field of the rules that the institutes have for arbitration and expedited arbitration. Issues such as transparency and the importance of the chain of custody are explained and besides the facts about metadata are introduced, so that also all the non-visible parts of the evidence can be understood.

Later in the research it is proposed solutions to the present situation and it is taken also closer look at few Arbitration Institutes and their rules. By comparing the rules of Institutions the aim is to see how differently they rule about the evidence. Furthermore, it is also researched, if they even make a difference in the rules between the digital and documentary evidence. At the end of the research, better rules for the arbitral tribunals are proposed and the importance of revising the rules to get arbitration to be even more effective dispute resolution method is introduced.

Keywords: International Commercial Arbitration, Digital Evidence, Evidence, Digitalisation, Arbitral Tribunals, Evidentiary Rules

LIST OF ABBREVIATIONS

ADR	Alternative Dispute Resolution
DEFR	Digital Evidence First Responder
DES	Digital Evidence Specialist
DIS	German Arbitration Institute
FAI	Arbitration Institute of the Finland Chamber of Commerce
GATT	The General Agreement on Tariffs and Trade
IBA	International Bar Association
ICC	Arbitration Institute of the International Chamber of Commerce
IEC	International Electrotechnical Committee
ISO	International Organization for Standardization
ISO/IEC JTC	Joint Technical Committee established by ISO and IEC
IT	Information Technology
LCIA	London Court of International Arbitration
Model Law	The UNCITRAL Model Law on International Commercial Arbitration
OLAF	The European Anti-Fraud Office
SCC	Arbitration Institute of the Stockholm Chamber of Commerce
UNCITRAL	United Nations Commission on International Trade Law
WTO	World Trade Organization

INTRODUCTION

In the modern society, it has become natural that issues appear in the digital form and the documents occur in digital format more often than in form of an actual paper document or at least the original piece of the document is usually stored inside the metadata. This all is an issue that is becoming even more relevant for the courts to consider whether the evidence submitted in digital format meets all the requirements of the reliable evidence and whether or not the digital evidence submitted can be taken into consideration when deciding on a case. The issue is not limited only to civil and criminal proceedings, but it also appears in all kind of judicial procedures where evidence in gathered. This includes also international commercial dispute resolution, especially arbitration.

Arbitration is being alternative dispute resolution independent from national court systems and also one of the most common forms of dispute resolution methods concerning international commercial contracts. The hypothesis of this research is that there are no adequate evidentiary rules relating to the use of digital evidence in international commercial arbitration. The issue is that many legislations around the world have been revising their arbitration acts as well as the institutional arbitration rules, but there are still lacks in the rules. Mainly, when revising the rules, some of the institutes have taken into account the topicality of the digitalisation and have taken into account, that the growing amount of digital evidence is also an important field to commercial arbitration in order to stay in the modernisation and to be able to give the right rules for the parties and the arbitrators to proceed in the arbitration process to be able to get the best result possible for the proceeding. This leads to the first question that is researched: does international commercial arbitration treat digital and documentary evidence as equal and in the tribunals are they treated as equal? Later on, it can be discovered that very few arbitration institutes have included the rules about the use of digital evidence to their rules and that leads also to the second research question that is: what are the problems related to the lack of specific evidentiary rules relating to the use of digital evidence in international commercial arbitration? The research questions are discussed in the research from many perspectives to give the best overview about the underlying problems

related to the lack of adequate evidentiary rules relating to the use of digital evidence in international commercial arbitration.

One of the questions rising also in the research is the handling of the digital evidence. It must be discussed, if the tribunals even make a difference between digital and documentary evidence like asked already in the first research question. Also, the issue of the reliability and admissibility of the evidence is one of the important factors discussed. To understand the problems related to the lack of specific evidentiary rules about to the use of digital evidence in international commercial arbitration is necessary when discussing the importance of amending the rules for arbitration. In addition, amendments are proposed in the research to make the rules of the institutes more effective. Digital evidence can be used in proceedings not only if there is a specific dispute-resolution platform, but in traditional proceedings also. The problem is that the digital evidence is most often treated as documentary evidence, however, in reality it is different from the paper documents in that it is fragile, easy to alter and carries for example metadata.[1] One of the issues that is taken into closer consideration is the reliability of the digital files and the reliability of systems that produced them.[2] Also, it is stated that in commercial relations the quality of evidence is a lesser concern than in criminal proceedings.[3] This is the issue because the stakes of these two are different which makes also the standard of proof to be different.

The bachelor thesis is written by using qualitative research methods and is completed by referring to case laws and international instruments related to the topic. In the thesis it is discussed the regulations and directives that regulate the use of evidence in international commercial arbitration and the discussion is supported by taking facts from other jurisdictional proceedings into account. Also, legal aspects of international trade are looked into, when talking about the field of international commercial arbitration in general in the research. The main aim of the research is to point out the underlying problem that there are no adequate evidentiary rules relating to the use of electronic evidence in international commercial arbitration. In addition, also proposals are made for better rules so that the underlying problems related to the lack of adequate evidentiary rules could be corrected.

[1] Stanfield, A. (2006). The Authentication of Electronic Evidence. (Thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy). Queensland University of Technology, Faculty of Law. Queensland. p 92.
[2] *Ibid*., p. 93.
[3] Jokela, A. (2008). *Rikosprosessi*. 4th ed. Helsinki: Talentum Media Oy. p 15.

1. DIGITAL EVIDENCE

Digital evidence is basically anything that exists in digital or electronic format and has its origins in digital form and is collectible from a device. Variety of different type of devices are capable of creating and storing data in digital form and that kind of data stored can be seen as evidence. The evidence can be gathered from any of the electronic systems available and the evidence itself can be something that is normal in peoples´ everyday life and completely trivial.[4] By trivial is meant for example a digital photograph taken with a mobile phone, information on computers, audio files and video recordings. Behind all these there is the part of the invisible metadata that includes all the information behind the visible part. Metadata itself might be hard to explain to someone who does not have the knowledge about computer systems, meaning a non-expert.[5] The issue is that the digital evidence is not just the visible part, a photograph for example, but the whole metadata and system behind it. The picture is just the visible part of the process. The underlying technologies, principles and the general characteristics that introduce the evidence in digital form are the ones that make the difference between the digital evidence and the evidence in analogue or physical form.[6]

Information Technology (IT) experts are often consulted when needed to access evidence that is in digital format and relevant for any kind of legal dispute or investigations no matter civil or criminal.[7] Especially nowadays any kind of legal proceedings are extremely likely to include digital evidence in some format. This is because any data that is transferred or stored by using technological means, that is used to support a claim, can be digital evidence.

[4] Atkinson, S. J. (2014). Proof is Not Binary: The Pace and Complexity of Computer Systems and the Challenges Digital Evidence Poses to the Legal System. - *Birkbeck Law Review*, Vol. 2, No. 2, 245-262, p 246.
[5] *Ibid*., p. 247.
[6] Mason, S., Seng, D. (2017). *Electronic Evidence.* 4th ed. London: University of London School of Advanced Study Institute of Advanced Legal Studies. p 289.
[7] Watney, M. (2009). Admissibility of Electronic Evidence in Criminal Proceedings: An Outline of the South African Legal Position. - *Journal of Information, Law and Technology*, 1-13, p 10.

