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Enforcement of Global Patent Rights through Arbitration

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Law School

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*"When will mankind be convinced and agree to settle their difficulties by arbitration?"
- Benjamin Franklin*

Abstract

Patent rights play an essential role in the global economy and represent valuable assets to any business. Although patents are protected internationally by the TRIPS Agreement, in legal practice they have a territorial nature, which presumes that national dispute resolution is decisive in terms of enforcement. Yet, the territoriality of litigation is an immense disadvantage because it imposes conflicting judgments, time and cost constraints in situations where the same patent is litigated in parallel jurisdictions. International arbitration is able to eliminate these costs by removing the need for national litigation.

The study thus proposes arbitration as a global solution for patent disputes whereby parties from different countries would choose to arbitrate in a single key global centre, such as London or Hong Kong, to resolve a global dispute. Unlike adversarial patent litigation, which requires court proceedings in every jurisdiction where the patent rights have been violated, arbitration can be used on a worldwide basis, in a negotiated fashion. Parallel proceedings can be avoided by combining any ongoing proceedings via a single flexible procedure. In addition, the arbitration option allows parties to deal with conflicts over law issues – where complexities arise over the applicable law in contracts with licensees from different jurisdictions. Moreover, arbitration can be used in cases where exclusive remedies are required instead of the standard relief attainable through litigation.

Admittedly, arbitration is a relatively new method to resolve patent disputes, but its advantages identify it as a possible best option for addressing conflicts about global patent rights. Arbitration, within the scope of international intellectual property disputes, has been associated with the time and cost-efficiency of dispute resolution procedures and preservation of business relationships. Moreover, arbitration presumes a limited appeal option, and worldwide enforceability under the United Nations Convention on the Recognition and Enforcement of Foreign Arbitral Awards 1958 which makes arbitral awards final, binding and enforceable in contrast to litigation (where an award's enforceability is dependent on mutual international agreements and decisions may be appealed in other instances). There is no such global international agreement for the enforcement of foreign court judgments, most of them are regional.

A specific feature of arbitration is also that parties may choose an arbitrator with specialised knowledge in almost any subject area such as pharmaceuticals, technology or engineering. Additionally, the world's leading arbitral institutions such as LCIA, ICC, HKIAC and WIPO have in recent times amended their rules to promote arbitration in the intellectual property (IP) sector and some institutions have launched special IP panels. Amended rules can shorten the length of procedures including expedited arbitration, emergency relief and consolidation of proceedings as well as a range of interim measures and orders of security for claims and costs. As a result, the number of IP cases being heard by these centres continues to rise every year. The significance of the study is supported by the fact that the trend in using arbitration to resolve patent disputes is already increasing, as demonstrated by the leading arbitral institutions and practitioners.

The last – but not least – attractive feature of arbitration is confidentiality of proceedings and arbitral awards, as well as in some cases secrecy of the existence of a dispute itself, which helps to preserve the company's reputation and keep its current and future arrangements unaffected by the dispute.

Although arbitration remains a progressive and promising method of resolving patent disputes, there are some limitations. First of all, due to the confidential nature of arbitration there is no system of 'binding precedent' of awards. This constrains the development of uniformity and might have adverse effects for the future litigants. Secondly, the consensual nature of arbitration may be considered as a disadvantage in some circumstances. If a party in the dispute is unwilling to accelerate the proceedings and conclude an arbitration agreement, it will be impossible to arbitrate a dispute. Recourse to litigation will be inevitable in such cases, demonstrating that arbitration will never replace litigation entirely. Thirdly comes the issue of objective 'arbitrability' of patents. This differs from jurisdiction to jurisdiction, but the growing trend is that most – if not all – major aspects of patent rights are becoming arbitrable in international arbitration including validity, ownership, and infringement. Lastly, although the inter partes effect of the award may be treated as an advantage – protecting patent owners from the risk of losing patents in one worldwide procedure– on the other hand, this could be seen as a limitation to the arbitral tribunal's authority which cannot revoke or invalidate the patents with erga omnes effects.

Thus, the study analyses the trend in the use of international arbitration and its efficiency and effectiveness in the protection of patent rights in comparison to litigation, its advantages, and disadvantages as well as the possible ways to improve it. In the recent years, parties are becoming more open to arbitration with the understanding of its notable advantages.

As a result, the use of arbitration is growing at a high speed and it will continue growing even more once parties have become fully aware of it, including such sectors as financial technology, pharmaceuticals, information, and communication technologies (ICT) such as 5G and the Internet of things field (IoT). As such a key case study presented in this thesis involves the use of arbitration to resolve disputes over standard-essential patents (SEPs).

Abbreviations

AAA – The American Arbitration Association

FRAND terms – Fair, Reasonable, and Non-discriminatory terms

HKIAC – The Hong Kong International Arbitration Centre

IBA – The International Bar Association

ICDR – The International Centre for Dispute Resolution

ICC – The International Chamber of Commerce

IP – Intellectual Property

IPR – Intellectual Property Right

LCIA – The London Court of International Arbitration

PCT – The Patent Cooperation Treaty

SEP – Standard-Essential Patent

UNIDROIT – International Institute for the Unification of Private Law

UNCITRAL – United Nations Commission on International Trade Law

UPC – Unified Patent Court

WIPO – The World Intellectual Property Organization

WTO – World Trade Organization

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Chapter I. Introduction

Literature review

The protection of intellectual property rights through alternative dispute resolution procedures - such as copyrights, patents, trademarks and designs - in the globalised world economy is the topic of developing critical scholarship.¹ This thesis focuses on patent disputes between private parties, and as such focuses mainly on scholarship that views IP as a source of conflict between private parties. In this view, the protection of intellectual property aims to enhance societal welfare by protecting private property rights and incentivising innovation. The monopolistic nature of IP generates conflicts between, and among, members of the technological developer (patent owner) and user/competitor groups of stakeholders. A conflict between these parties is likely to occur when one party uses (or trespasses upon) an intellectual property right, without the owner's permission.

The legal environment, including the international frameworks such as TRIPS, has at times been critiqued for its weak intellectual property enforcement measures. In the global sphere, the penalties for the violations of intellectual property rights are sometimes inadequate and arguably fail the deterrent objective of the legal system.² Existing frameworks also fail to protect intellectual property from parties who promote infringement through indirect means.³ The United States' failure to pass the proposed 'Stop Online Piracy Act' and 'Protect Intellectual Property Act' (as well as the proposed global ACTA, which was vetoed by the European Parliament) due to the unpopularity of the legal measures among stakeholders and consumers also indicates challenges to the frameworks for developing intellectual property laws. Stakeholders' attitudes towards the proposed laws are consistent with the embedded conflict between the developed and developing countries in the TRIPS framework. Here it is possible to identify a threat to the ability of the primary legal framework to protect intellectual

¹ See Trevor M Cook and Alejandro I Garcia, *International Intellectual Property Arbitration* (Aspen Publishers 2010); Peter Chrocziel, Boris Kasolowsky, Robert Whitener, Waldeck und Pyrmont and Wolrad Prinz, *International Arbitration of Intellectual Property Disputes: A Practitioner's Guide* (Hart 2017); Mohamed H Negm and Huthaifa Bustanji, 'Particularity of Arbitration in International Intellectual Property Disputes: Fitting Square Peg into Round Hole' (2018) 14 Asian International Arbitration Journal 89; Daniel Schimmel and Ila Kapoor, 'Resolving international intellectual property disputes in arbitration' (2009) 21 Intellectual Property & Technology Law Journal 5.

² Lynda J Oswald, 'International issues in secondary liability for intellectual property rights infringement' (2008) 45 American Business Law Journal 247.

³ Ibid.

property rights and to adapt to the dynamics of the intellectual property environment, while dealing with public concerns over e.g. health, access and welfare. The need for trade-offs, based on individual cases, may be instrumental to a realisation of a balance between the need for improved innovation and welfare on one hand and economic benefits of innovative efforts on the other hand.⁴

Of particular relevance to this thesis is that patents litigated in national disputes may end up in conflict with provisions from applicable international laws.⁵ This was arguably the case in *Symbian Ltd v Comptroller General of Patents*.⁶ In this case, the UK Intellectual Patent Office's decision was challenged at, and eventually overturned by, the Court of Appeal of England and Wales. The case concerned the UK IPO's decisions on the patentability of inventions involving computer programs when compared with those of the European Patent Office.⁷ There was divergence on the question of the patentability of computer programs. The UK IPO refused the patent application due to the fact that the invention was part of the computer program, and therefore, it was excluded from patentability in accordance with the Aerotel/Macrossan test. The Court of Appeal rejected that interpretation and emphasised that the contribution must be 'technical' to be patented. As the invention solved a technical problem within the computer, the patent claim was allowed. That decision demonstrated the difficulty in providing legal certainty concerning patent application criteria in the UK IOP and EPO (though in the end the ruling brought the UK interpretation closer to the European position and promoted uniformity).

Use of the traditional legal framework – national litigation – for solving conflicts arising from the infringement of intellectual property rights may be both lengthy and costly, and may not resolve the dispute at the global level. The rigidity of the national litigation system limits its ability to protect intellectual property rights.⁸

Some major enforcement regulations, such as the Brussels Convention and the Lugano Convention are regional, hence cannot be enforced in conflicts whose jurisdictions are beyond

⁴ Joseph P Daniels and David D Van Hoose, *Global economic issues and policies* (4th edn, Routledge 2018).

⁵ Tina Hart, Simon Clark and Linda Fazzani, *Intellectual property law* (6th edn, Palgrave Macmillan 2013) 39.

⁶ *Symbian Ltd v Comptroller General of Patents* [2008] EWCA Civ 1066.

⁷ The UK consists of three distinct jurisdictions, England and Wales, Northern Ireland, and Scotland. Throughout the remainder of the thesis, I refer to the jurisdiction of England and Wales as the UK.

⁸ Benedetta Ubertaini, *Exclusive jurisdiction in intellectual property* (Mohr Siebeck 2012) 77.

the regions. For this reason, some jurisdictions have recommended alternative dispute resolution approaches.⁹

Alternative dispute resolution strategies are said to enable decisions that yield the best remedies to involved parties, and are a better way of ensuring peaceful coexistence between parties, post-decision.¹⁰ Schultz notes that an unsatisfactory judgment at the national level may resolve an individual case, but ultimately fuel a conflict between involved parties into worse cases in the future.¹¹ An example is the long running *Apple Inc. v Samsung Electronics Co.* (*Apple v Samsung*) dispute, which played out in several different national litigation arenas, including the US, South Korea, the UK and Germany and took seven years to come to a final resolution.¹²

In addition to the benefit of a more consensual conflict resolution outcome, alternative dispute resolution strategies help the interested parties to save money, preserve their relationships, and protect their operations.¹³ Some jurisdictions have acknowledged the benefits of alternative dispute resolution strategies and made provisions for promoting them. The United Kingdom is an example of such jurisdictions, and its provisions for the use of the strategies for the solution of problems around intellectual property rights is evident.¹⁴ Dispute resolutions over intellectual property rights violations in the United Kingdom are undertaken in the Patents Court, and the Intellectual Property Enterprise Court whose provisions advocate

⁹ See Legislative Council Brief, *Arbitration (Amendment) Bill 2016* (Hong Kong 2016) <https://www.legco.gov.hk/yr16-17/english/bills/brief/b201612021_brf.pdf> accessed 7 January 2022: “The proposal aims to clarify the legal position as to the arbitrability of IPR disputes and thereby attract and facilitate more parties (including parties from other jurisdictions) to settle their IPR disputes by arbitration in Hong Kong. In the long run, this might reduce the Judiciary’s workload and expenses as more IPR disputes will be resolved by arbitration to be conducted by private arbitrators.”; *Arbitration (Amendment) Bill 2016*.

¹⁰ Denis Brock and Rebecca Pither, ‘How international law firms might approach the subject of ADR with clients,’ in Jean-Claude Goldsmith, Arnold Ingen-Housz and Gerald H Pointon (eds), *ADR in business: Practice and issues across countries and cultures* (Kluwer Law International 2011).

¹¹ Thomas Schultz, ‘The roles of dispute settlement and ODR,’ in Jean-Claude Goldsmith, Arnold Ingen-Housz and Gerald H Pointon (eds), *ADR in business: Practice and issues across countries and cultures, Volume 2* (Kluwer Law International 2011) 148.

¹² See *Apple Inc. v Samsung Electronics Co.*, 786 F.3d 983 (Fed. Cir. 2015).

¹³ Lanning G Bryer, Scott J Lebson, Matthew D Asbel, *Intellectual property strategies for the 21st century corporation: A shift in strategic and financial management* (John Wiley & Sons, Inc. 2011) 192.

¹⁴ Jens M Scherpe and Bevan Marten, ‘Mediation in England and Wales,’ in Klaus J Hopt and Felix Steffek (eds), *Mediation: Principles and regulation in comparative perspectives* (Oxford University Press 2013) 419.

for the use of alternative dispute resolution approaches prior to the commencement of litigation.¹⁵

Arbitration as the private method to resolve disputes between parties has been mentioned in Plato's texts centuries ago, however, it gained popularity only in some specific sectors such as shipping and construction, meanwhile patent disputes have been a controversial subject. Nevertheless, due to the rise of global communication technologies such as 5G and the ICT sector, arbitration may become a standard method to resolve complex global patent disputes. Admittedly, arbitration is a relatively new method for resolving patent disputes, but its advantages identify it as a potentially optimal option for addressing conflicts about patent rights, especially because of the limitations of the international legal frameworks and the global nature of patent rights. Arbitration, within the scope of international patent disputes, has been associated with the cost effectiveness of dispute resolution procedures, the speed of resolving conflicts, and the preservation of business relationships.¹⁶

Moreover, arbitration presumes limited appeal options, and worldwide enforceability under the New York Convention 1958¹⁷ - this can be contrasted with litigation, where the enforcement of the judgment is dependent on mutual international agreements - and can be delayed when the decision is appealed. Even in terms of substantive patent law, the potential for multiple national patent litigation proceedings to occur under different national laws and litigation systems creates the potential for controversial results due to a diversity of outcomes – a patent found infringed upon in France might be found not to be infringed in the UK. This uncertainty makes arbitration a more advantageous option, allowing parties to settle the dispute by a single proceeding under the law agreed by the parties.

Notably, the world's leading arbitral institutions such as The London Court of International Arbitration (LCIA), The International Chamber of Commerce (ICC), The Hong Kong International Arbitration Centre (HKIAC) and The World Intellectual Property Organization Arbitration and Mediation Centre (WIPO) have in recent years amended their rules to promote arbitration in the IP sector. The amended rules entail provisions to shorten the procedure including expedited arbitration, emergency relief and consolidation of proceedings

¹⁵ See Tanya F Aplin and Jennifer Davis, *Intellectual property law: Text, cases, and materials* (4th edn, Oxford University Press 2022).

¹⁶ Thomas D Halket, *Arbitration of international intellectual property disputes* (2nd edn, Juris Publishing Inc. 2021) 1-54.

¹⁷ United Nations Convention on the Recognition and Enforcement of Foreign Arbitral Awards (adopted June 1958, entered into force 7 June 1959).

as well as a range of interim measures and orders of security for claims and costs. As a result, the number of IP cases being heard by these centres continues to rise every year. For instance, IP disputes heard by HKIAC in 2016 were equal to 5.4 % of the whole case record¹⁸ - and the number of cases heard by the WIPO Arbitration and Mediation Center increased significantly from 41 to 182 cases from 2011 to 2020.¹⁹

Moreover, arbitration processes are also confidential, unlike the judicial processes, and the associated limited information released to the public is likely to safeguard relationships between involved parties and their respective stakeholders. Another advantage of arbitration, which establishes it over the judicial process, is its reliance on experts. Arbitrators, unlike judges in a judicial process, are experts in their respective fields and their knowledge of the relevant trade is likely to result in satisfactory resolutions. In response to the specific issues of IP disputes, many arbitral institutions such as WIPO, SIAC and HKIAC have launched special panels of arbitrators with expertise in IP disputes. In March 2016, Apple Inc. successfully convinced the US District Court of North California to grant a motion to compel arbitration of patent infringement claims against a Chinese registered company BYD Limited.²⁰ This reflects the increasing acceptance of arbitration in resolving IP disputes. This is also reflected in the Queen Mary University of London 2016 International Dispute Resolution Survey where 51% of respondents to the survey indicated that they considered that in the Technology, Media and Telecommunications (TMT) sector the majority of disputes in the future would relate to IP issues and 43% stated that arbitration was their preferred dispute resolution mechanism.²¹ Additionally, the recent case *Henry Schein, Inc. v Archer & White Sales, Inc.* confirmed USA pro-arbitration jurisdiction status.²² The US Supreme Court honoured parties' agreement to arbitrate notwithstanding the fact that the argument for arbitration was 'wholly groundless'. The contract contained the following arbitration clause: "Any dispute arising under or related to this Agreement (except for actions seeking injunctive relief), shall be resolved by binding arbitration in accordance with the arbitration rules of the American Arbitration Association

¹⁸ HKIAC, 'Case Statistics 2016' (*Hkiac.org*, 2016) <<http://www.hkiac.org/about-us/statistics>> accessed 7 August 2017.

¹⁹ WIPO, 'WIPO Caseload Summary' (*Wipo.int*, 2021) <<http://www.wipo.int/amc/en/center/caseload.html>> accessed 7 January 2022.

²⁰ *Apple Inc. v BYD Co. Ltd.*, 15-cv-04985-RS (N.D. Cal. Mar. 2, 2016).

²¹ Queen Mary University of London and Pinset Masons, 'Pre-empting and Resolving Technology, Media and Telecoms Disputes. International Dispute Resolution Survey' (*Qmul.ac.uk*, 2016) <<http://www.arbitration.qmul.ac.uk/research/2016/index.html>> accessed 3 January 2022.

²² *Henry Schein, Inc. v Archer & White Sales, Inc.* 586 U.S. 139 S. Ct. 524 (2019).

(AAA).”²³ Archer & White argued the arbitrability of a dispute due to the fact that one of the remedies sought was injunctive relief. On the other hand, Henry Schein argued that language in the contract made it clear that parties referred to arbitration. Also, AAA rules were incorporated which contained a kompetenz-kompetenz provision, allowing a tribunal to rule on its own jurisdiction. Therefore, by referring to the AAA rules, the parties agreed to refer the arbitrability issue to the arbitrator. The Court supported Henry Schein’s position unanimously (9-0), stating that a valid delegation of arbitrability should be honoured even if a court believes the argument for arbitration to be ‘wholly groundless’.

Nevertheless, the usage of arbitration to enforce patent rights has been quite controversial among academics and practitioners. The controversy of the topic has been frequently discussed by Alejandro I. Garcia, Alan Redfern, J. Martin Hunter, Jacques De Werra, Thomas D. Halket, Peter Chrocziel, Boris Kasolowsky, Robert Whitener, Worlad Prinz zu Waldeck und Pyrmont, Trevor Cook, Andrea Mondini, and Clive Thorne. There are some specific issues which create uncertainty regarding arbitration of patent rights. First of all, it is the territorial nature of patent rights. Patent rights are closely connected with the law of its registration, which may consequently lead to a conflict between parties from different states arguing over patents registered in many jurisdictions. Each national patent law has its own rules and principles in patent rights protection. When there is a situation involving the same patent protected in multiple jurisdictions, there is a high risk of incompatible decisions obtained from national courts.

Secondly, arbitration is a consensual procedure which means that if parties do not agree on that, it will not be possible to solve the matter through arbitration. Admittedly, if a patent infringement dispute arises, it is highly unlikely that there would ever be an agreement to arbitrate.²⁴ However, even in this case, parties might agree to arbitrate rather than to litigate and submit their existing dispute to the agreed upon arbitral tribunal.

Thirdly, all types of patent disputes can be roughly divided into two categories: commercial (arising from a licencing agreement; M&A transaction; technology transfer agreement etc.) and core patent disputes (including issues of validity and infringement). The first category is considered as highly arbitrable in most jurisdictions; however, the other category itself represents a complex issue. Some jurisdictions such as the USA, Switzerland and Hong Kong declare the arbitrability of any patent disputes including validity issues. The

²³ *Henry Schein, Inc. v Archer & White Sales, Inc.* 586 U.S., 139 S. Ct. 524 (2019).

²⁴ Clive Thorne, ‘Are you making the right choice?’ (2017) (spring) *The Resolver* by CIArb.

Bill of Amendments to Arbitration Ordinance in Hong Kong clarifies that all disputes relating to the scope, validity, ownership, infringement and subsistence of IP rights are arbitrable.²⁵ Those changes took effect on 1 January 2018 and represent an enormous step forward to progressive and modern arbitration. In other jurisdictions such as UK, Italy and France there has been judicial, rather than statutory recognition of the arbitrability of patent rights. In the UK, for instance, the question of validity is arbitrable but with inter partes effect. That can be considered an advantage to a patent right owner because that decision will not affect his registered rights globally.

Consequently, these issues create more uncertainty. It is not clear whether the award can be enforced in places that do not allow for patent arbitration, such as China and how it will affect the public interest and third parties. The problem of arbitrability of patent rights has to be taken into consideration at the different stages of the process. Initially, this question should be examined with the law governing the substance of a dispute, the law of the seat of arbitration (*lex arbitri*) and the law of the place of assumed enforcement. The combination of such legislation may naturally lead to a conflict of laws and possible controversial decisions. Additionally, the issue of remedies proposed by arbitration is considered to be open as well as the subject of rights invalidity. It is argued that an arbitrator should decide upon matters of invalidity with inter partes effect and should suggest such remedies as royalty free licences for the duration of the existing registration for the winning party. Others suppose that the award may not need to deal expressly with invalidity at all, and instead focus on the consequences that follow and the appropriate remedies.²⁶ Arbitration may suggest more flexible remedies such as suspension of a patent rather than revocation with the following grant of a license to the infringer to the benefit of both parties. Additionally, a patent might be considered as unenforceable against the other party rather than invalid.²⁷ If a patent is considered invalid during judicial proceeding, it will have a global effect, meanwhile in arbitration, the validity will be decided between the parties.

²⁵ Arbitration (Amendment) Bill 2016.

²⁶ Clive Thorne, 'Practitioners overlook arbitration when resolving patent infringement' (*Mondaq.com*, 2014) <<http://www.mondaq.com/uk/x/314964/Patent/Practitioners+Overlook+Arbitration+When+Resolving+Patent+Infringement>> accessed 1 January 2022.

²⁷ *Ibid.*

Patent rights relate to many aspects of modern life, from pharmaceutical, media industry to financial software and aerospace. In the 21 century, when we speak of information technologies, such as 3D printing and artificial intelligence, we should consider new methods for resolving disputes regarding those matters. The need for a universal method of protecting global patent rights is evident. The nature of relationships between patent rights holders that require a sensitive approach²⁸ and the general approach to judicial procedures²⁹ identify the need for alternative dispute resolution options such as arbitration. The lack of effectiveness of the court proceedings in deterring infringement of intellectual property laws³⁰ also identifies the need for the alternative dispute resolution benefits arbitration can provide. Arbitration is the most suitable approach for patent rights protection, to achieve optimum benefits for both parties. This study seeks to investigate the efficiency and effectiveness of arbitration. The paramount importance and global usage of patents around the world and the increased trends in using arbitration to resolve patent infringement issues explains the significance of the study.

An outline description of the research objectives and questions

The study seeks to investigate international arbitration as a method of enforcing patent rights. The following are the specific research objectives of the study:

- To explore the efficiency and effectiveness of the legal framework for enforcing patent rights in the global sphere. This includes analysis of litigation and arbitration as the two primary methods, noting that some jurisdictions such as the UK and US are popular venues for both litigation and arbitration, whereas other jurisdictions such as Hong Kong are primarily arbitration venues.
- This thesis will examine analysis of international case studies (in chapters 3 and 4), exploring complex global disputes that began either in courts or by arbitration submission in different jurisdictions showing strong and weak sides of both approaches.
- Standard essential patents (SEPs) will form a key case study (in chapter 5) for the argument that arbitration is preferable to litigation in high-profile global patent disputes.

²⁸ Lanning G Bryer, Scott J Lebson, Matthew D Asbel, *Intellectual property strategies for the 21st century corporation: A shift in strategic and financial management* (John Wiley & Sons, Inc. 2011) 192.

²⁹ Thomas D Halket, *Arbitration of international intellectual property disputes* (2nd edn, Juris Publishing Inc. 2021) 1-54.

³⁰ Lynda J Oswald, 'International issues in secondary liability for intellectual property rights infringement' (2008) 45 American Business Law Journal 247.

The study addresses the following research questions:

- How efficient is arbitration, relative to litigation, in protecting patent rights in the global environment?
- What do the case studies demonstrate about the advantages and disadvantages of litigation and arbitration in the patents field? What are the strengths and weaknesses of both approaches?
- What is the optimal method of enforcing patents – litigation or arbitration?
- Are disputes on standard-essential patents a special case? Does their multijurisdictional nature mean they are particularly suited to be resolved by arbitration?

In this thesis, the specific technical meaning of economic efficiency is not applicable, instead, efficiency is a well-known interdisciplinary concept applied as a ratio between the two, measured by the same unit.³¹ More precisely, I will focus on the understanding of social efficiency as the “minimisation of net social cost”³² such as the minimisation of cost and delay of proceedings.³³ The type of efficiency that is relevant in international arbitration can be measured in two different ways – in terms of time, and in terms of money. Regarding the measurements of time-efficiency, Veijo Heiskanen suggests that the duration of arbitration shall be compared with the duration of the commercial transaction out of which the dispute arises. In this case, an arbitration proceeding is considered more efficient when there is a greater difference between the duration of the arbitration and the duration of the transaction. In other words, the longer the transaction continues, the more efficient arbitration is. The same principle applies to the cost-efficiency, considering the likely cost of the arbitration proceedings and the value of the transaction. However, in this thesis, such a concept of efficiency is not applicable. Arbitration efficiency cannot be compared or measured by the length of the related transaction or its costs. The transaction might not last long and be relatively low in cost, however, arbitration might last longer and costs may be significant. The length of the arbitration proceedings usually depends on the complexity and number of issues involved, number of parties and required experts, related contracts etc., therefore, the length of the involved transaction cannot be the basis of the evaluation of the efficiency of arbitration.

³¹ Veijo Heiskanen (Lalive), ‘Key to Efficiency in International Arbitration’ (*Kluwerarbitration.com*, 2015) <<http://arbitrationblog.kluwerarbitration.com/2015/05/29/key-to-efficiency-in-international-arbitration/>> accessed 8 January 2022.

³² Robert Cooter and Thomas Ulen, *Law and Economics*, 6th edition (Berkeley Law Books 2016) 384.

³³ Anna Olijnyk, *Justice and efficiency in mega-litigation* (Hart 2019) 13.

The costs of the transaction, on the other hand, might be a basis for such a comparison. Some arbitration rules clearly state that cost of arbitration will depend on the amount of the involved dispute. However, independently fixed rates such as an hourly-rate charge system looks much more reasonable for two main reasons. Firstly, it proves the independence and separability of the arbitration procedure from the main contract; secondly, the parties do not have to adjust the disputed costs to the possible cost of the arbitration. Nevertheless, it is left to the parties' consideration and the preference of the calculation method should be chosen according to the circumstances of a specific dispute. For instance, HKIAC provides such a choice for parties in a dispute. Therefore, in this thesis the basis of the evaluation of arbitration efficiency will be a comparison of the time and money spend in litigation on similar disputes. Although such information is limited in the public domain, it is possible to establish average timeframes and costs applicable to both arbitration and litigation. Thus, the general principle of minimization of time and cost is applied.

In addition, the efficiency of arbitration should not be limited only to the time and cost. William Park and Jennifer Kirby emphasise that cost and speed of arbitration do not have to be treated as enemies for an accurate and enforceable result. Decisions reached cheaply and quickly are usually poor quality and may be wrong on the substantive merits which lead to the eventual setting aside of an award.³⁴ Indeed, when parties refer a dispute to arbitration, they expect to receive a fair and enforceable decision. Park and Kirby claim that time and cost of the proceedings are bound with accuracy and enforceability, which is why high-quality decisions will require a certain amount of time and effort to be finalised.³⁵ Therefore, the efficiency concept in this thesis combines the cost and speed of proceedings along with accuracy and enforceability of a decision.

By effectiveness, in this thesis, I consider specific advantages and disadvantages of patent arbitrations in comparison to the patent litigation. For instance, remedies which can be granted by an award in contrast to the court decisions. Arbitrators possess more flexibility than judges in state courts. A judge must strictly follow a written set of rules like case law and statutes, meanwhile, arbitrators in the process of making a decision can rely upon his knowledge and perception of equity and fairness along with legal norms. Thus, under effectiveness of

³⁴ William W. Park, 'Chapter 26: Arbitration and Fine Dining: Two Faces of Efficiency', in Patricia Shaughnessy and Sherlin Tung (eds), *The Powers and Duties of an Arbitrator* (Kluwer Law International 2017).

³⁵ Jennifer Kirby, 'Efficiency in International Arbitration: Whose Duty Is It?' (2015) 32 *Journal of International Arbitration* 689.

patent arbitration I will consider specific advantages and disadvantages of patent arbitration in contrast to that of patent litigation.

The economic significance of intellectual property developments identifies the need for effective intellectual property rights. Adequate protection of intellectual property rights, with its effects on motivation to innovate due to guaranteed rewards, leads to an increased number of intellectual property developments and positive macroeconomic indicators.³⁶ The guaranteed return on investment, due to the effective protection of monopoly rights is a likely motivator into investments in intellectual property development and the final increased number of patented products. A positive relationship exists between the number of registered patents and countries' gross domestic products and per capita gross domestic product, and this establishes economic benefits of effective intellectual property rights.³⁷ International frameworks, such as TRIPS³⁸, are examples of the legal basis for the protection of intellectual property rights across country borders and have been associated with innovation into a progressive technological environment.³⁹

Challenges, however, exist to the legal frameworks for the protection of intellectual property rights in the international context. Countries have their domestic laws for the protection of intellectual property legislation and the variation of laws across countries affects implementation of laws for their protection. Some countries have arguably weak intellectual property laws, which allow for the IP infringement.⁴⁰ The weak domestic legal frameworks that undermine the protection of intellectual property rights are likely to promote rights violations within their jurisdictions and to undermine international efforts for rights protection. Lack of cooperation with international stakeholders is an example of the effects of the weak legal frameworks on the protection of rights. A citizen in a country with weak intellectual property laws is likely to feel accountable to the domestic laws, hence violating provisions in other countries. Similarly, a country with weak intellectual property laws is likely to protect intellectual property to the extent that its laws provide and is not likely to cooperate in

³⁶ Lenka Pelegriova and Martin Lancy, 'Protection of intellectual property and its economic aspects' (2016) 5 (3) *The Journal of Economic Development, Environment, & People* 5.

³⁷ *Ibid.*

³⁸ Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) is Annex 1C of the Marrakesh Agreement Establishing the World Trade Organization (signed 15 April 1994, entered into force 1 January 1995).

³⁹ See Giuseppe Di Vita, 'International strengthen of intellectual property rights, and financial markets development' (2016) 40(1) *The Journal of Economics & Finance* 60.

⁴⁰ Dominika Bochanczyk-Kupka, 'A comparative analysis of intellectual property rights protection in China and India in the XXI century' (2016) 9 (1) *The Journal of International Studies* 56.

international efforts that go beyond domestic laws. Efforts of nations in the protection of intellectual property rights in the global scope, therefore, is limited to the extent of consistency between the laws of countries whose citizens are involved in an intellectual property conflict.⁴¹ Consequently, the legal framework that the courts use to protect intellectual property rights in the international scope is arguably ineffective.

International arbitration, a form of the alternative dispute resolution approach, can be considered as a substitute to the judicial system. The approach whose advantages include flexibility and efficiency is becoming significant, increasingly, in the arbitration of patent conflicts.⁴² The reluctance that undermined the use of arbitration has been declining and the trend forecasts a greater level of reliance on international arbitration.⁴³ Evolution of the technological environment could explain the transition, but the need for justice beyond the provisions of the law also explains the possible transition to the increased use of arbitration. Arbitration to resolve issues has been used in cases where court resolutions are not available, court resolutions may not yield expected remedies, or court processes face constraints such as cost and time.⁴⁴ Applicability of arbitration in resolving patent disputes, however, differs across countries and this associates it with some of the limitations of court resolutions.⁴⁵ Some states do not allow the use of arbitration in resolving some patent conflicts, and this undermines the possible use of arbitration when one of the involved parties is from such a country. In addition, countries differ in the extent to which arbitration is applicable in the adjudication of patent conflicts and the variations can be significant to the effectiveness of arbitration when applied across the countries' borders.

Traditionally, there has been reluctance towards arbitration by high-profile patent holder's sectors and tech companies who historically preferred using courts to protect their rights. The possible explanation for this is that arbitration has been mainly used to resolve disputes with a contractual nature rather than with tortious one.⁴⁶ For instance, in the USA although in practical terms a small number of infringement disputes are submitted to

⁴¹ Dominika Bochanczyk-Kupka, 'A comparative analysis of intellectual property rights protection in China and India in the XXI century' (2016) 9 (1) *The Journal of International Studies* 56.

⁴² Joseph P Zammit and Jamie Hu, 'Arbitrating international intellectual property disputes' (2009) 64 (4) *Dispute Resolution Journal* 74.

⁴³ *Ibid.*

⁴⁴ Kazushige Ogawa, 'Overcoming problems with use of arbitration for intellectual property disputes' (2011) 20 *The IPP Bulletin* 13.

⁴⁵ Kenneth R Adamo, 'Overview of international arbitration in the intellectual property context' (2011) 2 *The Global Business Law Review* 7.

⁴⁶ Clive Thorne, 'Practitioners overlook arbitration when resolving patent infringement' (*Mondaq.com*, 2014) <<http://www.mondaq.com/uk/x/314964/Patent/Practitioners+Overlook+Arbitration+When+Resolving+Patent+Infringement>> accessed 1 January 2022.

arbitration, the U.S.C. Title 35 Section 294 (a) states that any arbitration clause contained in a patent agreement should be presumed “valid, irrevocable and enforceable”. Admittedly, an infringement of intellectual property rights has tortious characteristics, however, if we look at the depth of arbitration, there is nothing that prevents an existing dispute from being settled by arbitration. The interesting issue arises when we look at the consensual nature of arbitration which means that if there is no consent, then no arbitration can happen. Nevertheless, looking at the practice of conclusion of licensing agreements, nowadays, most of them automatically contain an arbitration clause. Here arises the issue of incorporation of arbitration clauses into contracts and agreements. Commonly, an arbitration agreement requires special notice of incorporation, however, it is not always the case as can be demonstrated by the following conflicting judgments. In the case of *The Athena*⁴⁷, a general reference to contract terms and conditions were considered sufficient to incorporate the arbitration clause in the referred contract without special reference to the arbitration clause. In contrast, in *Thomas v. Portsea*⁴⁸, the position was the opposite, and general words were considered insufficient for incorporation. The solution can be found at the following in the case *Habas Sinai v. Sometal*⁴⁹, where a line should be drawn between one-contract cases and two-contract cases. The first type of one-contract case is when parties have already entered into this kind of agreement and both of them have access to the previous contract, then there is no need for a special notification. Interestingly, the same applies to the standard forms which contain an arbitration clause, so that there is no need for a specific notification for an arbitration clause to be incorporated into a contract. However, in occasion of two-contract cases when one of the parties has access to a contract to be incorporated, the other party must be notified through a specific notice about arbitration to be bound by an arbitration clause. Therefore, if an arbitration clause is incorporated in the appropriate way into the main contract, the parties will be bound by that immediately with all further consequences.

According to the Queen Mary survey the respondents stated that arbitration was their preferred way for resolution of TMT disputes (43% for arbitration against 15% for litigation), however, the statistics disapproved that matter and illustrated that litigation was the most frequent mechanism that was used over the last five years (litigation 44% and arbitration

⁴⁷ *The Athena* [2000] 2 All ER 566.

⁴⁸ *Thomas v. Portsea* [1912] AC 1.

⁴⁹ *Habas Sinai Ve Tibbi Gazlar Isthisal Endustri AS v Sometal SAL* [2010] EWHC 29 (Comm).

35%).⁵⁰ The study proposed the following explanation. First of all, there was an absence of arbitration agreements between parties in contracts which were concluded before the significant increase of arbitration during the last ten years. The second reason was the difficulty in negotiations between parties where suppliers were generally more pro-litigation oriented. Thirdly, there was a default position of litigation clause in the contract. Lastly, little attention was given to the construction of a dispute resolution clause at the negotiation stage where parties did not presume that the future disputes would arise.