According to Antwi-Boasiako and Venter the evidence used to support a claim must meet certain legal rules. [8] The evidence must be scientifically relevant, authentic, reliable and must have been obtained legally.[9] Still there are certain issues that might affect the admissibility of the digital evidence and those issues are becoming more prevalent continually. This means for example, that the evidence that is in digital format is very vulnerable to claims of errors, accidental changes, harmful disruption and fabrications.[10] According to Atkinson there are two major categories of digital evidence.[11] First of them is the actual evidence that is used in court, that should meet the proper admissibility criteria and the second one is the categories of the evidence that are for suspecting an individual of committing a crime.[12]

1.1. Evolution of Digital Evidence

The major parts of the basics for the rules of use of digital evidence have been drafted already in the 1960's.[13] This has been long before computers, e-mail, internet and the digital electronic and that makes it also hard to believe that actually the origins raise from the early days before the electronic devices even existed.[14] The aim there, what stated above, is to show that already some thirty years ago the question about the handling and admitting electronic evidence has been discussed and thought about and that groundwork has helped to draft the existing instruments about the handling of digital evidence nowadays.

When looking at an early case from the year 1899 that is *Cunningham v. Fair Haven & Westville R. Co.*[15] the court did prevent admitting photographs as evidence on the ground that a photograph cannot be seen as reliable evidence because it might be misleading and inadequate because of the lack of skills of the artist.[16] According to Goode, also the audio recordings and motion pictures did invoke similar kind of suspicions at that time.[17] Later on the courts started to have better attitudes

[8] Antwi-Boasiako, A., Venter, H. (2017). *A Model for Digital Evidence Admissibility Assessment: Advances in Digital Forensics XIII*. /Eds. G. Peterson, S. Shenoi. Orlando, FL, USA: Springer International Publishing. p 25.
[9] *Ibid*., p. 24.
[10] *Ibid*., p. 27.
[11] Atkinson, S. J. (2014). *supra nota* 4, p 248.
[12] *Ibid.*
[13] Goode, S. (2009). The Admissibility of Electronic Evidence. - *The Review of Litigation*, Vol. 29, Issue 1, 1-64, p 2.
[14] *Ibid*., p. 3.
[15] Supreme Court of Connecticut Third Judicial District, 43 A. 1047, 1.8.1899, Connecticut, *Cunningham v. Fair Haven & Westville R. Co.*
[16] Goode, S. (2009). *supra nota* 13, p 4.
[17] *Ibid*.

towards the applying of evidence that is in the form that is not in common use, but still weak decisions like in the case *St. Clair v. Johnny's Oyster & Shrimp, Inc.* [18] have been made.

In the case *St. Clair v. Johnny's Oyster & Shrimp, Inc.* [19] it was about the evidence that was in electronic form because in 1999 the form of electronic evidence was already better known. Still the judgment of the court is seen weak on the ground that the court ruled that the plaintiff's electronic evidence that had been submitted was insufficient and it was required, that the plaintiff should have presented a hard copy back-up documentation in admissible form from the United States Coast Guard or discover alternative information verifying all that what the plaintiff claimed.[20] In the case the electronic evidence, that the plaintiff submitted was from the internet, to prove the ownership of the vessel, but the court saw that the internet is not a reliable source for the evidence and according to the court anyone can put any information to the internet and it cannot be relied on or seen as being reliable evidence.[21] This makes the decision of the court very weak, especially when looking at it nowadays.

Thinking about the situation in both of the cases mentioned above the aim is to see that the reliability of digital evidence has changed very much in the recent decades. The attitude towards the evidence that occurs in digital or electronic form has relaxed and it has become more common to use experts to enter the evidence that is in form of a hard copy back-up for example. Nowadays the process of submitting digital or electronic evidence in much easier than a couple of decades ago and this also reflects to arbitration in a positive way, making the processes more flexible and even more effective for the parties. The possibility of submitting digital or electronic evidence opens new possibilities for the parties and creates a better proof for the evidence also at the same time.

Not only with the help of the cases can the issue of handling of technology already in the early days be discussed, but also by looking at the official UN documents. According to the United Nations Convention on the Use of Electronic Communications in International Contracts it can be discovered that the growing need for the rules about the use of documents that occur in digital

[18] United States District Court, S.D. Texas, Galveston Division, 76 F. Supp. 2d 773, 17.12.1999, Texas, *St. Clair v. Johnny's Oyster & Shrimp, Inc.*
[19] *Ibid.*
[20] *Ibid.*
[21] *Ibid.*

format has been already since a long time.[22] Although the Convention is drafted in 2007, it refers to the time before knowledge about electronic communications systems existed and states the problems related to the lack of specific rules for the handling of electronic communications systems.[23] The Convention sets specific rules and explains well the possible situations where problems could arise when drafting contracts in international relations by using electronic ways, like the electronic signature for example.[24] The rules that are introduced in the convention should also be taken into consideration when thinking about the admissibility of digital evidence. Digital evidence and the admissibility of it in international commercial arbitration would benefit from the straight guidelines of the UN document and those guidelines could be amended to fit the needs of applying digital evidence in international and national arbitration proceedings also.

1.2. International Instruments on Handling of Digital Evidence

Many different guidelines, papers and also other documents have been published to guide how to handle electronic and digital evidence. Although many of them have been published specially for criminal investigations, still there are guides available, that are published to provide help to practitioners and lawyers in civil matters.[25] This kind of international instruments can also be considered to be used, when explaining the importance of revising the arbitration rules to include rules about the handling of digital evidence. Some of the instruments provide very specific guidelines and other more flexible guidance for partial use. This is also why it is not necessary to use all the information provided in the instruments, but to be able to find the useful material that can be amended to the arbitration rules also.

1.2.1. The Association of Chief Police Officers

The Association of Chief Police Officers (ACPO) Good Practice Guide for Digital Evidence provides four main principles of digital evidence. According to the first principle of the guide, no digital or electronic material, that is going to or could be, used in the court, is allowed to be changed in any way.[26] In addition, the second principle states that in a situation when a person

[22] United Nations (2007). *United Nations Convention on the Use of Electronic Communications in International Contracts.* Austria: United Nations publications. p 53.
[23] *Ibid.*
[24] *Ibid.*
[25] Mason, S., Seng, D. (2017). *supra nota* 6, p. 286.
[26] DAC Williams, J. QPM (2012). *ACPO Good Practice Guide for Digital Evidence.* Association of Chief Police Officers of England, Wales & Northern Ireland, version 5, p 6.

sees it necessary to access the original data available, the person must make sure to be also allowed to do so and be able to prove by evidence the reason for the access and able to present the possible effects of the access.[27] Third, information on how the digital evidence has been accessed should be retained and it should be possible for a third party to achieve the same results when following the retained information.[28] The last principle states that a person who is in charge of the investigation has to make sure that the law and the stated principles are followed properly.[29] When looking into the ACPO Guidelines it can be understood that all the digital evidence is subject to the same rules and laws that apply also to the documentary evidence.[30] This is important to remember when looking at the ACPO Guidelines from the arbitration perspective. The guidelines ensure reliability in the civil matters and that is a good reason to take the guidelines into account also in the case of arbitration.

1.2.2. ISO/IEC Standard for the handling of Digital Evidence

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization.[31] In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.[32] The international standard ISO/IEC 27037:2012 states that digital evidence is information or data stored or transmitted in binary form that may be seen as evidence.[33] It was drafted to give guidelines for processing of digital evidence to everyone but especially to the decision-makers, meaning those who have to decide on the reliability of the digital evidence, this can mean for example judges or in case of this research the arbitral tribunal.

The standard is supposed give guidelines and to be read with in liaison with other international and national instruments that state about the handling of digital evidence. [34] The standard itself does not override laws or specific legal requirements.[35] Still the ISO/IEC 27037:2012 provides very complete guidelines for specific functions in handling of valuable digital evidence. These

[27] *Ibid.*
[28] *Ibid.*
[29] *Ibid.*
[30] *Ibid.*
[31] International Organization for Standardization (2012). *Guidelines for identification, collection, acquisition and preservation of digital evidence, ISO/IEC 27037:2012*. Accessible: https://www.iso.org/obp/ui/#iso:std:iso-iec:27037:ed-1:v1:en, 3 May 2018.
[32] *Ibid.*
[33] *Ibid.*
[34] *Ibid.*
[35] *Ibid.*

processes that the guidelines cover include for example identification, collection, acquisition and preservation of valuable digital evidence.[36] All of these processes are required to maintain the integrity of the digital evidence and to build positive attitude towards the admissibility of digital evidence in all kind of legal proceedings.[37] The ISO/IEC Standard is very comprehensive and that makes it possible to be used regardless in all proceedings, including also arbitration and alternative dispute resolution in general.

1.2.3. The European Anti-Fraud Office

The OLAF sets International Guidelines on Digital Forensic Procedures.[38] OLAF guidelines are established in 2016 to provide instructions for identification, acquisition, representation, compilation, analysis and storage of digital evidence.[39] The guidelines exploit the Article 4(2) of Regulation (EC) 883/2013 and Article 7(1) of Regulation (EC) 2185/96.[40] The guidelines follow the internationally recognized instruments like the ISO/IEC 27037 and the Association of Chief Police Officers (ACPO) Good Practice Guide for Digital Evidence.[41] The OLAF guidelines explain very well the meaning of the DES (Digital Evidence Specialist), that is also discussed later in this research, when the using of DES is proposed in cases of submitting digital evidence in arbitration proceedings and when thinking about the possible amendments to the arbitration rules about the admissibility of digital evidence in general. In the OLAF Guidelines it is proposed, that when accessing the metadata of the digital evidence, experts like the DES would be used.[42] Also, anti-fraud fighting is a strategy made to strengthen the legitimacy of the European governance.[43] In general the OLAF Guidelines are very practical and provide very specific guidelines for the handling of digital evidence. In case of arbitration such practical guidelines are not needed in the first place because it is important to get a good groundwork for the possible rules about the admissibility of digital evidence, but still by taking into account the OLAF Guidelines, when

[36] *Ibid.*
[37] *Ibid.*
[38] The European Anti-Fraud Office, The European Commission (2016). *Guidelines on Digital Forensic Procedures for OLAF Staff.* Accessible: ec.europa.eu/anti-fraud/sites/antifraud/files/guidelines_en.pdf, 5 March 2018. p 1.
[39] *Ibid.*
[40] Regulation (EU, EURATOM) No 883/2013 of the European Parliament and of the Council of 11 September 2013 concerning investigations conducted by the European Anti-Fraud Office (OLAF) and repealing Regulation (EC) No 1073/1999 of the European Parliament and of the Council and Council Regulation (Euratom) No 1074/1999. OJ L 248, 18.9.2013, p 1–22.
[41] The European Anti-Fraud Office, The European Commission (2016). *supra nota* 38*,* p 1.
[42] *Ibid.*
[43] Pujas, V. (2003). The European Anti-Fraud Office (OLAF): A European policy to fight against economic and financial fraud? - *Journal of European Public Policy*, Vol. 10, No. 5, 778-797, p 778.

drafting the possible rules, much useful can be learned and the practical aspects can help in deciding the important aspects to which focus on.

2. EVIDENCE IN INTERNATIONAL COMMERCIAL ARBITRATION

Problems relating to the fact that gaps arise in the international disputes more often than in national proceedings have been under construction for long. One of the issues discussed for already a longer time has been the applying of evidence in international proceedings. The International Bar Association (IBA) has published the IBA Rules on the Taking of Evidence in International Commercial Arbitration.[44] The rules were drafted in the meaning to receive useful harmonisation in the procedures that are commonly used in international commercial arbitration internationally.[45]

The Evidence is not only an important part of civil and criminal proceedings, but it also plays a very important role in international arbitration, including international commercial arbitration.[46] It is important according to *lex loci arbitrii,* that the arbitrator identifies and has knowledge of the law governing and how the evidence used in an arbitral proceeding should be handled. The understanding of the governing law by the arbitrator is very important not only from the practical platform perspective, but also from the academic platform perspective, including examiners and researchers of the field of international commercial arbitration.[47] The evidence handled in international commercial arbitration disputes should include relevant facts that are to justify the parties claims. Most importantly from a civil law perspective, the issue of collecting all kind of evidence constitutes to a more flexible approach to establish a case.[48]

[44] Moses, M. (2012). *Is Good Faith in the IBA Evidence Rules Good?* - Kluwer Arbitration Blog. Accessible: http://arbitrationblog.kluwerarbitration.com/2012/11/15/is-good-faith-in-the-iba-evidence-rules-good/, 7 April 2018.
[45] *Ibid*.
[46] Cooley, J.W (2005). *The Arbitrator's Handbook*, 2nd ed. Boulder, Colorado, USA: National Institute for Trial Advocacy. p 92.
[47] Malacka, M. (2013). Evidence in International Commercial Arbitration. - *International and Comparative Law Review*, Vol. 13, No. 1, 97-104, p 101.
[48] Bryant, J. (2015). E-Discovery in International Arbitration - Still a Hot Topic. - *4th Year Book on Arbitration International,* 109-118, p 115.

2.1. Admissibility of Digital Evidence in International Commercial Arbitration

The admissibility of digital evidence in international commercial arbitration is an issue that is not that much discussed, although it is starting to be constantly more to date also in the field of dispute resolution.

Taking first two cases to view that are not from the field of arbitration, to see how the admissibility of the digital evidence has been settled there. First, the case *Lorraine v. Markel American Insurance Company*[49], where a landmark decision was made about the admissibility and authentication of digital evidence. In the case it was stated that neither of the parties provided admissible electronic evidence to support the facts set forth in their respective motions for summary of the judgment. [50] In the case none of the evidence presented was authenticated and that was the reason why it also was not relied on by the court.[51]

Second, there is another earlier case that is divided into five opinions that is also important in the eyes of admissibility of the digital evidence. During 2003 and 2004 the United States District Court Judge Shira A. Scheindlin issued five changing opinions about the case of *Zubulake v UBS Warburg.* [52] The case *Zubulake*[53] is well known to be the first definitive case in the United States about the wide range of digital discovery issues.[54] The first of the cases of *Zubulake v UBS Warburg*[55] is the most relevant one for this research because there the judge had to make the distinction between hard copy documents and electronic documents.[56] The case handles the question of what is seen accessible evidence and what as inaccessible.[57] The issue of data sampling is discussed in the case as well as the capability of the disclosing party to shift the costs of restoring the inaccessible back up to tapes for the requesting party.[58] Also, the obligation to pay the sanctions