Notwithstanding the reasons named above are convincing, it is worth noting that the relatively limited use of arbitration can be explained through the lack of understanding of its advantages by the parties. Arbitration might be the most suitable method of resolving global patent disputes, however, the cost of arbitration is considered one of the most significant challenges. The structure of arbitration costs includes the combination of the arbitral tribunal's fee, governing institution fee and administrative fee in the case of administered arbitration, while ad hoc arbitration might be considerably cheaper. Typically, the amount in the dispute will be the decisive factor in determining the cost of a specific arbitration, meanwhile HKIAC recently proposed that parties might choose the option of paying arbitral tribunal's fees at an hourly rate which consequently led to the majority of HKIAC tribunals being paid on an hourly rate basis.⁵¹ Additionally, the World Intellectual Property Organisation demonstrated in its survey in 2013, that resolving technology disputes through arbitration saved more than half of the costs compared to the litigation in a foreign country (400,000 USD and 850,000 USD accordingly).⁵² According to Clive Thorne, the costs of a patent trial in the US can exceed \$2m and in England, it's over £1m in the Patent Court, despite efforts to minimise the costs.⁵³ Those numbers indicate the great potential that arbitration offers for patent dispute resolution. Moreover, the allocation of costs may differ in three possible ways. Parties may agree to

⁵⁰ Queen Mary University of London and Pinset Masons, 'Pre-empting and Resolving Technology, Media and Telecoms Disputes. International Dispute Resolution Survey' (*Qmul.ac.uk*, 2016) <<http://www.arbitration.qmul.ac.uk/research/2016/index.html>> accessed 3 January 2022.

⁵¹ HKIAC, 'HKIAC Average Costs and Duration' (*Hkiac.org*, 2021) < <http://www.hkiac.org/content/costs-duration> > accessed 9 January 2022.

⁵² WIPO Arbitration and Mediation Center, 'Results of the WIPO Arbitration and Mediation Center International Survey on Dispute Resolution in Technology Transactions' (*Wipo.int*, 2013) <<https://www.wipo.int/amc/en/center/survey/results.html>> accessed 9 January 2022.

⁵³ Clive Thorne, 'Practitioners overlook arbitration when resolving patent infringement' (*Mondaq.com*, 2014) <<http://www.mondaq.com/uk/x/314964/Patent/Practitioners+Overlook+Arbitration+When+Resolving+Patent+Infringement>> accessed 1 January 2022.

conclude an agreement to bear their costs separately, including the costs of legal representation. Without any agreement on costs, an arbitral tribunal tends to make a decision where all the costs will be borne by the losing party or costs will be measured based on the relative success of the parties.⁵⁴

The use of international arbitration for the protection of patent rights, therefore, has been increasing and its advantages and scope explains the trend. It bridges that gap in the use of court resolutions, but it also faces some of the limitations of the court resolution approach. The research of international arbitration as a method of enforcing patent rights, therefore, is necessary and is the focus of the proposed study.

Methodology

There is no accepted, established methodology to be followed in the process of comparative legal research, which creates certain challenges for a researcher. Additionally, both the process of setting up the object of the comparison and the possibility of comparison itself have been criticised in the last few decades.⁵⁵ At the end of the nineteenth century, Raymond Saleilles and others saw comparative law solely as a tool for improving domestic law and legal doctrine. However, in the twentieth century many legal scholars concluded that comparative law research is a necessary method for understanding harmonization of law in general.⁵⁶ Patrick Glenn named the following aims of comparative law: first, it is an instrument of learning and knowledge for better understanding of the law; second, comparative law is a method of evolutionary and taxonomic science; third, it is a way of contributing to one's own legal system in the aftermath of the harmonisation of law.⁵⁷

The comparative part of the research includes analysis of the national legislation of different countries. For the arbitration part the focus was made on the major arbitration hubs - the UK, the US and Hong Kong legislations. The choice of those jurisdictions was made due to the reputation of their arbitration centres, their pro-arbitration legislation, and their

⁵⁴ Annette Magnusson and Celeste E Salinas Quero, 'Recent Developments in International Arbitration. Allocation of Costs: a Case study (*Sccinstitute.com*, 2014). <https://sccinstitute.com/media/56023/allocation-of-costs-in-scc-cases_taipei-30-august-2014.pdf> accessed 7 January 2022.

⁵⁵ Mark Van Hoecke, 'Methodology of Comparative Legal Research' [2015] *Law and Method* 1.

⁵⁶ *Ibid.*

⁵⁷ Patrick H Glenn, 'Aims of Comparative Law' in Jan M Smits (ed), *Elgar Encyclopedia of Comparative Law* (2nded Edward Elgar Publishing 2014).

innovative schemes (such as the launch of IP panels of arbitrators, new administration rules and new procedures). The multi-national nature of patent litigation required that I look at several other jurisdictions as well where it was necessary. In other words, due to the fact that major international patent disputes involve proceedings in many countries, their national laws and legal procedures cannot be ignored. This was apparent in high profile cases such as *Genentech Inc. v Hoechst GmbH and Sanofi-Aventis Deutschland GmbH* (*Genentech v Hoechst and Sanofi-Aventis*) and *Apple v Samsung*. The case studies I examined required discussion of several different jurisdictions in the creation of the complete thesis.

A major obstacle of legal comparative research might be the language barrier. However, the main arbitration jurisdictions I investigated had English as an official language, therefore, that challenge was not relevant. Regarding the other jurisdictions, analysis of their laws and official transcripts was technically limited to where it was possible to obtain access to the official translations in English. Nevertheless, there was a challenge - what if those translations were not fully correct or substantially outdated? Resolving that issue required a good knowledge of the local language and legal system.⁵⁸ Mark Hoecke suggests making contact with local scholars to make sure of the accuracy of the data and to emphasise the importance of a professional network of colleagues in the same area of law. My professional arbitration network covering the UK, the US and Hong Kong jurisdictions has helped me to ensure the quality of the data presented in the thesis. In addition, being a member of the Chartered Institute of Arbitrators (CI Arb) allowed me to gain a global perspective on the patent arbitration due to the global coverage of this organisation.

The other possible challenge of comparative legal research can occur when a researcher is not familiar with the legal cultures involved. Therefore, it is necessary to make a transferable list of the possible grounds of the research issues, procedure, and legal consequences in each jurisdiction. However, the list might not be totally accurate because different legal cultures can possess different concepts within the same apparent issue/procedure.⁵⁹ In the thesis, the conflict was unlikely to take place: first, all the named jurisdictions had a similar perception of arbitration and patent rights; and secondly, most of the countries had adopted the UNCITRAL Model Law establishing the basic concept of arbitration worldwide.

Regarding the object of what should be compared it is essential to look not only at the legal rules, judicial decisions and the way legal problems are solved, but also the socio-

⁵⁸ Mark Van Hoecke, 'Methodology of Comparative Legal Research' [2015] Law and Method 1.

⁵⁹ Ibid.

economic and historical context.⁶⁰ That was especially relevant to the analysis of Hong Kong because of its history with the UK. Nevertheless, the UK, the USA and Hong Kong are common law jurisdiction, therefore named aspects of the legal analysis were straightforward.

Geoffrey Samuel highlights six main comparative methods applied in comparative legal research: causal, functional, structural, hermeneutical, actional and dialectical.⁶¹ Mark Van Hoecke proposes the following methods: functional, structural, analytical, law-in-context, historical and common-core.⁶² In this thesis I applied the functional method: an approach stating that most jurisdictions have different rules and concepts, yet, in the end, legal problems are solved in a similar way. The next method applicable to my thesis was the analytical method. Using this method, I analysed the definitions of ‘arbitration’ and ‘patent rights’ and clarified the terms used in several legal contexts. The historical and the law-in-context method showed the roots of the law and how it worked in practice, placing a particular emphasis on the implied patterns and other hidden elements, such as world views, affecting the interpretation of law.

The mixed research method, which integrates the quantitative research method and the qualitative research method was used for the study.⁶³ This research method acknowledges the need for a wider perspective to examine as well as the need to use diversified research approaches.⁶⁴ The scope of the proposed study required the development of an in-depth understanding of international arbitration characteristics, together with litigation, as well as a comparative analysis of the effects of the approaches to conflict resolution. The vast scope of the study required the integration of both qualitative and quantitative research methods, and this informs the proposal for the mixed research method. The survey design that collects data in their naturally existing form⁶⁵ and grounded theory that focuses on theory generation⁶⁶ were

⁶⁰ Gwilym Roberts, *International Patent Litigation - Developing an Effective Strategy* (2nd edn, Globe Law and Business 2018).

⁶¹ Geoffrey Samuel, *An Introduction to Comparative Law Theory and Method* (Hart 2014).

⁶² Mark Van Hoecke, ‘Methodology of Comparative Legal Research’ [2015] *Law and Method* 1.

⁶³ John W Creswell and Vicki L Plano Clark, *Designing and conducting mixed research methods* (3rd edn, SAGE 2018).

⁶⁴ *Ibid.*

⁶⁵ Martyn Denscombe, *The good research guide: For small-scale social research projects* (6th edn, McGraw Hill Education 2017).

⁶⁶ John W Creswell and J David Creswell, *Research design: Qualitative, quantitative, and mixed methods approaches* (5th edn, SAGE 2018).

used for the study. The survey design was used to collect quantitative data while grounded theory was used to collect and analyse qualitative data.

It is well established that there are not specific quantitative and qualitative methods applicable to legal research.⁶⁷ However, the most common ways of collecting data are questionnaires, interviews, observation tactics, direct communications, surveys, and case studies. These methods can bring both qualitative and quantitative data to research.⁶⁸ Due to the limited availability of the published arbitral awards, the main focus was given to the qualitative research methods including case law, literature review and formal interviews with arbitration practitioners. Also, online blogs played an important role in understanding the latest trends in the patent world. In addition, direct communication tactics such as informal discussions at conferences were also used. The surveys and statistics published by arbitration centres and research institutions had a significant importance in this research as well because of the confidential nature of arbitration.

Existing data on the use of arbitration and litigation was obtained from the online storage of departments of justice of selected countries and from the most famous arbitral institutions, such as LCIA, ICC, WIPO, AAA and HKIAC, while the interviews were used to generate qualitative data on the perceived effectiveness of dispute resolution strategies.

The study covered the UK as the most preferable seat for international arbitration following the International Arbitration Survey conducted by Queen Mary University of London and White & Case LLP in 2015 “International Arbitration Survey: Improvements and Innovations in International Arbitration”⁶⁹ and in 2021 “International Arbitration Survey: Adapting Arbitration to a Changing World”.⁷⁰ Those surveys illustrate that London remains in the top five venues for international arbitration. Moreover, its longstanding history in arbitration attracts parties from all over the world. London’s highly respectable organisations such as LCIA and the Chartered Institute of Arbitrators have proved its leading positions in the global arena. Their rules are universally applicable and combine the best features of civil and common law systems. Additionally, English law due to its flexibility and pro-arbitration policy is the preferable law which governs a significant number of international contracts and

⁶⁷ Philip Langbroek, Kees van den Bos, Marc Simon Thomas, Michael Milo, Wibo van Rossum, ‘Methodology of Legal Research: Challenges and Opportunities’ (2017) 13 (3) Utrecht Law Review 1.

⁶⁸ Ibid.

⁶⁹ Queen Mary University of London and White & Case, ‘2015 International Arbitration Survey: Improvements and Innovations in International Arbitration’ (*Qmul.ac.uk*, 2015).

< <http://www.arbitration.qmul.ac.uk/research/2015/index.html> > accessed 9 January 2022

⁷⁰ Queen Mary University of London and White & Case, ‘2021 International arbitration survey: adapting arbitration to a changing world’ (*Qmul.ac.uk*, 2021)

< <https://arbitration.qmul.ac.uk/research/2021-international-arbitration-survey/> > accessed 16 December 2021.

disputes, which makes the UK the central place to study patent arbitration. The EU law was also examined where applicable because of its historical and legal connection with the UK. The potential development of an arbitration body such as an alternative to the European Court of Justice for future trade disputes would be likely to take place in the near future. Moreover, it is predicted that a number of London-seated arbitrations will continue to increase due to uncertainty of the enforcement of English court judgements in Europe. This trend may receive long term perspective once the “Brexit” is completed.

Furthermore, the study examined the USA experience as a pro-arbitration jurisdiction, critically analysing its strengths and weaknesses concerning patent arbitration. The other important area to explore was the shift of arbitration from Europe to Asia. The Hong Kong arbitration and its alternative dispute resolution (ADR) policy was chosen to be explored, as it was an obvious and serious rival to the UK ADR centres. The worldwide popularity of arbitration in Hong Kong can be explained through its constant developments in ADR sphere and the cost of the proceedings. It is assumed that arbitration in Hong Kong is the cheapest one. That constitutes a serious challenge to the UK arbitration because the price of arbitration is considered the major disadvantage. Hong Kong arbitration is growing at breakneck speed and gathering more sympathisers around the world every year. That is why it was especially important to study its advantages and learn from its beneficial experience. The research critically analysed aspects of patent protection globally, including new specialised arbitrations regarding licenses for standard-essential patents on fair, reasonable, and non-discriminatory (FRAND) terms.

The following criteria were used for the comparison of arbitration and litigation in the case study:

- First of all, the case study involved patents as an object registered in multiple jurisdictions.
- Secondly, it involved parties from different jurisdictions.
- Thirdly, they involved major players in the IP field like Apple, Samsung, Genentech, Ericsson. These companies have spent a lot of resources on patent litigation in multiple jurisdictions and the study proposes that instead of litigation in multiple countries, parties may choose to resolve all existing disputes through one flexible procedure.

The analysis includes the following types of cases:

- 1) Cases were resolved by means of litigation only, however, arbitration would be a better option in terms of time/cost, enforceability, etc. For instance, paramount patent portfolio disputes or so-called smartphone wars such as *Apple v Samsung* and *Nokia v Ericsson*. It took 7 years for Apple and Samsung to resolve their dispute through multi-jurisdictional litigation. However, if they chose arbitration, it would cut time and cost to a single flexible procedure.
- 2) Cases involved both litigation and arbitration, for instance *AMSC v Sinovel* and *Genentech v Hoechst and Sanofi-Aventis*.
- 3) Cases involved the arbitration option exclusively (*Nokia v LG*, *Nokia v Samsung*, *Ericsson v Huawei*, *Ericsson v Interdigital*).

Thus, the study revealed that different scenarios are possible. It is possible that parties either choose litigation or arbitration or combine both procedures. Therefore, it is essential to establish the most efficient and effective approach applicable for the resolution of global patent disputes.

Chapter II. Legal framework: territoriality and jurisdiction of patent enforcement – as an element of Intellectual Property Enforcement

For patent rights, especially at the international level, disputes come from a number of sources. For instance, disputes may arise due to issues about agreements on technological transfers, arrangements of distributorship and cross licences as well as in cases of patent infringement. National courts tend to find it a challenging process to resolve patent disputes when the parties involved in conflict come from different countries. Indeed, rights created by national laws and statutes are territorial.

Thus, it is difficult to enforce these rights in foreign jurisdictions and territories. Moreover, the judicial systems in various countries are different, and this makes it difficult to enforce or resolve issues and conflicts about the infringement of the patent rights. Besides, the different qualifications of judges and arbitrators make it difficult for them to apply the same principles aimed at resolving problems about patent issues. Thus, there is a need to come up with laws and standards that are applicable across various jurisdictions, so that parties involved in a dispute are willing to use the systems in place to resolve the issues. However, it is not easy to achieve such an objective.

Patent territoriality and jurisdiction in the UK, the USA, Hong Kong

The United Kingdom

The main authority in patent regulation belongs to the Patents Act 1977. In addition, the United Kingdom uses the principles established by the European Patent Convention to address issues about patents rights.⁷¹ For an invention to achieve patent rights, it has to meet specific criteria. For instance, the invention must be new, and the product relevant in industries. Moreover, the person applying for the patent must prove the steps taken for the invention to become a reality. Note that, the United Kingdom provides patents to industrial products, and the aim is to protect them from people who are not authorised to use them. Indeed, when a person receives patent rights, they have the legal right and authority to prevent others from selling, manufacturing and using the inventions in industries and other commercial purposes.

⁷¹ The European Patent Convention (signed 5 October 1973, entered into force 7 October 1977).

United States of America

The legal system of the United States allows people to apply for the protection of their properties and inventions. Nonetheless, the protection of these properties must not contravene the federal patents, copyrights and trademark laws. Some federal offices that have authority over intellectual properties and examples are the United States Trademark and Patent office, the Plant Variety Protection Office, the Copyright office, the US Food and Drug Administration, the Craftboard and the International Trade Commission. The main source of the patent regulations is US patent act called Title 35 of the United States Code.⁷²

The owners who receive patent rights can exclude any other person from using their works. Moreover, once the owner of an invention registers a patent, they have authority over the product for twenty years. Additionally, the patent rights can extend to properties that one sells, mortgages or inherits⁷³. While applying for a patent right, one has to file it during the year that the invention comes into the public sphere. The US administrative process of patent application and approval is complicated and requires one to have a complete understanding of the country's patent laws. Nonetheless, the primary reason that motivates people to file for patent rights is to protect the commercial value for their inventions.

Hong Kong

Article 82 of The Basic Law of the Hong Kong Special Administrative Region (The Basic Law) acknowledges the common law principles that the country can use for purposes of solving disputes emanating from intellectual properties.⁷⁴ In this regard, judges have an option of using precedents set up in the United Kingdom and other countries that rely on the common law doctrines to solve cases. A significant portion of Hong Kong laws emerge from the UK statutes.

⁷² Title 35 of the United States Code (entered into force 1 January 1953).

⁷³ Jurgen Basedow, Toshiyuki Kono and Alex Metzger, *Intellectual Property In The Global Arena: Jurisdiction, Applicable Law, and the Recognition of Judgments in Europe, Japan and the US* (Mohr Siebeck 2012).

⁷⁴ The Basic Law of the Hong Kong Special Administrative Region (adopted on 4 April 1990, entered in force 1 July 1997).

The provisions of the Patents Ordinance (Cap 514) of Hong Kong (Patents Ordinance) emerge from the principles established under the UK Patent Act of 1977⁷⁵. An important principle established by the provisions of the Act is that the patent system and approval process of Hong Kong is independent of the manipulations of the state and other interested stakeholders. Thus, the courts have the power and capability to determine status of the patent rights, and the validity of such rights. In Hong Kong, there is a provision for short-term patent rights. These types of patent rights have a commercial value. However, before providing the short-term patent rights, the registrar of patents has an obligation of carrying out a formal and substantive examination, to determine the validity of the application. Before granting such rights, the registrar of patents must seek guidance from the European Patent Office, the UK Patent Office and the Chinese Patent Office⁷⁶. Thus, the patents issued by these offices are recognisable in Hong Kong, and they cannot be registered again.

Legal framework: territoriality and global prospective of patent regulations

Currently, the world is in dire need of the shift of regulations of intellectual property, as there is an obvious conflict between territorial nature of IP rights and its global usage. The dynamism of trade among different nations has become a vital element of intellectual property because globalisation is gaining popularity around the world. Nevertheless, technology has been the vital component driving globalisation. Furthermore, the application of technology in business through the e-commerce components has led to independence in the business world. The uniqueness of the intellectual properties demands that they should have an association with specific laws which are both local and international for their smooth operations.⁷⁷ The uniqueness in these properties is brought about by their unique characteristics making them different from other national rights enjoyed by citizens and businesses from different nations. The ownership of movable intellectual properties is not affected by the border issues since there has not been any law limiting their operations in different countries.

⁷⁵ Patents Ordinance (Cap 514) of the Hong Kong Special Administrative Region (entered into force 27 June 1997).

⁷⁶ Martin Kok and Stephanie Wong, 'The Storm Over A Teacup: Hong Kong Top Court Clarifies IP Law' (2016) 11 (6) *Journal of Intellectual Property Law & Practice* 410.

⁷⁷ Alexander VonMühlendahl and Dieter Stauder, 'Territorial intellectual property rights in a global economy - Transit and other 'free zones' in Pyrmont WPW, Adelman MJ, Brauneis R, Drexel J and Nack R (eds) *Patents and Technological Progress in a Globalized World* (Springer 2009).

Conversely, national policies have made intellectual property rights limited by nature. In a nutshell, intellectual property rights are treated independently among different nations across the world. For instance, the registration procedure in the USA for a given intellectual property may be different in the UK, China among other countries. Indeed, this is under the facilitation of the different constitutions and business policies practised by the individual countries. The different legislation and policies governing the business sector in different countries have made intellectual property rights a territorial issue. The policies and national laws dictate the registration process of intellectual property rights⁷⁸. The registered IP rights are listed under the owner and cannot be claimed or used by any other person without the owner's authority.

However, the law of international intellectual property is an area that has multilateral and also bilateral agreements, and they result in harmonising the national laws. This area has been very important and frequently litigated especially on copyright, patent and trademark arenas. In recent years, there have been more urgent needs for databases to be protected, as well as domain names, traditional knowledge, and software. Many of the issues related to the intellectual property on the cutting edge are addressed on a level that is international through the World Intellectual Property Organization (WIPO). Together with other types of protection that are new, the trends that are focused towards globalisation in the intellectual property of trade have had effects that are direct when it comes to harmonising intellectual property laws that are national through the World Trade Organization (WTO) and organisations of regional trade.

In 1970, states began using the Patent Cooperation Treaty (PCT) for purposes of international patent protection.⁷⁹ The provisions of this treaty allow for a single procedure of filing for intellectual property protection. Countries that signed the treaty recognise the procedure and allow for the incorporation of these procedures in their national laws. Furthermore, there are economic benefits when applicants use the provisions of the PCT to apply for patents in other countries. For instance, an applicant can postpone the costs of filing

⁷⁸Lydia Lundstedt, 'Territoriality in Intellectual Property Law: A comparative study of the interpretation and operation of the territoriality principle in the resolution of transborder intellectual property infringement disputes with respect to international civil jurisdiction, applicable law and the territorial scope of application of substantive intellectual property law in the European Union and United States (Doctoral dissertation, Stockholm University 2016).

⁷⁹ The Patent Cooperation Treaty (signed 19 June 1970, entered into force 24 January 1978).

for a patent application and its translations for a number of years, in case one does choose to do so in a foreign country.⁸⁰ Nonetheless, while filing for an international patent protection under the provisions of the Patent Cooperation Treaty, applicants are under the guidance of the Paris Convention.⁸¹ Indeed, this Convention contains guidance on how an applicant can file for a patent right, for the protection of their industrial properties. According to this Convention, an applicant has one year to file for patent protection in another country, after filing it in the home nation. Nonetheless, while filing for the patent protection in another country, an applicant has to file it in a nation that adheres to the principles established by the Paris Convention.

Moreover, while filing under the Patent Cooperation Treaty, the application will take approximately one month to become enforced in the countries selected. The countries under consideration must adhere to the Patent Cooperation Treaty. Additionally, to file for patent protection in these countries, an applicant has to use an attorney who qualifies to serve in the named country and the language of the country under consideration. Also, an applicant has to pay the necessary fees required for the application to get a patent license. Nonetheless, while completing the application process in the countries that are members of the PCT, applicants must ensure that they use the same language and wordings as an application made in the home country.

Since patent rights have territorial nature (granted protection on the specific territory), and its jurisdiction arises from national law and regulations, its enforcement is dependent on the effective national litigation procedure as the main way of its protection. Moreover, for adequate protection of a patent, there is a need for creating a litigation process that is affordable. Indeed, a litigation process that is not affordable may discourage and undermine the IP titles and licenses issued by various governing bodies.⁸² Besides, there are remedies that one will get, in case there is an infringement of their patent rights. For instance, the person who owns the rights can stop the usage of the intellectual property and can sue for compensation for purposes of recovering the damages incurred when an unauthorised person uses the intellectual property.⁸³

⁸⁰ Antoine Dechezleprêtre, Yann Ménière and Myra Mohnen, 'International patent families: from application strategies to statistical indicators' (2017) 111(2) *Scientometrics* 793.

⁸¹ The Paris Convention for the Protection of Industrial Property (signed 20 March 1883, entered into force 7 July 1884).

⁸² Juan Alcácer, Karin Beukel and Bruno Cassiman, 'Capturing value from IP in a global environment' (2015) Harvard Business School Working Paper 17-068.

⁸³ Graeme B Dinwoodie, 'International Intellectual Property Litigation: A Vehicle for Resurgent Comparativist Thought?' (2001) 49(3) *The American Journal of Comparative Law* 429.

Enforcement of patent rights through litigation in the United Kingdom

Massive changes have been implemented in the UK Courts over the years, and these include procedures and methods of streamlining the role of the traditional courts and coming up with new alternatives aimed at improving the process of intellectual property litigation. The IP litigation process in the United Kingdom is recognised as affordable, quick and is world renowned for its high quality.⁸⁴ The study revealed that patents are the most litigated IP in the UK (60% of all cases).⁸⁵ The patents cases are heard by the Patents Court or Intellectual Property Enterprise Court (IPEC). The IPEC hears the patent dispute in case the amount sought (damages) is under £500,000 or parties may agree to the exclusive jurisdiction of IPEC over their dispute. The Patents Court and IPEC are equipped with judges who possess intellectual property specialisation, in addition many of them have degrees in scientific disciplines.

Taking the disputes to the Patents Court has significant advantages. One of the advantages is the fact that the parties involved in the dispute can seek for any damages and compensation. Furthermore, the Court does not discriminate on matters that are complex and will hear these matters on time, and it is not limited to the number of days. Moreover, in case of dispute resolution through the courts, it is important to highlight that the party that loses the case has to pay for the legal costs. However, if the costs are more than £10m, then, the parties involved in the dispute must ensure that they share the costs incurred.⁸⁶ Nevertheless, the Court also has the power to allow parties involved in the dispute to exempt themselves from the litigation costs incurred during the process, and this option is granted in case there are reasonable grounds to allow for such a situation. During the process of assessing the costs, the Court has the responsibility of determining whether the costs are reasonable. Also, each party involved in the dispute process has the right of knowing the costs that the other parties involved in the dispute process are incurring. Thus, they can make a reasonable claim on the costs incurred and seek compensation if they win the case.

Nonetheless, the IP litigation process in the UK is considered fast and effective. Still, to ensure effective and speedy delivery of IP litigation services, the Chancery Division of the High Court came up with the Intellectual Property Enterprise Court (IPEC). The jurisdiction

⁸⁴ Paul Torremans, 'Jurisdiction for cross-border intellectual property infringement cases in Europe' (2016) 53(6) Common Market Law Review 1625.

⁸⁵ Christian Helmers and Luke McDonagh, 'Patent litigation in the UK' (2012) LSE Law, Society and Economy Working Papers 12/2012 <<https://orca.cardiff.ac.uk/60863/1/Patent%20Litigation%20in%20the%20UK.pdf>> accessed 16 December 2021.

⁸⁶ Christian Helmers, Yassine Lefouili and Luke McDonagh, 'Examining Patent Cases at the Patents Court and Intellectual Property Enterprise Court 2007-2013' (Intellectual Property Office 2015).

of this court is on all matters about IP, and examples are trademarks, designs, patents, copyrights and database rights. The primary intention of IPEC is to encourage the private sector and industry to take measures aimed at protecting their IP rights, and this is by providing an avenue where the process of protecting such rights is quick, less costly and not complicated.⁸⁷ However, IP litigation processes in the UK might be costly, time consuming, and difficult to manage, especially for the small-scale business. Therefore, IPEC trials lasting a limited number of days are designed for a quick dispute resolution. Nonetheless, to ensure that the court hears the case effectively and on time, the participants must follow a clear guideline, and there are limitations on evidence production and disclosures. The Intellectual Property Office's study revealed that the majority of patent litigation in the UK takes place at the Patents Court rather than at the IPEC, even post-IPEC reforms (445 cases were filed at the Patents Court during 2007-2013, whereas 96 patent cases were filed at the IPEC). Additionally, the study demonstrated the significant rise of patent litigation at the IPEC post reforms, whereas the increase of cases was revealed at the Patents Courts too.⁸⁸

Enforcement of patent rights through litigation in the USA

Article 1 of the US Constitution provides the provisions for the protection of intellectual property. Measures involving IP litigations aim to protect the inventions that emerge out of the creativity of human minds, and these include discoveries, processes, and products for industrial and literal use.⁸⁹ Thus, The US Constitution established the basis of patent regulations. In addition to the Constitution, US Patent Law is codified in Title 35 of the United States Code. There have been several amendments made to the original Act of 1790 and additional Reform Acts were added.

The United States Patent and Trademark Office is the main body responsible for granting patents lasting 20 years from the date on which the application was filed. The Federal and the State courts have the responsibility of protecting issues coming from patent rights. Moreover, American laws have a provision for protecting international intellectual property rights. Besides, the litigation of issues about IP takes a variety of forms. Indeed, one of these

⁸⁷ Christian Helmers, Yassine Lefouili and Luke McDonagh, 'Evaluation of the Reforms of the Intellectual Property Enterprise Court 2010-2013' (UK Intellectual Property Office 2015).

⁸⁸ Christian Helmers, Yassine Lefouili and Luke McDonagh, 'Examining Patent Cases at the Patents Court and Intellectual Property Enterprise Court 2007-2013' (Intellectual Property Office 2015).

⁸⁹ Paulius Jurcys, 'International Jurisdiction in Intellectual Property Disputes: CLIP, ALI Principles and Other Legislative Proposals in a Comparative Perspective' (2012) 3 Jipitec 2190.

forms is through dealing with patents and inventions on the designs of products, and the process through which owners of the patent manufacture the products. According to the US laws, patent infringement occurs when there is unauthorised use of a patented product, and such use is in violation of American laws. Furthermore, while solving cases that touch on international treaties, the US courts rely on the Patent Cooperation Treaty (PCT).

Enforcement of patent rights through litigation in Hong Kong

The main patent legislation in Hong Kong are the Patents Ordinance and the Patents (General) Rules (Cap514C).⁹⁰ However, there are not specific regulations that seek to identify the approach that courts in Hong Kong should use in solving international disputes relating to intellectual property. International disputes relating to intellectual property usually start at the intermediate level. Being a member of the WTO, Hong Kong complies with the standards set out in the TRIPS agreement. The relevant national legal resources in Hong Kong are The Basic Law, statutes and case law. Hong Kong courts can refer to the precedents of other common law jurisdictions, such as the UK, however, these are not legally binding for Hong Kong judges. Common law cases are being used only in cases where there is exceptional similarity of the wording of the legislation. The most preferred common law for such cases is the UK law. Despite the use of its domestic laws to solve international intellectual property issues, Hong Kong also relies on other treaties for purposes of solving disputes. Examples of these treaties are the Paris Convention, the Berne Convention, the Geneva Convention and the Patent Cooperation Treaty (PCT). Through the Paris Convention, Hong Kong uses its principles to solve cases on industrial properties.

⁹⁰ Patents (General) Rules (Cap514C) of the Hong Kong Special Administrative Region (entered into force 27 June 1997).

Sources of arbitration authority in patent disputes

Intellectual property rights are by nature negative rights which prevent an unauthorised person to use them and are needed as solid mechanisms of protection. International arbitration itself represents a confidential and private procedure and has been increasingly used to solve IP disputes.⁹¹ Global arbitration might become the most preferred way of patent enforcement in the future. Two primary reasons may motivate people to use arbitration for purposes of solving disputes. One of them is lack of trust in the political, legal and economic system of a foreign state. Moreover, the other reason is that the process of arbitration is flexible, and the parties involved in the conflict have a high level of privacy. Furthermore, the parties involved in the conflict have an option of choosing the people who should preside over the issue as arbitrators. Additionally, international arbitration is faster and more efficient in comparison to the use of litigation in solving disputes. Besides, the arbitrators are people who have the specific technical knowledge in different areas. Indeed, while solving disputes through the process of arbitration, arbitrators rely on international treaties and case laws to come up with an award that is acceptable all over the world.

Nevertheless, it is often the case that parallel proceedings involving both courts and arbitral tribunals take place in disputes when parties are from different countries. Parallel proceedings are also known as alternative proceedings running during the actual process. These proceedings might affect the economic value of the actual proceeding in terms of duration and the cost incurred. Moreover, parallel proceedings might affect other fundamental values, for instance, the judgemental values.⁹² In the international arbitration domain, parallel proceedings are the factors slowing down or affecting the quality of the results of the entire process, since it will continue to delay the process as there will be alternative solutions which are not concurrent with the expected solution.

The arbitral tribunals' process accompanied by the parallel proceedings includes the risk of double recovery, the possibility of conflicting results and associated lack of legal security, in addition to the increased cost and inefficiencies for the parties involved.⁹³ In

⁹¹ Thomas Legler and Andrea Schaffler, 'A look to the future of international IP arbitration' in John V H Pierce and Pierre-Yves Gunter (eds), *The Guide to IP Arbitration* (Law Business Research 2021).

⁹² Nadja Erk-Kubat, *Parallel Proceedings in International Arbitration: A Comparative European Perspective* (Kluwer Law International 2014).

⁹³ Hanno Wehland, 'The Regulation of Parallel Proceedings in Investor-State Dispute' (2016) 31(3) ICSID Review-Foreign Investment Law Journal 576.

coming up with a reliable solution to a dispute, it is common knowledge that both the national courts and arbitral tribunals are all competent. Although there are no clear guidelines on the jurisdiction of these two elements, both are free to operate in a given jurisdiction provided that there are no strict limitations since both are rendered competent in providing solutions on disputes related to intellectual properties. The fundamental principle guiding the arbitral tribunal so that it is recognised globally is the kompetenz-kompetenz principle. The competency acts as the benchmark in making the vital decisions on the disputed value. Competence provides the arbitral tribunal with a platform to make decisions on their jurisdiction.⁹⁴ Conversely, in other states, it can lead to a conflict, especially those states that strictly follow written laws, since the prevailing laws are considered supreme in those specific states. Nevertheless, in case of any jurisdictional conflict between the national courts and arbitral tribunal, the parties concerned will be forced to have a concise recourse before arriving at a decision.

Moreover, disputes related to intellectual properties can be harmonised differently. For instance, it is possible to harmonise patents through the implementation of the Unified Patent Court (UPC). The UPC is considered an essential element in making the EU package useful. UPC provides judges with the national law-oriented approach with a platform to make high quality decisions. The principle of UPC is to harmonise related laws to appear standardised in the international domain. UPC might become quite efficient compared to other dispute resolution elements regarding cost and time taken in settling and coming up with a recommendation for the disputed matter.

The relevancy of the UPC is likely to change the dispute resolution proceedings, and through its improvements, it is a remedy the court issues in all contracting states and also a part of the judicial system. UPC is predicted to become highly competent in coming up with exclusive solutions on matters related to patents rights in Europe and across the world. The continuous implementation of UPC rules has extensively revealed the flaws that existed in the system used to settle disputes of patent rights.⁹⁵ Moreover, this new system provides insight information on the variations, whereby it reveals that the variations currently applied are not beneficial in the innovation perspective. In the beginning, this new proceeding will only be

⁹⁴Gary Born, *International Arbitration: Law and Practice* (3rd edn, Wolters Kluwer 2021).

⁹⁵ See Pieter Callens and Sam Granata, *The Unitary Patent and the Unified Patent Court* (Kluwer Law International BV 2017).

open to the members of the EU nations and its competency will be realised when there is complete ratification of the system agreement at a particular time. Notwithstanding, the UPC will only involve regional competencies, whereas the national patents will remain the responsibility of the specific national government.

United Kingdom

Arbitration practices in the United Kingdom is traceable to the Arbitration Act of 1698 originated by the paperwork of John Locke at the Board of Trade, United Kingdom.⁹⁶ Subsequently, further amendments to the arbitration Act were made in 1889, 1934, 1979 respectively by the parliament.⁹⁷ At present, the Arbitration Act 1996 governs arbitration practices in the United Kingdom in respect of all civil disputes arising between parties.⁹⁸ Over the years, arbitration practices in the United Kingdom have been driven by trade promotion and efficiency in the enforcement of arbitral award by the courts.⁹⁹ Notably, and under the current arbitration law, the Arbitration Act of 1996 is geared towards obtaining a fair resolution of claims through the assistance of a neutral or impartial arbitration tribunal, and without undue delay or undue expenses by parties.¹⁰⁰ Furthermore, the current arbitration system is positioned to allow parties to agree between themselves as to how their disputes will be resolved without or with limited intervention from the court except in situations otherwise regulated by the Act.¹⁰¹

In addition to the Arbitration Act of 1996, the United Kingdom has also ratified the New York Arbitration Convention on the Recognition and Enforcement of Foreign Arbitral Awards (the New York Convention) and hence, the arbitration convention is in force within the United Kingdom.¹⁰² The question whether or not a dispute will be arbitrable in the United

⁹⁶ Henry Horwitz and James Oldham, 'John Locke, Lord Mansfield, and Arbitration During the Eighteenth Century' (1993) 36(1) *The Historical Journal* 137.

⁹⁷ David Hacking, 'The Story of the Arbitration Act 1979' (2010) 76 (1) *Arbitration: The International Journal of Arbitration, Mediation and Dispute Management* 125.

⁹⁸ Thomas Carbonneau, 'A Comment on the 1996 United Kingdom Arbitration Act' (1998) 22 *Tulane Maritime Law Journal* 131.

⁹⁹ David Hacking, 'The Story of the Arbitration Act 1979' (2010) 76 (1) *Arbitration: The International Journal of Arbitration, Mediation and Dispute Management* 125.

¹⁰⁰ Arbitration Act 1996, c.23, Part I, s 1(a) (b) and (c).

¹⁰¹ *Ibid.*

¹⁰² See The New York Arbitration Convention on the Recognition and Enforcement of Foreign Arbitral Awards 1958, 'Contracting States' (*Newyorkconvention.org*, 1958) <www.newyorkconvention.org/countries> accessed 17 December 2021.

Kingdom is largely influenced by the position of the English common law in view of the preservation of the common law system in section 81(1) (a) of the Arbitration Act 1996.

The Arbitration Act of 1996 governs the process of arbitration, and it is through this act that the courts have the power to enforce the decisions of arbitrators. As per the provisions of this act, anyone who fails to abide by the decisions of the arbitration committee is guilty of a breach, and the courts can take the necessary punitive measures. Besides, there are circumstances where the courts may face limitations. In such scenarios, the act allows the courts to come up with a remedy that will help to solve any procedural errors during the arbitration process. Thus, the act provides the framework which the courts can use for purposes of regulating the internal proceedings of the arbitration process.

Furthermore, during the process of arbitration, it is the parties involved in the conflict who must choose the law to apply for the conflict resolution. However, if the parties to the contract agree on the provisions of specific issues, it is these agreements that the arbitrators will use for purposes of solving the disputes under consideration. Nevertheless, while using the agreements, the arbitrators will use the principles of equity and good conscience to resolve the dispute. Also, the arbitrators may have the choice of law to use if the parties to the agreement do not agree on which legal frameworks to use for the purposes of solving the disputes.

An advantage of the arbitration principle is the fact that none of the parties to the agreement can force one another to use the process of arbitration to solve conflicts. The parties to the arbitration proceeding must have an agreement, which they wrote during the process of formulating a contract. The agreement helps to identify methods and mechanisms that the parties involved in the conflict will use to solve future disputes. Thus, this is the primary reason that motivates people who engage in a contractual agreement based on issues of intellectual property to sign the arbitration agreement. Therefore, the courts in the United Kingdom will use the arbitration clause in the agreement to solve any disputes that arise between the parties to the contract. Nevertheless, non-contractual disputes usually emerge because of lack of an arbitration agreement. Hence, the parties must have an arbitration agreement to be able to use the alternative dispute resolution procedure such as arbitration. The UK courts and law typically encourages the use of arbitration to solve international disputes.

Case law

Alongside other forms of claims, claims arising from or connected with intellectual property rights form part of the claims arbitrable under the common law system. This point was confirmed by the position of the court in the case of *Roussel-Uclaf v G.D. Searle & Co Ltd*.¹⁰³ In the above case, it was the claim of the claimant- Roussel-Uclaf that they are entitled to the manufacture, sale and distribution of the 2nd defendant's (Searle UK) product all over the world including the United Kingdom but excluding the United States under a license agreement. The license agreement referred to a compulsory arbitration clause for the settlement of dispute. However, the claimant proceeded in suing the Searle US and the subsidiary - Searle UK instituted an action seeking a court to interpret the scope of the license granted by the 1st defendant to the claimant. The 2nd defendant – Searle UK, was not a party to the license agreement made between the claimant and the 1st defendant. Searle US filed for a stay of action as a party making a claim through their subsidiary company Searle UK based on an arbitration clause. The court in giving effect to the arbitration clause upheld the position that the disputes over the scope of the manufacturing and distribution copyright license could be arbitrable, and that the 2nd defendant – Searle UK was acting within the confines of the arbitration clause to request for a stay of the action in court.

In the same vein, the court considered claims arising out of patent disputes and the use of arbitration in the case of *OOO Abbott v Econowall UK Ltd* and the court noted that the arbitration clause as inserted in the license agreement between parties was permissively worded; hence, it implies that parties could elect to opt for registration or consider otherwise.¹⁰⁴ The relevant facts of the case were that the claimant - Abbott alleged that the defendants - Econowall UK Ltd, Project Consulting Company, and Retail Display Co committed acts amounting to the infringement of a patent right under a license agreement with Econowall UK Ltd. The infringement that gave rise to the claim was the extraction and modification of a part of the claimant's product with resilient metals without the consent of the claimant. On the contrary, the defendant argued among other things that there was no infringement on their part and that the action as alleged by the claimant did not constitute a breach of the license agreement. However, the defendants sought some interim reliefs from the court before the final determination of the case which included an order of the court halting the proceedings in the

¹⁰³ *Roussel-Uclaf v G.D. Searle & Co Ltd* [1978] 1 Lloyd's Rep, Ch. Div. 225.

¹⁰⁴ *OOO Abbott v Econowall UK Ltd* [2016] EWHC 660 (IPEC).

case in line with section 9 of the Arbitration Act of 1996 and pursuant to the arbitration clause as contained in the agreement between the parties. The arbitration clause set to be relied upon was to the effect that the parties to the agreement agree unanimously to subject their disagreement in relation to the license to arbitration in the event that disagreement occurs. While jettisoning the contention of the defendant, the court noted the unease surrounding the interpretation to be described by the word disagreement as used by parties in the agreement. In disagreeing with the claims on arbitration as brought by the defendants, the court posited that the wording of the arbitration clause as inputted by both parties confers a permissive right for either of the parties to submit any disagreement to arbitration.

In *Nokia Corporation v Interdigital Technology Corporation*, the Court of Appeal for England and Wales was faced with the task of determining whether the appellant - Nokia Corporation is entitled to a leave or permission of the court to appeal against the judgment of the lower court delivered by Mr Justice Pumfrey on patents infringement claims in relation to UK Patent 571.¹⁰⁵ The construction the contention of the respondent - Interdigital before the lower court, was that all proceedings be stayed until a conclusion is reached by the arbitrators in the arbitration proceedings pending before the ICC on the same subject matter and between the defendants, the claimant herein - Nokia corporation, and another technology firm - Ericsson. Interdigital is the owner of a different patent license recognised worldwide in some technological innovations which included a patent on the Global System of Mobile Communication widely referred to as the GSM. The claimant herein - Nokia corporation however, contends against this, while maintaining that the patents held by the defendant are in respect of technological inventions totally at variance with the Global System of Mobile Communication (GSM) and that the defendant cannot lay claim to a technology they never contributed to. One of the defendant's claims that forms the basis for which an application for stay of proceeding is premised was that the patent right owned in the GSM technology had been formally registered with an appropriate regulatory body since 2001, (four years before the present dispute) and that the said patent was still enforced. At the lower court, the application for the stay of proceedings was refused due to the reasoning of the court that the applicant did not show substantial ground or evidence to rebut the allegation of Nokia Corporation in their response to the application. Instead, the lower court noted that the contention of the applicant was solely based on a bias motive of the claimant to unduly influence the arbitration proceedings. The Court of Appeal further upheld the position of the lower court by also

¹⁰⁵ *Nokia Corporation v Interdigital Technology Corporation* [2005] EWCA CIV 614.

dismissing the application for a stay of proceeding. The court noted that first, the issue as presented before it which the applicant is relying on to form the basis for the stay of proceeding have at the material time been decided by the arbitrators in the arbitration proceedings, and hence no longer are in contention between the parties, and secondly, that the tenure of the patent license in question - patent 571 has expired and no longer forms part of the active issues before the arbitrators and therefore there ought not to be any stay of proceedings before the court.

Likewise, the court in *British Technology Group Ltd v Boehringer Mannheim Corporation* had the privilege of interpreting¹⁰⁶ a patent license agreement between both parties containing certain provisions; among which was the condition to resolve any such interference leading to a dispute under the license agreement to arbitration. The relevant background of the agreement was that the claimant herein - British Technology Group Ltd, signed a pact with the defendant – Boehringer Mannheim corporation on the use of a licensed patent on some universally accepted medical inventions in 1989. The patent license granted under the agreement covers production, sales and distribution of the medical product in the United Kingdom, West Germany and in France, with an option to further extend the scope of the patent license to the United States. Subsequently, the defendant herein, acting through the agent company in the United States – DePuy, concluded plans in marketing similar products in the United States owned by Johnson & Johnson Professional Inc. It became apparent that an interference with the patent license granted between the plaintiff and the defendant has occurred and the interference was adjudged by the arbitrator appointed in line with the agreement of the parties. The arbitrator held the view that there was no infringement on the part of the defendants. In an appeal before the Patent Court of England and Wales, the claimant again raised the contention that there was nothing in the license agreement between the claimant company and the defendant's company – Boehringer Mannheim corporation that obliges the claimant to also grant a license to DePuy. On the part of the defendant, their contention was that the claimant cannot possibly lay claim to infringement because the contractual license agreement also contained terms that duly protected DePuy from liabilities on any infringement claims. In the reasoning of the court, the court held that there was nothing in the license agreement granting any right to third parties especially in the present circumstance where the third party - DePuy claims rights on the invention of the licensor.

¹⁰⁶ *British Technology Group Ltd v Boehringer Mannheim Corporation* [1998] EWHC Patents 314.

Hence, the act of the defendant was an infringement on the license agreement between both parties.

On the other hand, the court in *Unwired Planet International Ltd v Huawei Technologies Co Ltd* examined the claims of the applicant as to arbitration as raised by Ericsson Technologies – the Eleventh Defendant and rejected it while citing no prior breach of the same on the part of the counterclaimant – Samsung Technologies.¹⁰⁷ The case of the claimant – Unwired Planet is for the infringement of its patent on several of the products sold by the defendants within the United Kingdom. One of the defendants - Samsung Technologies raised a counterclaim against Ericsson, another defendant in the suit based on patent right transfer breach allegations pursuant to Article 101 of the Treaty on the Functioning of the European Union (the ‘TFEU’).¹⁰⁸ Ericsson applied to the court to stay the counterclaim as filed by Samsung based on Section 9 of the Arbitration Act 1996, slowing a party to refer the matter to arbitration notwithstanding that other dispute resolution. Methods have not been fully utilized. However, the court dismissed the contention as raised by Ericsson after determining that Ericsson accepted to be part of the proceedings in 2014 and had accepted the issues as between the parties.¹⁰⁹

Procedurally, the initiation of an arbitration process in the United Kingdom is commenced when one party serves on the other party a notice in writing requiring him or them to submit that matter to arbitration.¹¹⁰ It is specifically required that an agreement to refer a matter for arbitration must be in writing in line with the provisions of section 5 of the Act. The proceeding is commenced by the service of a notice by one of the parties requiring the other party to submit their dispute to the arbitrator appointed in line with section 14 of the Arbitration Act 1996. There are provisions for the revocation of the arbitrator’s authority where parties act jointly to endorse such revocation and the court also has the power to remove an arbitrator upon complaint or notice by one of the parties.¹¹¹ After adhering to procedural and evidential standards as contained in section 34 of the Act in making provisional awards, while taking necessary steps in securing the attendance of witnesses for the proceedings, they determined the preliminary point of law in line with section 46, and arbitrators decided on the substance of the dispute in line with section 46 and 47 of the Act.

¹⁰⁷ *Unwired Planet International Ltd v Huawei Technologies Co Ltd* [2018] EWCA CIV 2344.

¹⁰⁸ Treaty on the Functioning of the European Union (signed 25 March 1957, entered into force 1 January 1958).

¹⁰⁹ *Unwired Planet International Ltd v Huawei Technologies Co Ltd* [2018] EWCA CIV 2344.

¹¹⁰ Arbitration Act 1996, sec.14.

¹¹¹ Ibid, sec. 23, 24.

The USA

A historical account of regulations on arbitration is traceable to the Federal Arbitration Act (FAA) of 1925 as amended in 1990.¹¹² This piece of legislation made provision for rules relating to the conducts of arbitral proceeding as to the validity of an arbitral clause, its irrevocable nature, and the procedures involved in enforcing an agreement to arbitrate. Prior to the FAA, there have been individual state legislations recognising arbitration as a dispute settlement mechanism in the United States. For instance, Steven Certilman noted that the state of Massachusetts had in place regulations recognising attraction practices as dispute settlement mechanisms as early as in 1632.¹¹³ In the same vein, Oldham also noted that the state of Maryland also had evidence of arbitration practices since early 1600.¹¹⁴

There are legislations on arbitration in the United States both at national and equally at the state level; with the FAA in existence to regulate arbitration practices at the federal level, while individual states possess different arbitration laws. Notably, the United States has also ratified The New York Convention in 1970, thus making it enforceable within the United States.

The Federal Arbitration Act governs international and domestic arbitration processes in the United States. However, for the process of arbitration to commence, the parties to the contractual agreement must agree with one another that they will use the arbitration to solve their disputes. The Act provides mechanisms through which the parties to a contractual relationship can use the arbitration process to solve the various disputes they encounter. Awards emanating from the arbitration process are binding, and the parties must implement and follow the decision of the arbitration tribunal. Before the implementation of the damages or awards issued by the arbitration committee, the parties involved in the conflict must give notice to the Commissioner of Patents and Trademarks, notifying the officer of the decision of the arbitration committee. There shall be a separate notice prepared for each patent involved in such a proceeding. Without such a notification, the government cannot assist in the implementation of the damages or awards issued by the arbitration tribunal.

When it comes to issues about patent conflicts, Title 35 § 294 of the United States Code establishes the basis for the patent arbitration regulations. The Act states that parties are free to

¹¹² Title 9 of the United States Code.

¹¹³ Steven A Certilman, 'This is a Brief History of Arbitration in the United States' (2010) 3(1) New York Dispute Resolution Lawyer 10.

¹¹⁴ James Oldham and Su Jin Kim, 'Arbitration in America: The Early History' (2013) 31(1) Law and History Review 241.

conclude an agreement for any dispute relating to patent, including validity or infringement issues, which will be resolved through arbitration. Such an agreement is considered as valid, irrevocable, and enforceable. The arbitral award will be final and binding between the parties of the arbitration.

Case law

Development of arbitration practices as an alternative dispute resolution faced stiff challenges in its adoption.¹¹⁵ The court in *Gilmer v Interstate/Johnson Lane Corporation*, noted that the nature of the challenges faced by arbitrators was a judicial hostility to the execution of arbitration agreements and enforcement and adoption by the courts.¹¹⁶ Hence, the primary aim of the FAA was to address this challenge and place arbitration agreements on the same footing and having the same force of law like other contractual agreement.¹¹⁷ This represented an innovation in the structure of arbitration processes in the US. Another historic achievement was the clarity given to the provisions of the FAA in court decisions in order to clear the ambiguity as to their applications. The US Supreme Court clarified the applicability of section 2 of the FAA on its validity, irrevocability, and enforceability of an agreement containing arbitration clauses in the case of *Allied- Bruce Terminix Co. v Dobson*, and held that the section applies as a federal enactment, and also as reference guide for state laws with respect to claims of parties.¹¹⁸

On the contrary, the limits of the arbitral tribunal's authority were confirmed in *Pharmacia & Upjohn Co. v Elan Pharmaceuticals Inc.*¹¹⁹ The New York Court of Appeals reversed the Supreme Court's decision on the matter of *Pharmacia & Upjohn Co. v Elan Pharmaceuticals Inc.* The pharmaceutical companies in the United States concluded an agreement regarding scientific research developed to invent a cure for Alzheimer disease and its symptoms. The petitioner Pharmacia Upjohn signed a pact on the development, financing, and sales of outstanding scientific information with the respondent herein - Neuralab Ltd.

¹¹⁵ James Oldham and Su Jin Kim, 'Arbitration in America: The Early History' (2013) 31(1) Law and History Review 241.

¹¹⁶ *Gilmer v Interstate/Johnson Lane Corporation* 500 U.S. 20, 24 (1991).

¹¹⁷ James Oldham and Su Jin Kim, 'Arbitration in America: The Early History' (2013) 31(1) Law and History Review 241.

¹¹⁸ *Allied-Bruce Terminix Co. v Dobson* 513 U.S. 265 (1995).

¹¹⁹ *Pharmacia & Upjohn Co. v Elan Pharmaceuticals Inc.* 2004 NY Slip Op 06448 [10 AD3d 331].

Another pharmaceutical company - Elan pharmaceuticals got an assignment of rights under the agreement from the respondent - Neuralab Ltd., making them privy to the research licence agreement between Pharmacia Upjohn and Neuralab Ltd. After two years, Pfizer Co Ltd, another pharmaceutical company operating in the United States, declared their bid to take over and acquire substantial stake in Pharmacia Upjohn Company. This ultimately led to a reduced commitment under the license agreement by Pharmacia Upjohn. The subsequent acquisition of the applicant company by Pfizer Inc. truncated the continuous chance of success of the research license agreement; hence, Elan Pharmaceuticals sought its rights and benefits under the license agreement. The relevant contractual clause of the agreement noted that in the advent of a breach of the conditions in the agreement by any party, the other party could avail itself of the ill and exclusive privilege to use the intellectual property rights under the agreement. Elan Pharmaceuticals relied on this clause by filing a notice to initiate arbitration proceedings in line with the parties' agreement to the American Arbitration Association (AAA) asking the arbitrators for substantial damages and declaration reliefs on all patents, licenses, and approvals, that had been granted to both parties during the subsistence of the license agreement. Without making representation or responding to the notice of arbitration, Pharmacia Upjohn and Pfizer Inc. initiated another dispute in court petitioning the court for a stay of proceedings in the arbitration initiated by Elan Pharmaceuticals Ltd. Their argument was that Elan Pharmaceutical Ltd. had failed in complying with some conditions precedent to the initiation of the arbitration proceedings which are fatal to the commencement of the arbitration process. They submitted that the conditions relate to the prerequisite to be fulfilled under the license agreement prior to the commencement of arbitration and that most importantly, the arbitration type was agreed on by both parties and excludes all matters or disputes relating to intellectual property.

In opposition, Elan maintained the demand for arbitration stating that the dispute was related to the contractual remedies rather than ownership, scope or validity of any intellectual property rights. Moreover, according to Elan's statements it was for arbitrators, not the court, to determine whether the claims were arbitrable. The New York Court of Appeals reversed the Supreme Court's decision declaring that Elan had failed to comply with the necessary prearbitration procedures and that the agreement to exclude disputes over intellectual property rights rendered the underlying dispute nonarbitrable. However, The Court of Appeals acknowledged that the clause in question had not only excepted disputes involving intellectual property rights from arbitration but also removed the exception for intellectual property disputes from the Rules of the AAA. Therefore, The Court of Appeals affirmed and applied

the governing principle that a court will not order a party to submit to arbitration absent evidence of that party's 'unequivocal intent to arbitrate the relevant dispute' and declared that it is for the court to determine whether the parties have agreed to arbitrate the particular issue.¹²⁰ Thus, this case demonstrated the limits of the kompetenz-kompetenz principle of the arbitral tribunal seated in the US.

On the contrary, in *Mitchell v HCL America Inc*, the court asserted the authority of an arbitration agreement and FAA.¹²¹ The District Court of Carolina gave the ruling in *Mitchell v HCL America Inc*, upon the motion of the defendant in the suit in consideration of the issue of arbitrability of intellectual property dispute under section 3 and 4 of the Federal Arbitration Act. The fact necessitating the defendant motion was that Mitchell - one of the defendant's employees filed a suit against the defendant's company in 2015 alleging discriminatory treatment and gender bias. In response, the defendant's company's contentions were that the employee ought to have submitted her disputes and grievances to the administrative headquarters of the defendant company in California in line with the claimant's employment contract before maintaining any action; otherwise such action would be invalid; and importantly, that the undertaking clause in the claimant's employment contract contains provisions on confidentiality and the protection of the company's trade secret which the claimant seeks to expose. The defendant further contended before the court that the claimant's grievances involved the divulgence of the company's trade secret which amounts to an intellectual property dispute and hence in line with the agreement, the claimant action ought to be stayed, and finally that the claimant be compelled to arbitrate the dispute. The claimant on the other hand contended in response to the defendant's argument that the undertaking clause being referred to lacked the element of being bilateral - it is a provision that could only be triggered by the defendant's company and as such is very defective and largely unconscionable. The claimant also intended that under the law in California, it is unfair to subject an employee to arbitration proceeding where the costs will be shared by both parties as the position is under the American Arbitration Association rules and procedures 2013. Upon the consideration of the case of both parties, the district judge examined the issues independently by starting with the applicable law to arbitration proceedings and whether or not a stay of action is proper and should in fact be granted. The court ruled that there would be trade secret loss in the event that the suit proceeds on litigation unlike in an arbitration. Also, the court noted that the Federal

¹²⁰ See also *Primavera Labs. v Avon Prods.* 297 AD2d 505, 505 [2002].

¹²¹ *Mitchell v HCL America Inc*. No. 5:2015cv00565 (E.D.N.C. 2016).

Arbitration Act prohibits states from enacting laws that prevent arbitration of any type of disputes and claims and most importantly the court has the duty to respect the arbitration agreement and to enforce arbitration clauses in line with the terms as agreed to freely by the parties in all circumstances, thus, the court granted the defendant's motion to compel arbitration.

In 2013, the Court of Appeal equally treated the complaint and appeal of Myriad Group Ltd in *Oracle America Inc. v Myriad Group A.G.* wherein the appellant complained in part of the refusal of the lower court in granting its motion seeking the court to compel arbitration between the parties.¹²² The appellant company - Myriad Group Ltd is a software producing company based in Switzerland, while the respondent company - Oracle America Inc. is also a software producing company based in the United States of America. The dispute arose out of a license agreement between the appellant and the defendant for the granting of the respondent's software program usage right and trademark to the applicant under a scheduled royalty fee arrangement which was prescribed to the appellant by the respondent in line with agreed usage. It was the contention of the appellant that there was the option of usage and software testing without payment under the agreement which entitles the appellant to use the java software program for free for a specific period of time without cost.

In opposition, the respondent rebuffed the appellant claim and further alleged that the appellant company was actually in default of payment in line with the license agreement between both parties and their payment on scheduled usage on the license agreement was a condition precedent to the granting of a subsequent license or trademark usage under the agreement. The parties incorporated into the agreement the provisions of the United Nations Commission on International Trade Law (UNCITRAL) arbitration rules, therefore, the appellant contended that this was conclusive evidence that the parties intended that the dispute arising from the agreement shall be subject to arbitration. The defendant on their part argued that the inclusion of the UNCITRAL arbitration rules is not conclusive evidence of the parties' intention to submit to arbitration and that the said rules will not be applicable or avail a party who is in default of payment under the license agreement and that as such, Myriad Group Ltd cannot rely on the provision of the relevant arbitration clause under license engagement. The Court of Appeal upon the consideration of the issues between the parties enforced the decision of the lower court and favoured the contention of the appellant. The court based its reason on

¹²² *Oracle America Inc. v Myriad Group A.G.* No. 11-17186 (9th Cir. 2013).

its interpretation of the plain intention of the parties as evidenced in the license agreement and concluded that there was an unmistakable intention between the parties to resolve the dispute under the license agreement through an arbitration process.

By virtue of section 294 of the Title 35 of the US Code, parties in a contract involving patent rights can make a provision for the settlement of any dispute connected to or arising from a patent to be resolved by arbitration, including validity and infringement issues. Hence, the US Court examined the voluntary arbitration provision entered between parties in the case of *Willemijn Houdstermaatschappij BV v Standard Microsystems Corporation* where the respondent Willemijn who is the owner of the US patent No 31,852 (data communication system) granted the petitioner – Standard Microsystems Corporation (SMC) patent rights under an agreement in 1992.¹²³ However, the respondent again granted another patent right of the same patent to Proteon Inc. under special conditions that violated the patent right granted to SMC. Arbitration proceeding was initiated before the arbitration panel against the respondent for breach of the license agreement, however, the panel ruled in favour of the respondent. Then Willemijn filed a Petition for Confirmation of this arbitration award in the District Court of New York. Meanwhile, SMC filed a Motion to Vacate a part of the arbitral award, however, the court vacated the entire award. The district court decision to vacate the entire award was overturned by the Court of Appeal. The Court of Appeal declared that because SMC had not satisfied its burden of showing that the arbitrators manifestly disregarded the law, the district court should have confirmed the arbitration award. Therefore, the Court of Appeal made an order for district court to confirm the award being the product of a voluntary arbitration agreement by the parties.

Procedure

Arbitration in the US is initiated based on the rules selected by parties intending to commence arbitration proceedings. This position was recognised in section 5 of the FAA, however, the section further provided for the appointment of an arbitrator by the court upon the application of either of the parties. Where the parties failed to act based on an agreement on the appointment of an arbitrator, the court can compel or direct that matters be referred for arbitration proceeding where a party to an arbitration agreement fails or refuses to arbitrate.¹²⁴

¹²³ *Willemijn Houdstermaatschappij BV v Standard Microsystems Corporation* 103 f.3d 9 (2nd Cir. 1997).

¹²⁴ Title 9 USC, sec. 4.

The claimant will proceed to file a statement or claim outlining the facts forming the grievances in the disputes while in response, the respondent files an answering statement. Parties shall have the benefits of presenting their witnesses before the arbitrators in establishing their cases and to file notice of motions for relief before the arbitral panel. Pursuant to section 9 of the FAA, the arbitrators shall make such awards as between parties and the award made can be presented before the court for the purpose of entering judgment between them subject to the agreement of parties.

Hong Kong

Historical account of legislation in respect to arbitration in Hong Kong is traceable to the Arbitration Act 1950.¹²⁵ The Arbitration Act 1950 was a formal part of the applicable laws in Hong Kong as one of the British colonies, and the provisions of the statute regulating arbitrations were modelled largely after the British arbitration system.¹²⁶ Subsequently another regulation called the Hong Kong Arbitration Ordinance was enacted in 1963; though also largely modelled after the Arbitration Act of 1950.¹²⁷ The Series of Amendments was established in order to put in place a well-structured arbitration tenure that would reflect the adoption of the United Nation Commission on the International Trade Arbitration Law, and an International Arbitration Centre in Hong Kong was created. This was followed closely by the Arbitration Ordinance of 2011 which re-enforced several provisions of the UNCITRAL Model Law, particularly provisions as to confidentiality procedures for arbitration proceedings and awards made, provision for appointed arbitrators to also function as mediators (where such need arises) subject to the power of arbitrators to make pre-emptory orders, among others.¹²⁸ Additionally, the International Arbitration Centre in Hong Kong can be called in the event of failure to reach consensus on the choice of arbitrators.

In 1977 Hong Kong became a member of the New York Convention of 1958. Later in 1997 when China obtained sovereignty over the region, it extended the application of the Convention to the Hong Kong region. Hong Kong introduced the Arbitration Bill in 2016, and it gave rise to the emergence of various arbitration seats in the region.¹²⁹ The aim of the Bill was to confirm that IP disputes may be resolved by arbitration, and that it is not contrary to

¹²⁵ Neil Kaplan, 'The History and Development of Arbitration in Hong Kong' (1996) 1 *International Journal of Finance and Economics* 203.

¹²⁶ Benjamin Fishburne and Chuncheng Lian, 'Commercial Arbitration in Hong Kong and China: A Comparative Analysis' (1997) 18(1) *University of Pennsylvania Journal of International Economic Law* 297.

¹²⁷ Arbitration Ordinance 1963 (Cap 341).

¹²⁸ Arbitration Ordinance 2011 (Cap 609).

¹²⁹ Arbitration (Amendment) Bill 2016 of the Hong Kong Special Administrative Region.

Hong Kong public policy to enforce arbitral awards involving IPR.¹³⁰ Before that bill, there was no law addressing the arbitrability of IP disputes in Hong Kong. The Arbitration Bill 2016 confirmed the types of IP disputes that might be subject to arbitration, identified the legal status of licensees who are not party to the arbitration and declared that an arbitral award may not be set aside, or refused enforcement, only because the award involves an IP right. Sections 103I-J stated specifically that patent rights were arbitrable, including patent's validity.

Amendments on the Arbitration Ordinance 2011 witnessed the approval of the Hong Kong legislature in providing specific guidance and regulations on arbitration of intellectual property rights. Thus, the product of the legislative consultation was the Arbitration (Amendment) Ordinance 2017 which in addition to other achievements, successfully endorsed arbitration for claims arising from or connected with intellectual property rights in Hong Kong.¹³¹ By necessary implication, it is noteworthy that arbitration of intellectual property rights was a recent development in arbitration practices in Hong Kong. The amended Arbitration Ordinance settled the controversy generated by the question whether or not intellectual property disputes are arbitrable in Hong Kong which has been lingering for years.¹³² Prior to this, the arbitrators in Hong Kong have exercised their powers in granting interim reliefs between parties in intellectual property cases. The Bill came in force in January 2018 and made a significant contribution towards development of arbitration in Hong Kong.

Another significant event which is changing the flow of international arbitration in Hong Kong is the Belt and Road Initiative introduced by China in 2013. This is a transcontinental investment program which combines over sixty countries (equal to two-thirds of the world's population) along the route of the historic Silk Road. Its main goal is to accelerate the economic integration between the countries by means of infrastructure development. The Initiative covers "belt" and "road" projects such as bridges, roads, and ports spreading over South Asia, the Middle East, Europe and Africa. The rise of international disputes between the parties involved in this project is inevitable, and it is presumed that Hong Kong shall be the main dispute resolution hub where East meets the West. In addition, it

¹³⁰ Piyush Prasad, 'Arbitration in Singapore and Hong Kong' (2017) University of Chicago Law School International Immersion Program Papers 57.

¹³¹ Intellectual Property Department, Government of Hong Kong, *Intellectual Property Arbitration* (Hong Kong 2018) <https://www.ipd.gov.hk/eng/IP_Arbitration.htm> accessed 19 December 2021.

¹³² The Official Journal of the Law Society of Hong Kong, 'Intellectual Property Arbitration: Industry Insights' (*Hk-lawyer.org*, 2017) < <http://www.hk-lawyer.org/content/intellectual-property-arbitration> > accessed 1 February 2022.

established the platform for online dispute resolution that is especially relevant after the pandemic years.

Case law

Pacific China Holdings Ltd v Grand Pacific Holdings Ltd

Hong Kong courts have proved its pro-arbitration policy through its judgements. One of the examples is *Gao Haiyan and Anor v Keeneye Holdings Ltd and another (No 2)*.¹³³ In this decision the court produced the reasoned and pro-enforcement decision illustrating Hong Kong court's trend in supporting arbitration. This decision is significant due to the two established principles: first of all, The Hong Kong Court of Appeals proved the finality of the arbitration award; secondly, it awarded costs to the party who made the unsuccessful application to set aside the award on an indemnity basis.

Pacific China Holdings Ltd (PCH) claimed it was deprived of the opportunity to present its case due to the procedural violations stating the breach of Article 34(2)(a) of the UNCITRAL Model Law. Hong Kong adopted the UNCITRAL Model Law in the Hong Kong Arbitration Ordinance (Cap. 609), therefore, it became a part of its legal regulations. The Court of Appeals annulled a decision rendered by the first instance court to set aside an ICC arbitral award for the violations of Article 34(2)(a) of the UNCITRAL Model Law. Pacific China appealed that decision to the Court of Final Appeal; however, its application was rejected. The Court stated that Pacific China was not entitled to appeal under the Hong Kong Court of Final Appeal Ordinance (Cap 484) and that the Court's decision did not raise questions of "great general or public importance".¹³⁴ In addition, for the arbitral award to be set aside, it must be proved that any breaches of Article 34(2) were of a "serious" or even "egregious" nature. Interestingly, the Court emphasised the discretionary nature of the Court's decision to allow an annulment of the award. It is in the Hong Kong courts' powers to allow or forbid the enforcement of an arbitral award, even in case where a violation of Article 34(2)(a) is established.

¹³³ *Gao Haiyan and Anor v Keeneye Holdings Ltd and another (No 2)* [2012] 1 HKC 491.

¹³⁴ *Ibid.*

The decision established the threshold which must be reached by a party willing to set aside the award according to Article 34(2). It is supposed to discourage parties to pursue unreasonable challenges of arbitral awards on procedural grounds. The same approach was found in *Gao Haiyan & Anor v Keeneye Holdings Ltd & Anor (No 2)* [2012] 1 HKC 491 and *A v R* [2009] 3 HKLRD 389, where the Court of Appeal declared that when a party has been unsuccessful in setting aside the enforcement of an arbitral award in Hong Kong, in case of absence of special circumstances, that party will be paying costs on an indemnity basis. Therefore, the Court's decision illustrated its strong support of finality of arbitral awards and its limited intervention in procedural aspects of arbitration, requiring a party to pay higher costs in case it applies to set aside or resist enforcement of an arbitral award.

Lin Ming v Chen Shu Quan ¹³⁵

This is another case demonstrating Hong Kong court's favourable approach towards arbitration. The Hong Kong Court of First Instance granted a stay of court proceedings in favour of an HKIAC arbitration and refused an application for anti-arbitration injunction in parallel proceedings.

The dispute arose from a share purchase agreement between Mr Lin Ming and Sequedge Investments Inc. The agreement contained an arbitration clause and in September 2011 Sequedge commenced an HKIAC arbitration against Mr Ming. In November 2011 Mr Ming started litigation proceedings. It was established that facts and issues were identical in parallel proceedings. Mr Ming applied to Hong Kong courts for an anti-arbitration injunction against the Sequedge group; meanwhile Sequedge applied for a stay of litigation proceedings in favour of the HKIAC arbitration.

Considering the application for the stay of the litigation proceedings, the Court made the following arguments. Article 8 of the UNCITRAL Model Law was incorporated in Section 20 of the Arbitration Ordinance stating that: "a court before which an action is brought in a matter that is the subject of an arbitration agreement must refer the parties to arbitration unless it is established that the arbitration agreement is null and void, inoperative or incapable of being performed". In this case, a stay of the court proceedings is mandatory. The Court found that a

¹³⁵ *Lin Ming and another v Chen Shu Quan and others* HCA 1900/2011.

prime facie case was established proving a valid arbitration agreement between the parties, the litigation proceedings was stopped in favour of the HKIAC arbitration.

The issue of granting the anti-arbitration injunction in this case triggered the conflict between the regulations. Mr Ming based his request on the Section 21L of the High Court Ordinance (Cap.4) establishing the court's general jurisdiction to grant injunctive relief. He emphasised the possible conflict in final decisions between two parallel tribunals considering the same facts and evidence. On the other hand, Seguedge referred to the Section 12 of the Arbitration Ordinance incorporating Article 5 of the Model Law: "in matters governed by this Law, no Court shall intervene except where so provided in this Law" stating that the court did not have the authority to stay HKIAC arbitration.

The Court was faced with the conflict between the general jurisdiction of the courts and the Arbitration Ordinance. It based its decision on the English Supreme Court Act 1981 sec. 37(1) declaring the broad jurisdiction in granting injunctive relief in arbitration-related proceedings confirming that the Court holds jurisdiction to restrain arbitration cases, but it must be exercised "very sparingly and with great caution". Therefore, the Court declined the anti-arbitration injunction, however, it clarified the jurisdiction issue. Thus, this case demonstrated limited interference of the courts into the arbitration process in its jurisdiction to grant anti-arbitration injunctions, acting in line with the UNCITRAL Model Law and the New York Convention principles.

*Gao Haiyan v Keeneye Holdings Ltd*¹³⁶

This case represents a unique example where the enforcement of arbitral award was refused by the Hong Kong Court of First Instance on public policy grounds. Nevertheless, The Hong Kong Court of Appeal overturned the decision stating the peculiarities of arbitration-mediation procedure and in which case it may be tainted by bias.

The dispute arose from the validity of a transfer of shares between the parties. The arbitration award was rendered by Xian Arbitration Commission in China through an arbitration-mediation procedure in which an arbitrator acted as a mediator simultaneously. This form of proceedings is quite common around the globe and many arbitral institution rules contain specific provisions on that, however, it is conducted differently in each country.¹³⁷ The way the mediation was procured in this case, gave rise to the apparent bias. The mediation took

¹³⁶ *Gao Haiyan v Keeneye Holdings Ltd* [2012] 1 H.K.L.R.D. 627 (C.A.C.V 79/2011).

¹³⁷ See for example ICC Arbitration Rules 2017; HKIAC Administered Arbitration Rules 2018.

place over dinner where a settlement proposal was made to the respondent's representatives. The proposal was rejected, and both parties continued to arbitration procedure. The arbitration award was rendered in favour of the applicant who pursued its enforcement in Hong Kong. The Hong Kong Court of First Instance refused the enforcement on the basis that the enforcement would be contrary to public policy in Hong Kong due to apparent bias. The reason for the bias was the unusual way the mediation was conducted. The Court stated the process of mediation was not conducted according to the relevant arbitration rules, moreover, the way it was conducted would give a fair-minded observer an impression of a real bias.

The decision was appealed to the Court of Appeal, which allowed the enforcement in Hong Kong on the following grounds. First of all, the Court referred to the Xian Court decision stating there was not any basis for the apparent bias. Xian Court of the First Instance refused the application to set aside the award, thus The Court of Appeal assumed that the previous court evaluated the possibility of bias properly relying on its interpretation as in China. The Court of Appeal clarified that the way the meditation is conducted should be evaluated according to the usual procedure of the specific forum. Since Xian Court did not find the possibility of bias, The Hong Kong Court followed its interpretation. Further, The Court of Appeal emphasised that Hong Kong courts will refuse to enforce an arbitral award solely in case "it would be contrary to the fundamental conceptions of morality and justice of the forum." The fact that the mediation was conducted in an unusual manner compared to Hong Kong's typical practice does not give rise to the possibility of bias, in addition to the fact that this process did not violate the public policy concept adopted in Mainland China. Thus, the difference between adopted procedure of mediation in Hong Kong and China did not lead to the breach of public policy.