[49] United States District Court for the District of Maryland, 241 F.R.D. 534, 4.5.2007, Maryland, *Lorraine v. Markel American Insurance Company.*
[50] *Ibid.*
[51] *Ibid.*
[52] United States District Court, S.D. New York, 217 F.R.D. 309, 13.5.2003, S.D. New York, *Zubulake v UBS Warburg.*
[53] *Ibid.*
[54] Bahar, S. (2004). Zubulake v. UBS Warburg: Evidence That the Federal Rules of Civil Procedure Provide the Means for Determining Cost Allocation in Electronic Discovery Disputes. – *Villanova Law Review,* Vol. 49, Issue 2, 393-428, p 393.
[55] *Zubulake v UBS Warburg* (2003). *supra nota* 52.
[56] Stanfield, A. (2006). *supra nota* 1*,* p. 68.
[57] *Ibid.*
[58] Bahar, S. (2004). *supra nota* 54*,* p. 395.

for the ruination of the digital evidence is handled in the case.[59] To conclude the *Zubulake*[60] case the main issue in the eyes of the admissibility of digital evidence is that the respondents did not agree to submit the archived email conversations. The reason was that the price of collecting and submitting of the evidence would have raised too high in the opinion of the respondent.[61]

From arbitration perspective, the two cases give out a good example how situations might go. In the *Zubulake*[62] case for example the issue of the monetary costs is explained and this is also an issue that would affect most probably also in the field of arbitration. The aim is to keep the cost of the arbitral proceeding as low as possible and in case where the email conversations are archived, the costs might raise too high when wanted to submit all the relevant evidence for the case. This might create unfairness between the parties. In case both of the parties would agree to submit digital evidence and for example already archived conversations the costs could then be equally divided in the cost allocation of the proceeding. Still in arbitration the rules provided by the institutions might limit the proceedings in ways that are discussed later in this research, so that the admissibility of digital evidence might result to be difficult for the parties involved.

In a case of arbitration, the admissibility of digital evidence such as email conversations that include the small details of the commercial contracts made for example, should be facile and simple for the arbitral tribunal to take into account in the proceedings. Still, it can be sometimes like in the case of *Zubulake*[63]*,* that the digital evidence occurs only in the metadata.[64] In these cases, the importance of the chain of custody, that is described better in 2.1.1. and the issue of metadata, that is described in 2.1.2. should be also taken into account and proposals about changes in the rules of the arbitration institutes should be made, so that the admissibility of digital evidence could be seen equal to the admissibility of documentary evidence.

2.1.1. Chain of Custody

According to the OLAF Guidelines the chain of evidence refers to a detailed documentation of the status of the potential digital evidence at every point of the time of collection, until the moment the evidence in presented in front of the court.[65] The aim of the chain of custody is to preserve the

[59] *Ibid.,* p. 394.
[60] *Zubulake v UBS Warburg* (2003). *supra nota* 52.
[61] Bahar, S. (2004). *supra nota* 54*,* p 419.
[62] *Zubulake v UBS Warburg* (2003). *supra nota* 52.
[63] *Ibid.*
[64] *Ibid.*
[65] The European Anti-Fraud Office, The European Commission (2016). *supra nota* 38*,* p 1.

integrity of digital evidence.[66] Especially nowadays it must be discussed also in civil and criminal law proceedings, if the evidence handled is the most persuasive evidence to a case. [67] Civil and criminal courts all over the world have struggled with the issue of digital evidence. Some courts have decided to set the same rules for the digital evidence as there already are for the handling of documentary evidence.[68] The chain of custody of digital evidence is hard to prove and experts are all the time working on making it more effective and easier to access it and to be able to prove the actual chain of custody in the courts.[69] The chain of digital evidence and the life steps of it are really important factor when investigating the reliability of it.[70] The nature of chain of custody means the actual controlling of the original evidence and all the materials that can be used for legal purposes to prove a crime.[71] Digital evidence is being very vulnerable to any kind of actions and the chain of custody must be very careful to be accepted in legal proceedings. In order for the digital evidence to be accepted by the court to be valid, all phases of forensic investigation must be registered and known who exactly, when and where came into contact with the digital evidence in each different stage of the investigation.[72] Just knowing the actual location of the evidence is not enough for the court in cases of digital evidence. The exact and accurate logs tracking evidence material from all the time and all the accesses to the evidence must be controlled and audited to be able to prove the actual chain of custody in legal proceedings.[73]

In case of arbitration the chain of custody is also important to remain in cases of digital evidence presented, but thinking about the situation from the arbitration perspective, the remaining of the integrity of the digital evidence and the chain of custody would also raise the cost of the arbitration. Already by looking at the habits of remaining the chain of custody in different proceedings, it can be discovered that arbitration needs its own rules for the admissibility of digital evidence and at the same time guidance on the remaining of the chain of custody. Later in the research it is discussed the possibilities to maintain the effectiveness of arbitration, while also remaining the uninterrupted chain of custody.

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[66] Antwi-Boasiako, A. and Venter, H. (2017). *supra nota* 8, p 27.
[67] Grimm, P. (2014). Authenticating Digital Evidence. – *GPSolo*, Vol. 31, No. 5, 47-49, p 47.
[68] *Ibid*., p. 48.
[69] *Ibid.*
[70] Cosic, J. and Cosic, Z. (2012). Chain of Custody and Life Cycle of Digital Evidence. - *Computer Technology Application*, Issue 3, 126-129, p 126.
[71] *Ibid*., p. 127.
[72] *Ibid*.
[73] *Ibid*., p. 128.

2.1.2. Metadata

Digital data does not only mean the documents that are in digital form and can be submitted by using digital methods.[74] Metadata is being literally, data about the digitally stored data.[75] Metadata is located behing all the parts we can visibly see when looking at a document that is in digital format. Metadata includes all the details that can not be seen, but are very important when thinking about the reliability of a file or for example when wanting to know when the file was actually created and whether or not any modifications to it have been made during the time that the file has existed. Accorging to the report created by ICC Commission, there are three basic categories of metadata available.[76] The three categories include "Substantive metadata" that remains with the document when it is moved or copied; "Systems metadata" that reflects all the changes made to a document during the time it has existed and "Embedded metadata" that includes hidden information that is inputted into a document by its creator or users.[77]

In International Criminal Court, when evidence is submitted in digital format, all the metadata included shall also be presented and made easy to access.[78] The same should apply to all legal proceedings including arbitration. Thinking hypotethically about a case, that could also happen in arbitration, where the submission of digital evidence including the metadata of the system would make a difference. That could be for example a case where the respondent wants to include to the evidence a mobilephone that contains emails sent by the respondent to the claimant about the details of a commercial contract for example. In this kind of case the system metadata searched from the phone, like for example deleted email conversations of the respondent, could be able to prove the situation different than without the metadata gathered.

One of the first cases where metadata was recognised has been the *Armstrong v. Executive Office of the President*[79] in 1993. In the case the United States Court of Appeal, District of Columbia stated that in the case the role of metadata in an email when presented as a hard copy is more

[74] Bryant, J. (2015). *supra nota* 48, p 114.
[75] International Chamber of Commerce Commission, ICC Commission report on Managing E-Document Production 2012. Appendix I, Section 16, p 18.
[76] *Ibid*.
[77] *Ibid*.
[78] Virolainen J., Pölönen P. (2003). *Rikosprosessin Perusteet, Rikosprosessi oikeus I*, Jyväskylä: WSOY. p 10.
[79] United States Court of Appeals, District of Columbia Circuit, 1 F.3d 1270, 13.8.1993, District of Columbia, *Armstrong v. Executive Office of the President.*

reliable than a document presented as a paper document. [80] In the case the court compared very well the reliability of the electronic and paper records and concluded that the paper documents were not reliable in comparison to the electronic evidence.[81]