Secondly, the Court of Appeal referred to the rules of the Xian Arbitration Commission confirming that a party is deemed to have waived its right to complain about bias if it continues participating in arbitration after it receives the information about bias. The party did not object to the mediation process during arbitration; therefore, it lost its right to resist the award at the enforcement stage.

The decision highlighted several significant issues: the cultural differences of the arbitration-mediation procedure in Hong Kong and Mainland China; the narrow approach of defining the breach of public policy adopted by Hong Kong; and the independence of the Hong Kong judicial system since Chinese court dismissed a challenge of the award. However, the

Hong Kong court was entitled to refuse the enforcement on the same grounds; the decisive factor in deciding whether to allow or deny the enforcement would be the practice of the seat of arbitration; lastly, a timely made complaint on bias will allow the party to object to the award or proceedings, otherwise the right would be lost. Therefore, Hong Kong courts again supported its reputation as the pro-arbitration jurisdiction proving Hong Kong as one of the leading arbitration locations.

Another recent case presenting a part of the Belt and Road Initiative confirmed the efficiency of the emergency arbitrator procedure.¹³⁸ In 2014, Chinese State-Owned Enterprises (SOE) signed a joint venture agreement with Africa Co – a company owned by the African state of Cameroon for the acquisition of gold.¹³⁹ Advanced payment for the said gold was made, but the defendant could not deliver the product due to the non-availability of labour which was triggered by the Ebola Crisis.¹⁴⁰ This crisis prompted the company to consider the option of selling their trade license to another company, but the move was resisted by China SOE. The buyer – Chinese SOE resisted this move by triggering the arbitration clause signed by both parties in the sale agreement which was to the effect that an arbitrator be appointed from Hong Kong in emergency situations relating to the contractual state of affairs between both parties and that the arbitration proceedings take place in Hong Kong. Upon the consideration of the parties, and based on the application of the complainant, the arbitrator granted an interim injunction staying the transfer of the trade license pending the completion of the arbitration process.¹⁴¹

Procedure

Under article 4 of the 2018 Hong Kong International Arbitration Centre Rules, a party can initiate arbitration as claimant by filing and serving the Notice of Arbitration to the Hong Kong International Arbitration Centre (HKIAC) and the respondent to be summoned. It is

¹³⁸ The Belt and Road Initiative covers over 60 countries with a total population of about 4.4 billion which have different legal systems and legal cultures.

¹³⁹ Paul Starr, 'Case Study: Belt and Road Disputes – Choosing Hong Kong as the Seat of Arbitration' (*Lexology.com*, 2018) <<https://www.lexology.com/library/detail.aspx?g=2c317b69-a79d-468e-93e2-6528e293b52d>> accessed 2 February 2022.

¹⁴⁰ Paul Starr, 'One Belt, One Road' (*Beltandroadsummit.hktdc*, 2017) <https://beltandroadsummit.hktdc.com/2017/pdf/programme/DOJ_Mr_Paul_Starr.pdf> accessed 2 February 2022.

¹⁴¹ *Ibid.*

noteworthy that in order to confer jurisdiction on the HKIAC, parties may adopt in writing and by consensus to be bound by the rules of the HKIAC any time prior to or even when a particular dispute has already occurred.¹⁴² A Notice of Arbitration in conformity with the basic essentials needed as outlined in Articles 4.3, 4.4, 4.5, and 4.6, and payment of prescribed fees is required to be filed by the claimant; while in response, the respondent must react within 30 days of the receipt of the Notice by filing and serving an answer in line with the provisions of the HKIAC rules. Parties are at liberty to appoint arbitrators, but the appointment is subject to confirmation by the HKIAC in line with Article 9 of the Rules. Per their right, parties can represent themselves personally or choose their representative to make arguments and present their respondent cases without limitations and to also call witnesses. The arbitrators can grant interlocutory or provisional reliefs, and also make an award as between the parties.¹⁴³

UNCITRAL Model Law

The UNCITRAL Model Law on International Commercial Arbitration was designed to harmonise national legislations on arbitration. The rules were adopted and approved in 1985 with amendments that took place in 2006.¹⁴⁴ The rules were designed to advise states on the recommendations to the arbitral procedures including such elements as creation of arbitration agreements, the constitution of the arbitral tribunal, its jurisdiction, interim measures and preliminary orders, conduct of proceedings, recognition and enforcement. Although, the distinction must be emphasised between the UNICTRAL Model Law and UNCITRAL Arbitration Rules. The UNCITRAL Model Law was developed as a guidance for states and its law makers, meanwhile, UNCITRAL Arbitration Rules are designed for the parties' usage in a specific arbitration proceeding, usually in case of ad hoc arbitration.

The significance of the UNCITRAL Model Law in harmonisation of national laws on arbitration cannot be underestimated. A total of 118 jurisdictions adopted the Law or were influenced by it, which established the core principles of international arbitration which are

¹⁴² HKIAC, '2018 Administered Arbitration Rules' (*Hkiac.org*, 2018) < <https://www.hkiac.org/arbitration/rules-practice-notes/hkiac-administered-2018> > accessed 16 December 2021.

¹⁴³ Ibid, art. 13, 23.

¹⁴⁴ UNCITRAL Model Law on International Commercial Arbitration (adopted June 1985, amended July 2006).

recognised globally and became an integral part of the international commercial arbitration.¹⁴⁵ It is impossible to imagine the current international arbitration practice without such principles as the principle of kompetenz-kompetenz of the arbitral tribunal, the separability of the arbitration agreement and the main contract, party autonomy, and enforceability of the arbitral awards. Hong Kong adopted the UNCITRAL Model Law in 1990, limiting its application solely to international arbitrations. However, in 2010 the new Arbitration Ordinance (Cap 609) was enacted and eliminated the difference between international and domestic arbitrations applying UNCITRAL Model Law to all arbitration proceedings in Hong Kong. Surprisingly, neither the UK nor the USA officially adopted the UNCITRAL Model Law, however, legislation of both countries could not escape its influence. The US Federal Arbitration Act is not based on the UNCITRAL Model Law, however, eight of the states in the US based their legislation on the model law. Also, English law did adopt the model law, however, the Arbitration Act 1996 contains many provisions and principles similar to the UNCITRAL Model Law.

United Nations Convention on the Recognition and Enforcement of Foreign Arbitral Awards (New York, 1958) (the "New York Convention")¹⁴⁶

Another paramount element in the regulation of international commercial arbitration is the New York Convention which established the main principles of the recognition and enforcement of foreign arbitral awards. There is no equivalent of such a Convention covering the enforcement of foreign judgments. Currently there are 169 contracting states to the New York Convention.¹⁴⁷ The UK adopted the Convention in 1975, the USA adopted it in 1970 and Hong Kong in 1997. The major aim of the Convention is to provide unified standards to the recognition of arbitration agreements and limits of the court competence in recognition and enforcement of foreign arbitral awards. Therefore, foreign arbitral awards will not be

¹⁴⁵ UNCITRAL, 'Status: UNCITRAL Model Law on International Commercial Arbitration (1985), with amendments as adopted in 2006' (*Uncitral.org*, 1985)
<https://uncitral.un.org/en/texts/arbitration/modellaw/commercial_arbitration/status> accessed 2 February 2022.

¹⁴⁶ United Nations Convention on the Recognition and Enforcement of Foreign Arbitral Awards (adopted June 1958, entered into force 7 June 1959).

¹⁴⁷ UNCITRAL, 'Status: Convention on the Recognition and Enforcement of Foreign Arbitral Awards (New York, 1958) (the "New York Convention")' (*Uncitral.org*, 1958)
<https://uncitral.un.org/en/texts/arbitration/conventions/foreign_arbitral_awards/status2> accessed 2 February 2022.

discriminated against and Parties to the Convention are obliged to make sure that these awards are recognised and capable of enforcement in their jurisdiction in the same way as domestic awards. The Convention also claims an ancillary aim which is a requirement to the states' courts to give full effect to arbitration agreements by requiring courts to refuse the parties access to court if there is a valid arbitration agreement between the parties by referring the matter to an arbitral tribunal.

UNCITRAL Model Law and the New York Convention complement each other providing stable fundament to the functioning of international arbitration. For instance, article II (1) of the Convention set a requirement that an arbitration agreement must be in a written form. Therefore, if the agreement was not in writing, the recognition of the award might be refused. In practice however, it was questionable what constituted a written form of an arbitration agreement. Answering this issue, UNCITRAL adopted at its thirty-ninth session in 2006 a Recommendation that provided guidance to the interpretation of the article II of the Convention in regard to what should be understood by the "agreement in writing".

The central aim of the Convention was the establishment of the precise list of grounds according to which recognition and enforcement might be refused. There are seven grounds: incapacity of the parties, invalidity of the arbitration agreement, due process, scope of the arbitration agreement, jurisdiction of the arbitral tribunal, setting aside or suspension of an award in the country in which or under the law of which that award was made; arbitrability and public policy. Therefore, by establishing the limits upon which national courts shall refuse the awards, the Convention encouraged recognition and enforcement of the arbitral awards globally and presented itself a basis on which international arbitration is functioning and will have obvious advantage in contrast to foreign judgments enforcement.

Soft law in arbitration

Soft law plays an increasingly prominent role in evolving standards for organising and conducting arbitration proceedings. Recently, a variety of non-binding guidelines have emerged out of international discourse regarding arbitration process and such issues as cost, delay, and inefficiency in arbitration. These standards have influenced the trends in international arbitration and activities of clients and counsel, as well as arbitrators and arbitration centres demonstrating their critical importance to making the most of arbitration.¹⁴⁸

¹⁴⁸ Thomas J Stipanowich, 'Soft Law in the Organization and General Conduct of Commercial Arbitration Proceedings' (2021) Legal Studies Research Paper Series 2021/15.

Globalization transformed the methods of communication between private actors of international arbitration, allowing them to form a global community which produces new legal norms at a much faster pace than national states, confined as they are within their national boundaries.¹⁴⁹ The mild regulations around the IP attract the application of soft laws, which for the past occasions have been a common element in arbitration. Thus, this led to the emergence of new activities in the market structure guided by the codifying of rules by lawmakers. Private individuals draft the codified rules, making them procedural and substantive. The soft law under the principle of the International Institute for the Unification of Private Law (UNIDROIT) is one of the common substantive soft laws.

Notwithstanding, the soft law can be understood differently depending on the issue at hand. In general, there is no precise definition of soft law as the definition is dependent on procedures under which it is applied, for instance, the para-regulatory texts, which is one of the renown procedures of soft law.¹⁵⁰ Soft law assists the arbitrators with a detailed guideline, especially novice practitioners who are not aware of the universal laws. Soft laws are significant since they serve the said practitioners with clear codes which tend to guide them to come up with substantive recommendations. As mentioned above, soft laws can be defined differently depending on the matter at hand and the issues which are likely to be covered as a procedure for resolving the issue.

International Bar Association (IBA) is one of the organisations known for drafting soft laws and codifying them to be followed by the arbitrators. There are two main documents issued by IBA and widely used in international arbitration, The IBA Rules on the Taking of Evidence in International Arbitration and the IBA Guidelines on Conflicts of Interest in International Arbitration. IBA rules are independent as it does not connect with any state law or any arbitration laws guiding the arbitration procedures. IBA rules are applicable in cases when institutional arbitration rules, such as LCIA or HKIAC rules, do not provide guidance for a specific situation. Soft laws do not have legally binding effects, however, if parties choose to apply specific soft laws to the resolution of their dispute, the arbitral tribunal is obliged to follow them.

The supportive role of the soft law in international arbitration is significant. According to the Survey on the Use of Soft Law Instruments in International Arbitration conducted in

¹⁴⁹ Gabrielle Kaufmann-Kohler, 'Soft Law in International Arbitration: Codification and Normativity' (2010) 1(2) *Journal of International Dispute Settlement* 283.

¹⁵⁰ Andrew T Guzman and Timothy L Meyer, 'International soft law' (2010) 2(1) *Journal of Legal Analysis* 171.

2014, 60.3% of respondents indicated their usage of IBA Rules on the Taking of Evidence on a regular basis, meanwhile 36.5% of respondents stated they refer to IBA Guidelines on Conflicts of Interest regularly as well.¹⁵¹ The Survey covered Africa, Middle East, Asia, Eastern Europe, North America, Latin America and Western Europe and made the following conclusions: first of all, the clear presence and influence of soft law were established globally in international arbitration practice; secondly, the most relevant soft laws were the IBA Rules on the Taking of Evidence, followed by the IBA Guidelines on Conflicts of Interest, IBA Guidelines on Party Representation in International Arbitration, UNIDROIT Principles for International Commercial Contracts and *Lex Mercatoria*; lastly, the selected regions illustrated a diverse level of acceptance of the soft law due to different legal backgrounds and traditions adopted in arbitration conducted in a particular region. Therefore, the landscape of the use of soft law in international arbitration practice differs, however, its obvious influence and widespread usage provide more unified procedure to regulate arbitrations on a global scale.

¹⁵¹ Elina Mereminskaya, 'Results of the Survey on the Use of Soft Law Instruments in International Arbitration' (*Kluwerarbitration.com*, 2014) <<http://arbitrationblog.kluwerarbitration.com/2014/06/06/results-of-the-survey-on-the-use-of-soft-law-instruments-in-international-arbitration/>> accessed 2 February 2022.

Chapter III. Enforcement of patent rights through multijurisdictional litigation / An adversarial approach

Patent rights are known for their territorial nature as they cover the enforcement and protection over a specific territory. Litigation has been the primary method of its enforcement; however, due to the increased number of multijurisdictional disputes, the dominance of litigation in the global arena should be questioned.

Let's consider a possible scenario as an example. Company A is registered in the US with a primary place of business in New York State. Company A holds a patent for the wireless technology incorporated into the smart automobile. The patent is registered in the US, the UK, Switzerland, France, China, and Japan. Company B is registered in the UK and started production of the equipment for the smart automobile using the same wireless technology worldwide. The common route for Company A would be to start litigation proceedings in each country where infringement of the patent takes place. The following issues might arise: first of all, the law applicable to each lawsuit. Would it be the national law of the patent's registration or the law of the places of the companies' incorporation? Secondly, would the result be identical in different legal systems? The answer would be negative because what might be considered as an infringement in the US, might not be considered an infringement in China or South Korea. Thirdly, what are the remedies available for Company A, including preliminary or interim measures and final remedies? The next issue would be the enforcement of international judgements. All these issues will be solved on a case-by-case basis because national patent law differs significantly which might lead to contradictory decisions in the end.

For the avoidance of the mentioned challenges, arbitration is proposed as a more suitable option for this type of disputes. Companies A and B could choose a neutral venue for their dispute resolution such as Hong Kong (usually the venue of arbitration and nationality of arbitrators are supposed to be neutral, and Hong Kong would be a suitable solution for our case since the parties are from the US and the UK). Choosing arbitration, parties will be able to define the law applicable to the dispute, combining all existing suits into one flexible procedure eliminating the need to litigate in each country and saving time and costs and avoiding possible contradictory decisions. The advantages and disadvantages of arbitration are discussed in Chapter IV. This chapter analyses litigation as a common way of global patent enforcement.

This chapter analyses complex international patent disputes based on the following criteria: first of all, a dispute involves an IPR such as a patent registered in multiple jurisdictions; secondly, it involves parties /companies registered or having a main place of business in different jurisdictions; thirdly, the cases involve high-profile patent holders and implementers like Apple, Samsung, Nokia, Genentech, Ericsson, etc.

Global patent litigation highlights with reference to the UK, the USA and Hong Kong jurisdictions

The value of a patent as an asset is high as an intellectual property bearing monetary value. The different governments have designed unique patent laws to govern patents and associated designations. In the UK, for instance, the Patent Act of 1977 was enacted to administrate the UK patents, including the UK designations embedded on European patents following their grant. The Act defines the litigation actions that are available in the event of an infringement. Section 60 of the Patent Act defines the actions that may be described as an infringement and culminate in litigation in circumstances where they are executed without consent from the patent owner. Further, Section 61 of the Patent Act provides the procedures for patent infringement claims identifying the civil proceedings that may follow in case litigation by the patent owner is brought to a court citing any actions of infringement. The development of such proceedings may result in a claim on the perpetrator seeking an injunction, a declaration on patent validity and its infringement, destruction of the associated products, an account of profits, and/or compensation for damages.

Notwithstanding the increased usage of arbitration in resolution of global patent disputes, litigation remains a traditional strategy to resolve patent disputes, even for the disputes with an international element. The court systems, which are effective and strictly governed, are developed to institute credible, impartial, and judicious decisions. Different governments have tried to institute intellectual property (IP) laws addressing an international arena. Such developments have led to the launching of special IP courts, where judges with expert knowledge are provided to consider disputes relating to IP issues. The Intellectual Property Enterprise Court in the UK, for instance, is an example of the specialised IP court, meanwhile, in the US and Hong Kong, such court options do not exist, allowing common judges to preside over IP litigations. As a result, decisions may be contradictory from an international perspective, and delays may be experienced in the process. Nevertheless, the 2018 IP Asia Forum was marked with extended government support from Hong Kong towards IP

developments, a move that was in tandem with the establishment of IP courts in the country following the implementation of the initial grant patent system.

Under patent law, litigation is based on definite court systems that allow the potential for appeals. The appeals are quite significant, considering that large amounts of money are at stake in patent disputes. Conversely, expanded time loss and associated costs are incurred in appeals for a specific patent dispute, yet the verdict is adversarial to the losing party. Patent litigations are characterised by system features of binding practises. As opposed to arbitration, which is confidential, the feature makes patent litigation able to provide more predictive results. Moreover, arbitrators often base their conclusions on agreed upon principles of fairness and equity as opposed to the case law review. A major advantage is that the confidential characteristic of arbitration provides for high-level dispute confidentiality. On the contrary, the exercised court measures may be insufficient to preserve confidentiality considering the possible information leaks in litigation proceedings which have happened in practice.

Litigations have been shown to result in a timely acquisition of provisional or interim measures considering the straightforward accessibility and implementation of litigation measures.¹⁵² In the course of arbitration, on the other hand, the disputing parties are obligated to seek enforcement of measures through the court. Further, in patent disputes that are international, the majority of local courts are unauthorised to award cross-national injunctions. Nevertheless, emergency arbitrators suffice to award reserve injunctions for an interim remedy.

In the event that a patent dispute is concluded via litigation, *erga omnes* effect prevails within a particular state, a condition that may culminate in patent revocation and/or its registration at the patent office. Conversely, *erga omnes* effect lacks following an arbitral award, including in the circumstances leading to the annulment of a patent when parties agree to that. The verdict is invalid at the patent registry, considering that its effect is between the parties allowing for more flexible solutions that take into consideration the interests of both parties. Furthermore, the litigation process is inflexible and can't be adjusted by parties involved with respect to the procedures involved, applicable law, or location, among others. Litigations obligate adherence to particular set procedures and deliberations. Those specific steps and requirements might be particularly beneficial by accounting for every detail of a patent dispute. Disclosures, on the other hand, may result in excessive costs and procedural time.¹⁵³

¹⁵² Christian Helmers, 'The economic analysis of patent litigation data' (2018) WIPO Economic Research Working Paper 48.

¹⁵³ Ibid.

International law provides that patent decisions generated via litigation are dependent on treaties signed between the country where the decision is made and the country of enforcement. That does not correspond to the current reality where diverse companies are increasingly exploiting licence agreements that are cross-national. Business corporations expand into the global market increasing the trend of rising global patent disputes. The involved parties may be faced with aversion in establishing the location to litigate patent disputes. Patent litigations have prescribed legal procedures initiated by a party who owns a patent on a specific invention following the enforcement of patent rights by prosecuting another party for producing or selling patented entities without permission.¹⁵⁴ Conventionally, such patent claims are disputed by the defendant party by arguing the invalidity of the particular patent.

Globally, the first-to-file system is exploited in every country, including the UK, the USA, and Hong Kong. The system was applied in the US following the enactment of the America Invents Act of 2013. In essence, even when an individual or entity has developed an idea into a product, it remains open for ownership unless it is filed in the commencement of the patenting process. This chapter assesses the litigation process from an international perspective featuring the US, the UK, and Hong Kong patent law. Further, the advantages and disadvantages of patent litigations are examined, pointing at various case laws exemplified in case studies.

UK litigation

Global patent litigation has increased ever since the ‘global patent wars’ occurred between the giants in the information and communication technology industry. Moreover, meanwhile patent wars have led to a surge in patent court cases in all major markets, which illustrated the fact that in some industries patent litigation was becoming a primary mechanism for moving issues of competition from the product market into the court room.¹⁵⁵

In the UK, the primary legislation has been capped in the Patent Act of 1977, which has faced subsequent amendments by secondary legislation and other Acts, and which is

¹⁵⁴ Christian Helmers, ‘The economic analysis of patent litigation data’ (2018) WIPO Economic Research Working Paper 48.

¹⁵⁵ Christian Helmers and Luke McDonagh, ‘Patent litigation in the UK’ (2012) LSE Law, Society and Economy Working Papers 12/2012 <<https://orca.cardiff.ac.uk/60863/1/Patent%20Litigation%20in%20the%20UK.pdf>> accessed 16 December 2021.

reinforced by various elaborate procedures described in the Patent Rules of 2007.¹⁵⁶ The European Patent Convention (EPC) of 1973 forms the foundation for the rules of patentability specified in the Patent Act of 1977. Further, Graham and Van Zeebroeck demonstrated echoing of the Patents Act to the Community Patent Convention of 1989 provisions as a guide towards the design of the acts of infringement.¹⁵⁷ While EU law framework has been implied in the development, its ratification has been delayed. Being a signatory of the expansive international patent law, patent litigations in the UK are bound to adhere to the WIPO (World Intellectual Property Organization), which entails the Paris Convention for the Protection of Industrial Property of 1883 identifiable as the Paris Convention. Moreover, Graham and Van Zeebroeck noted the role of the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) of 1994 to advise the decisions of patent litigations in the UK.¹⁵⁸ Dispute resolution in the UK over patents through litigations identifies with the Unified Patent Court (UPC) Agreement. On the other hand, as of February 2020, the UK terminated its considerations of the UPC, including the European patent law, by establishing a unitary patent.

In a study on IP litigations within the European context, Cremers and others argued that the decisions of EPC members on patent litigations do not bind the decisions of the UK Supreme Court despite the homogeneity in court proceedings, as was evidenced in the *Actavis UK Ltd v Eli Lilly & Co [2017] UKSC 48* case.¹⁵⁹ Evidently, with respect to various attributes of the UK patent law, its association with EU, and the international community, distinct advantages to using patent litigations are eminent, as are disadvantages which will be discussed below.

The US litigation

Whereas the United States legal system defining statutory laws is based on the federal and state laws, the foundation of patent laws comes from the patent clause contained in the Constitution identifying the Congress to have the mandate to enhance the development of useful art and innovation by awarding inventors the exclusive rights for a specified duration

¹⁵⁶ Charlotte Waelde, Laurie Graeme, Abbe Brown, Smita Kheria and Jane Cornwell, *Contemporary intellectual property: law and policy* (Oxford University Press 2014).

¹⁵⁷ Stuart JH Graham and Nicolas Van Zeebroeck, 'Comparing patent litigation across Europe: A first look' (2014) 17 Stanford Technology Law Review 655.

¹⁵⁸ Ibid.

¹⁵⁹ Katrin Cremers, Max Ernicke, Fabian Gaessler, Dietmar Harhoff, Christian Helmers, Luke McDonagh, Paula Schliessler and Nicolas Van Zeebroeck, 'Patent litigation in Europe' (2017) 44 European Journal of Law and Economics 1.

over the innovations. Besides, in his work Burnham illustrated the consistent implementation of a uniform legal system in the US across all states based on judicial precedence.¹⁶⁰ Regardless of where patent litigation is filed, the decisions of the federal courts are equally imperative across all states considering the interpretations thereof of federal statutes and the Constitution, while laws may be created in some instances. Moreover, the administration of patent disputes and litigations necessitated the development of the US Patent Office (USPTO) to execute functions entailing examination and issuance of patents.¹⁶¹ Moreover, the USPTO leads hearings on inter partes post-grant proceedings via the Patent Trial and Appeal Board (PTAB) in situations where an entity seeks to challenge another patent award. Additionally, the US International Trade Commission (USITC) mediates patent enforcement at the cross-border level.

The characteristics of patent litigation in the US, identifying the positive and negative aspects are defined by the attributes instituted in a patent dispute. La Belle suggested that it is a process only initiated by a patent holder suing an entity that has infringed the patent.¹⁶² Equally, an exclusive licensee has the mandate to litigate patent infringement in conjunction with the patent holder. Litigation by an exclusive licensee is substantiated in cases where all substantial rights are entailed in the license.¹⁶³ Conversely, Allison, Lemley, and Schwartz explain alternatives where a party accused of patent infringement is able to seek action for declaratory relief in situations where the purported infringer has been engaged in operation suggestive of an infringement while the patent owner has taken action against the purported infringer leading to reasonable litigation for infringement which will be pursued.¹⁶⁴ Such a procedural system is an advantage in the establishment of resolutions since a mere understanding of potential infringement of a patent is not sufficient, necessitating the existence of an actual dispute between the two entities. A declaratory ruling may include, among other, patent invalidity, non-infringement claims, as well as unenforceability.¹⁶⁵ These, among other benefits and drawbacks of patent litigation within the US judicial atmosphere, are assessed further.

¹⁶⁰ William Burnham, *Introduction to the Law and Legal System of the United States* (6th edn, West Academic Publishing 2016).

¹⁶¹ John Allison, Mark Lemley and David Schwartz, 'Understanding the realities of modern patent litigation' (2014) 92 Texas Law Review 1769.

¹⁶² Megan La Belle, 'Patent Law as Public Law' (2012) 20 Mason Law Review 41.

¹⁶³ Ibid.

¹⁶⁴ Ibid, Allison, Lemley and Schwartz (n 163) 1769.

¹⁶⁵ Ibid, La Belle (n163) 41.

The Hong Kong litigation

The government of Hong Kong is geared towards transforming the country into a global knowledge-based economic hub, particularly through innovations. The Hong Kong Government's rationale for the 2011 patent systems review in Hong Kong was to stimulate and warrant the actualisation of economic transformation.¹⁶⁶ The major recommendation for the Hong Kong advisory committee was the development of a patenting system tasked with the assessment and award of patents in a bid to build and strengthen the local infrastructure of legal personnel with patenting skills. Accordingly, patent litigations have been there relating to patent disputes. Litigation proceedings are guided by laws and regulations sourced mainly from the Patents Ordinance (Cap. 514).¹⁶⁷

Being a member of the WTO, Hong Kong is obligated to implement IP protection law that is congruent to the rules defined under the WTO Agreement on TRIPs of 1994. Similar to the US laws, section 86 of The Patents Ordinance identifies litigation for infringement of a patent through the patent holder or the exclusive license holder.¹⁶⁸ Additionally, where proceedings are commenced by the exclusive licensee, the patent owner is obligated to be a joint party. On the other hand, in litigations where the patent owner is joined as a respondent, cost and/or expense liability will not be extended to them unless, as explicated in section 86 of The Patents Ordinance, they take part in the proceedings by making an appearance.

Case study

In the thesis, I examine different scenarios that currently exist in the global patent dispute resolution arena, which includes both litigation and arbitration options. The discussed parties had been involved in patent litigation in multiple jurisdictions, and there are different scenarios possible:

The first scenario happens when parties choose solely litigation as a method to settle a patent dispute; however, arbitration would be a better option in terms of time/cost,

¹⁶⁶ Intellectual Property Department, Government of Hong Kong, *Review of the patent system* (Hong Kong 2011) <https://www.ipd.gov.hk/eng/intellectual_property/patents/Review_of_the_Patent_System.htm > accessed 4 February 2022.

¹⁶⁷ See The Patents Ordinance (Cap. 514) (The Patents (Designation of Patent Offices) Notice (Cap. 514A); The Patents (Transitional Arrangements) Rules (Cap. 514B); The Patents (General) Rules (Cap. 514C); and The Registration of Patents Ordinance (Cap 42)).

¹⁶⁸ The Patents Ordinance (Cap. 514), sec.86.

enforceability, etc. For instance, a high-scale patent portfolio dispute or so-called smartphone war such as *Apple v Samsung*.¹⁶⁹ It took seven years for Apple and Samsung to resolve their dispute through multijurisdictional litigation. However, if they chose arbitration as a single flexible procedure, it would have cut time and cost significantly.

The second possible scenario exists when parties are involved in both litigation and arbitration - for instance, *AMSC v Sinovel*.¹⁷⁰ In that case, litigation and arbitration had to coexist together. This scenario is particularly helpful when some issues might not be resolved through arbitration; therefore, some issues might be separated and considered independently. For instance, validity and ownership of patents may be considered by courts; meanwhile, royalty rates, and SEP terms may be decided by means of arbitration.

The third scenario covers the situation where cases started in courts but were finalised by means of arbitration, such as *Genentech v Hoechst and Sanofi Aventis*.¹⁷¹ This might happen in current practice for two main reasons. Firstly, there is a binding arbitration agreement between the parties; however, one party starts litigation; thus, the court proceedings will be ceased in favour of arbitration. The second reason would be the unwillingness of the parties to continue the legal battle over the years through multijurisdictional litigation as happened in *Apple v Samsung*.

The fourth type of cases involved solely the arbitration option, such as *Nokia v LG*, *Nokia v Samsung*, *Ericsson v Huawei*, *Ericsson v Interdigital*. Those cases were considered and finalised by arbitrators without court interference. This scenario is gaining popularity among patent holders and implementers due to the advantages discussed previously, proposing an efficient and flexible dispute resolution process. Thus, that illustrates the complete picture of what happens in practice and how arbitration suits the process of global patent dispute resolution.

¹⁶⁹ *Apple Inc. v Samsung Electronics. Co.* 786 F.3d 983 (Fed. Cir. 2015).

¹⁷⁰ *American Superconductor Co. v Sinovel Wind Group* 22 Fed. Cir. 2018 B.J. 641.

¹⁷¹ *Genentech Inc. v Hoechst GmbH and Sanofi-Aventis Deutschland GmbH* [2016] ECLI:EU:C:2016:526.

Please see the scheme below:



- | | | | |
|------------|---------------------------------------|------------------------------------|-------------|
| 1) | 2) | 3) | 4) |
| Litigation | Litigation and Arbitration
coexist | Litigation followed by Arbitration | Arbitration |

InterDigital v Nokia; Ericsson v InterDigital

Patent litigation between Nokia and InterDigital was rather complex.¹⁷² It originated from the verdict of a previous decision between InterDigital and Ericsson. The InterDigital Communications Corporation and Interdigital Technology Corporation, herein referred to as InterDigital, is the proprietor of diverse digital wireless telephony patents. Ericsson Inc., herein referred to as Ericsson, litigated InterDigital under a declaratory judgment suit declaring the invalidity of InterDigital patents as per the 35 USC §§ 101, 102, 103, and 112 stipulations rendering them unenforceable.¹⁷³ On the other hand, InterDigital asserted patent infringement by Ericsson. The decade-long litigation between Ericsson and InterDigital resulted in diverse orders through the district court. The marked ruling entailed construal of the infringement claims and award of a grant to non-infringement of particular patent claims, and judgment was sealed in pursuit of a confidentiality order. A settlement was reached in 2003 requiring the filing of a joint motion to divest the patent claim as well as the summary judgment orders, and preservation of the sealed records under the *Vacatur Order* explicated in *Ericsson, Inc. v InterDigital Communications Corp.*, No. 3:93-CV-1809-M (ND Tex. March 18, 2003).¹⁷⁴

Initially, Nokia Corporation sought a license agreement in 1999 on patents owned by InterDigital under the InterDigital-Nokia license, which shared royalty payments from Nokia to InterDigital into two-time stamps.¹⁷⁵ Prior to 2002, Nokia was to recompense InterDigital a one-time payment, while after 2002, the royalty obligation from Nokia was dependent on financial terms of competitors which determined the amount paid to InterDigital. Whereas

¹⁷² *InterDigital Communications Corp. v Nokia Corp.* 407 F. Supp. 2d 522 (S.D.N.Y. 2005).

¹⁷³ *Ericsson Inc. v Interdigital Communications* 418 F.3d 1217 (Fed. Cir. 2005).

¹⁷⁴ *Ericsson Inc. v Interdigital Communs.* 418 F.3d 1217 (Fed. Cir. 2005).

¹⁷⁵ *InterDigital Communications Corp. v Nokia Corp.* 407 F. Supp. 2d 522 (S.D.N.Y. 2005).

InterDigital and Ericsson agreed upon a settlement adding Ericsson to a license, InterDigital asserted that the settlement with Ericsson identified Nokia as owing them royalties totalling between \$100 and \$120 million under the InterDigital-Nokia license for the 2002 period.¹⁷⁶ In line with stipulations laid down under the licence, Nokia commenced an arbitration proceeding suing InterDigital.¹⁷⁷ Following an intervention request through Nokia, and in accordance with the Federal Rule of Civil Procedure 24(b) (2), Nokia was granted access to a sealed confidentiality record in the litigation. Further, the district court made available any document requested by the InterDigital-Nokia arbitration panel, unsealing the *Vacatur Order*.

On analysing the timeliness of the motion commenced by Nokia, the court used the four-part test hypothesised in *the Stallworth v Monsanto Co.*, 558 F.2d 257, 264-66 (5th Cir. 1977) by the Fifth Circuit Court. The findings developed on all four factors favoured the decision noting the timeliness of the motion set by Nokia under Rule 24(b) (2).¹⁷⁸ Lastly, the order for reinstatement of Nokia was ruled in a grant of motion by InterDigital and Ericsson to vacate, where the court erred with respect to the law for improper application of the *United States Bancorp Mortgage v Bonner Mall Partnership*, 513 US 18, 115 S. Ct. 386, 130 L. Ed. 2d 233 (1994) stipulations.

Apple v Samsung

The case, *Apple Inc. v Samsung Elecs. Co.* 786 F.3d 983 (Fed. Cir. 2015) was constituted among the various patent litigations between Samsung Electronics, herein referred to as Samsung, and Apple Inc. herein referred to as Apple.¹⁷⁹ The two telecommunication corporations have been battling over designs of smartphones and tablet mobile communication devices. The litigation was commenced by Apple in 2011 against Samsung, asserting patent infringement leading to multinational litigation on technology patent infringement. Towards the third quarter of 2011, Samsung and Apple were engaged in 19 continuing litigations cross-nationally in 9 states, which increased to 50 ongoing patent suits by mid-2012 worldwide.¹⁸⁰ Whereas the ruling in the US litigation favoured Apple, the rulings in the UK, Korea, and Japan favoured Samsung. Further, the ban against Samsung in the International Trade Commission

¹⁷⁶ *Ericsson Inc. v Interdigital Communs.* 418 F.3d 1217 (Fed. Cir. 2005).

¹⁷⁷ Damien Geradin, 'Access for All v. License to All: A Response to Richard Vary' (*Ssrn.com*, 2020) < <https://ssrn.com/abstract=3587319> > accessed 2 February 2022.

¹⁷⁸ *Ericsson Inc. v Interdigital Communs.* 418 F.3d 1217 (Fed. Cir. 2005).

¹⁷⁹ Sol Yi Kim, Seong Taek Park and Young Ki Kim, 'Samsung-Apple patent war case analysis: focus on the strategy to deal with patent litigation' (2015) 13(3) *Journal of Digital Convergence* 117.

¹⁸⁰ *Ibid.*

in the US was lifted, allowing it to continue the sale of particular Apple products based on a determination that Apple was in violation of some patents owned by Samsung.¹⁸¹

In declaiming the liability of the patent infringer to the patent holder, the total profits were in forfeiture of the infringer as candidly elucidated under 35 USCS § 289 granting an award of the entire proceeds from entities described in the design under patent.¹⁸² Various courts made decisions that § 289 granted an award of entire profits while averting the adoption of the causation rule in the US Court of Appeal for the Federal Circuit.

Taking into consideration the *Apple v. Samsung* case in the US, after the litigation was filed, the verdict of the first jury identified that various designs on Samsung smartphones were in violation of Apple's patents which diluted them causing economic damages amounting to more than \$1 billion in losses. The litigation covered the design patent claims over particular design features in iPhone, and utility patent claims over specific features in the user interface of iPhone, while the infringed trade dresses entailed trademark registration, including unregistered configurational elements contained in the iPhone. The considerations of the initial jury trial resulted in the district court upholding the infringement, validity, and dilution decisions of the jury in the post-trial motion deliberated by Samsung. Moreover, the courts endorsed more than \$639 million in damages while requesting a partial retrial over the remaining damages since the judgment was executed in the absence of sufficient notice to Samsung over the alleged patents.¹⁸³ Apple was awarded \$290 million for damages over the partial retrial upholding the post-trial set by Samsung for the second time.

Evidently, the litigation process described in the *Apple v Samsung* case is costly and time-consuming. The cost is expended in the litigation proceedings and as compensation for the damages.¹⁸⁴ In the US case, sufficient evidence was presented, facilitating affirmation of the jury's decision by the district court finding Samsung with infringement of Apple's design patents and utility patents. A high amount of royalties were awarded to both companies, depending on who won and in which patent infringement case. Royalties were awarded to Apple following the determination of patent infringement on utility and design by Samsung with all profits by Samsung collected from smartphone proceeds under 15 USCS § 1125.

¹⁸¹ Sanjeev Bajwa, 'Apple v Samsung: Is It Time to Change Our Patent Trial System' (2014) 27(1) Pacific McGeorge Global Business & Development Law Journal 77.

¹⁸² Ibid.

¹⁸³ Kim, Park and Kim (n 181) 119.

¹⁸⁴ Sanjeev Bajwa, 'Apple v Samsung: Is It Time to Change Our Patent Trial System' (2014) 27(1) Pacific McGeorge Global Business & Development Law Journal 77.

Huawei and Samsung, two leading companies in smartphone production, started cross-licensing negotiations in 2011. Both companies were SEPs holders and expected to receive licences on FRAND terms under the European Telecommunications Standards Institute's Intellectual Property Rights Policy "ETSI". Following years of unproductive negotiations, Huawei started litigation in the US, and China in 2016 for the unlicensed use of its patents by Samsung. Samsung filed counterclaims in both countries for patent invalidations. The continuous litigations had led to the fact that the two parties were involved in forty-two patent infringement actions in China by 2018. The Shenzhen Intermediate People's Court issued a confidential award and released a redacted version months later. The Court acknowledged Samsung was at fault in the delayed negotiations and its infringement of Huawei's patent 4G LTE SEP. The injunction was granted against Samsung to stop infringing actions such as manufacturing and selling 4G LTE smartphones in China. Samsung filed an appeal at the Shenzhen Intermediate People's Court and a motion for an antisuit injunction in the US District Court of Northern California. In April 2018 The US Court issued an anti-suit injunction ordering Huawei not to enforce the Shenzhen Court's decision. The US District Court of Northern California applied the following Legal Standard:

"A federal district court with jurisdiction over the parties has the power to enjoin them from proceeding with an action in the courts of a foreign country, although the power should be 'used sparingly' (*Seattle Totems Hockey Club, Inc. v. Nat'l Hockey League*, 652 F.2d 852, 855 (9th Cir. 1981))." "Such injunctions allow the court to restrain a party subject to its jurisdiction from proceeding in a foreign court in circumstances that are unjust (*E. & J. Gallo Winery v. Andina Licores S.A.*, 446 F.3d 984, 989 (9th Cir. 2006)) ("Gallo")." The Ninth Circuit employs "a three-part inquiry for assessing the propriety of such an injunction (*Microsoft Corp. v. Motorola, Inc.*, 696 F.3d 872, 881 (9th Cir. 2012)) ("Microsoft IP"); see also *Gallo*, 446 F.3d at 990 (establishing framework for determining whether to issue anti-suit injunction)." Therefore, first, we determine whether or not *the parties* and *the issues* are *the same* in both the domestic and foreign actions, and whether or not the first action is dispositive of the action to be enjoined. Second, we determine whether at least one of the so-called *Unterweser* factors applies. Finally, we assess whether the injunction's impact on comity is tolerable."¹⁸⁵ In the discussion of the applied Legal Standard, The Court concluded

¹⁸⁵ *Huawei Techs., Co. v. Samsung Elecs. Co.* Case No. 3:16-cv-02787-WHO (N.D. Cal. Apr.13, 2018).

that both parties were functionally the same, although not identical because several affiliates or subsidiaries were involved; the issues were found similar based on the parties' commitment to grant its licences on FRAND terms and other factors were considered in Samsung's favour. Thus, the Court ordered Huawei not to seek the enforcement of the orders made by the Chinese Court. The parallel proceedings could last many more years; however, the parties agreed to submit the joint motion for stay of proceedings to the US Court of Appeal in 2019, as they entered into a settlement agreement.

This case illustrates an example of how courts of different jurisdictions assess the same issues based on different legal standards. What might be considered as a patent infringement in one country, might not be an infringement in the other. Moreover, the case shows contradictory decisions in regard to the preliminary measures. The decision of the US Courts prohibiting Huawei to enforce Chinese awards did not have the power over the Chinese Court's decisions, it solely ordered them not to seek the enforcement until the US Courts have the ability to determine the breach of contract claim. Moreover, the parallel proceedings will inevitably lead to contradictory decisions because of the unique nature of patent law in each jurisdiction and its attitude towards foreign patent treatment.

AMSC v Sinovel Wind Group

Although the subject matter of this dispute is trademark and copyright infringement, this case is important as a "model dispute" involving parties based in the USA and China debating over infringed IP, which is a problematic issue nowadays. Secondly, it involves both litigation and arbitration, illustrating an example of when some issues of a dispute are considered by arbitration, whereas others by means of litigation. Thus, this case seems significant to the current analysis.

A criminal summons was served to Sinovel Wind Group (USA) Company in Texas, herein referred to as Sinovel USA, a Chinese company in the wind turbine manufacturing business based in the US. The US established that the Western District of Wisconsin was indicting Sinovel over copyright infringement and theft of trade secrets from a US-based firm, initially identified as American Superconductor Inc., referenced as AMSC. Whereas Sinovel disputed the claims, it instituted a motion to quell the summons noting that Sinovel USA was providing service in line with its mandates.¹⁸⁶ The US district court denied the motion set by Sinovel, an

¹⁸⁶ Erin Ailworth, 'Data theft case may test US, China ties' (2011) 19 Boston Globe 19.

appeal application (No. 14–3013) was filed, including the filing of a writ of mandamus petition (No. 14–3105) seeking the district court to vacate its order while preserving the service of process.¹⁸⁷ The court concluded it had no jurisdiction to take on the appeal and that the case did not reach the threshold for a *writ of mandamus* issuance.¹⁸⁸

In principle, as stipulated in 18 USC §§ 371, 1343, 1832(a)(2), 2319, and 17 USC § 506(a)(1)(A), Sinovel was charged for scheming to steal AMSC computer source code associated with wind turbine operations. In an application filed in the district court by Sinovel pursuant of Federal Rule of Criminal Procedure 12 to depress summon services, indictment, and complaints, the defendant argued that the US exhibited non-compliance with Rules 4 and 9, considering that Sinovel USA's service of process and that of its registered agents was different from the parent Sinovel's service of process. After filing and denial of Sinovel's motion, the magistrate court ruled that Sinovel USA was not independent of Sinovel because it was functioning as the alter ego of the company under Delaware law, which proved the alter ego status.

The litigation process established the system of binding precedents showing that under 28 USC § 1291, the decisions of appeals were subject to the final decisions raised at the district courts. Such decisions were parallel to *Gelboim v. Bank of Am. Corp.*, 135 S.Ct. 897, 902 (2015), and the *Cohen v. Beneficial Indus. Loan Corp.*, 337 US 541, 546 (1949). In consideration of the Cohen case and other litigations, Sinovel established the necessity for appellate jurisdiction citing the small class of indeterminate orders whose appeals obligated careful policing.¹⁸⁹ Equally, the jurisdiction over Sinovel writ of mandamus petition was established arguing based on the existence of All Writs Act, 28 USC § 1651(a).¹⁹⁰ The position of the petition was equalled to the appeal file in consideration of the relatedness of the reasons stipulated. The issuance of a *writ of mandamus* was referencing extraordinary conditions that restrict lower courts to a binding implementation of its defined jurisdiction or to oblige the execution of its authority dynamically as required in the rejection of the *writ of mandamus* and the denial of the Sinovel motion in its appeal to quell service of the process as defined by the order doctrine and the appealable status. The arbitration part of the case is discussed in the next chapter.

¹⁸⁷ Tackett Qiu Timothy, 'The US-China IP Dispute: How Will the US Respond to and Address China's Persistent Violation of International and US IP Regulations?' (2019) 5 European Journal of Humanities and Social Sciences 77.

¹⁸⁸ Ibid, Ailworth (n 187).

¹⁸⁹ Ibid, Ailworth (n 187).

¹⁹⁰ *American Superconductor Co. v Sinovel Wind Group* 22 Fed. Cir. 2018 B.J. 641.

The Genentech - Hoechst and Sanofi Aventis litigation entailed infringement and revocation of a patent. In particular, Genentech contracted the predecessor of Hoechst into a non-exclusive patent with a global scope for exploitation of a particular human cytomegalovirus enhancer that was designed to increase the potency of cellular processes in the synthesis of proteins. The provisions in the license dictated that both parties sought arbitration proceedings in the event of disputes.¹⁹¹ Essentially, the patented technology was subject to two US patents and one European patent. Whereas the EU patent was revoked early in 1999, the patents under US jurisdiction were rendered for revocation and infringement on the expiry of the license. Based on the stipulations of the license agreement, three elements were constituted requiring Genentech to recompense a one-off fee, a yearly fee for research, and continuous royalties amounting to 0.5% constituted from the sales of products. However, Genentech addressed the first two elements without remunerating royalties.¹⁹²

When Hoechst and Sanofi-Aventis sought financial details of finished products and determined the royalty entitlement over the period, Genentech considered license agreement termination.¹⁹³ On commencement of arbitration proceedings, the decision was that Genentech was obligated to reimburse royalties from the proceeds of Rituxan irrespective of the revocation of the EU patent.¹⁹⁴ Subsequently, Genentech filed a petition before the Court of Appeal in Paris arguing for arbitral award annulment. The Court brought issues to the floor of the Court of Justice of the European Union (CJEU) pertaining to the application of Article 101 TFEU to inhibit the patent owner from obligating a licensee to reimburse royalties for the period of, and as stipulated in the agreement, irrespective of patent revocation, or without infringement.¹⁹⁵ While Article 101 TFEU tries to forfend strained relations between EU countries, and elements pointing to distortion, prevention, or limit of competition, Genentech asserted its failure to pay royalties was parallel to non-licensed competitors.¹⁹⁶

¹⁹¹ Patricia Cappuyns and Jozefien Vanherpe, 'Patent Royalties and Competition Law: The Genentech Judgment of the Court of Justice of the European Union' (2016) 51 (4) *Les Nouvelles-Journal of the Licensing Executives Society* 283.

¹⁹² Helen Hopson, 'Genentech: No EU Competition Law Barrier to Patent Royalties Despite Invalidity or Non-infringement of the Licensed Patent (s)' (2016) 7(10) *Journal of European Competition Law & Practice* 679.

¹⁹³ *Ibid.*

¹⁹⁴ Patricia Cappuyns and Jozefien Vanherpe, 'Patent Royalties and Competition Law: The Genentech Judgment of the Court of Justice of the European Union' (2016) 51 (4) *Les Nouvelles-Journal of the Licensing Executives Society* 283.

¹⁹⁵ *Genentech Inc. v Hoechst GmbH and Sanofi-Aventis Deutschland GmbH* [2016] ECLI:EU:C:2016:526.

¹⁹⁶ Helen Hopson, 'Genentech: No EU Competition Law Barrier to Patent Royalties Despite Invalidity or Non-infringement of the Licensed Patent (s)' (2016) 7(10) *Journal of European Competition Law & Practice* 679.

The admissibility of the argument presented by the licensor was annulled at the CJEU, considering that the arbitration between the parties was specified in the agreement and that disputes were bound to arbitration proceedings. Legal precedence was established with the argument that EU competition law was preeminent, making the question by the licensee admissible.¹⁹⁷ The subsequent question was the establishment of commercial disadvantage posed to Genentech from the interpretation of the arbitrator on the license agreement. The essence of Article 101 TFEU was interpreted to mediate commercial undertakings as opposed to commercial relations. The opinion of the Court citing *Ottung* (C-320/87) was that the inclusions of the license agreement entail clauses claiming royalty obligations were capping reasons that are not attached to the patent.¹⁹⁸ The Wathelet decision was of the opinion that implementation of the arbitral award was an affirmation that the obligation of Genentech on royalty reimbursement followed license agreement and not the exploitation of the protected technology through the patent.¹⁹⁹ The Court's understanding established the commercial purpose of the license agreement in allowing Genentech to use patented technology, and thus avert potential legal risks, including patent litigation.

¹⁹⁷ Helen Hopson, 'Genentech: No EU Competition Law Barrier to Patent Royalties Despite Invalidity or Non-infringement of the Licensed Patent (s)' (2016) 7(10) *Journal of European Competition Law & Practice* 679.

¹⁹⁸ Richard Binns and Nicola Walles, 'Royalties for Unpatented Technology' (2017) 52(1) *Les Nouvelles-Journal of the Licensing Executives Society* 27.

¹⁹⁹ *Ibid*, Hopson (n 197).

Advantages and disadvantages of litigation in global patent dispute resolution

To facilitate the further discussion, advantages and disadvantages of global patent litigation are presented in the table below.

Global patent litigation

Advantages	Disadvantages
The primary method of patent enforcement	Time of proceedings
An established system of courts and support measures	Cost of proceedings
System of binding precedents	Uncertain confidentiality of proceedings and awards
Appeal option	Difficult global enforceability of awards
Quick and easy to obtain provisional or interim measures	Strict formal procedure
Erga omnes effect of the award	Limited final remedies
	Adversarial nature of proceedings
	Expansive disclosure
	Lack of specialised IP courts leading to an absence of judges with specific IP knowledge and experience
	A trial might include jury participation whose members possess neither legal nor specific IP knowledge
	Contradictory decisions, delays due to litigation in multiple jurisdictions
	Limited availability of cross-border injunctions
	A need to litigate in numerous countries
	Limited possibility to claim extraterritorial damages

Advantages: litigation as the primary method of patent enforcement

The increasing trend of using arbitration in the global arena does not eliminate litigation as a method to enforce patent rights. Although arbitration is a highly competitive method to enforce patent rights, litigation is the primary option governed and established by the states. Litigation mechanisms have been established and developed long before arbitration. The effective and strictly governed court system was developed to provide fair and reasonable decisions. Litigation has been established and developed as the main tool to enforce patent rights and as a guarantee of its protection from the states' courts. Enforcement of patent laws is governed by both national laws and international treaties in incidences where such treaties are implemented in national laws of a given jurisdiction. Patent territoriality presumes that the patent is applied in the region or country where that patent is granted making national litigation the first and the most evident method of its enforcement. While the advantages associated with patent enforcement among different territories are viewed as common, they sometimes vary depending on the expertise of the person executing the process of litigation; additionally, diversity of national patent law across the globe does not accommodate the uniformity in this field.

Furthermore, studies have revealed patent litigation is still valued by companies because it involves high secrecy, however it is not guaranteed as an absolute.²⁰⁰ According to recent studies, the enforcement of large patent portfolios, as well as equivalent bargaining ability among companies, is of great importance as they are used in the prevention and containment of identified infringement activities caused by competitor firms.²⁰¹ Much of existing literature on patent enforcement is based on the ability of patents to promote the protection of provisional monopoly in the market. Patents promote further innovations which increases the supply of new technologies in the economy.²⁰² More fundamentally, the longer the duration of patent rights exist, the more the expected value of *ceteris paribus*. In this regard, broader patent enforcement is believed to allow firms to do away with a large range of replacing technologies to protect them from being used by other competitors.²⁰³

²⁰⁰ Jay Kesan, 'Patent trolls' in Ben Depoorter (ed), *Research Handbook on the Economics of Intellectual Property Law* (Edward Elgar Publishing 2019).

²⁰¹ Peter Lee, 'Toward a Distributive Agenda for US Patent Law' (2017) 55(2) *Houston Law Review* 321.

²⁰² Cassandra Sweet and Dalibor Eterovic, 'Do patent rights matter? 40 years of innovation, complexity and productivity' (2019) 115 *World Development* 78.

²⁰³ Warren Boeker, Michael Howard, Sandip Basu and Arvin Sahaym, 'Interpersonal relationships, digital technologies, and innovation in entrepreneurial ventures' (2021) 125 *Journal of Business Research* 495.

Litigation provides an established system of courts

Global patent litigations are known to be handled through unique court systems around the world, considering their international nature. In the UK, patent litigations are under the legislation defined under the Patents Act 1977, which underwent various amendments influenced by other Acts, as well as secondary legislation, and that adheres to the Patents Rules 2007 stringent procedures. Further, the patentability rules are embedded in the European Patent Convention while mirroring the stipulations of the Community Patent Convention of 1989. Whereas the decisions of the Supreme Court are binding in the entire UK, patent cases are executed in defined Patents Court, or the UK Intellectual Property Enterprise Court, which harbours the competence to resolve patent disputes. The decisions of IPEC may be forwarded to the Patents Court for appeals. Moreover, the patent litigations heard in the IPEC are of less complexity and command a smaller value than Patent Court disputes. The UK uses the two specialised courts to address IP disputes with judges legislating in the courts having or continuing to practice in IP matters.

In the US, the federal courts are tasked with exclusive jurisdiction entailing patent infringements. There are no special courts as is the case with the UK court system, but the federal district courts have established judges with IP knowledge. Moreover, products imported into the US under patent infringement, or where patent holders are able to provide evidence of the existence of US domestic industries producing the patented products, disputes are filed at the US International Trade Commission (USITC).²⁰⁴ While litigation proceedings are faster in the USITC hearings than in courts, only injunctions are provided, and monetary damage compensations are addressed in the federal district courts following related litigations. Importantly, the patent case appeals in the country are addressed at the Court of Appeals for the Federal Circuit on a discretionary basis. Irrespective of having no specialised courts for patent disputes, some federal district courts elicit more expertise on patent issues based on the frequency of patent matters in various jurisdictions. Further, the Patent Trial and Appeal Board hears litigations entailing particular inter partes proceedings.

Hong Kong's court system is more similar to the US, with no specialised patent courts. Patent litigations are heard in the Court of First Instance (CFI). On the other hand, the majority of judges sitting in patent case proceedings have little or no expertise in patent law. Assurance

²⁰⁴ John Pegram, 'Should the US Court of International Trade be Given Patent Jurisdiction Concurrent with That of the District Courts' (1995) 32(1) *Houston Law Review* 67.

of justice is warranted by the appearance of the Patent Registrar in CFI proceedings pertaining to an application to rectify or alter patent register as described under Section 131 of the Patents Ordinance.

Litigation proceedings are based on the system of binding precedents

Another attractive feature of patent litigation is the system of binding precedents. This gives more predictive results in comparison to arbitration which is confidential; also, arbitrators might base their decision on the principles of equity and fairness rather than previous practice what leads to the unique award difference from the previous case law.

The binding precedence is defined in all court systems, particularly in the three countries under study. While the USPTO and PTAB addressed issuance and disputes of patents and inter partes post-grant proceedings, respectively, the USITC enforces cross-border patents. The defined set of federal regulations guide the administration of the agencies consistent with the federal patent statutes and the US Constitution. Case laws on patent litigations follow an order of precedence in the US, with the US Constitution forming the primary law source. Further, the federal statutes and regulations are precedent to the case law. In the *US v Sinovel Wind Group Co., Ltd.* for instance, the implied USPTO manual for patent examining procedure, including Title 37 of the Code of Federal Regulations defined the procedures and rules governing patent examination.²⁰⁵ The order of precedence on patent case law is such that the rulings and decisions of the administrative agencies, such as the USITC, are appealable in the federal district courts where the case is filed outside the regional circuit. The determinations of the federal district courts within the regional circuit are antecedence to those of courts outside the regional circuit. The Court of Appeals for the Federal Circuit was accorded jurisdiction above patent appeals exclusively, and ensuing dispute decisions may be appealable at the US Supreme Court.²⁰⁶

The scenario in the UK is equally dependent on a binding precedence order with decisions of the Patent Courts appealable at the Court of Appeal, and subsequent decisions forwarded to the Supreme Court for appeals. It has been established that for the period after 31 December 2020, the UK will stop enforcing the Recast Brussels Regulation (1215/2012) on patents but will instead become part of the Lugano Convention of 2007, which was designed

²⁰⁵ *US v Sinovel Wind Group Co., Ltd.* 794 F.3d 787 (7th Cir. 2015).

²⁰⁶ John Pegram, 'Should the US Court of International Trade be Given Patent Jurisdiction Concurrent with That of the District Courts' (1995) 32(1) *Houston Law Review* 67.

congruent to the Recast Brussels Regulation terms and is pertinent to patent matters. Nevertheless, patent disputes leading to international litigation commencing in the UK need to be addressed based on the conditions stipulated in the trans-national declarations which granted defining foreign patents non-infringement, as was depicted in the *Actavis v Eli Lilly* [2012] EWHC 3316 (Pat) case. The binding precedence in Hong Kong is similar to the UK, where decisions on patent litigations are consistent with the Basic Law as presented in the mini constitution of Hong Kong. Further, the decisions guided by statutes are antecedent to the decisions of tribunals and the CFIs. Nonetheless, the decisions of the Court of Appeal are appealable at the Court of Final Appeal.

Litigations provide an appeal option

In the three countries which are the focus of this thesis, litigation appeals are available as depicted in the binding precedents while the decisions of the Supreme Courts in the UK and US, and those of the Court of Final Appeal in Hong Kong are non-appealable. As such, in Hong Kong, application for leave is not necessary for appeals directed against deliberations of the CFI of the High Court, except for appeals associated with legal costs. Defendants are at liberty to file CFI appeals at the Court of Appeal as a hearing proceeding. Further, decisions of the Court of Appeal may be appealed at the Court of Final Appeal where the compensation for the patent litigation amounts to more than HK\$1 million, denoted as an appeal as of right. Moreover, when the decision reflects questions of public importance, an appeal may be filed against the decisions of the Court of Appeal. As such, defendants are obligated to seek leave to appeal, which is granted at the Court of Appeal or the Court of Final Appeal. The essence of leave for an appeal is not operative as an execution stay, but the defending party harbours the liability dictated in the decision of the lower court, with the exception of courts directives. The parties that lost in patent litigation are able to apply for a stay of execution, with appeal proceedings taking between 4 to 12 months to reach a conclusion, while an additional appeal in the Court of Final Appeal may take an additional six months.

Conversely, the UK court system dictates that appeals are filed against the decisions of the IPEC and Patents Court at the Court of Appeal. As was evidenced at the *HTC Corp v Nokia Corp* [2013] EWCA Civ. 1759 case law, a final injunction delivered during the trial may be stayed awaiting appeal. Equally, a preliminary injunction may be stayed pursuant to an appeal

irrespective of the verdict invalidating a patent at the first instance.²⁰⁷ In this regard, orders towards revocation of a patent have been stayed pendant an appeal.

In the US, the exclusive jurisdiction for patent appeals is directed to the Court of Appeals for the Federal Circuit (CAFC). Appeals resultant of judgments from federal district courts, the USITC or the USPTO are filed and heard at the CAFC. Patent appeals are defined from the definitive judgments capped from addressing all matters pertaining to patent validity, infringement, damages and enforceability of the federal district courts. Interlocutory appeals are addressed when taken from non-final judgments, particularly following a preliminary injunction grant or denial. During the litigation process, a lower court may also recommend immediate appeal, while the CAFC has the jurisdiction to consent to or reject such an appeal filing. At the discretion of the US Supreme Court to take appeals, its decisions have an impact on patent law, especially on patent eligibility as was reflected in *AMP v Myriad* [2013] 12-398 569 US and *Alice v CLS Bank* 573 US, [2014] 134 S. Ct. 2347 characterised by multiple invalidations of patent claims. While appeals are eminent in patent disputes, relief is not stayed to the losing party with pending appeals. Therefore, litigation in contrast to arbitration proposes an appeal option which plays a significant role in high-value patent disputes; meanwhile, it increases time and cost of the overall proceedings.

Quick and easy to obtain provisional or interim measures

The next strong feature of litigation is that the process is quick to obtain provisional or interim measures. In contrast to arbitration, the process is easily accessible and decisions are enforced straightaway. During the arbitration, parties are obliged to seek enforcement of these measures through courts. However, in the case of global disputes, some courts are reluctant to grant cross-border injunctions; meanwhile, emergency arbitrators can grant emergency relief immediately.

In any case, dependent on the complexity of patent litigation, the establishment of interim or provisional measures is of great importance. The capacity and promptness of legal representatives to acquire provisional measures prior to, or in the course of, a litigation proceeding entailing IP disputes is highly valuable.²⁰⁸ The relevance of the provisional measures increases in patent disputes with a cross-border dimension, which are judicial events

²⁰⁷ *Novartis AG v Hospira UK Limited* [2013] EWHC 1285.

²⁰⁸ Stefan Luginbuehl, *European patent law: towards a uniform interpretation* (Edward Elgar Publishing 2011).

that are increasingly common in the current business environment following globalisation. In the UK, as with other European countries, the determination of which courts to seek out interim or provisional amendments was governed by the Regulation 1215/2012 (Brussels I Regulation).²⁰⁹ Under the regulation, a double-alternate system was established where a litigant was obligated to seek interim measures prior to or immediately after filing principal complaints. Filing for provisional measures may be accomplished in courts with authority over the merits surrounding the infringement of IP or patent obligations, including courts where the defendant is domiciled as dictated by Art. 4, or courts in jurisdictions where patent infringement occurs as defined under Art. 7.2. Equally, filing for interim measures may be achieved in courts where jurisdiction may be declared consistent with the local jurisdiction rules.²¹⁰ A freezing injunction is possible as an interim measure in the UK where identified by the court as convenient and just. The injunction, further, may be obtained to freeze assets within UK jurisdiction for patent litigations involving foreign proceedings. In inter partes litigations, provisional measures, including preliminary injunctions, are commenced by filing an application with a witness statement as evidence and drafting orders describing injunction terms, which are served on the provisional defendant following conditions established in UK courts.²¹¹

In Hong Kong, provisional measures are eminent in the form of preliminary injunctions, interim disclosure, asset freezing, and search and preservation of potential evidence. Interlocutory injunctions may be filed as inter partes or ex parte, especially in claims that are not vexatious or frivolous, or where convenience balance is embedded in the injunction grant. The Anton Piller order may be issued guiding the solicitor to search the premises of an alleged infringer for evidence and documentation pertinent to the infringement that may be destroyed, with an application for an ex parte injunction. A Mareva injunction can be filed on an ex parte basis seeking an asset freeze in circumstances where the litigation is an arguable case on merits, the assets cited in infringement are within Hong Kong jurisdiction, or the convenience balance favours the grant. A cross-undertaking is required in interlocutory injunction filing with the claimant readying to recompense the defendant for loss of goodwill, sales, and business should the court find no liability of the defendant.

²⁰⁹ At the end of the Brexit transition period, the Recast Brussels Regulation was converted into UK law as retained EU law, which was amended by UK legislation.

²¹⁰ See Art. 35 and CJEU Judgment 17 November 1998, *C-391/95, "Van Uden"*.

²¹¹ House of Lords in *American Cyanamid Co v Ethicon Ltd* [1975] AC 396.

Courts in the US grant preliminary injunctions following considerations of whether the merits presented are likely to pass due to its grant, irreparable harm may be caused by its denial, or whether it affects the public interest.²¹² As is the condition in Hong Kong, the claimant is obligated to deposit bonds as a security measure for reimbursing the defendant when the court vacates the injunction. Temporary restraining orders may be granted as ex parte relief to allow the patent owner to bring a preliminary injunction motion within the defined time frame.

Erga omnes effect of the award

When a patent dispute is finalised through litigation, it has erga omnes effect on the particular territory which might lead to the revocation of the patent and registration of it at the patent office. Meanwhile, the arbitral award will not cause such an effect even when a patent is considered invalid. Such a decision will not be recognised at the registry because it has effect only between the parties. This allows for obtaining more flexible remedies where the interests of both parties are accounted for. In addition, the parties will not be able to adjust the litigation process to their needs in terms of applicable law, location, procedure etc. Litigation obliges parties to follow specific steps and requirements which might be considered an advantage because it takes into account every little detail of a dispute, however, disclosure in patent disputes might be excessive which leads to the increased time and cost.

The basic principle of patents is the erga omnes entitlement awarding all property rights to the patent owner and is enforceable against parties that infringe the patented rights. The US statutes provide for grants to injunctions consistent with the equity principles to avert the violation of patent rights on such conditions considered reasonable. Permanent injunctions are granted on the establishment of infringement. Nevertheless, in the *eBay Inc v MercExchange LLC* 547 US 388, the US Supreme Court decided that permanent injunction pro forma imposition entailed in patent infringement litigation is not apposite.²¹³ Reasonably, the courts are obligated to ask the patent owner to show the irreparable injury suffered, as well as confirm that available solutions based on US law are insufficient to recompense the injury, the public interest will not be injured by seeking a permanent injunction, and that a solution inequity based on hardship balance is warranted. Importantly, the erga omnes entitlement is binding on third parties. In accordance with the US statute, a plaintiff is entitled to a compensatory

²¹² Carl Shapiro, 'Patent system reform: economic analysis and critique' (2004) 19(3) Berkeley Technology Law Journal 1017.

²¹³ *eBay Inc v MercExchange L.L.C* 547 U.S. 388.

monetary reward for damages due to infringement equivalent to a reasonable royalty, in addition to costs and interests determined by the court.²¹⁴ Further, as established in the *WesternGeco v ION Geophysical*, No. 16-1011 case, the US Supreme Court determined that lost profits may also include profits lost overseas due to infringement in the US. A recall order may be granted in particular cases, including surrender and destruction of products due to infringement, particularly in infringement cases resulting from importation. As determined in the *Samsung Electronics v Apple* case, patent owners for designs exert claims against the total profits earned by the infringers, yet the Supreme Court established that the award might be unnecessarily applied on sales profits on the finished product.²¹⁵ Claims may be directed on profits from the infringing component of the finished product, calling for apportionment analyses on the contribution of the component to the total profit sourced from the sale of the product.²¹⁶

In the UK, on the other hand, injunctions are discretionary, depending on their significance and proportion.²¹⁷ In practice, it is the obligation of the courts to demonstrate them, as was the case in the *HTC Corporation v Nokia Corporation* litigation, determining the necessity for a compulsory licence.²¹⁸ Monetary compensation for damages resultant from patent infringement is described as compensatory to reinstate the patent owner to the economic position they would have held in the absence of the incurred losses. As evidenced in the *Genentech v Hoechst and Sanofi Aventis* case law, and the *SDL Hair Ltd v Next Row Ltd & others* [2014] EWHC 2084 litigation, compensation for damages may be awarded on a “facilitator” basis where the defendant is shown to have benefited from the infringement irrespective of expiration of the infringed patent.²¹⁹ In Hong Kong, *erga omnes* entitlement defines a grant for a permanent injunction, surrender and destruction of products due to infringement, information disclosure, infringement declaration, and stipulation of damages and profits.

²¹⁴ 35 U.S.C. §284.

²¹⁵ *Samsung Electronics v Apple* No. 15-777 (2016) WL 7078449.

²¹⁶ *Ibid.*

²¹⁷ Stefan Luginbuehl, *European patent law: towards a uniform interpretation* (Edward Elgar Publishing 2011).

²¹⁸ *HTC Corporation v Nokia Corporation* [2013] EWHC 3778 (Pat).

²¹⁹ *SDL Hair Ltd v Next Row Ltd & others* [2014] EWHC 2084.

Disadvantages: time of proceedings

Patent litigations have been described to consume the longest time schedule. The *Ericsson, Inc., Plaintiff, v. Interdigital Communications Corporation and Interdigital Technology Corporation, Defendants-appellants, v. Nokia Corporation, Intervenor-appellee*, 418 F.3d 1217 (Fed. Cir. 2005) case lasted more than 15 years. The initial litigation, *Ericsson Inc. v InterDigital Communications Corp.* No. 3:93-CV-1809-M case was filed in 1993 with the involved parties agreeing to a settlement in the first quarter of 2003.²²⁰ Soon after, the InterDigital-Nokia license dispute was ensured.²²¹ The *Apple Inc. v Samsung Electronics Co., Ltd* litigation commenced in 2011 and lasted three years in the US, while there were more than 50 patents disputed between the multinational telecom companies that ran concurrently over seven years. The *US v Sinovel Wind Group Co., LTD.*, 794 F.3d 787 (7th Cir. 2015) lasted close to seven years, with its decisions arrived in July 2018. The timeline for the *Sanofi-Aventis Deutschland GmbH v Genentech, Inc.*, 716 F.3d 586 (Fed. Cir. 2013) was four years with the filing of US lawsuits in 2008 and decisions determined in September 2012 under the 28 USC § 1295(a)(1) jurisdiction.²²² Evidently, patent litigations last considerably longer than arbitration which HKIAC statistics report median duration of 13 months and mean duration of 16.9 months.²²³

Cost

The cost of patent litigations is generally high but dependent on the case complexity. The legal charges are defined with respect to the judges involved, barrister seniority, and attitude of parties, as well as the level of the case proceedings, whether first instance, interlocutory injunction, or appeals. In Hong Kong, a successful party will be awarded its legal cost and disbursements, which usually amounts to 50% to 70% of the actual legal costs. In the UK, a legal fee for patent cases is considerably high, equally dependent on the complexity and

²²⁰ *Ericsson, Inc., Plaintiff, v. Interdigital Communications Corporation and Interdigital Technology Corporation, Defendants-appellants, v. Nokia Corporation, Intervenor-appellee* 418 F.3d 1217 (Fed. Cir. 2005).

²²¹ *Ericsson, Inc. v. InterDigital Communications Corp.* No. 3:93-CV-1809-M; *InterDigital Communications Corp. v. Nokia Corp.* 407 F. Supp. 2d 522 (S.D.N.Y. 2005).

²²² *Sanofi-Aventis Deutschland GmbH v. Genentech, Inc.*, 716 F.3d 586 (Fed. Cir. 2013).

²²³ HKIAC, 'HKIAC Average Costs and Duration' (*Hkiac.org*, 2021) < <http://www.hkiac.org/content/costs-duration> > accessed 9 January 2022.

size of the proceedings. The practitioners estimate the costs of a case which reaches the trial to be at GBP 1.5 million for each side.²²⁴ Those figures are supported by the research undertaken by Helmers and McDonagh (2013b) which shows cost often ranging between GBP 1 million and GBP 6 million (encompassing the costs from both sides).²²⁵ The main reasons for the high costs are the expansive disclosure, the length of trial, the requirements for the carrying out of experiments and the cross-examination of expert witnesses. The party who lost the case must pay not only his own costs, but also the costs of the other side. Nevertheless, such costs are allocated via an issue-based approach, depending on who lost which issue in the case, and taking into account how much court time the issue took to resolve, the court allocates the costs to each side on a proportionate basis also taking into consideration whether costs incurred were reasonable under the circumstances of the case.²²⁶ In the IPEC, first instance cases typically cost between GBP100,000 and GBP200,000, while more complex litigation hearings in Patents Courts are charged more than GBP 1 million prior to the appeals stage. In all cases, the fees are defined by barristers, experts at first instance, and solicitors. As with other countries, legal fees for patent litigations in the US depend on the forum of litigation, the complexity of patented technology, and the number of patents under litigation. On the other hand, huge sums of money are at stake for the party that loses. When the defendant loses, millions of dollars are spent as compensation for royalties, profits, and fines. On the other hand, if injunctions are vacated, the complainant reimburses the defendant under the cross-undertaking order for a loss of business, declined sales, and goodwill. In contrast, the median cost of arbitration is US\$64,606 and the mean cost is \$US137,332.²²⁷ Detailed statistics on cost and time is provided in the next chapter.

Limited confidentiality

Preservation of document confidentiality following patent dispute litigations is controversial and difficult. In IP cases, especially those involving patented products between

²²⁴ Katrin Cremers, Max Ernicke, Fabian Gaessler, Dietmar Harhoff, Christian Helmers, Luke McDonagh, Paula Schliessler and Nicolas Van Zeebroeck, 'Patent litigation in Europe' (2017) 44 *European Journal of Law and Economics* 1.

²²⁵ Christian Helmers and Luke McDonagh, 'Patent litigation in England and Wales and the issue-based approach to costs' (2013b) 32(3) *Civil Justice Quarterly* 369.

²²⁶ Katrin Cremers, Max Ernicke, Fabian Gaessler, Dietmar Harhoff, Christian Helmers, Luke McDonagh, Paula Schliessler and Nicolas Van Zeebroeck, 'Patent litigation in Europe' (2017) 44 *European Journal of Law and Economics* 1.

²²⁷ HKIAC, 'HKIAC Average Costs and Duration' (*Hkiac.org*, 2021) < <http://www.hkiac.org/content/costs-duration> > accessed 9 January 2022.

direct market competitors, the confidentiality of patent documents is questionable. In the *Ericsson, Inc. v InterDigital Communications Corp.* No. 3:93-CV-1809-M, one of the rulings by the federal district court was sealing of the decisions in pursuit of a broad confidentiality order. In the determination of the InterDigital-Nokia license dispute, the arbitration panel filed a motion to receive all documents which included an unsealing of the Vacatur Order. Different parties are understandably eager to maintain the confidentiality of the sensitive commercial documents, while legal personnel across the divide are under the obligation of acquiring all relevant documents pertaining to the patent case and disclosing them to both parties.