The link from metadata to international commercial arbitration is that in arbitration proceedings the accessing to metadata is not that easy because in the proceedings the time limitations might affect the parties willigness to submit data that can be accessed only by using an expert to do it. The arbitration proceedings attempt to be effective and also the costs of the arbitration tend to be allocated fairly between the parties and for example the costs of the arbitration institute are allocated to the parties equally.[82] This leads to the issue that it must be very strictly considered what is seen as relevant evidence for the arbitration proceeding and what is not.[83] Also the question whether or not is is necessary to access the metadata in arbitration proceedings must be considered carefully. In arbitration the use of experts can be either prescribed by the parties involved or by the tribunal.[84] Still, using of the experts is more common by a proposal of the parties than the tribunal.[85]

[80] Favro, P. (2007). A New Frontier in Electronic Discovery: Preserving and Obtaining Metadata. - *Boston University Journal of Science & Technology Law,* Vol. 13, No. 1, 1-24, p 13.
[81] Stanfield, A. (2006). *supra nota* 1, p 63.
[82] Arbitration Institute of the Finland Chamber of Commerce (2013). *Arbitration rules.*
[83] *Arbitration in Finland*. (2017). /Eds. T. Ehrström, T. Timonen, S. Turunen. Helsinki: Young Arbitration Club Finland. p 84.
[84] *Ibid.*
[85] *Ibid.*

3. INTERNATIONAL COMMERCIAL ARBITRATION

3.1. Legal Aspects on International Trade

The General Agreement on Tariffs and Trade (GATT) had been the most important agreement of the International Trade Law since 1948.[86] In 1995 the World Trade Organization (WTO) was established to take the place of GATT and to bring together the countries and to create an equal field for all countries in the field of trade.[87] The principles of the WTO have had a big impact on the trade nowadays and the principles are followed internationally. The bounds of the WTO include a framework for administration and implementation of agreements, trade policy reviewing and promoting coherence to members and economic policies.[88] According to the Article 25 of the Annex 2 of the WTO Agreement the disputes arising from the international trade can be resolved by using arbitration as a dispute resolution method.[89]

3.2. United Nations Commission on International Trade Law

The United Nations Commission on International Trade Law (UNCITRAL) works as the core legal body of the United Nations in the field of international trade law.[90] The UNCITRAL being the core legal body, it is commonly recognised and well trusted by different national legislations. [91] UNCITRAL has become since its establishment, a well recognized legal body of the United

[86] Petersmann, E. (2000). From "Negative" to "Positive" Integration in the WTO: Time for "Mainstreaming Human Rights" into WTO Law? – *Common Market Law Review,* Vol. 37, 1363-1382, p 1363.
[87] *Ibid.,* p. 1365.
[88] *Ibid.*
[89] World Trade Organization: *Understanding on rules and procedures governing the settlement of disputes*. Art. 25, Annex 2. Accessible: https://www.wto.org/english/tratop_e/dispu_e/dsu_e.htm, 14 May 2018.
[90] United Nations (2013). *A Guide to UNCITRAL: Basic facts about the United Nations Commission on International Trade Law*. Austria: United Nations publications. p 1.
[91] Clift, J. (2004). UNCITRAL Model Law on Cross-Border Insolvency: A Legislative Framework to Facialite Coordination and Cooperation in Cross-Border Insolvency. - *Journal of International and Comparative Law*, Vol. 12, 308-325, p 319.

Nations system in the field of international trade law.[92] The aim of UNCITRAL is to harmonize and modernize the rules of international businesses around the world. The area of international trade is one of the most fastest to develop and this is also why UNCITRAL plays a very important role in harmonizing the rules and aspects. UNCITRAL provides conventions, model laws, rules, legal and legislative guides and recommendations, updated information, technical assistance in law reform projects and regional and national seminars on uniform commercial law.[93]

When looking at the field of international commercial arbitration and the legal aspects on international trade the UNCITRAL plays a very strong role there. The guidelines and the model laws such as the UNCITRAL Model Law on International Commercial Arbitration (Model Law) are followed and adopted by legislations aroud the world in order to get a better functioning and better trusted legislation on issues that also affect the international relations and trade.[94] The Model Law is made to assist the states in revising their own national arbitration acts.[95] In the field of international commercial arbitration the Model Law is seen very secure and the arbitrators tend to favor arbitral proceedings that have the seat of arbitration in a country that has adopted the Model Law as it is or with some small amendments to its national arbitration act.[96] The idea of the Model Law is to give guidance and to provide a good basis that can be adopted by any country as it is or with some amendments made to it. The Model Law does meet all the latest requirements of international arbitration and is therefore seen as very secure and good option to adopt. It also provides the states a better change to be selected as the seat of arbitration because an internationally well known act is better trusted by the parties and arbitrators than a national act not made according to the Model Law.[97] Later in the research also the possibility of amending the Model Law is introduced in order to make the arbitration processes that are under the UNCITRAL to be even more effective in the field of submitting digital evidence.

[92] United Nations (2013). *supra nota* 90, p 1.
[93] *Ibid., 1-29.*
[94] *Ibid.*
[95] United Nations (1985, 2016). *UNCITRAL Model Law on International Commercial Arbitration: With amendments as adopted in 2016.* Austria: United Nations publications. p viii.
[96] Seppälä, C. (2017). Why Finland should adopt the UNCITRAL Model Law on International Commercial Arbitration. – *Journal of International Arbitration,* Vol. 34, Issue 4, 585-599, p 588.
[97] Seppälä, C. R. (2018). *Why Finland Should Adopt the UNCITRAL Model Law on International Commercial Arbitration*. Accessible: https://arbitration.fi/wp-content/uploads/sites/22/2018/02/2.-christopher-r-seppalas-presentation.pdf, 7 April 2018.

3.3. Nature of International Commercial Arbitration

The field of international commercial arbitration has developed to be one of the most used methods of commercial dispute resolution internationally.[98] International commercial arbitration has growingly become a well knew alternative method for dispute resolution, not just in Europe but worldwide. The aim of international commercial arbitration proceedings is to solve disputes that arise between private parties in commercial transactions across the national borders.[99] By using arbitration, the parties have the opportunity to avoid the court proceedings and to save usually a lot of time because the arbitration proceedings are time limited and attempt to promise the parties a time saving and effective way to solve a dispute.

Arbitration is alternative dispute resolution independent from national court systems. It is being the most common form of dispute resolution in international commercial contracts.[100] In every arbitral proceeding the most important issues for the parties and their counsel, as well as to the arbitral tribunal, to face is the assay of the procedures for the specific arbitration process. The institutional rules and the *ad hoc* rules of the institutions provide a framework for the arbitration proceeding and add some specific provisions concerning for example the appointment of the arbitrator, initial statements of the case and the rules for the awarding the costs of the arbitration.[101] Still, many institutions do not provide rules about the gathering of evidence and the presenting of it in the arbitral proceedings.[102] Also the explanations about the differences in the understanding of digital and documentary evidence are rarely provided. One of the benefits of international arbitration is that the institutional rules and the rules of the *ad hoc* proceedings allow flexibility and party autonomy, which means that not every arbitration must be concluded the same manner.[103]

However, in cases when the parties come from different legal backgrounds, there is always the risk for an intentional gap to cause problems in case when the parties or the attorneys have different