Absence of global enforceability

The international enforcement of the patent award gained through litigation will depend on the treaty between the country making the decisions and the country of the enforcement. On the contrary, the arbitral award will be easier to enforce globally as more than 160 countries are members of the New York Convention.

Moreover, the characteristic of the global enforceability of IP rights detailed in patents is a challenge. Different countries enforce legal jurisprudence uniquely based on their economic needs. As elaborated on the precedence order of various sources of law guiding patent litigations, the Constitution of every state forms the primary source antecedent to other sources. It is due to these jurisdiction disparities that infringement of patents is defined. *Apple Inc. v. Samsung Electronics Co., Ltd*, for instance, formed the initial patent dispute, among a series of patent litigations across the globe, where the US legal system awarded millions as patent claims over Samsung, while Japan, the UK and South Korea courts were in favour of Samsung rendering Apple to remunerate Samsung. Enforcement of patent rights in the international market necessitate considerations of international treaties and conventions guiding trade between the countries where the suit parties come from in order to develop a binding decision.

Strict formal procedure

Different countries observe unique legal procedures for patent litigations. These procedures are long and complex, making the entire litigation process intricate. In the US, for

instance, the IP litigation procedure is undertaken in four phases.²²⁸ In the first phase, the litigant files the complaint forwarding it to the case management conference, followed by scheduling the conference to facilitate the design and construction of the claim for hearing in the second phase. The third phase is characterised by hearing of claim construction ending with discovery from patent dispute legal experts. Finally, pre-trial and trial constitute the fourth phase.

In Hong Kong, a writ is issued by the claimant in 14 days. On acknowledging service, the defendant is obligated to file the service acknowledgement defining their intentions in defence to the proceedings. Injunctions may be filed and granted, leading to summary judgment as defined by Order 14 of the High Court rules for the failure of the defence to the litigation, or admissions following service of the reply within 14 days. Other proceedings, including case management summons, discovery, evidence, experiments, trials, and judgment, follow. In the UK Patents Court, proceedings for patent infringement encompass plea exchanges, case management conference, disclosure and inspection of patent case documents, evidence exchanges, experiments, review of pre-trial hearings, opening submissions, and trial proceedings. Therefore, patent litigation involves a range of the necessary stages and formalities which might be time-consuming and costly; whereas arbitration gives parties the freedom to structure their proceedings, define the issues that need to be solved and propose the scope of the arbitrators' authority.

Limited remedies

Patent law in the UK, as with other jurisdictions, particularly with reference to section 61 of the Patents Act, dictates four possible remedies to settle a patent infringement case, singularly or simultaneously.²²⁹ In the event of an IP violation, as a solution from the courts the party claiming infringement may pursue an injunction in order to stop further infringement, court orders for destruction or delivery of the products under infringement, compensation for damages, and elaboration of profits lost, and/or an affirmation on the validity and infringement of the patent under litigation.²³⁰ In all the four case studies, financial compensation was eminent in the form of royalties and associated damages. The US and Hong Kong laws provide for the

²²⁸ James C Yoon, 'IP Litigation in the United States' (2016) Stanford Law School 1.

²²⁹ Patents Act 1977, sec. 61.

²³⁰ Christian Helmers and Luke McDonagh, 'Patent litigation in the UK' (2012) LSE Law, Society and Economy Working Papers 12/2012 < <https://orca.cardiff.ac.uk/60863/1/Patent%20Litigation%20in%20the%20UK.pdf>> accessed 16 December 2021.

similar remedies, making patent law quite strict and inflexible. On the other hand, arbitration might propose more flexible remedies, suggested by the parties or arbitrators using commercial practice and principles of fairness and equity, which leads to the benefit of both parties.

Adversarial nature of proceedings

The proceedings in patent dispute litigations are usually adversarial in nature. In the English courts, the system underscores the discovery documents drawing on the reports of factual evidence, particularly as it pertains to incidental disputes to patent validity and IP infringement.²³¹ Both parties are obliged to exchange documentation of factual evidence developed as witness statements that are examined against the statement of truth adduced to the court, exempting witnesses from arguing the contents orally on the floor of the court. The *Apple Inc. v. Samsung Electronics Co., Ltd.* battle resulted in counter-arguments on patent validity and infringement of design patents from either party, and courts in different countries cross-examined the written evidence via case laws to define the verdicts.²³²

Litigation often leads to the impairment of the future economic relationships between involved parties where each party tries to prove its actions by means of finding faults in the behavior of its opponent. Arbitration, in contrast, has a consensual nature requiring parties to cooperate in the first place to agree to arbitrate, secondly, to follow the quick and negotiated process until reaching a final decision.

Expansive disclosure

The adversarial nature of patent proceedings obligates disclosure to facilitate the establishment of grounds for patent infringement. The disclosure is characterised by sufficient satisfactory detail regarding the patented products to facilitate the court in making a determination of IP violation. In the *Ericsson, Inc., Plaintiff, v Interdigital Communications Corporation and Interdigital Technology Corporation, Defendants-appellants, v Nokia Corporation, Intervenor-appellee* 418 F.3d 1217 (Fed. Cir. 2005) case, for instance, the decisions on the InterDigital-Nokia license arbitration proceedings included an unsealing of

²³¹ Christian Helmers and Luke McDonagh, 'Patent litigation in the UK' (2012) LSE Law, Society and Economy Working Papers 12/2012 < <https://orca.cardiff.ac.uk/60863/1/Patent%20Litigation%20in%20the%20UK.pdf>> accessed 16 December 2021.

²³² *Apple Inc. v. Samsung Electronics Co., Ltd.* 888 F. Supp. 2d 976 (N.D. Cal. 2012).

the Vacatur Order. Under the Federal Rule of Civil Proceeding 24(b) (2) pursuant of Rule 60(b) motion, Nokia expanded its intervention into gaining access to the sealed records.²³³ Moreover, the US patent litigation process is known for the detailed and expansive disclosure which most parties are trying to avoid by means of litigation in other countries or arbitration.²³⁴

Lack of specialised IP courts or judges with IP knowledge and experience

As evidenced in the literature, it is only in the UK judicial system that Patents Courts have been defined with associated IP legal personnel, including judges. In the US and Hong Kong, patent cases are resolved in regular courts, with regular judges hearing the cases. The IPEC or the Patents Court are used in the UK, whereas patent litigations are presided over in the USPTO, PTAB, and federal district courts in the exercise of US patent law, as the USITC takes on cross-border patent disputes. In Hong Kong, CFI addresses patent cases. This might lead to controversial and ineffective decisions because global patent disputes are often complex in nature requiring a narrow-profile specialist to render a high-quality decision. In contrast, many arbitral institutions provide a list of IP arbitrators to decide over patent disputes; moreover, it is left to the parties' discretion to choose an arbitrator based on his/her internationally recognised skills whether or not an arbitrator is included on the list.

A trial might include jury participation

Whereas the participation of juries provides protection against unfairness and eccentricities of judges, statutory education is not a requirement limiting the authenticity of decisions in technical and complicated legal disputes entailing patent litigation. The involvement of a jury in the *Apple Inc. v Samsung Electronics Co., Ltd.* case resulted in a decision awarding Apple more than \$539 million from Samsung that infringed particular iPhone features, a verdict that may not have been informed for technical complexity due to lack of comprehension of different design elements. Similarly, the 12-day jury trial in the *US v Sinovel Wind Group Co., Ltd.* may have been impeded by technical complexity considering the dispute in question was a computer source code pertinent to AMSC's turbine technology.²³⁵

²³³ Federal Rule of Civil Proceeding 24(b) (2), 60(b).

²³⁴ See for example Rachel Thrasher Denae, 'Expansive Disclosure: Regulating Third-Party Funding for Future Analysis and Reform' (2018) 59 (8) Boston College Law Review 2935.

²³⁵ *US v. Sinovel Wind Group Co., Ltd.* 794 F.3d 787 (7th Cir. 2015).

In contrast, in Hong Kong and in the UK patent cases are not put to a jury which seems reasonable because the delegation of the complex patent legal issues for the jury's consideration who do not possess any legal and more importantly, patent knowledge, is highly questionable.

Contradictory decisions, delays

Delays have been noted in patent litigations, as was marked in the *Ericsson, Inc. v. InterDigital Communications Corp.*, No. 3:93-CV-1809-M taking more than ten years.²³⁶ With the increased complexity of patent agreements and the international nature of the agreements, contradictory decisions between courts in different jurisdictions arise. The *Sanofi-Aventis Deutschland GmbH v. Genentech, Inc.*, 716 F.3d 586 (Fed. Cir. 2013) case was initially interpreted through the arbitration proceedings defined in the patent agreement.²³⁷ On the other hand, following the appeal, the Court of Appeal in Paris used Article 101 TFEU to annul the arbitral award.

In addition, litigating patents in numerous jurisdictions will inevitably lead to contradictory decisions because of the difference in national law as happened in *Apple v Samsung*. The parties were involved in the ongoing disputes in ten countries with more than fifty lawsuits. In the end, Apple received a favourable ruling in the US; meanwhile, Samsung won in the UK, Japan, and South Korea. The English court made a ruling to confirm that Samsung's Galaxy tablets were not similar enough to be confused with Apple's iPad. In 2012 Samsung filed the motion for an injunction blocking Apple from public announcement claiming that Galaxy tablets infringed Apple's rights. The motion was rejected, but the court ordered Apple to publish an announcement that Samsung did not copy the iPad.

Seoul Central District Court also ruled in favour of Samsung in regard to the main issue – that Samsung copied the designs of the iPhone and iPad; however, the decision was split. The Court stated that Apple infringed two of Samsung's patents and was ordered to pay \$35,242 in damages. However, it also ordered Samsung to pay 25 million for violating one of Apple's patents. Initially, Samsung filed for infringement of its five patents by Apple, but the court acknowledged only two of them. Thus, the Court awarded damages for both parties and made it clear that there was “no possibility” that consumers would confuse the smartphones.

²³⁶ *Ericsson, Inc. v. InterDigital Communications Corp.* No. 3:93-CV-1809-M

²³⁷ *Sanofi-Aventis Deutschland GmbH v. Genentech, Inc.* 716 F.3d 586 (Fed. Cir. 2013)

The decision of the Tokyo District Court was in line with English and South Korean courts. The Tokyo District Court ruled that Samsung's Galaxy tablets and smartphones did not violate Apple's patents and rejected Apple's claim stating that Samsung used the same technology.

Meanwhile, the decision in the US was the opposite. The parties were involved in two trials in the US courts in addition to several appeals. In May 2018 the jury made the decision awarding Apple \$539 million including damages for the sales of Samsung's infringing products of Apple patents. The decision was appealed; however, the Supreme Court dismissed the appeal and left the Federal Circuit's ruling in force. Therefore, long-lasting global patent litigations involve not only time-consuming appeals but also national patent law which addresses issues differently which leads to the increased cost and time of proceedings.

Limited availability of cross-border injunctions

The definition of jurisdictions in different countries is very limited, which impedes the enactment of cross-border injunctions in patent litigations. The range of cross-border patent litigation under UK patent law is limited to grants by the court on cross-border non-infringement declarations of foreign patents in countries where legal jurisdiction is consistent with UK law.²³⁸ The decisions of the district courts are binding to decisions made at the CAFC and US Supreme Court, and not judgments from cross-border courts, whereas such decisions may be applied in advising the reasoning and/or decisions in comparable patent litigations. In Hong Kong, the implementation of international treaties is relevant, where local legislation has implemented the same.²³⁹ Further, courts may refer to other jurisdictions under patent law, although they are not binding legally, but advise on interpretation of legislation. Therefore, in practice, courts are reluctant to order cross-border injunctions. Moreover, taking into account the Brussels Convention on Jurisdiction and Enforcement of Judgments in Civil and Commercial Matters 1968, English courts admitted its limited jurisdiction over foreign patent issues. It was stated that even though Article 6.1 allows a single court to decide over multinational infringements of connected patents and grant cross-border orders, Article 16.4 limits the possibility of cross-border jurisdiction in case the counterclaim demands invalidity of the foreign patent. It has led to the conclusion that although just in theory, English courts are willing to grant cross-border injunctions only in a case where the validity of a patent is not

²³⁸ See *Actavis v Eli Lilly* [2012] EWHC 3316 (Pat).

²³⁹ George Coombe, 'The Resolution of Intellectual Property Disputes Involving East Asian Parties' (1996) 19 *Hastings International and Comparative Law Review* 707.

challenged. However, in practice, an infringement claim usually triggers a counterclaim for patent validity and revocation; therefore, it makes it challenging to obtain cross-border relief from English courts.²⁴⁰

The necessity to litigate in numerous countries

In consideration of the unenforceability of cross-border injunctions, claimants are forced to file patent litigations in numerous countries. The legal battle over design patents between Apple Inc. and Samsung Electronics Co., Ltd. has resulted in more than 50 patent infringement litigations in different countries across the globe.²⁴¹ Equally, due to the limitation of the jurisdiction in the implementation of cross-border judicial decisions, filing patent litigations in numerous countries increases the possibility of claiming extraterritorial damages.²⁴² Arbitration will eliminate this problem because all existing disputes might be combined into one process with a result which will be enforceable in over 160 countries.

Conclusion

This chapter provides an elaborate description and analysis of litigations in the establishment of a global patent dispute resolution. The analysis first covers the legal settings within the US, the UK, and Hong Kong related to patent law. As such, the differences in court systems and the procedures for addressing patent dispute subject matter are elucidated in the three jurisdictions. Notable is the presence of special courts for hearing patent litigations in the UK, particularly the Patents Court and the Intellectual Property Enterprise Court. The judges in the two courts have educational skills and expertise in IP matters, while the legal representatives of both parties include barristers continuing to practice, or with experience, in intellectual property law. In the US and Hong Kong parties resolve patent litigations in common courts, particularly the federal district courts and CFI, respectively.

Secondly, the analysis explores case studies involving patent disputes focusing on the international perspectives of each case. In the first case, *Ericsson, Inc., Plaintiff, v. Interdigital Communications Corporation and Interdigital Technology Corporation, Defendants-*

²⁴⁰ Steven Warner, 'Patent litigation in multiple jurisdictions: And end to cross-border relief in Europe?' (2006) 28 (11) European Intellectual Property Review 580.

²⁴¹ *Apple Inc. v. Samsung Electronics Co., Ltd.* 888 F. Supp. 2d 976 (N.D. Cal. 2012).

²⁴² Marketa Trimble, 'Cross-Border Injunctions in US Patent Cases and Their Enforcement Abroad' (2009) 13(2) Marquette Intellectual Property Law Review 331.

appellants, v. Nokia Corporation, Intervenor-appellant, Nokia intervened in a decade long litigation proceeding in the InterDigital-Nokia license dispute. Identifiably, Nokia filed a motion to intervene, leading the federal district court to grant a Reinstatement Order referencing Rule 24(b) (2). On appeal, InterDigital presented arguments of errors of the court in consenting that Nokia could intervene and a Reinstatement Order allowing order vacation. Various legal foundations have been cited, referencing various court cases, the provision of limited relief, and the ultimate reversal of the district court decisions on appeal. In the second case, *Apple Inc. v. Samsung Electronics Co., Ltd.*, a series of patent dispute litigations is described between the two corporations over infringement of design patents. Whereas the *Apple Inc. v. Samsung Electronics Co., Ltd.* led to a ruling favouring Apple in the US, Samsung won three other litigations between the two corporations in Japan, South Korea, and the UK. Evidently, there are wide gaps in the application of patent law between the countries outlaying advantages and eminent disadvantages of patent litigations in either of the countries over others. The arguments in the third case, the *American Superconductor Co. v Sinovel Wind Group* commenced with AMSC filing civil and criminal complaints against Sinovel over infringement of partnership agreement and use of IP in wind turbines. In the case citing theft of source codes to AMSC technology, diverse law flaws have been identified consistent with an example of delegating some issues to arbitration and the other to litigation. The next case, *Huawei v Samsung*, illustrated the outcome of the parallel patent proceedings in different jurisdictions. The Chinese courts found infringement in Samsung actions due to its delays in negotiations of the FRAND terms for six years and subsequently using Huawei's patent without a licence. Thus, the Chinese court granted an injunction prohibiting Samsung's manufacture and sale of products based on 4G LTE SEP. On the other hand, the US Court applying its legal standard did not determine the existence of infringement behaviour and issued the order in favour of Samsung prohibiting Huawei to enforce Chinese injunctions.

The last case, *Sanofi-Aventis Deutschland GmbH v. Genentech, Inc.*, 716 F.3d 586 (Fed. Cir. 2013) was based on the decisions of the arbitration proceeding requiring Genentech to pay Hoechst and Sanofi-Aventis royalties from the sales of Rituxan, irrespective of revocation of the European patent. While the decision was not stayed on appeal in the CJEU, through deliberations in the Court of Appeal in Paris under Article 101 of the TFEU, the conclusions identified the position of the court not to interfere with patent license agreement obligating royalty payments notwithstanding patent revocation, or in the absence of infringement of a patent. Duly noted is the need to underscore the essence of patent licence revocation in the patent license agreement.

Thirdly, the analysis targeted the advantages associated with litigations in global patent dispute resolution in the reference countries. The primary method applied in patent enforcement was noted as an advantage across the three study countries. In all, patent owners negotiate with potential infringers, usually researchers, manufacturers, and business owners to request reimbursement for license fees and royalties to permit the use of the invention. Following an infringement, patent arbitrations and litigations have been a source to define patent validity, infringement, and enforceability of the patent rights through financial compensation for losses and prohibiting the continuation of using the patented products. Secondly, the study established an advantage in the court system. The benefit of specialised courts, particularly in the UK, is the use of judges and legal representatives with ample knowledge of the patent law of the country. Thirdly, the system of binding precedents identified the rationale for each country to assume the right in local patent laws and courts over the cross-border decisions. In the UK, the US and Hong Kong, international patent law is not binding locally and used to interpret internal laws and guide the decisions made over patent infringement. Equally, the presence of an appeal option is an advantage to the losing party to seek an alternative interpretation of the law from an upper court. In some cases, such as in the *Sanofi-Aventis Deutschland GmbH v. Genentech, Inc.*, 716 F.3d 586 (Fed. Cir. 2013) case, the decision from the arbitration proceedings was vacated. Progression of patent litigations presents quick and easy options to obtain provisional or interim measures. The analysis identifies diverse provisional measures, particularly preliminary injunctions in the UK and the US, and interlocutory injunction, Anton Piller order, Mareva injunction, and a cross-undertaking in Hong Kong. The erga omnes effect of the award constitutes the primary advantage of patent enforcement. From the analysis, it has been established the erga omnes award dictates a grant of a permanent injunction, delivery and/or destruction of products under infringement, provision of disclosure to information and documents associated with infringement, infringement declaration, and total or partial compensation for loss and associated damages.

Lastly, the analysis examined the disadvantages of considering patent litigations in settlement of patent infringement. It has been established that patent litigations take years, as evidenced in the study case *Ericsson, Inc., Plaintiff, v. Interdigital Communications Corporation and Interdigital Technology Corporation, Defendants-appellants, v. Nokia Corporation, Intervenor-appellants*, 418 F.3d 1217 (Fed. Cir. 2005) that took more than ten years. The cost was another conspicuous disadvantage where the losing party is obligated to pay the winning party millions of dollars in compensation for patent infringement or as a cross-

undertaking. Considering the sensitivity of the patented information, there is questionable confidentiality following disclosure of relevant documents appended to the patent litigation from the contesting parties. As such, expansive disclosure ensues. Limited global enforceability of litigation decisions has been shown to impede patent litigations. Equally, there are strict formal procedures in every country to follow, making the litigation process time and cost consuming. The analysis defines limited remedies allowable under patent law as in an *erga omnes* award. The adversarial nature of the litigation proceedings affects both parties since the defendant is obligated to incur costs in the event the court affirms infringement, while the plaintiff may incur a cross-undertaking for failure to substantively show infringement. As evidenced, the lack of specialised IP courts, as well as judges without particular IP experience or knowledge, may hamper the correct interpretation of patent law and decisions made. Equally, the participation of a jury during the trial has been described as a disadvantage due to technical complexity and the absence of legal knowledge. Other examined disadvantages in the analysis include the potential for delays prior to judgment rendering because litigation proceedings can take years to conclude, and potential for contradictory decisions, especially with appeals as evidenced in the *Sanofi-Aventis Deutschland GmbH v. Genentech, Inc.* case. The limited availability of cross-border injunctions may lead to the need to litigate in numerous countries, as evidenced in the *Apple Inc. v. Samsung Electronics Co., Ltd.* Conclusively, while the Chapter provides an assessment of patent law in international patent litigations, the descriptive analysis identifies various angles from which one may identify the advantages and disadvantages of filing patent litigations.

Chapter IV. Enforcement of global patent rights through arbitration / Negotiated approach

The meaning, significance and rise of global patent arbitration

The definition of patent and arbitration are adopted similarly on the global scale, and in this chapter, the focus will be given to the US, UK and Hong Kong laws. By the patent rights being under the US law, it shall be understood that the patent holder has the right to exclude others from making, using, offering for sale, or selling the invention in the United States or importing the invention into the United States. What is granted is not the right to make, use, offer for sale, sell or import, but the right to exclude others from making, using, offering for sale, selling or importing the invention.²⁴³ This right is granted to the inventor of a process, machine, article of manufacture, or composition of matter that is new, useful, and non-obvious. Patent rights are issued by the United States Patent and Trademark Office for twenty years and have effect only within the United States territory. A similar definition of a patent exists under the English and Hong Kong laws. The UK Patents Act 1977 and Hong Kong Cap.514 Patents Ordinance define a patentable invention as a new one, which involves an inventive step and is capable of industrial application. A patent is valid within the territory of the state where it was granted; therefore, it is territorial in nature.

National patent law differs which may lead to a situation where a patent infringement in one country might not be considered an infringement in another. Therefore, the harmonisation of national patent laws is a crucial issue which was significantly affected by the TRIPS Agreement, Paris Convention for the Protection of Industrial Property, and Patent Cooperation Treaty. The TRIPS agreement established minimum standards for national regulation of intellectual property rights reducing the difference between developed and developing countries' laws. The Paris Convention introduced the minimum time frame of patent protection for 20 years and the right to claim application priority in another member state of the Convention within one year of the date of application. The Patent Cooperation Treaty, administered by the WIPO, was concluded in 1970, and it covered 150 countries. The Treaty established a unified procedure for filing international patent applications providing protection in each contracting state. Thus, national patent regulations gained some level of uniformity; however, the problem of inconsistency of decision-making in patent disputes

²⁴³ 35 U.S.C.A.

across the different jurisdictions still exists.²⁴⁴ National courts rely on its local interpretation rather than on a trans-national one when considering patent disputes within their territory.²⁴⁵

On the other hand, the meaning of arbitration is consistent globally. For instance, WIPO suggests the following interpretation of what arbitration is: “arbitration is a procedure in which a dispute is submitted, by agreement of the parties, to one or more arbitrators who make a binding decision on the dispute. In choosing arbitration, the parties opt for a private dispute resolution procedure instead of going to court.”²⁴⁶ Therefore, there are the following distinct characteristics of arbitration: negotiated, binding, and private. These features of arbitration are recognized globally; however, there is no official definition of arbitration that can be found in the US Code Title 9 Arbitration, UK Arbitration Act 1996, or Hong Kong Cap.609 Arbitration Ordinance. Adoption of the UNCITRAL Model Law by most of the countries has led to the standardisation of arbitration characteristics. Although the US did not adopt the UNCITRAL Model Law officially, its arbitration laws describe the same characteristics. The UK Arbitration Act has not adopted Model Law entirely either; nevertheless, most of its provisions correspond to the Model Law. Hong Kong Arbitration Ordinance stated its reliance on the Model Law directly. Standard characteristics of arbitration can be traced not only in those three jurisdictions but also on a global scale. Although arbitration is considered as a global concept, *lex arbitri* plays a significant role because it states mandatory provisions which cannot be changed by the parties.²⁴⁷ Therefore, the consistency in local arbitration laws is crucial for the smooth development of global patent arbitration. Global patent arbitration refers to a patent dispute resolution process involving parties from different countries or patents registered in more than one country.

Patent and arbitration laws are both going through significant expansion and development. The rise of high-technology industries, such as the IoT industry, and its reliance on the technology in the production of goods have led to the increased reliance on patent protection. Moreover, the global nature of international patent disputes requires a universal and efficient method of its protection. Traditional litigation is still capable of providing high-quality results; nevertheless, arbitration may provide up to date approaches corresponding to the modern reality of patent dispute resolution.

²⁴⁴ Katrin Cremers, Max Ernicke, Fabian Gaessler, Dietmar Harhoff, Christian Helmers, Luke McDonagh, Paula Schliessler and Nicolas Van Zeebroeck, ‘Patent litigation in Europe’ (2017) 44 *European Journal of Law and Economics* 1.

²⁴⁵ *Ibid.*

²⁴⁶ WIPO, ‘What is Arbitration?’ (*Wipo.int*, 2021) < <https://www.wipo.int/amc/en/arbitration/what-is-arb.html> > accessed 7 January 2022.

²⁴⁷ *Lex arbitri* – mandatory provisions of an arbitration seat.

According to the 2018 International Arbitration Survey conducted by the School of International Arbitration, the Queen Mary University of London in partnership with White & Case, below is a ranking of the most preferred arbitration seats worldwide:

- London 64%
- Paris 53%
- Singapore 39%
- Hong Kong 28%
- Geneva 26%
- New York 22%²⁴⁸

According to the 2021 Queen Mary University of London “International Arbitration Survey: Adapting Arbitration to a Changing World”, the following are the six most preferred seats for arbitration: London, Singapore, Hong Kong, Paris, Geneva and New York. London retained its leading position as the most preferred seat worldwide, Hong Kong reached third place, and New York kept its sixth position. The interviewees named the next key adaptations that would make other arbitral seats more attractive: greater support for arbitration by local courts and judiciary, increased neutrality and impartiality of the local legal system and a better track record in enforcing agreements to arbitrate and arbitral awards.²⁴⁹

Those arbitration seats ranked in popularity illustrate the global coverage of arbitration around the world. Arbitral institutions compete for the leadership on the ADR market; therefore, they work hard on the introduction and implementation of the new rules and procedures required by the demanding market of patent holders and implementers. New rules and developments address the issues in a timely manner and propose solutions that traditional litigation do not consider. Thus, the global presence of arbitration is evident, and its role as the method of patent enforcement will be explored in this Chapter.

Patent arbitration has been on the increase for the last ten years. WIPO’s statistics illustrate that its Arbitration and Mediation Center has administered nearly 900 mediation, arbitration and expert determination cases. The number of cases increased from 31 to 263 per

²⁴⁸ Queen Mary University of London and White & Case, ‘2018 International Arbitration Survey: The Evolution of International Arbitration’ (*Qmul.ac.uk*, 2018)

< <https://arbitration.qmul.ac.uk/research/2018/> > accessed 16 December 2021.

²⁴⁹ Queen Mary University of London and White & Case, ‘2021 International arbitration survey: adapting arbitration to a changing world’ (*Qmul.ac.uk*, 2021)

<<https://arbitration.qmul.ac.uk/research/2021-international-arbitration-survey/>> accessed 16 December 2021.

year between 2012 and 2021. The biggest portion of IP disputes resolved by WIPO is represented by patent disputes, which equals 29% of the record.²⁵⁰ The cases were predominately based on arbitration clauses in the contract; however, some cases started as a submission agreement concluded after the dispute had arisen.²⁵¹ In addition, WIPO has revealed its patent arbitration practice in the form of anonymous examples. This information is extremely useful because of the confidential nature of the arbitration. These cases can be used as an example of what usually happens in practice; thus, it is crucial for analysis. WIPO published the following scenarios of patent arbitration.

Example 1. A WIPO Pharma Patent License Arbitration

Two French companies concluded an agreement in regard to licensed know-how and patented pharmaceuticals. The license agreement contained an arbitration clause referring all disputes to WIPO Arbitration. A licensee's refusal to pay the license fee triggered the proceedings.²⁵²

Example 2. A WIPO Arbitration of a Biotech/ Pharma Dispute

This example demonstrates that arbitration pursues the best interests of the parties. A French biotech company entered into a license and development agreement with a pharmaceutical company. The biotech company was a holder of several process patents for the extraction and purification of a compound with medical uses. The agreement contained an arbitration clause referring all disputes arising out of the contract to WIPO arbitration. Several years later, the biotech company terminated the contract, stating that the pharmaceutical company had deliberately delayed the development of the compound. The other party in return filed a request for arbitration claiming damages. WIPO's Arbitration Center suggested a number of candidates with considerable expertise in biotech/pharma disputes as arbitrators and the parties made their choice from the list.

²⁵⁰ WIPO, 'WIPO Caseload Summary' (*Wipo.int*, 2021) <<http://www.wipo.int/amc/en/center/caseload.html>> accessed 7 January 2022.

²⁵¹ Ibid.

²⁵² WIPO, 'WIPO Arbitration Case Examples' (*Wipo.int*, 2021) <<https://www.wipo.int/amc/en/arbitration/case-example.html>> accessed 7 January 2022.

The arbitrators' preliminary decision stated that the biotech company was not entitled to terminate the contract and that it would be in the best interests of the parties to continue cooperating. As a result, the parties agreed to settle their dispute and continued to work together towards the development of the biotech compound.²⁵³

Example 3. A WIPO Patent License Arbitration

A European inventor holding patents in Australia, Canada, Europe and the United States licensed patent rights and know-how to an Asian Company. The parties disagreed on who should pay the renewal fees of the patents. A three-member arbitral tribunal possessed substantial IP expertise and the necessary language skills allowing them to consider evidence in different languages. The tribunal rendered the final award within fourteen months.

Example 4. A Patent Infringement Dispute Submitted to WIPO Arbitration

Following litigation in several jurisdictions, two American companies agreed to submit a dispute related to the alleged infringement of a European patent to WIPO Arbitration. The parties agreed that the national patent law of a particular European country would be applicable to the dispute. The submission agreement, and compliance with the procedural timetable during arbitration, supported the parties' mutual interests to resolve the dispute in a timely and cost-efficient manner. Three arbitrators with substantial arbitration and national patent law experience were appointed. The final award was rendered within five months from the beginning of arbitration in accordance with the time schedule agreed upon by the parties.

As can be noted from these cases, the issues resolved by WIPO Arbitration involved commercial matters and issues such as fee payments, contract terminations as well as infringement arguments. In addition, two types of arbitration agreements took place: an arbitration agreement contained in the previous agreement as well as a submission agreement proving that parties prefer timely and cost-efficient arbitration rather than multiple litigations. Moreover, when parties choose arbitration, they tend to cooperate more closely by choosing rules and details of the proceedings that can be hardly noticed in litigation. It is also worth noting that in many cases, arbitration ends with a settlement agreement. According to WIPO's

²⁵³ WIPO, 'WIPO Arbitration Case Examples' (*Wipo.int*, 2021) <<https://www.wipo.int/amc/en/arbitration/case-example.html>>accessed 7 January 2022.

data, 33% of arbitration cases have concluded in a settlement between the parties.²⁵⁴ That emphasises the fact that ADR seeks not only fast and cost-saving decisions, but also it creates positive opportunities for party settlement. Lastly, these examples demonstrate incredibly fast time frames for reaching the final outcome. In example 3, the global patent dispute involved patents registered in Australia, Canada, Europe and the United States and was resolved within fourteen months; in example 4, following numerous litigations in different countries, parties made a clear choice in favour of patent arbitration, by means of which, the final award was rendered within five months. It is complex to compare the exact duration of litigation in similar disputes because of the limited information available to the public; nevertheless, the absence of appeal options, limited discovery and established time frames for reaching the final award contribute to the fastest dispute resolution process.

William C Spence notes that patent litigation is one of the most devastating forms of litigation warfare. He describes the process as time-consuming, distracting to the core business, harmful to public image, and unpredictable.²⁵⁵ In addition, traditional patent litigation has been criticised for the expansive disclosure, high costs and delays that make it an unattractive option. Arbitration, on the other hand, is capable of offering a transnational dispute resolution forum designed by the parties and resolved by arbitrators specialised in patent dispute resolution. The benefit of patent arbitration is evidenced by its increasing popularity in high-stakes patent disputes such as *Nokia Corporation v Samsung Electronics Co.*, *Tessera Inc. v Amkor Technologies Inc.*, *InterDigital v Samsung Technologies*, among others.

Advantages and disadvantages of global patent arbitration

The spread and development of new high-speed technologies have diminished the lines between different countries and industries. Patents created in one industry can now be used in many others. Consequently, companies may be involved in numerous disputes globally which bears additional risks and costs.

²⁵⁴ WIPO, 'WIPO Caseload Summary' (*Wipo.int*, 2021) <<http://www.wipo.int/amc/en/center/caseload.html>> accessed 7 January 2022.

²⁵⁵ William C Spence, 'Prepare for litigation and avoid it where possible' (*Iam-media.com*, 3 Oct 2019) <<https://www.iam-media.com/prepare-litigation-and-avoid-it-where-possible>> accessed 2 February 2022.

In order to understand the suitability of international arbitration in patent disputes, it is important to understand the context of patent rights and the benefits that can be enjoyed when arbitration is employed as a means of resolving conflicts or issues relating to patent disputes. Patent rights are owned by creators of original inventions that enable them to derive benefits from their innovation and inventions.²⁵⁶ It is pertinent to guarantee the protection for patent rights in every economic society, not only because it represents the original creative expression of individuals but also because protecting patent rights can potentially drive economic progress, stimulate further inventions, and increase job opportunities for citizens.²⁵⁷

Furthermore, owners of patents enjoy the following rights to the exclusion of every other person under the TRIPS agreements.

1. The right to prevent or stop every other authorized person from dealing with the patented products such as use, re-use, sales or importation without the prior consent of the owner.
2. In the case of a patent on a specific or invented process, it gives the owner the right to stop every other person from using the said process in manners that constitute sale, transfer, or importation without the prior consent of the owner.
3. The right to subsequently assign or part with the patent under fair terms and conditions under a license contract.²⁵⁸

Arbitration presents a viable option in the protection and enforcement of patent rights. International arbitration in line with Article 1(3) of the UNCITRAL Model Law affords qualitative privileges to parties in disputes towards reaching an amicable settlement.

Analysis of the advantages and disadvantages of patent arbitration is presented in this Chapter. The advantages and disadvantages of arbitration are closely linked to each other. Some advantages of patent arbitration might be transformed into disadvantages from a different

²⁵⁶WIPO, 'What is Intellectual Property?' (*Wipo.int* 2018) <https://www.wipo.int/edocs/pubdocs/en/intproperty/450/wipo_pub_450.pdf> accessed 19 December 2022.

²⁵⁷Intellectual Property Office, 'Focus on Intellectual Property Right' (*Zis.gov.rs* 2018) <https://zis.gov.rs/upload/documents/pdf-en/pdf/What%20is%20IP_WIPO.pdf> accessed 19 December 2022.

²⁵⁸ Article 28, s 5, Part II, Trade Related Aspects of Intellectual Property Rights (TRIPS) 1994.

perspective; thus, they are considered together because of the mutual co-dependence. The table presented below illustrates the duality of the arbitration advantages and disadvantages.