[98] Malacka, M. (2013). *supra nota* 47, p 97.
[99] Waibel, M. (2007). Opening Pandora's Box: Sovereign Bonds in International Arbitration. - *American Journal of International Law,* Vol. 101, Issue 4, 711-759, p 712.
[100] Stockolm Chamber of Commerce (2018). *SCC Report: Tvister säljer Sverige*. Stockholm: Stockholms Handelskammare. No. 1, p 6.
[101] Zuberbuhler, T., Hofmann, D., Oetiker, C., Rohner, T. (2000). Commentary on the New IBA Rules of Evidence in International Commercial Arbitration. - *Business Law International Journal,* Issue 2, 16-36, p 17.
[102] *Ibid*., p. 18.
[103] *Ibid*.

views on how the case should proceed and which procedural law should be followed.[104] Unwanted gaps may also arise when one of the parties has no knowledge about the international arbitration procedure or has not the needed knowledge about the arbitration law of the seat country. One of the possible problems that may arise in international commercial arbitration, is the situation when the parties of the dispute come from different backgrounds, meaning common and civil law jurisdictions. The difference arising is that in the common law jurisdictions prefer oral evidence combined with the witness statements and the civil law jurisdictions prefer written and documentary evidence.[105] In these kind of cases, the arbitrators are obliged to determine the relevancy and the weight of the evidence.[106]

[104] *Ibid*., p. 19.
[105] Malacka, M. (2013). *supra nota* 47, p 100.
[106] *Ibid.*

4. RULES OF ARBITRATION INSTITUTES AND DIGITAL EVIDENCE

In this bachelor thesis rules of five different arbitral institutions are taken into closer investigation and it is searched, if the rules include any kind of mentioning about the use of digital evidence in the arbitration proceedings. Also it is compared how the different institutions see evidence, meaning also non-digital in the cases where there are no adequate evidentiary rules set for it. By following the rules of some most international institutions, it is possible to see the differences of the most typical evidence procedures.

In this bachelor thesis the author has decided to take into account the Arbitration Institute of the Finland Chamber of Commerce (FAI), German Arbitration Institute (DIS), London Court of International Arbitration (LCIA), Arbitration Institute of the Stockholm Chamber of Commerce (SCC) and the Arbitration Institute of the International Chamber of Commerce (ICC). All of these selected institutions may not be the most international ones, but all the selected institutions are still able to give together a good overview of the rules of the different institutions and their rules about the use of digital evidence and evidence in general. Some of the legislations of the countries selected are also mentioned, but the aim is to compare the rules more than to take look at the national legislations.

4.1. Lack of Rules for Digital Evidence in the Rules of Arbitration Institutes

The FAI has revised its rules on arbitration and expedited arbitration in 2013. The Finnish Arbitration Act (967/1992)[107] has now been in force for over 25 years, since 1992. The act is considered outdated and in need of reform, as it deviates in important aspects from today's international best standards reflected in the UNCITRAL Model Law on International Commercial

[107] Laki välimiesmenettelystä 23.10.1992/967.

Arbitration.[108] The FAI has included in the rules the explanation about the evidence used in commercial arbitration, but no difference between digital and documentary evidence is made. According to the rules the claimant has to submit within the time limit set by the arbitral tribunal the documentary evidence, that the claimant intends to rely on. [109] The same procedure affects the respondent that also has to submit the documentary evidence to the extent possible. In the evidence part of the rules it is explained that it is on the arbitral tribunal to consider the admissibility, relevance, materiality, and weight of the evidence. [110] That could be understood so that it is on the arbitral tribunal to consider, if the evidence submitted in digital form meets the requirements of reliability and can be used in the proceeding. Still, this leaves a gap in the rules about the exact requirements for the use of the digital evidence and gives forward the power to the arbitral tribunal to decide about the admissibility.[111] It is also added that at any time during the proceedings the arbitral tribunal may order any party of the dispute to identify or to specify certain circumstances about the documentary evidence.[112] Also the arbitral tribunal may order that the evidence presented shall be concluded in written form of witness statements or reports and shall be signed by the witness.[113] The witness statements that are given orally shall be held in camera and may also be ordered to be presented in written form.[114] This leads to the problem that is also the hypothesis of this research. In the FAI there are no adequate evidentiary rules available for the use of digital evidence in international commercial arbitration and the issue is replaced by giving the power for the arbitral tribunal to decide whether the evidence submitted is reliable or not.

When comparing the institutes in general it can be discovered that all the institutes except the DIS have left the power on deciding on the reliability and admissibility of the evidence to the arbitral tribunal to consider. It can be therefore sealed that the LCIA[115], SCC[116] and ICC[117] have rules similar to the FAI. When looking at the DIS it can be discovered that it has a more informative rules about the admissibility of digital evidence in international commercial arbitration. The

[108] Arbitration Institute of the Finland Chamber of Commerce (2018). *Report from the Seminar and Discussion on the "Need for Revisions of the Finnish Arbitration Act"*. Accessible: https://arbitration.fi/2018/02/20/report-seminar-discussion-need-revisions-finnish-arbitration-act/, 19 March 2018.
[109] Arbitration Institute of the Finland Chamber of Commerce (2013). *supra nota* 82.
[110] *Ibid*.
[111] Razvi, S. M. H. (1998). Mandatory Rules of Law in International Business Arbitration. – *The Lahore Journal of Economics,* Vol. 3, No. 2, 35-58, p 48.
[112] *Ibid*.
[113] *Ibid.*
[114] *Ibid*.
[115] London Court of International Arbitration (2014). *Arbitration rules.*
[116] Arbitration Institute of the Stockholm Chamber of Commerce (2017). *Arbitration rules.*
[117] Arbitration Institute of the International Chamber of Commerce (2017). *Arbitration rules*.

German arbitration act has entered into force on 1 January 1998. The act is based on the UNCITRAL Model Law and has been very much influenced by it.[118] Having roots already in the 1920's and being one of the influencers of the German arbitration act 1992, the DIS has become Germany's leading institution for alternative dispute resolution and arbitration. It has also concluded the most recent rules on arbitration. The rules have been revised and have come to force on 1st March 2018. The rules of the DIS differ from the rules of the FAI and the other institutes used in this research by stating more about the admissibility of digital evidence than the rules of the other institutes. According to article 28.2 of the rules the arbitral tribunal may appoint experts to examine fact witnesses other than those that are called by the parties, and also order any party to procedure or make available any documents or digitally stored data.[119] This leads to the issue handled already in the first chapter of this research, that the IT experts are often consulted when needed to access evidence that is in digital format. Still according to the article 28.3 of the rules, in case, when the tribunal appoints the expert, the tribunal has to consult the parties before appointing the expert and the expert must be completely impartial and independent of the parties like regulated in the article 9 and article 15 of the rules.[120]

4.2. Approaches based on the comparison of the Rules of different Arbitration Institutes

After taking closer look at the rules of different arbitral tribunals concerning international commercial arbitration, it can be seen that most of the institutes still do not have included rules about the use of digital evidence in their processes. All the guidelines for the use of the digital evidence should be presented by the arbitration institutes or by the arbitration acts of the countries. Unless the parties freely agree on a specific procedure of evidence, it is on the arbitrator to decide specific evidence and the manner of its examination.[121] After that it is in most cases on the arbitral tribunal to consider whether the evidence submitted is reliable or not. [122] As it can be seen the rules that are set for the admissibility of electronic evidence have lacks and give a very open view about

[118] Böckstiegel, K. H. (1998). An Introduction to the German Arbitration Act Based on the UNCITRAL Model Law. - *Arbitration International*, Vol. 14, Issue 1, 19-32, p 19.
[119] German Arbitration Institute (2018). *Arbitration rules.*
[120] *Ibid*.
[121] Slipachuk, T. (2011). Practical Aspects of Taking Evidence in International Commercial Arbitration. - *Law Ukraine Legal Journal,* 132-139, p 132.
[122] Pietrowski, R. (2006). Evidence in International Arbitration. – *Arbitration International,* Vol. 22, Issue 3, 373-410, p 379.

the handling and admissibility of evidence although it should be one of the issues that is strictly ruled about.[123] Also the rules may vary from a country to another.[124] It would be very important for people handling electronic evidence to understand the latest legal requirements to be able to keep the chain of custody clear and to keep the digital evidence as original as it is. This leads to the underlying problem that the guidelines are not given on how to react to evidence submitted in digital or electronic form and also to the issue that the integrity of the evidence should necessarily be maintained in order for the evidence to be seen as reliable.