Global patent arbitration

Advantages	Disadvantages
Time and cost-efficiency	The requirement of a valid arbitration agreement between the parties
Neutral and flexible procedure	The risk of the parallel proceedings
Independence and impartiality of arbitrators	A conflict of interest can arise from the relatively small circle of the patent arbitrator community
Resolving multi-jurisdictional disputes in a single arbitral forum	Uncertainty of arbitrability of some aspects of patents rights (chapter 5)
Expert tribunal	Cost (depends on the method of calculating the fees and circumstances of the particular case)
Broad jurisdiction of the arbitral tribunal based on the kompetenz-kompetenz principle	No system of binding precedent between arbitral awards
Exclusive remedies and global enforceability	Joinder or consolidation of the existing arbitrations is not possible without an agreement of all parties, causing the risk of multiple arbitral proceedings leading to the multiplication of cost and potentially incompatible decisions

Limited right to appeal - Finality (an advantage in the case of winning)	Limited right to appeal - Finality (disadvantage in the case of failure)
Availability of the emergency arbitrator relief	In case of an ad hoc arbitration – there is a risk of the proceedings lacking structure unless agreed upon by the parties
Confidentiality – allowing parties to keep the existence of the dispute and awards in private	Confidentiality – leading to the lack of publicity
Inter partes effect of the award – does not revoke or cancel aspects of patent rights in relation to the third parties	Inter partes effect of the award – causing the risk of the need to arbitrate in each country where a legal issue arises
Negotiated nature of arbitration	
Separability of the arbitration agreement from the main contract	
Preservation of business relationship	
Arbitral institutions implemented new rules to entail proceedings, including: Expedited arbitration, consolidation of several proceedings, joinder to the existing proceedings	
No jury participation	
Digital dispute resolution in the post-pandemic era – arbitration might be better equipped for that on the global scale	

Time and cost-efficiency

One of the most important reasons why arbitration is a more suitable option for patent disputes resolution is time and cost-efficiency. The number of patent disputes continues to rise every year, and its complexity makes the costs especially high. According to Bloomberg Law data, in the first five months of 2020 patent lawsuits increased 9% over the previous year.²⁵⁹ Another study based on the figures provided by Lex Machina in the Patent Litigation Report of February 2020 illustrates an increase of patent disputes from 2018 to 2019 as well.²⁶⁰ According to this report, an unprecedented high number of patent lawsuits in the US peaked in 2013, and remained high for a while thereafter, but have slowly declined in the last few years. The decrease in filing ended in 2019, and the number of filings have begun to increase again. The report suggests the continuous trend of increase in patent litigation. In addition, the report of Law360 stated an increase of 13% in patent disputes in 2020. Compared to the first four months of 2019, the number of patent complaints filed has increased. An advanced search of the Law360 database reveals 1,109 patent complaints filed in the first four months of 2019 compared to 1,248 filed in 2020.²⁶¹

American Intellectual Property Lawyers' Association (AIPLA) published an average cost of patent litigation in the US in their latest bi-annual survey of IP-related costs. The data shows that with less than a million dollars at stake, both parties will have to spend \$700,000 or, in total \$1.4 million to fight a patent lawsuit; meanwhile, the very high-value cases will cost \$4 million or more.²⁶² Another study reveals the median cost of patent litigation in the US is between \$3 to \$4 million with the duration from 24 to 36 months.²⁶³ The same high figures of patent litigation exist in the UK. The data shows that most cases involve total costs for both

²⁵⁹ Matthew Bultman, 'Patent Lawsuits on Rise, Buying Spree Hints More To Come' (*Bloomberglaw.com*, 2020) <<https://news.bloomberglaw.com/ip-law/patent-lawsuits-on-rise-buying-spree-hints-more-to-come>> accessed 9 January 2022.

²⁶⁰ Tamara Fraizer and Steven Auvil, 'Patent Litigation Filings on the Increase with the COVID-19 Pandemic' (*Iptechblog.com*, 2020) < <https://www.iptechblog.com/2020/05/patent-litigation-filings-on-the-increase-with-the-covid-19-pandemic/>> accessed 9 January 2022.

²⁶¹ Elizabeth Brannen, Justin Barnes and Ariel Murphy, 'Patent Litigation May Be On The Rise During Pandemic' (*Law360.com*, 2020) < <https://www.law360.com/articles/1273734/patent-litigation-may-be-on-the-rise-during-pandemic>> accessed 9 January 2022.

²⁶² The American Intellectual Property Lawyer's Association, 'Bi-annual survey of IP-related costs 2019' (*Aipla.org*, 2019) < https://www.aipla.org/home/news-publications/economic-survey?utm_source=NewsDirect&utm_medium=PressRelease&utm_campaign=LitigationCosts> accessed 9 January 2022.

²⁶³ William C Spence, 'Prepare for litigation and avoid it where possible' (*Iam-media.com*, 3 Oct 2019) <<https://www.iam-media.com/prepare-litigation-and-avoid-it-where-possible>> accessed 2 February 2022.

claimant and defendant between £1 million to £6 million.²⁶⁴ The WIPO report states the median cost of patent litigation in the first instance in the UK equals 1-2 million USD, and in the USA 1-6 million USD; and lasts 24-36 months and 18-42 months in the UK and the USA accordingly.²⁶⁵

The data relevant to Hong Kong illustrates that it takes 12 to 18 months to obtain a first-instance decision when the parties do not seek extensions or delays. Regarding the costs, if a case is not concluded by summary judgment, the trial will cost between HK\$400,000 and HK\$2 million depending on the extent of discovery, the number of witnesses and the number and complexity of issues in dispute. In cases when a full trial is necessary, further costs are typically between HK\$1.5million and HK\$2.5 million.²⁶⁶

The Morrison & Foerster Study of IP Legal Decision-Makers (“MoFo Study”) shows a significant shift in the nature of IP litigation matters that large companies face. The study came to the following conclusions. First of all, annual spend on IP litigation matters continues to increase, growing from \$1.7 billion in 2005 to \$3.3 billion in 2019. Secondly, matters are more complex and riskier, with nearly 1 out of 5 being classified as Bet-the-Company (4%) or High-Risk (15.1%); an additional 48% are reported as Complex or Significant. Lastly, 7 out of 10 new matters are being filed outside the U.S., and 17% of IP litigation decision-makers expect that to increase over the next three years.²⁶⁷ The study highlights the fact that patent claims became larger, more complex and multijurisdictional. There is an expected increase in litigation outside the United States, particularly in Europe and China. The laws and precedents of these jurisdictions vary significantly; therefore, arbitration should be considered as the key method of patent enforcement in multijurisdictional disputes.

Due to the globalization of markets and the wide use of patents around the world, the internationalisation of patent dispute resolution is evident. However, it involves higher risks, costs and possible contradictions. These figures are especially threatening for start-up

²⁶⁴ Christian Helmers and Luke McDonagh, ‘Patent litigation in the UK’ (2012) LSE Law, Society and Economy Working Papers 12/2012 <<https://orca.cardiff.ac.uk/60863/1/Patent%20Litigation%20in%20the%20UK.pdf>> accessed 16 December 2021.

²⁶⁵ WIPO, ‘An overview of patent litigation systems across jurisdictions’ (*Wipo.int*, 2018), <https://www.wipo.int/edocs/pubdocs/en/wipo_pub_941_2018-chapter1.pdf> accessed 9 January 2022.

²⁶⁶ CWL Partners, ‘Patent enforcement through the courts in Hong Kong’ (*Lexology.com*, 2015) <<https://www.lexology.com/library/detail.aspx?g=a98a1dc3-0b95-4b65-9c92-dedfabd8fcb5>> accessed 9 January 2022.

²⁶⁷ Morrison and Foerster, ‘Benchmarking IP litigation 2019’ (*Media2.mofo.com*, 2019) <<https://media2.mofo.com/documents/benchmarking-ip-litigation-2019.pdf>> accessed 16 December 2021.

companies because they are mostly cash-constrained and do not possess the same resources as Big Tech companies in case litigation arises. Big tech companies find it easier to infringe a start-up's patent and sue them rather than acquire patents officially. This is particularly relevant in technology-based companies and in the life sciences space.²⁶⁸

The comparison of time and cost between litigation and arbitration on the same basis is not possible due to the absence of publicly available information. Nevertheless, it is possible to establish the average time and cost range. Therefore, the median time and cost of arbitration should be considered. The empirical information on the cost of arbitration is not available for the public because of the confidential nature of the proceedings. Consequently, the analysis will be given based on the information provided by arbitral institutions. In the majority of cases, the cost of arbitration will depend on the value of the dispute, and it consists of the three elements: registration fee, administration fee and arbitrators' fees. The value will significantly depend on the complexity of the dispute, the number of arbitrators and whether it is an expedited procedure or a regular one. Arbitral centres operating on an ad valorem fee scale provide fixed rates making it easy for parties to evaluate the future cost. For instance, according to WIPO's scale, if there is a dispute cost over US\$2.5 million and up to US\$10 million, the total cost of expedited arbitration will be US\$46,000.00 (\$1,000 registration fee + \$5,000.00 administration fee + \$40,000.00 arbitrators fees).²⁶⁹ Following ICC rules, expedited arbitration will cost US\$62,714.00 when the dispute's value is US\$1 million.²⁷⁰ A dispute worth US\$1 million (equal to HK\$7,753,600.50) administered by HKIAC will be finalised within US\$62,028.34 (equal to HK\$480,943.00).²⁷¹ In addition, the median duration of HKIAC arbitration is 12.9 months and costs US\$56,138.00; meanwhile, the expedited procedure would last from 6 to 9 months with costs of US\$24,319.00. Moreover, HKIAC gives an option to choose how the fees would be charged: based on an hourly rate or according to an ad valorem fee scale. Its statistics illustrate that the second option cut the costs almost by half.²⁷²

²⁶⁸ Morrison and Foerster, 'Benchmarking IP litigation 2019' (*Media2.mofo.com*, 2019) <<https://media2.mofo.com/documents/benchmarking-ip-litigation-2019.pdf>> accessed 16 December 2021.

²⁶⁹ WIPO, 'Schedule of Fees and Costs' (*WIPO.int*, 2022) <<https://www.wipo.int/amc/en/arbitration/fees/>> accessed 16 February 2022.

²⁷⁰ ICC, 'Cost calculator' (*Iccwbo.org*, 2022) < <https://iccwbo.org/dispute-resolution-services/arbitration/costs-and-payments/cost-calculator/>> accessed 16 February 2022.

²⁷¹ HKIAC, 'Fee calculator' (*Hkiac.org*, 2018) <<https://www.hkiac.org/arbitration/fees/administered-arbitration-fees/fee-calculator-2018>> accessed 16 February 2022.

²⁷² HKIAC, 'HKIAC Average Costs and Duration' (*Hkiac.org*, 2021) < <http://www.hkiac.org/content/costs-duration> > accessed 9 January 2022.

The median duration of an LCIA arbitration is 16 months, with the median costs of US\$99,000.00.²⁷³ In addition, LCIA published an analysis of its cost compared to other arbitral centres. The analysis was conducted on the following criteria: first of all, an ad valorem fee scale as the cost assessment method was chosen; secondly, it was suggested that the same amount of dispute would be considered with the same number of arbitrators appointed. It was revealed that the costs of LCIA arbitration are substantially below those of the ICC and SIAC and comparable to those of HKIAC. An additional comparison shows that for cases of less than US\$ 1million, the costs of LCIA arbitration are comparable with ICC and SIAC but higher than HKIAC; for cases over US\$ 1 million, while comparable with HKIAC, LCIA costs are lower than ICC and SIAC. Therefore, LCIA suggests considering the benefits of an hourly-based system which might be more cost-effective not only in the very largest cases but also in smaller ones. It states, an ad valorem system presents the advantage of reasonable certainty of the likely costs that can be expected; however, it might lead to higher costs than they would have been under an hourly rate system.²⁷⁴

An hourly rate system depends on arbitrator's fees and the number of working hours involved. This information is not available to the public; therefore, a comparison of the costs between institutions based on the hourly rate system is not possible. Each method has its advantages and risks. An hourly rate system is more flexible, whereas an ad valorem fee scale is predictable. Consequently, it should be decided on a case-by-case basis between the parties and most of the arbitral institutions provide such a choice.

The International Centre for Dispute Resolution (ICDR) of the American Arbitration Association (AAA) has published its report as well. The median cost is \$20,000 USD for cases regardless of the claim size and \$75,000 USD for cases with a claim ranging from 1 million USD to 9.9 million USD. The median duration of ICDR arbitrations equals 13.1 months.²⁷⁵ Moreover, ICDR arbitrations settle prior to an award 72% of the time, and 39% of those settled cases are resolved prior to incurring any tribunal fees. The median for tribunal fees for settled cases cost \$3,000 with a median time to settlement of 9 months.²⁷⁶ ICDR emphasises the significance of a case settlement as the way to cut costs and time in arbitration.

²⁷³ LCIA, 'LCIA Releases costs and duration data' (*Lcia.org*, 2015) <<https://www.lcia.org/News/lcia-releases-costs-and-duration-data.aspx>> accessed 16 December 2021.

²⁷⁴ Ibid.

²⁷⁵ ICDR, 'Arbitration Report. Time and Cost. Considering the Impact of Settling International Arbitrations' (*Icdr.org*, 2017) <https://www.icdr.org/sites/default/files/document_repository/AAA241_ICDR_Time_and_Cost_Study.pdf?_ga=2.124690250.1934215673.1611296782-1119081202.1610956750> accessed 16 December 2021.

²⁷⁶ Data based on ICDR cases closed between January 1, 2015 and December 31, 2017 regardless of filing date.

Furthermore, a study by the economic research firm Micronomics quantifies the significant time differences between litigation and AAA arbitration and concludes that arbitration accelerates the pace of dispute resolution. It proves that arbitration leads to a faster resolution than court, and the difference can be assessed monetarily.²⁷⁷ The study reveals that Federal courts take much longer to resolve cases by trial and appeal than arbitration by AAA. On average, US district court cases took more than 12 months longer to get to trial than cases resolved by arbitration (24.2 months vs. 11.6 months). US district and circuit cases required at least 21 months longer than arbitration to resolve claims when the case went through an appeal (33.6 months vs. 11.6 months). Further, the study analyses the cost of the delay in resolution. It was established that parties to a case are restricted from using the funds being disputed; therefore, the greater the amount in question, the greater the loss associated with delay. Direct losses associated with additional wait time before trial required for district court cases as compared with AAA arbitration were approximately \$10.9-\$13.6 billion between 2011 and 2015, or more than \$180 million per month. Direct minimum losses associated with additional time through appeal required for district and circuit court cases as compared with AAA arbitration were approximately \$20.0-\$22.9 billion over the same period, or more than \$330 million per month.²⁷⁸

Thus, it is obvious that the appeal of the awards leads to a substantial increase in the time and costs of the overall proceedings. Meanwhile, the limited appeal option is one of the key advantages of patent arbitration. First of all, parties must agree on the appeal option in their arbitration agreement; otherwise, the award is final. Secondly, there are limited grounds in the statutes allowing the challenge of an arbitral award. For instance, Arbitration Act 1996 allows the challenge of the awards in case the tribunal lacked substantive jurisdiction, or there was a serious irregularity affecting the tribunal, the proceedings or the award.²⁷⁹ Generally, statutes declare the following grounds for the challenge such as the award was procured by corruption or fraud; the arbitrator exceeded his or her powers; there was evident partiality or misconduct by the arbitrator; there was no valid arbitration agreement between the parties, or the arbitrator improperly conducted the hearing.²⁸⁰ Those limited grounds for the appeal serve as the basis

²⁷⁷ Micronomics, 'Measuring the costs of delays in dispute resolution' (*Adr.org*, 2015) <https://go.adr.org/impactsofdelay.html?_ga=2.72324819.1934215673.1611296782-1119081202.1610956750> accessed 9 January 2022.

²⁷⁸ Micronomics, 'Measuring the costs of delays in dispute resolution' (*Adr.org*, 2015). <https://go.adr.org/impactsofdelay.html?_ga=2.72324819.1934215673.1611296782-1119081202.1610956750> accessed 9 January 2022.

²⁷⁹ See Arbitration Act 1996 sec. 67, 68, 69.

for the finality of the arbitral awards which consequently led to the practice that arbitral awards are rarely overturned. On the other hand, the limited appeal option of arbitration which presumes finality of the arbitral decision, may be considered a disadvantage by the losing party. Patent disputes often involve high-stake interests, and in the event of an unfavourable award, there is no other institution for an appeal if the party believes the award was unfair. Meanwhile, the finality of arbitration is one of its distinctive features which allows parties to reduce time and cost expenditure. Therefore, it is prudent to select a three-member tribunal in a very high-stake dispute to ensure that the award is correctly assessed and justified.

Furthermore, the WIPO international survey on dispute resolution in technology transactions showed that an average of 60% in time and 55% in costs were saved by using arbitration instead of litigation to resolve technology disputes. The median time of a patent case going to trial has increased over the last decade to 2.5 years.²⁸¹ AAA statistics from 2016 shows that the median number of days for arbitration was 405, including large IP cases.²⁸²

These figures prove the significant advantage of arbitration in terms of time and cost efficiency over litigation. Nevertheless, it is argued that arbitration can become as costly and lengthy as litigation.²⁸³ “The Arbitrator Survey Finds: How parties and counsel increase costs and lower efficiency of their cases” has revealed the main factors contributing to increased time and cost. Factors cited most often as contributing to time and cost in these cases were Discovery (39%), Motion Practice (36%), Uncooperative Parties (27%), and Postponements (20%). Problems related to overall cooperation in the arbitration process were cited 42% of the time. The study proposes key principles improving the cost and time efficiency of proceedings: limited discovery, agreement upon a strict schedule and developed cooperation among counsel.²⁸⁴

²⁸¹ WIPO Arbitration and Mediation Center, ‘Results of the WIPO Arbitration and Mediation Center International Survey on Dispute Resolution in Technology Transactions’ (*Wipo.int*, 2013) <<https://www.wipo.int/amc/en/center/survey/results.html>> accessed 9 January 2022.

²⁸² AAA, ‘2016 data report’ (*Adr.org*, 2016) <<https://www.adr.org/research>> accessed 12 September 2021.

²⁸³ See for instance Adam Weiss and Joseph Profaizer, ‘Techniques and Tradeoffs for Incorporating Cost- and Time-Saving Measures into International Arbitration Agreements’ (2017) 34(2) *Journal of International Arbitration* 257; Robert Smit and Tyler Robinson, ‘Cost awards in international commercial arbitration: proposed guidelines for promoting time and cost efficiency’ (2009) 20(3) *The American review of international arbitration* 267.

²⁸⁴ AAA, ‘Arbitrator Survey Finds: How parties and counsel increase costs and lower efficiency of their cases’ (*Adr.org*, 2018) <<https://go.adr.org/arbitrator-survey->

Therefore, it is vital to use the key principles listed above to make the procedure as time and cost-efficient as possible; otherwise, the process might become as expensive and lengthy as litigation. Courts follow fixed rules regulating most aspects of a case, meanwhile arbitration allows parties to tailor proceedings to fit their needs and bypass litigation rules. Forty experienced arbitrators listed out their top ten recommendations of what should be done to maximize the benefits of arbitration.²⁸⁵ The basis for arbitration is an arbitration clause; thus, paramount attention should be given to its construction to avoid time-consuming, expensive and disruptive proceedings. An arbitration agreement must cover at least the case deadlines, discovery limits, dispositive motions, arbitration selection and qualifications and confidentiality aspects (documents, testimony, award). The study highlights the following means to make arbitration even more time and cost-efficient: fully-covered and detailed arbitration clause; experienced and subject-matter qualified arbitrators; arbitration must follow an approved budget and a strict discovery schedule; limitation of motion practice; and keeping an option for settlement during any phase of the proceeding.²⁸⁶

To conclude on time and cost efficiency, direct comparison of time and cost of litigation and arbitration globally is not possible because of the absence of comparable information and the confidential nature of the arbitration process. However, based on the various surveys and studies, typical time and cost can be approximated. The cost range for litigation in USD is from 1 to 6 million and the time required for litigation ranges from 1 to 3 years; meanwhile for the costs for arbitration is up to USD100,000, and the time range varies from 6 to 16 months. Thus, arbitration the undeniable leader in this section. The main factors contributing to arbitration success are: limited discovery, agreed schedule of the proceeding, absence of appeal (typically adds a minimum of one more year), effective expedited arbitration (cut costs and time in half), there is a choice of the method of fees assessment depending on the circumstances of a dispute, many arbitration cases settle prior to award or before significant arbitrator involvement. Those statements are supported by the following case examples. For instance, patent arbitration governed by the International Chamber of Commerce's International Court

[downloads.html?aliId=eyJpIjoizVVqVHZqQjNcL0NBSDAzQ0YiLCJ0IjoieW5YQT09In0%253D>](https://www.adr.org/sites/default/files/document_repository/The%20Top%20Ten%20Ways%20to%20Make%20Arbitration%20Faster%20and%20More%20Cost%20Effective.pdf) accessed 19 December 2022.

²⁸⁵ AAA, 'The Top 10 Ways to Make Arbitration Faster and More Cost Effective' (*Adr.org*, 2018) <https://www.adr.org/sites/default/files/document_repository/The%20Top%20Ten%20Ways%20to%20Make%20Arbitration%20Faster%20and%20More%20Cost%20Effective.pdf> accessed 19 December 2022.

²⁸⁶ AAA, 'The Top 10 Ways to Make Arbitration Faster and More Cost Effective' (*Adr.org*, 2018) <https://www.adr.org/sites/default/files/document_repository/The%20Top%20Ten%20Ways%20to%20Make%20Arbitration%20Faster%20and%20More%20Cost%20Effective.pdf> accessed 19 December 2022.

of Arbitration between Nokia and BlackBerry lasted one year eight months;²⁸⁷ meanwhile, *Unwired Planet International Ltd v Huawei Technologies (UK) Co Ltd* litigation lasted six years six months.²⁸⁸ It took seven years to complete litigation for *Apple v Samsung*, in contrast, patent arbitration between Qualcomm and LG took five months.²⁸⁹

Neutral and flexible procedure

In relation to the disputes between two or more parties in various territories and subject to different laws, international arbitration stands as a better forum for patent dispute resolution across borders. International arbitration reduces the allegation of bias within national courts and the prospects of undue influence from the state government on the judicial system. International arbitration will serve the purpose of a neutral platform for both parties with rules formulated or adapted to suit the particular circumstances of the present dispute.²⁹⁰

The consensual nature of arbitration establishes the basis for its flexibility. Indeed, arbitration is always subject to parties' agreement. Basic rules of arbitration allow parties to make certain choices on the constitution, formation and hearing of their disputes. For instance, parties to an arbitration can make convenient arrangements and elect to organise their arbitration proceedings in ways that will eliminate concerns in the minds of both parties about whether bias or favouritism might occur.²⁹¹ For instance, parties can agree on the choice of an arbitrator, the venue for the arbitration proceedings, issues submitted for consideration, limits of the arbitral tribunal's authority, the language of the proceedings, time frames, remedies, the rules to be applied or to govern the proceedings, discovery rules and appeal option, among others. These possibilities will ensure that parties intending to resolve patent disputes have the opportunity to present their views at a time that is convenient for them with circumstances that meet the needs of both parties. In line with the positions of Sussman and Wilkinson based on their findings, international arbitration brings the guarantee of fairness, predictability, absence of the allegation of bias, and satisfaction to parties.²⁹²

²⁸⁷ Nokia and BlackBerry ICC arbitration 2017.

²⁸⁸ *Unwired Planet International Ltd v Huawei Technologies Co Ltd* [2020] UKSC 37.

²⁸⁹ Qualcomm and LG arbitration 2016.

²⁹⁰ Catherine Rogers, 'The Arrival of the "Have-Nots" in International Arbitration' (2007) 8 Nevada Law Journal 341.

²⁹¹ Mikhail Kartuzou, 'Advantages and disadvantages of International Commercial Arbitration in Comparison to Litigation and other Means of Dispute Resolution' (2015) 2(3) European Political and Law Discourse Journal 64.

²⁹² Edna Sussman and John Wilkinson, 'Benefits of Arbitration in Commercial Disputes' (*Americanbar.org*, 2012) <https://www.americanbar.org/content/dam/aba/publications/dispute_resolution_magazine/March_2012_Sussman_Wilkinson_March_5.authcheckdam.pdf> accessed 19 December 2021.

However, in the case of an ad hoc arbitration, if parties do not agree on the rules and the order of the proceedings, there is a risk of the additional time spent on the organisational steps. Therefore, the selection of the rules is necessary for the swift movement of the process. One of the best options would be to use UNCITRAL Arbitration Rules, according to the Queen Mary International Arbitration Survey 2021, where 76% of respondents indicated it as the most frequently used in ad hoc regime.²⁹³ Interviewees indicated the value of the procedural flexibility offered by the ad hoc arbitration, which they thought enhanced party autonomy compared to institutional arbitration. Therefore, when parties choose an ad hoc arbitration, specific rules and steps should be agreed upon in detail prior to its beginning for the avoidance of the additional time spent on the organisation of the process.

In the case of litigation, on the contrary, judges are bound by substantive and procedural law. For instance, the applicable law will be decided on the private international law principles of a specific country. Arbitration gives parties an option to choose not only the applicable law but also to give an arbitrator authority to decide the matter based on general principles of fairness and equity.

This is particularly beneficial for multijurisdictional patent disputes, which can be solved according to the one selected law instead of many different national laws. In addition, it allows parties to avoid conflicts between laws and rules which makes the procedure more complicated and costly as a result. Moreover, that relates to the next advantage of arbitration – flexible remedies. Patent arbitration can offer reasonable and innovative remedies that are generally not available in litigation.

Furthermore, flexible arbitration aims to reduce the cost and time of proceedings. Parties may request an expedited procedure, agree to the schedule and await the award on time. Besides, when choosing the venue for arbitration parties are able to reduce possible travel costs for themselves, their witnesses, lawyers and arbitrators. Arbitration can be conducted anywhere in the world; therefore, the seat and venue of arbitration should be distinguished. Arbitration is anchored to the seat, which defines mandatory *lex arbitri* rules, whereas, venue of proceedings can be at the most convenient location for all participants without the interference of courts and influence of local laws.

²⁹³ Queen Mary University of London and White & Case, ‘2021 International arbitration survey: adapting arbitration to a changing world’ (*Qmul.ac.uk*, 2021)
<<https://arbitration.qmul.ac.uk/research/2021-international-arbitration-survey/>> accessed 16 December 2021.

While the flexibility of arbitration is a substantial advantage, the necessary condition is the agreement from both parties imposing potential limitations which should be taken into consideration. Due to the fact that arbitration is a consensual procedure, an absence of the agreement between the parties stalls the opportunity to arbitrate. If one party does not agree to arbitration, then both parties must use other methods to resolve their conflict. This might be unfair in some cases because arbitration may provide a more effective and efficient resolution. As discussed above, there is a concept of mandatory and baseball-style arbitration; however, this concept has not been adopted into practice, and the consensual nature of arbitration still prevails. Thus, the parties are given freedom of choice among different methods of patent enforcement, which can be used depending on the circumstances of a particular case.

The next significant benefit of arbitration is its neutrality. In case a multijurisdictional patent dispute arises with parties from different countries, regarding patents protected in many jurisdictions, the choice of the forum might be complicated. When parties have different nationalities, it is easy to suppose that each party would choose to litigate in its own country because they are familiar with laws, procedures, practices and legal culture. None of the parties want to give the other the advantage of “home” litigation. The selection of the neutral forum would place both sides in the same position. Thus, arbitration presents the opportunity for parties to opt for a neutral venue. By means of arbitration, parties can avoid the uncertainty of foreign laws and courts.

Arbitral institutions are neutral to the culture of parties, law, and language. Arbitral institution rules often require that the nationality of an arbitrator must be different than both parties.²⁹⁴ Furthermore, it is supported by national laws, international regulations, and arbitral institution rules that arbitrators are independent and impartial.²⁹⁵ The same principles are firmly established in all legal systems in relation to judges as well. However, in arbitration, it coexists with the fact that parties participate in arbitrators’ appointments which increases the level of trust in an impartial and independent resolution. Arbitrators are selected based on their recognised reputation, and the ability for the parties to choose their arbitrator reduces the chances of arbitrators’ challenges. On the other hand, the risk of conflicts of interest in arbitration might be higher than that of litigation. International arbitration, especially international patent arbitration, is represented by a relatively small society. There might be an

²⁹⁴ For instance, 2018 HKIAC Administered Arbitration Rules article 11.

²⁹⁵ See section 24(a) of the Arbitration Act 1996, section 24(1) of the Arbitration Ordinance, Chapter 609; New York Convention on Recognition and Enforcement of Foreign Arbitral Awards articles 5(1)(d) and 5(2)(b)); IBA Guidelines on conflict of interests in international arbitration; article 18 of the AAA Commercial Arbitration Rules; article 5 of the LCIA Arbitration Rules; 2018 HKIAC Administered Arbitration Rules article 11.

overlap of duties of arbitrator and counsel. Potential arbitrators might have worked for a number of different law firms or companies; therefore, conflicts of interest might relate to past or present job, financial, contractual or personal obligations. Thus, it is strictly regulated by national laws, and international regulations and soft laws. One of the most detailed regulations adopted and commonly used is the IBA Guidelines on conflicts of interest in international arbitration. Most laws do not provide details on the standards for independence and impartiality, and it may lead to uncertainty as to what to disclose and what standards to apply. Therefore, IBA Guidelines provides detailed regulations and is widely used across the world. Conflicts of interest are most likely to occur in smaller jurisdictions such as Hong Kong; thus, it has led to the fact that HKIAC actively promotes the IBA Guidelines to its users and arbitrators.

Resolving multi-jurisdictional disputes in a single arbitral forum

Global coverage of arbitration is evident. According to AAA-ICDR case statistics of 2018, 99 countries were represented, covering top caseload industries such as construction, financial services, technology, pharmaceutical /biotech, franchise, energy, insurance, real estate, and entertainment.²⁹⁶

The globalisation of markets has led to the situation where it is a common thing for a company to possess patents registered and exploited in many jurisdictions. In case a competitor launches infringing products, they will be sued in each of those jurisdictions where a patent is registered. The issues raised will have a similar character; however, the laws and procedures governing those actions might differ significantly from jurisdiction to jurisdiction. Therefore, in case a patent dispute arises across a number of jurisdictions, arbitration might be a more beneficial method than litigation, allowing for the resolution of a multi-jurisdictional dispute by a single arbitration forum instead of litigating the issues in different jurisdictions. Multi-jurisdictional litigation might lead not only to time and cost consuming parallel proceedings but also to inconsistent decisions. In addition, arbitral awards are easily enforceable under the New York Convention in contrast to court judgements.

Arbitration centres, for instance, HKIAC and SIAC, allow for the filing of a single arbitration under multiple contracts, which accelerates dispute resolution efficiency. Moreover,

²⁹⁶AAA-ICDR, '2018 ICDR case data infographic' (*Icdr.org*, 2018) <https://www.icdr.org/sites/default/files/document_repository/2018_ICDR_Case_Data.pdf?_ga=2.99414750.1934215673.1611296782-1119081202.1610956750> accessed 2 February 2022.

when parties opt for arbitration, it is possible to unify applicable laws in contracts with licensees from different jurisdictions. This way, it excludes the problem of issues being subject to different jurisdictions in multiple courts. For instance, *Apple v Samsung* litigated nineteen lawsuits in twelve courts in nine countries on four continents. It is only possible to imagine how much time and costs would have been saved if Apple and Samsung had decided to refer its disputes to arbitration.

Therefore, arbitration allows advantageous options for multi-jurisdictional or multi-party disputes such as consolidation of patent proceedings. Patents are territorial in nature; thus, court proceedings over patent claims must generally be filed in each country where the patent is registered; meanwhile, arbitration allows the parties to consolidate all claims worldwide in one proceeding. Consolidation of arbitrations is a new feature of international arbitration and has distinctive conditions depending on the place of arbitration.

In Hong Kong, an arbitral tribunal has no power to consolidate arbitrations; however, the HKIAC possesses this power under certain conditions. HKIAC can consolidate two or more pending arbitrations under the HKIAC rules at the request of a party, and after consulting with the parties and arbitrators in case the parties agree to consolidate, all of the claims in the arbitrations are made under the same arbitration agreement, or the claims are made under more than one arbitration agreement. A common question of law or fact arises in all of the arbitrations, the rights to the relief claimed are in respect of, or arise out of, the same transaction or a series of related transactions and the arbitration agreements are compatible.²⁹⁷ In addition, the Arbitration Ordinance provides the Hong Kong courts with the right to consolidate two or more domestic arbitrations where the court finds that a common question of law or fact arises in both or all of them; the rights to the relief claimed in those arbitral proceedings are in respect of or arise out of the same transaction or series of transactions, or it is desirable to do so for any other reason.²⁹⁸

Under section 35 of the Arbitration Act 1996, unless the parties agree to confer such power to the tribunal, it has no power to order consolidation of proceedings or concurrent hearings. Thus, parties are given the freedom to agree on the consolidation, as well as to define its conditions and circumstances when it can be granted. If the parties adopt specific arbitration rules, the requirements of the consolidation will be outlined in those rules.

²⁹⁷ HKIAC Rules 2018 art. 28.

²⁹⁸ Arbitration Ordinance Cap. 609 section 2 schedule 2.

The Federal Arbitration Act does not provide a provision on consolidation of separate arbitral proceedings in addition to the AAA Commercial Arbitration Rules; nevertheless, the Act states that the arbitration agreement will be enforced as written.²⁹⁹ Therefore, if parties agree on the consolidation of the proceeding or choose the rules containing such a provision, the tribunal will have the power of consolidation. For instance, the ICDR International Arbitration Rules provide such a procedure under article 8. Thus, consolidation of several arbitral proceedings into one saves time and costs for the parties involved in the various suits around the world.

Therefore, there is a risk of the parallel proceedings involving courts, administrative bodies and arbitral tribunals concerning the same patent. While some jurisdictions, for instance, the USA, propose a stay of the proceedings in courts in favour of a pending validity proceeding at the patent office, in contrast, the UK practice illustrates the unwillingness of the courts to stay their validity and infringement proceedings pending EPO's decision.³⁰⁰ Thus, to avoid possible concurrent proceedings, it is worth taking into account the legal regime adopted in the specific jurisdiction as well as practice adopted by the arbitrators in the specific arbitration venue.

Expert Tribunal

AAA's report " 'Products of mind' require special handling: Arbitration surpasses litigation for intellectual property disputes" highlights the importance of settlement IP disputes through arbitration with reference to the 1903 decision, where Justice Oliver Wendell Holmes Jr. declared: "It would be a dangerous undertaking for persons trained only to the law to constitute themselves final judgments of the worth of pictorial illustrations."³⁰¹

Patent disputes are complicated due to their technical and scientific nature; besides, they are becoming even more complex and multijurisdictional. Thus, it requires special handling by qualified experts. Some jurisdictions established specialised courts with exclusive jurisdiction over patent disputes. The US has no District courts specialised in patent matters; however, Federal courts have exclusive jurisdiction over patent infringements. The Court of

²⁹⁹ 9 USC sections 2-4.

³⁰⁰ Peter Chrocziel, Boris Kasolowsky, Robert Whitener, Waldeck und Pyrmont and Wolrad Prinz, *International Arbitration of Intellectual Property Disputes: A Practitioner's Guide* (Hart 2017) 92-93.

³⁰¹ AAA, "'Products of the Mind' require special handling: arbitration surpasses litigation for intellectual property disputes" (*Adr.org*, 2017).

<https://www.adr.org/sites/default/files/document_repository/AAA192_Intellectual_Property_Disputes.pdf> accessed 16 December 2021.

Appeals for the Federal Circuit has had exclusive jurisdiction over patent appeals since 1982. The US Supreme Court hears appeals from the CAFC on a discretionary basis. In the UK, there are Patent Courts and Intellectual Property Enterprise Courts, which have special jurisdictions over patent disputes. Their decisions may be appealed to the Court of Appeal and to the Supreme Court. Judges of the Patent Courts and IPEC are experienced in IP disputes, and some of them have first degrees in scientific disciplines which contributes to the high-quality decisions on patent related matters. There are no specialised IP courts in Hong Kong; however, the Hong Kong Department of Justice had been engaged in consultations with various industries for the establishment of specialist IP lists and judges in the future.

In arbitration, parties can select arbitrators with specialised knowledge or specific characteristics. For instance, they can indicate in an arbitration agreement that the potential arbitrator should be knowledgeable in both patent law and the technology at issue. Nevertheless, qualifications that are too narrow should not be included in the agreement because it might complicate the search for the appropriate candidate.

Both litigation and arbitration are equipped with qualified experts; however, arbitration allows direct control in the selection process. This is beneficial not only for the reduction of the possible bias challenges but also the free choice of arbitrators allows choosing an expert suitable to resolve a highly specific dispute. For instance, one report illustrates that 52% of all first-instance decisions in patent disputes are changed on appeal.³⁰² Another report provided by AAA shows that a majority of the patent-damage jury or bench decisions are overturned or adjusted, increasing the time and cost of patent litigation. Eighty percent of district court decisions are appealed; 53% of appealed decisions are modified in some regard, and 30+% are reversed.³⁰³

The high rate of appeals in patent cases might be explained by the fact that judges and sometimes the jury (applicable to the US patent cases, not applicable to the UK and Hong Kong) might not possess technical knowledge of a specific technology at issue. The US Supreme Court's decision *Markman v Westview Instruments Inc.* held that district court judges are to decide the meaning of the words used in patent claims, including the scope of the

³⁰² PWC, '2015 Patent Litigation Study. A change in patentee fortunes' (*Pwc.com*, 2015) <<https://www.pwc.com/us/en/forensic-services/publications/assets/2015-pwc-patent-litigation-study.pdf>> accessed 16 December 2021.

³⁰³ AAA, "'Products of the Mind' require special handling: arbitration surpasses litigation for intellectual property disputes' (*Adr.org*, 2017) <https://www.adr.org/sites/default/files/document_repository/AAA192_Intellectual_Property_Disputes.pdf> accessed 16 December 2021.

patent.³⁰⁴ That might require the knowledge of the patent at issue and its underlying technology which might be problematic for judges who possess more general knowledge. Moreover, the quality and fairness of jury verdicts are questionable, and their decisions might be unpredictable. Referring complex technical issues to the jury who do not possess legal and expert knowledge bears additional risks to the quality of a decision. In contrast, arbitrators rely on their knowledge of the law, technology, and relevant market tendencies when rendering their decision. Moreover, when an arbitrator is educated in a specific area, she/ he can evaluate expert evidence in a more efficient way. Thus, an arbitrator qualified in the applicable narrow subject area might propose a more justified and fair decision.