One approach by Mason, that should be introduced is the idea to develop a draft convention with the help of judges, lawyers and other interested individuals across the world about the handling of digital evidence. [125] The point of such convention should be the issue to introduce different possibilities regarding the use and admission of digital evidence in different kind of judicial proceedings.[126] Such convention could then also have its part for the use of digital evidence by arbitral tribunals in case of dispute resolution. The convention should be easy to access, and it should follow the most recent guidelines and be easy to adopt to any kind of legislation to be a guiding tool for the tribunals and, also other legislative powers to use.

Another approach that could be introduced on the basis of comparing of the different rules of the institutions is to think about the UNCITRAL Model Law and the benefits of it. Like it can be seen when researching the latest amendments of countries legislations about arbitration.[127] The UNCITRAL Model Law is seen as secure option among the jurisdictions and it is ideal for many jurisdictions to adopt the UNCITRAL Model Law as it is, to be the new national arbitration act.[128] The reason for this is that by adopting the UNCITRAL Model Law, a country could be recognised as being a popular place for arbitration.[129] By ratification of the New York Convention on Recognition and Enforcement of Foreign Arbitral Award and by having adopted an internationally recognised arbitration law, a country can be recognised as being a secure seat for international

[123] Leroux, O. (2004). Legal admissibility of electronic evidence. - *International Review of Law*, *Computers & Technology*, Vol. 18, No. 2, 193-220, p 215.
[124] *Ibid*.
[125] Mason, S. (2015). 'Towards a global law of electronic evidence? An exploratory essay'. - *The Journal of the Society for Advanced Legal Studies*, Issue 103, 19-28, p 20.
[126] *Ibid.*
[127] Bucy, D. R. (2010). How to Best Protect Party Rights: The Future of Interim Relief in International Commercial Arbitration under the Amended UNCITRAL Model Law. - *American University International Law Review,* Issue 3, 579-609, p 606.
[128] Arrowsmith, S. (2004). Public Procurement: An Appraisal of the UNCITRAL Model Law as a Global Standard. - *International and Comparative Law Quarterly*, Vol. 53, Issue 1, 17-46, p 19.
[129] Seppälä, C. R. (2018). *supra nota* 97.

arbitration.[130] This raises the fact that by amending the UNCITRAL Model Law, the issue and importance of revising the rules could also be easier introduced also for the national arbitration institutes to be considered. The fact is that the rules are amended quite often and when amending them it is taken guidance from the UNCITRAL Model Law and the UNCITRAL Rules for Arbitration.[131] This would then lead to the better rules for the use of digital evidence, if it would in the first place be added to the law or rules that are used as example by jurisdictions.

Unfortunately, although there is already the International Bar Association that has its rules for taking evidence in the international commercial arbitration, that includes also rules for the handling of digital evidence, the rules have at least not yet had an influence big enough for all the arbitration institutes to include rules about digital evidence to their national rules. [132] In Article 3 of the IBA rules the restrictions for the handling and gathering of documents is explained. [133] According to the rules, the documents that a party submits in electronic form shall be submitted or produced in a form that is most convenient and economical in the situation to keep the costs of the arbitration as low as possible.[134] This is also a very important part of the rules to introduce to the arbitration institutes because to be able to stay as attractive place for arbitration, the focus must also be on the possibility to solve the disputes brought to the institute as efficient and cost friendly as possible.[135]

4.3. The Distinction between Digital and Documentary Evidence

As it can be seen the distinction between digital and documentary evidence must be made clearly to be able to distinguish between them and to draw a line whether the evidence is reliable or not and if it can be used as evidence or not.[136] Of course like it can be discovered the sanctions for arbitration and the evidence handling in it are not as strict as when it comes to criminal law

[130] *Ibid.*
[131] Slate, W. K. II., Lieberman, S. H., Weiner, J. R., Mikanovic, M. (2004). UNCITRAL Its Workings in International Arbitration and a New Model Conciliation Law. - *Cardozo Journal of Conflict Resolution*, Vol. 6, 73-106, p 73.
[132] International Bar Association (2010). *Rules on the Taking of Evidence in International Arbitration: Adopted by a resolution of the IBA Council 29 May 2010*. London: International Bar Association. p 9.
[133] *Ibid.*
[134] Bryant, J. (2015). *supra nota* 48, p 115.
[135] Branson, D. J., Tupman, W. M. (1984). Selecting an Arbitral Forum: A Guide to Cost Effective International Arbitration. - *Virginia Journal of International Law*, Issue 4, 917-940, p 920.
[136] Poon, K. (2015). *Singapore Court Reviews Investment Arbitral Tribunal's Decision On Jurisdiction: What Standard Should Apply As to Evidence?* Accessible: Kluwer Arbitration Blog, http://arbitrationblog.kluwerarbitration.com/2015/02/04/singapore-court-reviews-investment-arbitral-tribunals-decision-on-jurisdiction-what-standard-should-apply-as-to-evidence-2/, 13 April 2018.

proceedings. [137] Still, also in the arbitration proceedings the parties must be able to receive equal treatment during the arbitral proceeding and the following guidelines when it comes to the handling of digital evidence is recommendable. The guidelines that can be learned from the criminal law about the handling of digital evidence give a good overview about the admissibility of the digital evidence and the distinction of documentary and digital evidence in the criminal proceedings and it can also be amended when looking at the issue from the arbitration perspective.[138]

The question can be raised about possibility to treat the digital evidence same way like the documentary evidence. The reasons that do not support this idea are according to Goldsmith, that it would create unfairness between the parties and endanger the party's strategic interests.[139] The distinction between what is necessary can be very hard to make because in cost effective arbitration proceedings, there is no sense in bringing the original metadata that contains the original information of a printout to the proceedings. The goal of the tribunal should always be to make the proceeding as effective as possible and to create the parties the environment that enables cost effective, time saving and effective arbitration proceeding that leads to a suitable and equal final award that is correctly given.

4.4. Effective handling of Digital Evidence in International Commercial Dispute Resolution

When thinking about the possibilities of getting the dispute resolution to a level that would lead to the raising amount of the different kind of organisations and firms to include the arbitration clause to their commercial contracts, it must be thought about what would make the arbitration processes even more effective. Now when looking at the field of handling the digital evidence it could be proposed to take to account the ISO/IEC 27037:2012 standard and to rely on the guidelines set in there, when thinking about the tribunals next moves in the field of handling of digital evidence. It could be proposed that DEFR (Digital Evidence First Responders) and DES (Digital Evidence Specialists) would be used in order to get the best results, when having to deal with larger amounts

[137] Mason, S., George, E. (2011). Digital Evidence and "cloud" computing. - *Computer Law and Security Review*, Vol. 27, Issue 5, 524-528, p 526.
[138] Murphy, T. (1999). The Admissibility of CCTV Evidence in Criminal Proceedings. - *International Review of Law*, Computers and Technology, Vol. 13, Issue 3, 383-404, p 385.
[139] Goldsmith, A. (2010). Requests for the Production of Electronic Documents in International Arbitration: Some Threshold Issues. - *International Business Law Journal,* 313-319, p 315.

of digital evidence and when having to access the metadata of the evidence in order to get the best result for the dispute.[140] To achieve the most effective result the issues described below must be observed.

When doing research, it can be understood that in cases that are under the field contractual law and the disputes have arisen between parties that come from different legislative backgrounds, it is often the case that there is a lot of strategic planning behind the disputes from both sides. In those kind of cases the importance of evidence is very important to take into account, also if it is in digital form. Now thinking for example about a hypothetical case submitted to the arbitration institute for example in Finland to be solved under the Finnish Arbitration Act[141] and under the rules of the Arbitration Institute of the Finland Chamber of Commerce[142]. In case the claimant requests for expedited arbitration procedure it must be already in the beginning of the arbitral proceeding made clear that the time limit for such a proceeding is three months from the date the case file is transferred to the arbitral tribunal. In expedited cases it is not that common to solve big disputes and when thinking about a case in that the parties have gathered a lot of evidence for support, the time might not be enough for the arbitral tribunal to take into account all the necessary information about the evidence when submitted in digital from. The possibility of taking into account for example the metadata of an in business mind made excel file that includes the metadata from for example a long period of time about the business planning of the firm, cannot be taken properly into account when solving a dispute without hiring an IT expert or a DES. The problem arises because in case of cost effective and time saving, expedited arbitration there is no time or resources to hire any contribution in the solving process of the dispute. The tribunal must be able to survive with the regular resources that it has and give the final award before the time limit of three months expires.

Also like when discussing the case *Zubulake v UBS Warburg LLC.*[143] earlier in this research, it was seen that the raising of the costs might lead to unwanted situations. For example, a situation where the responding party refuses to pay for the costs of the investigation of the digital evidence back-ups or metadata is something that could even lead to a point where the responding party appeals that the presenting of all the relevant metadata of the digital evidence requested would be

[140] International Organization for Standardization (2012). *supra nota 28.*
[141] Laki välimiesmenettelystä (1992). *supra nota* 100.
[142] Arbitration Institute of the Finland Chamber of Commerce (2013). *supra nota* 82.
[143] *Zubulake v UBS Warburg* (2003). *supra nota* 52.

seen as unreasonable effort. In case of arbitration the issue of unreasonable effort could be even more easily raised because in the arbitration proceedings it is recommendable to present all the relevant evidence that is wanted to be used in the same time when the request for arbitration is submitted to the institute or when the respondent gives its answer to the request for arbitration.[144]

In case of normal arbitration proceeding, no matter even in which arbitration institute, it is possible to submit better all the evidence than in the expedited arbitration proceeding. Still when thinking about a complex case that might as well have other judicial proceedings on going at the same time for example in the district court, it must be discussed what makes the relevant evidence and how can the digital files be accessed on most effective way. If the claimant request for an arbitration according to the arbitration clause in for example a licensing agreement, the respondent has according to the rules of Finland Arbitration Institute 21 days, time to answer the request for arbitration and submit it to the Arbitration Institute. It would be most effective to include in the rules of the arbitration institutes that the approximate amount of evidence should be mentioned quite in the beginning of the arbitration same time as the approximate cost of arbitration. By doing so it could be better forecasted, if for example IT experts advice is needed in the proceeding and if the digital evidence that demands closer investigation is submitted from both of the parties or only for example from the claimant's side. This all would then make the work of the tribunal more effective and the overall picture of the disputes time period and level of difficulty could be better examined already in the beginning of the dispute resolution process.

[144] Arbitration in Finland (2017). *supra nota* 76, p 81.

CONCLUSION

To conclude everything, it must to start with thinking about the digital evidence as a completely different type of evidence then the paper, documentary and other hard-copy forms of evidence that are more familiar to people. When living in a networked world, where digital data knows no boundaries, it is important to understand that the flow of digital data is continuing. To be clear, it must be understood that the reliability of digital evidence is very much different from documentary evidence. The metadata behind the visible parts of the digitally presented evidence must not be understood in detail level by everyone, but the fact that it exists must be understood and recognised in general. The need for specialists such as DEFR and DES is normal and tribunals as well as other judicial powers should be encouraged to use such specialists when in need to access digital evidence. The case laws about the handling of digital evidence might not always help in solving a case including digital evidence and this is also why it should not be set aside the importance of leaning to the international guidelines and instruments available, such as the ISO/IEC 27037:2012.[145] Such instruments are the ones that set the best guidelines, that can be easily relied on, no matter in which field of law. Living in a world that is connected by software codes means that it is important also for judges as well as for lawyers to recognise the importance of the topicality of the digital changes and the existence of digital evidence. The fact is that the technology is continuously going forward and the field of law is also facing challenges that could not have been foreseen a decade ago. In addition to that, to propose further research possibilities, an important aspect would be to look at the cost allocation in the arbitration proceedings in cases where digital or electronic evidence in presented by the parties to the arbitral tribunal.

Looking at the international commercial companies, that are most probably to include the arbitration clause into their business contracts, it can be deduced that they are in most cases searching for inexpensive and quick alternative for the traditional court proceedings. Arbitration itself is not seen as being the most inexpensive option but it has gained popularity considered being faster than litigation in state courts. Also like explained before in the research, arbitration is being

[145] International Organization for Standardization (2012). *supra nota* 31.

very flexible and the parties may choose the arbitration institutes that have the best suitable rules for the parties. When looking at the research made, the expert advice should not be limited just to the selection of an expert arbitrator that has the special knowledge about the field of the dispute. The issue should be taken further to the point where expertise advice is also used in handling the evidence. The amendments, that are proposed in the research are the first steps towards even more flexible and better functioning arbitration. Improvements have to made in order to keep the arbitration cost effective at the same time, when the use of expertise is increased. Still the fact is that arbitration is at the same time increasing its popularity among the young practitioners, meaning for example the new start-up businesses and they are not anymore looking that much to the cost effectiveness, but more at the flexibility and confidentiality and this is why arbitration is becoming even more common in todays' world.

The aim of the research was to identify the problems relating to the lack of specific evidentiary rules in international commercial arbitration. The main problems related to the lack of specific evidentiary rules are explained best by looking at the hypothetical cases from arbitration and thinking about the possible situations from the perspective of the parties in the arbitration proceeding. The lack of rules for the handling of digital evidence leads the tribunal to a situation, where it has to decide on the reliability of the evidence. In the worst case scenario, no expertise advice is used and the parties suffer from ineffective arbitration proceeding, because not all of the digital evidence can be seen reliable without the expertise accessing to the metadata of the evidence.

The hypothesis of the research, that there are no adequate evidentiary rules relating to the use of digital evidence in international commercial arbitration is clearly seen in the research and supported by comparing the rules of the five different arbitration institutes. Still, also a brighter future for the field of admissibility of digital evidence in international commercial arbitration is seen in the research, when looking at the arbitration rules of the DIS, that make already a little better example of rules that are just modified and include the issue of handling of the digital evidence. Still, the DIS rules for arbitration are not informative enough for the growing need for rules about the admissibility of digital evidence and that is why it would be more effective to take guidance from the international instruments available, about the presenting of digital evidence, like proposed in the research.

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