Due to the rise of patent disputes, arbitral institutions established special panels and lists of arbitrators to decide over IP claims, including patent disputes. Other institutions do not propose special lists or panels; however, they are equipped with arbitrators experienced in a wide range of areas. For instance, AAA proposes a list of 60,000 subject matter experts to resolve a dispute. When a request for arbitration is filed, parties are provided with the list of arbitrators who are potentially suitable to resolve a specific dispute. HKIAC holds a Panel of Arbitrators for Intellectual Property Disputes, and WIPO keeps the List of Domain Name Panellists. These lists and panels will minimise parties' efforts and costs in finding the appropriately qualified decision-maker, increasing the chance of a successful outcome of the proceedings.

Moreover, arbitral institutions launched an emergency arbitrator institute. Emergency relief is available in cases when emergency measures are required, but the main arbitral tribunal is not established at that point in time. Also, the emergency arbitrator institute might be helpful in case of difficulty in obtaining preliminary injunctions from courts. As per the U.S. Supreme Court's decision in *eBay Inc. v MercExchange L.L.C.*, an injunction should not be automatically issued based on a finding of patent infringement; the Court must follow the four-factor test to decide if an injunction should be used.³⁰⁵

Injunctions can be paramount in patent disputes because they stop the defendant from infringing the patent during the proceedings, preventing price erosion and helping to maintain customer goodwill. Additionally, this is extremely important for the acceleration of patent dispute resolution because there is no need to prove good cause and urgency to receive emergency relief through arbitration as it is required during litigation proceedings. One of the

³⁰⁴ *Markman v Westview Instruments Inc.* 517 U.S.370 (1996).

³⁰⁵ *eBay Inc. v MercExchange L.L.C.* 547 U.S. 388 (2006).

examples of effective emergency arbitration in a patent dispute is the emergency award made by the AAA arbitrator in *Max Sound Corporation v VSL Communications Ltd.* The Court confirmed an Emergency Arbitration Award against VSL, including the measures preventing VSL from licensing, selling, assigning or transferring any of the technology, patents, or intellectual property pursuant to the underlying contract between the parties.

Modern opportunities represented by the arbitral institutions to handle patent disputes, such as emergency arbitrator's relief, require renewal of the current arbitration law to eliminate possible contradictions between courts and arbitral institutions. For instance, Arbitration Act 1996 sec.44(5) states: "[...] the court shall act only if or to the extent that the arbitral tribunal and any arbitral or other institution or person vested by the parties with powers in that regards, has no power or is unable for the time being to act effectively." That might lead to the uncertainty as to whether court-ordered injunctive relief can be obtained in a case when such relief could be obtained from an emergency arbitrator. In the case *Gerald Metals SA v The Trustees of the Timis Trust and others*, the application for injunctive relief was refused by the court on the ground that the applicant had the ability to obtain such relief under the emergency arbitrator provisions under the LCIA Rules 2014, in addition to the fact that the matter was not sufficiently urgent that the court should use its powers under sec. 44 of the Arbitration Act 1996.³⁰⁶ The LCIA Rules 2020 clarified the position of LCIA, stating that the emergency arbitrator provisions should not be considered as a substitute for or alternative to the right of a party to apply to the court for interim measures before the formation of the tribunal. However, the implementation of LCIA 2020 Rules and its interaction with sec 44(5) of the Act will be left to the court's consideration in a particular case. Thus, the reform of the sec. 44(5) is required to make it clear that parties keep the ability to seek court support when necessary.

The Hong Kong's legislation made it clear in the Arbitration Ordinance Cap.609 sec.21 and sec.45 that 'it is not incompatible with an arbitration agreement for a party to request, before or during arbitral proceedings, from a court an interim measure of protection and for a court to grant such measure.' Arbitration Ordinance, sec. 45 provides that the court may, in relation to any arbitral proceedings which have been or are to be commenced in or outside Hong Kong, grant an interim measure (which may include an interim injunction). Such powers may be exercised by the court irrespective of whether or not an arbitral tribunal may exercise

³⁰⁶ *Gerald Metals SA v The Trustees of the Timis Trust and others* [2016] EWHC 2327.

similar powers under Arbitration ordinance, sec. 35.³⁰⁷ Consistent with the Arbitration Ordinance sec.45(1), the court has the power to order interim measures when the arbitral tribunal has not been formed.³⁰⁸ The court may, however, decline to grant an interim measure where the requested interim measure is at the same time subject to arbitral proceedings, and the court considers it to be more appropriate that the interim measure is dealt with by the arbitral tribunal.

The Arbitration Ordinance Cap.609 empowers the court to enforce any orders made by an emergency arbitrator. This power was introduced by the Arbitration Amendment Bill 2013, which proposed two provisions forming the new Part 3A of the Ordinance. According to the Part 3A sec. 22B: “Any emergency relief granted, whether in or outside Hong Kong, by an emergency arbitrator under the relevant arbitration rules is enforceable in the same manner as an order or direction of the Court that has the same effect, but only with the leave of the Court.” Relevantly, the Hong Kong International Arbitration Centre (HKIAC) Administered Arbitration Rules (HKIAC Rules) that contain prescriptive rules and procedures for the appointment of emergency arbitrators. The corresponding amendments were introduced in 2013, incorporating a provision for the appointment of an emergency arbitrator. HKIAC 2013 rules confirmed that an application for the appointment of an emergency arbitrator could be made concurrent with, or following, the filing of a Notice of Arbitration. Moreover, HKIAC amended its rules on emergency arbitrator even further. The 2013 rules state that a party must apply for emergency relief concurrently with or following the filing of a notice of arbitration but before the constitution of the arbitral tribunal. However, according to the 2018 Rules, a party may apply before filing a notice of arbitration.³⁰⁹ Further, the 2018 Rules stipulate that the emergency arbitrator procedure will be terminated if a notice of arbitration is not submitted to the HKIAC within seven days from the HKIAC’s receipt of the application unless the emergency arbitrator extends this time limit. As such, this amendment prevents parties from abusing the emergency arbitrator procedure.³¹⁰

Under the 2018 rules, the time limit for appointing an emergency arbitrator has been reduced from two days to 24 hours, regardless of whether the appointment is being made under normal circumstances or in the case of reappointment after an emergency arbitrator’s death, successful challenge, dismissal or resignation. This amendment will reduce the length of the

³⁰⁷ Arbitration Ordinance Cap 609 sec.21 and sec.45.

³⁰⁸ *Taxfield Shipping v Asiana Marine* [2006] HKCU 445.

³⁰⁹ HKIAC Rules 2018 art.23.

³¹⁰ HKIAC Rules 2018 schedule 4.

emergency arbitrator procedure, which will encourage parties to undertake this action to protect their legitimate rights. Thus, HKIAC has amended its rules significantly, making the emergency arbitrator relief more convenient, and reducing the time required for the appointment of an emergency arbitrator, therefore saving time and costs of the proceeding.

The USA Federal Arbitration Act is silent on the matter of granting interim relief and emergency arbitrator provisions. The parties' choice of arbitration rules will play a decisive role in the possibility of emergency arbitrator relief. The guidance to the courts was left to the case law; however, it showed a controversial attitude and legislative reform needed to establish uniformity. There is an open question whether a Federal District Court would have jurisdiction to hear an application for interim measures during a pending arbitration or before the arbitration is commenced. The US courts have shown a controversial attitude towards that issue. In *Simula Inc. v Autoliv Inc.* the court confirmed the lower court's denial of preliminary injunction due to the fact that arbitration was conducted under ICC Rules allowing the arbitral tribunal to order interim measure; thus, it would be inappropriate for the court to step in and issue the relief requested.³¹¹ The same approach was adopted in *Smart Techs. ULC v Rapt Touch Ireland Ltd*, where the court declined to entertain a motion for preliminary injunction in aid of arbitration in view of the availability of an emergency arbitrator, illustrating its reluctance to grant interim measures in support of arbitration.³¹² On the contrary, in *Vital Pharmaceuticals d/b/a VPX Sports v Pepsico. Inc.*, the US District Court for the Southern District of Florida confirmed an emergency arbitrator's interim order for injunctive relief.³¹³ The Court stated that an arbitration agreement that authorises parties to seek interim relief from a judicial forum does not prevent an arbitral panel or an emergency arbitrator from granting that relief.

FAA gives parties freedom in the formation of arbitration, and the chosen arbitral rules will play a significant role in its governance. The parties should choose rules allowing emergency relief from the arbitrator and the court's supporting measures at the same proceeding. For instance, AAA rule 38 (h) and ICDR article 24(3) and six states that: "A request for interim measures addressed by a party to a judicial authority shall not be deemed incompatible with emergency arbitrator rule, the agreement to arbitrate or a waiver of the right to arbitrate." Consequently, when parties refer their disputes to be resolved under AAA or ICDR rules, there will not be a controversy between the actions of arbitrator and judges on the

³¹¹ *Simula Inc. v Autoliv Inc* 175 F.3d 716 (9th. Cir.1999).

³¹² *Smart Techs. ULC v Rapt Touch Ireland Ltd* 2016 WL 3871179.

³¹³ *Vital Pharmaceuticals d/b/a VPX Sports v Pepsico. Inc* 20-CIV-62415-RAR.

matter of emergency relief. However, in case the other rules are chosen, reform is needed to accommodate the modern realities of arbitration practice to reduce contradictions of the current case law.

To conclude, it is worth mentioning that both litigation and arbitration are equipped with experts who are capable of delivering high-quality decisions over patent disputes; however, arbitration allows direct control of the selection process, the choice can be made among arbitrators qualified in patent law and the technology at issue; arbitral institutions provide Panels and Lists of arbitrators for patent disputes who are able to provide high-quality decisions and reduce time and costs associated with the search for the decision-maker. In regard to the discussed jurisdictions, Hong Kong illustrated its modern legislation and arbitration rules on the emergency relief matter; meanwhile, the UK and the USA laws require reforms to eliminate the contradictions between the practice of arbitral institutions and courts.

Confidentiality

Patent disputes often arise in circumstances where the parties originally work together closely on the creation of a specific technology. In some cases, continued cooperation for the competitive companies may be essential for the smooth running of the project thereafter. However, when a patent dispute arises between them, there is a high degree of probability that the ownership of the technical subject matter, as well as its confidentiality, will be challenged by one or both parties.

Arbitration serves as a basis for a confidential and private dispute resolution process if parties are unable to come to an agreement on their own. Patent disputes are highly sensitive and ought to be settled under secured and confidential arrangements. Confidentiality of patents and technology involved in arbitration is guaranteed as opposed to the public nature of trials. One of the biggest risks in patent litigation is that confidential information, such as technological innovations will be publicly disclosed.

Confidentiality in arbitration should be understood as the obligation of the parties not to disclose information concerning the arbitration to third parties. National legal systems address this issue differently, depending on the scope of the duty of confidentiality. The level of confidentiality of the specific patent arbitration process will depend on the agreement

between the parties, the applicable law, national legislation, chosen rules and the arbitral institution.

The Arbitration Act 1996 established the framework for the arbitrations conducted in England, making it an attractive venue for commercial arbitration. However, the Act is silent on the question of confidentiality.³¹⁴ The guidance was left to the common law establishing that under English law; there is an implied duty of confidentiality of the arbitration proceedings.³¹⁵ This relates to hearings, documents, and the awards rendered by the tribunal. Patent disputes often contain commercially sensitive information which makes confidentiality the crucial element for successful dispute resolution; however, the call for greater transparency is evident. First of all, the confidential nature of arbitration means that there is no system of precedents of patent arbitral awards. Due to this fact, arbitrators and parties can solely rely on the case law published by the courts and not by the arbitrators, making the decision-making process unpredictable. Moreover, the absence of publicly available arbitral awards does not help with the arbitrator appointment. The quality and reasoning of the award cannot be assessed by the wider public or parties who may need arbitration in the future. The possible solution might be the publication of the redacted awards where names of the parties and other definable information is deleted; however, it leaves room for others to locate the parties and their disputes based on the other factors in the awards that may question the confidentiality of arbitration which is one of its advantages.

Other jurisdictions, such as Hong Kong, established a default system of confidentiality. Under this system, there is an automatic presumption of confidentiality over arbitral proceedings unless the parties “opt-out” of this framework.³¹⁶ However, under section 18(2) of Arbitration Ordinance, a party may disclose confidential information to:

- protect or pursue a legal right or interest of the party or to enforce or challenge the award in legal proceedings before a court or other judicial authority in or outside Hong Kong;
- a government body, regulatory body, court or tribunal if the party is obliged to do so by law; or

³¹⁴ *Halliburton Company v Chubb Bermuda Insurance Ltd* [2020] UKSC 48.

³¹⁵ *Emmott v Wilson & Partners Limited* [2008] EWCA Civ 184; *Ali Shipping Corp v Shipyard Trogir* [1999] 1 W.L.R. 314.

³¹⁶ Arbitration Ordinance Cap 609 sec.18(1).

- a professional or any other adviser of any of the parties.

In addition, HKIAC imposes confidentiality obligations upon the parties, arbitral tribunal, emergency arbitrator, expert, witness, tribunal secretary and the HKIAC itself.³¹⁷ Nonetheless, this protocol does not propose the solution for greater transparency nor addressing the issue for the publication of anonymised arbitral awards.

The US Federal Arbitration Act is silent with respect to confidentiality as well, and courts do not impose an automatic duty of confidentiality in arbitration. Nevertheless, the courts will enforce the rules selected by the parties and their agreement to keep their arbitration confidential. Arbitral institutions provide a different level of confidentiality; therefore, parties should choose the institutions and their rules to accommodate their desired specific level of confidentiality. In a number of US courts decisions, the courts have not assumed a duty of confidentiality where the parties have not expressly agreed to one.³¹⁸

In some cases, confidential arbitration may become public. For instance, in the US, parties should apply for a sealing order from the court before filing to seek enforcement. Also, in case of a challenge of the arbitral award, parties should keep in mind that court proceedings can make their arbitration public. In the UK, in terms of court proceedings related to arbitration, the Civil Procedure Rules (CPR 62.10) provide that court proceedings relating to arbitration are usually heard in private except those where there is a point of English law being determined (e.g., under section 45 or 69 of the Act).

A possible solution to the greater transparency in patent arbitration would be the establishment of an inclusive confidentiality protocol. Under this protocol, the parties would be required to declare the confidential status of the proceeding in their arbitration agreement. Otherwise, in case it is not directly stated in the agreement, the arbitration process would not be treated as confidential. Thus, the default transparency regime would lead to a greater number of the published arbitral awards which would allow for the creation of a body of arbitral award precedents, giving more information for the public meanwhile allowing parties to choose the level of confidentiality and enjoy advantages of arbitration as a private and confidential procedure.

³¹⁷ HKIAC Rules 2018 art.45.

³¹⁸ See for example *United States v Panhandle Eastern Corp* 118 FRD 346 (Del. 1988); *Caringal v Karteria Shipping* 2001 WL 874705 (E.D. La. 2001); *Contship Container Lines v PPG Indus* 2003 WL 1948807 (S.D.N.Y. 2003).

The implementation of the inclusive protocol should be left to the local law approval. For instance, The Arbitration Act 1996 should be reformed and include the following provision: “The parties to the patent dispute in the arbitration proceedings, must state in their agreement that such proceedings shall be treated as confidential. The scope of confidentiality shall be determined by the parties as well.” In this case, the scope of confidentiality will be left to the parties’ consideration completely. The parties will be able to decide what should be kept confidential such as identities, patent or technology at issue, measures to maintain confidentiality etc. This approach will make confidentiality an option, not a presumption as it is now under English law. Moreover, it will lead to the balance between the increasing need for transparency and the willingness of the parties in patent disputes to keep it confidential as compared with litigation.

In patent litigation, there are measures to preserve confidentiality as well; however, the presumption of publicity prevails. One of the recent examples is *TQ Delta LLC v Zyxel Communications UK Ltd and another*.³¹⁹ In this case, The High Court refused to grant an “external eyes only” order allowing one party to decide on the categories of disclosure as highly confidential so that they would not be disclosed to anyone internal to the other party. In this case TQ Delta LLC (TQ Delta) sued for infringement of two SEP patents for broadband technology against Zyxel Communications UK Ltd (Zyxel). TQ Delta proposed a confidentiality club agreement containing “confidential information” and “highly confidential information”, requiring that the disclosure of the second should be limited to “external eyes only”, such as to the external solicitors, counsel and independent experts. Zyxel objected to that proposal requiring access for two more representatives of its parent company to the second category of information. The court refused to approve the “external eyes only” protocol and ordered disclosure of the licence agreement in issue according to the principle of open justice. In other cases, the court had ordered those confidential business secrets to be disclosed on an external eyes-only basis during patent proceedings.³²⁰ Therefore, the limits of confidentiality in patent disputes will be decided by the court on a case-by-case basis; meanwhile, arbitration allows direct control over the establishment of confidentiality as well as its limits during the dispute resolution process.

³¹⁹ *TQ Delta LLC v Zyxel Communications UK Ltd and another* [2018] EWHC 1515.

³²⁰ See *Unwired Planet International Ltd v Huawei Technologies Co Ltd* [2017] EWHC 711; *Ipcom GmbH & Co Kg v HTC Europe Co Ltd and others* [2013] EWHC 2880.

Exclusive remedies and global enforceability

The range of the remedies available for the parties involved in a patent arbitration is similar to that of remedies available to litigants. However, in arbitration, it is possible to adopt a more creative approach. The limits of the possible remedies are outlined in the arbitration agreement and *lex arbitri* law. Parties delegate authority to the arbitral tribunal and are able to name the remedies applicable to their dispute as well as to exclude those remedies which cannot be granted in a particular case. The common practice adopted globally is that the arbitral tribunal possesses broad discretion to grant relief, including remedies that are not specified in the procedural law at the seat of arbitration.³²¹ For instance, The AAA Commercial Rules states that an arbitrator “may grant any remedy or relief that the arbitrator deems just and equitable and within the scope of the agreement of the parties.” The specific type of remedies available will depend on the substantive law governing the dispute.³²²

One of the central questions of patent arbitration remedies is whether an arbitral tribunal can revoke a patent right. The patent right is granted by the State and has *erga omnes* effect towards the world affecting third parties. In contrast, an arbitration award has an *inter partes* effect stemming from the consent of the parties. Thus, the award rendered by the private decision-makers cannot affect third parties; therefore, revocation of the patent, in this case, is not possible. Nevertheless, since arbitration is a consensual and flexible procedure, the parties may agree to include specific performance as a remedy for the winning or losing party. For example, the owner of the patent can agree to surrender the right if the tribunal declares invalidity of the patent in the award.

The FAA does not contain any limitations to the remedies available through arbitration. The parties are given the freedom to choose remedies suitable for the particular dispute.³²³ The English Arbitration Act 1996 states that parties are free to agree on the powers exercisable by the arbitral tribunal regarding remedies. In case the terms are not specified by the parties, the arbitral tribunal has the same powers as the court.³²⁴ The same approach can be noticed in the Hong Kong Arbitration Ordinance in section 70, which gives parties the freedom to choose their remedies and delegate special powers to the arbitral tribunal. Therefore, arbitration

³²¹ Gary Born, *International Commercial Arbitration* (3rd edn, Kluwer Law International BV 2021) 3069-3070.

³²² *Ibid*, 3084-3085.

³²³ *Mastrobuono v Shearson Lehman Hutton*, 514 US 52, 58 (1995).

³²⁴ Arbitration Act 1996, sec.48.

legislation in the UK, the US and Hong Kong is harmonised on the subject of freedom in the remedies proposed by arbitration.

Inter partes effect of arbitration gives participants freedom in tailoring their own remedies applicable to a specific dispute; however, the inter partes character of the award may become a possible disadvantage. The courts have the power to order statutory remedies which have erga omnes effect making it possible to revoke a patent or declare non-infringement. On the contrary, an arbitral tribunal's awards are binding only between the parties to the dispute. Therefore, in case there are multiple suits against different parties, arbitration will be required for each of those proceedings unless parties decide to consolidate the proceedings. The decision regarding the consolidation shall be approved by each party participating in the dispute. In case there is no agreement for consolidation between all parties, it will not be possible to proceed with that action. In addition, the chosen arbitral rules should allow this option; otherwise, it may lead to the escalation of cost and time, leading to possibly contradicting decisions. Therefore, inter partes effect of the award has two sides which should be taken into consideration by the parties.

Another significant advantage of arbitration is its negotiated fashion. Arbitration allows parties to preserve their business relationship and often avoid hostile litigation proceedings. Litigation is more likely than arbitration to result in deteriorated relations between the parties. This is especially undesirable for patent disputes because the commercial relationships between parties in a patent dispute may extend beyond one transaction. During the arbitration, parties are more inclined to cooperate to avoid additional time and cost expenditure. That also reduces the hostility that can be a common practice during litigation. Arbitration aims to preserve a productive working relationship between the parties during and after proceedings. It affords parties a round-table opportunity of presenting their claims and areas of differences under a private and less formal atmosphere.³²⁵ There are tendencies of parties negotiating on their disputes and differences, much in opposition to what is obtainable under litigation.

In international arbitration, the presence of a neutral third party or parties to evaluate the disputes can illuminate the conflicting contentions of cases at the early stages of the proceedings. There is a tendency to pacifically resolve patent disputes through arbitration even before the final award is made. The statistics of the arbitration proceedings shows that until

³²⁵ Todd B Carver and Albert A Vondra, 'Alternative dispute resolution: why it doesn't work and why it does' (1994) 72 Harvard Business Review 120.

December 2008, 54% of disputes of WIPO have been settled by the parties before the award.³²⁶ Article 68 of the WIPO Arbitration rules encourages parties to reach an agreement through settlement in the form of the award, making its international enforcement straightforward under the New York Convention.³²⁷ Hence, parties in arbitration proceedings have high probabilities of preserving the goodwill of their businesses, as well as personal and corporate reputations while enjoying continued cooperation or business relations that once existed among the parties.³²⁸ Moreover, in litigation, a party might lose the disputed patent case against all third parties due to the erga omnes effect of the judicial decision. In arbitration, an unfavourable decision would be limited solely to a particular claimant.

The next key advantage of patent arbitration is the global enforceability of arbitral awards. By choosing the UK, Hong Kong, the USA or other signatories of the New York Convention, the parties are ensured that the arbitral award would be enforceable in more than 150 countries. Enforcement of foreign judgements depends on whether or not there is a mutual agreement on the enforcement of foreign judgements between states. In most cases, these agreements have limited coverage for a specific region, such as the EU, and do not offer global coverage as the New York Convention does. Moreover, the New York Convention limits the grounds on which domestic courts of signatory states can refuse to recognise and enforce arbitral awards, making arbitration final and reducing further time and cost expenditure.

On the other hand, the cross-border enforcement of judgements has become even more complicated in the EU because the UK is no longer subject to EU regulations governing enforcement. Meanwhile, arbitration seated in the UK has not been affected by Brexit at all. The recognition and enforcement of international arbitration awards are governed by the New York Convention, and the UK's withdrawal from the EU had no impact on the status and effect of the Convention on the enforcement of international awards. Thus, the stability and global acceptance offered by the New York Convention give arbitration a significant advantage over litigation and makes it the preferred method of protecting patents around the world.

³²⁶ WIPO, 'The international survey on dispute resolution in technology transactions' (*Wipo.int*, 2013) <<https://www.wipo.int/amc/en/center/survey/results.html>> accessed 16 December 2021.

³²⁷ WIPO Arbitration Rules art. 68: "(a) The Tribunal may suggest that the parties explore settlement at such times as the Tribunal may deem appropriate. (b) If, before the award is made, the parties agree on a settlement of the dispute, the Tribunal shall terminate the arbitration and, if requested jointly by the parties, record the settlement in the form of a consent award. The Tribunal shall not be obliged to give reasons for such an award".

³²⁸ Ibid, Todd Carver and Albert Vondra.

Broad jurisdiction of the arbitral tribunal

Arbitration is a consensual procedure which means that authority to arbitrate derives from both parties' will as well as the scope of the power given to arbitrators. According to the kompetenz-kompetenz doctrine, an arbitral tribunal can determine its own jurisdiction by deciding if a submitted claim can be resolved through arbitration and whether an arbitration clause covers a matter.³²⁹ Typical arbitration clause presumes that any types of disputes arising out of or in connection with the contract can be submitted to arbitration, including contractual and non-contractual disputes, such as patent claims, trademark infringement, and even post-contractual claims.³³⁰ Submission of post-contractual claims to arbitration may question the tribunal's jurisdiction. As it was mentioned before, a tribunal will have the authority only within the frames delegated by the parties, and it is reasonable to suggest that when a contract ends, all contractual provisions come to an end as well, including an arbitration clause.

However, as it was found by the Swiss Federal Court in BGE 140 III 134, arbitration clause survives termination of the main contract, and its scope must be interpreted liberally.³³¹ In that case, the arbitral tribunal accepted jurisdiction despite that a license agreement was terminated. The licence agreement stated that after the license expired or if it was terminated, some provisions of the contract would remain in force, but otherwise, all rights and obligations of the parties would terminate.³³² Swiss Federal Court interpreted the following provision in favour for arbitration: "all rights granted to and obligations undertaken by the parties hereunder shall terminate immediately upon... the termination of this agreement except for *any other provision (s)* of this agreement which would reasonably be expected to survive expiration or termination."³³³

The background of that case involves a patent license agreement with the following arbitration clause: "11.2 Arbitration. If the Parties are unable to resolve such dispute or disagreement within thirty (30) days after the referral of such dispute or disagreement to their

³²⁹ Gary Born, *International Commercial Arbitration* (3rd edn, Kluwer Law International BV 2021).

³³⁰ Jacques De Werra, 'The Expanding Significance of Arbitration for Patent Licensing Disputes: from Post-Termination Disputes to Pre-Licensing FRAND Disputes' (2014) 32(4) ASA Bulletin 692.

³³¹ Swiss International Arbitration Decisions, 'Arbitration clause survives termination. Its scope is to be interpreted liberally' (Swissarbitrationdecisions.com, 2019) <<http://www.swissarbitrationdecisions.com/arbitration-clause-survives-termination-its-scope-be-interpreted-liberally>> accessed on 23 April 2021.

³³² Swiss International Arbitration Decisions, 'Arbitration clause survives termination. Its scope is to be interpreted liberally' (Swissarbitrationdecisions.com, 2019) <<http://www.swissarbitrationdecisions.com/arbitration-clause-survives-termination-its-scope-be-interpreted-liberally>> accessed on 23 April 2021.

³³³ Ibid.

designated officers, then such dispute or disagreement shall be arbitrated by final and binding arbitration pursuant to the Rules of Conciliation and Arbitration of the International Chamber of Commerce (Paris) as hereinafter provided:

(a) The arbitration tribunal shall consist of one (1) or three (3) arbitrators. If the Parties cannot agree on one (1) arbitrator each, Party shall nominate in the request for arbitration and the answer thereto one (1) arbitrator, and the two (2) arbitrators so named will then jointly appoint a third neutral arbitrator as chairman of the arbitration tribunal. If one party fails to nominate an arbitrator or, if the Parties' arbitrators cannot agree on the person to be named as chairman within sixty (60) days, the court of arbitration of the International Chamber of Commerce shall make the necessary appointment for arbitrator or chairman.

(b) The arbitration proceedings shall be held in the English language. The place of arbitration shall be Zurich (Switzerland)."³³⁴

The patent license agreement contained a choice of law clause in favour of Swiss law. Although nationalities of the parties were not disclosed, it can be found in the official court transcript that Swiss law was a neutral law for both of them which demonstrates one of the advantages of arbitration – neutrality. It is often the case that parties choose neutral law and venue for proceedings, so none of the parties enjoys “home justice” privileges.

In August 2011, the Claimant started arbitration proceedings according to ICC rules requiring the Defendant to pay USD 7 million and to stop the production and distribution of any products relating to the licensed US patent. The defendant subsequently challenged the tribunal's jurisdiction on the basis that the dispute was not covered by the arbitration agreement. The defendant's view was that due to the fact that the main patent license agreement was terminated, the arbitration clause should be considered as terminated too. Nevertheless, the arbitral tribunal, in its partial award from 30 July 2013, rejected the jurisdictional challenge and confirmed that it had jurisdiction over the dispute. Subsequently, the defendant submitted an appeal to the Swiss Federal Court on 3 December 2013, asking to annul the interim award issued by ICC Arbitral Tribunal and to state that the tribunal did not have jurisdiction to solve the matter.

As a result, the decision of the Swiss Federal Court was pronounced on 27 February 2014. The decision contains quite a few interesting points which must be brought to light. First

³³⁴ Ibid.

of all, the court concluded that parties assumed broad jurisdiction for the arbitral tribunal due to the legal nature of an arbitration clause. When parties refuse to go to the state court, the range of legal remedies becomes much more limited which leads to the conclusion that an arbitration clause cannot be interpreted restrictively, and parties' intention to use arbitration instead of litigation should be applied to any related dispute between them. Secondly, the doctrine of separability played an important role in that case. The doctrine states that an arbitration agreement is separable from the main agreement, and even in the case when the main contract is void or null, an arbitration agreement still remains in force.³³⁵ In other words, an arbitration agreement is not bound with the main contract and exists separately. The appellant did not object to the existence of a valid arbitration clause; on the contrary, it claimed that pursuant to §8.2 of the license agreement, the termination of the agreement would cease all the rights of the parties, including the disposition of a dispute by an arbitral tribunal. The Federal Tribunal interpreted the parties' will in the following way: as parties gave broad jurisdiction to the tribunal, the scope of the arbitration clause also covered any claims based on the termination of the contract in addition to disputes as to its conclusion or validity. The Tribunal also made a reference to the doctrine of separability, confirming that "the main contract does not share the fate of the arbitration clause as to its entry in force, validity, or termination".³³⁶

The separability of the arbitration agreement represents a significant advantage for the parties. It would not make much sense to conclude an arbitration agreement that terminates with the main contract because many issues arise specifically after the termination or because of the termination of the contract. If parties have an intention to choose arbitration instead of litigation, they should not include a provision stating that an arbitration clause will not survive the termination of the main contract. In the end, the Federal Tribunal concluded that the arbitral tribunal rightfully accepted its jurisdiction, and the arbitration clause survived the termination of the patent license agreement. The decision covered contractual and non-contractual (infringement) claims. The outcome of the case clearly shows a pro-arbitration approach of Swiss courts.

³³⁵ Gary Born, *International Commercial Arbitration* (3rd edn, Kluwer Law International BV 2021).

³³⁶ Swiss International Arbitration Decisions, 'Arbitration clause survives termination. Its scope is to be interpreted liberally' ([Swissarbitrationdecisions.com](http://www.swissarbitrationdecisions.com), 2019) <<http://www.swissarbitrationdecisions.com/arbitration-clause-survives-termination-its-scope-be-interpreted-liberally>> accessed on 23 April 2021.

Nevertheless, not all arbitral tribunals would be able to accept its jurisdiction over infringement claims as it was related to *American Superconductor Corporation (AMSC) vs Sinovel Wind Group Co. Ltd.* (Sinovel). The dispute arose between two global power technologies, a US company, AMSC, and the Chinese company Sinovel, a manufacturer of wind turbines. In the press release from 14 September 2011, AMSC announced the start of criminal and civil actions against Sinovel, accusing the company of the illegal use of AMSC's intellectual property. Based on the official investigation, AMSC blamed its business partner for the theft of the software code to upgrade its 1.5-megawatt wind turbines to meet the new standards from other manufacturers and ceasing payments to AMSC. AMSC filed criminal claims to the US court and civil claims to Chinese courts asking to order Sinovel to stop and desist from infringing its IP and also seeking monetary damages for the economic losses resulting from infringement. Also, AMSC filed a claim for arbitration to the Beijing Arbitration Commission regarding the contractual matters between the parties requiring Sinovel to pay for the past product shipments and accept all other goods which would be delivered according to the existing contracts. At that point in time, a further partnership between the companies seemed impossible, and a hostile attitude resulted in AMSC's announcement that it was operating its business based on the assumption that Sinovel would not be a customer any longer which significantly deteriorated the relationship between the parties.

The companies began collaborating in 2005, shortly after Sinovel's founding. By 2011 due to the partnership with AMSC, Sinovel gained global recognition and expanded significantly to become one of the largest wind turbines manufacturers in the world. In March 2011, the Chinese company breached multiple contracts by refusing to accept shipments, and in June 2011, AMSC found evidence that Sinovel gained access to and was using stolen AMSC trade secrets and IP illegally supplied by AMSC's former employee Dejan Kasabasevic who was subsequently imprisoned.

AMSC provided an update on litigation with Sinovel in the press release from 23 April 2015. Three civil litigation cases involving trade secret infringement and two cases of copyright infringement had a jurisdictional review. The issue arose whether infringement disputes (non-contractual claims) were covered by the arbitration clause. The purchase contract between the parties contained an arbitration clause stating "all disputes arising from the execution of, or in connection with this contract shall be settled through friendly consultation between the parties. If no settlement can be reached through consultation, the dispute shall be submitted to

arbitration with the Beijing Arbitration Commission according to its arbitration rules.”³³⁷ In July 2012, Sinovel objected to the jurisdiction of the Beijing No.1 Intermediate People’s Court and claimed that in accordance with the arbitration clause, the matter must be transferred to the Beijing Arbitration Commission. Beijing No.1 Intermediate People’s Court rejected Sinovel’s motion, and The Beijing Higher People’s Court upheld the Beijing No. 1 Intermediate People’s Court’s ruling that the dispute will be heard by the Beijing courts separate from the commercial arbitration claims. Sinovel submitted an appeal to the Supreme People’s Court.

According to Arthur Dong and Meng Li, parties chose the following justification of their positions before the Supreme People’s Court: Sinovel argued that dispute is connected with the execution of the purchase contract, and since none of the parties objected to the existence of a valid arbitration clause, the matter should be resolved by means of arbitration. Whereas AMSC stated that the purchase contract is unrelated to the copyright infringement because the issue is not a breach of contract but a copyright infringement claim. Also, the parties did not make the method of resolving infringement disputes in the arbitration clause clear which led to the conclusion that the arbitral tribunal would not have authority to decide over that matter. Supreme People’s Court accepted AMSC’s position and concluded that although the software was the item in the purchase contract, the software code was not within the scope of the contract, meaning that this matter did not arise from contract performance and would be considered in courts.³³⁸

This decision illustrates the importance of the wording of an arbitration clause. Suppose parties had inserted a clause requiring settlement of infringement disputes by arbitration, then it is highly probable that the Supreme People’s Court decision would be the opposite and the matter would have been transferred to the arbitral tribunal. It is often the case that when parties do not pay much attention to the wording of the arbitration clause, then they will be faced with many issues at the dispute stage, especially when it touches on infringement claims because the matter of arbitrability of some IP rights is still an open issue in some jurisdictions.

One of the possible solutions to deal with the uncertain arbitrability of some disputes may be the application of a carve out arbitration clause. A carve out clause presumes that the

³³⁷ Arthur Dong, ‘Is an Infringement Claim within the Scope of Arbitration Clause under Laws of PRC?’ (*Kluwerarbitration.com*, 2014) <<http://arbitrationblog.kluwerarbitration.com/author/arthur-dong/>> accessed on 23 April 2021.

³³⁸ Arthur Dong, ‘Is an Infringement Claim within the Scope of Arbitration Clause under Laws of PRC?’ (*Kluwerarbitration.com*, 2014) <<http://arbitrationblog.kluwerarbitration.com/author/arthur-dong/>> accessed on 23 April 2021.

arbitration agreement will cover all disputes arising between parties except for infringement and validity of IP rights. On the one hand, that is a solution that limits potential objections to the arbitral tribunal jurisdiction, especially concerning international arbitrations in China. China has demonstrated a controversial attitude towards the arbitrability of IP disputes. However, it might not be that straightforward. When parties intentionally exclude such disputes from tribunal jurisdiction, then many parallel proceedings arise in courts and administrative bodies alongside arbitration which eventually lead to the increase of cost and time. What would be the best solution for such cases? It always depends on a case-by-case basis. It depends on the nationalities of the parties, the place of business or contract performance, the applicable law, and the place of assumed enforcement. If the parties are from arbitration-friendly jurisdictions, such as the UK or Hong Kong, then it is reasonable to include a standard arbitration clause because, in case a challenge of the arbitral jurisdiction arises, a court will interpret the clause in favour of arbitration. However, if a contract relates to the country with a controversial approach towards arbitration, parties are strongly recommended to include an arbitration clause that includes an exhaustive list of situations it covers.

Following numerous court and arbitration proceedings from September 2011, AMSC and Sinovel announced the settlement of all commercial disputes between parties on 3 July 2018. Sinovel has been obliged to pay \$57.5 million in two instalments and been granted a non-exclusive license for certain AMSC intellectual property to be used solely in Sinovel's doubly fed wind turbines. Also, parties agreed to terminate various legal proceedings and issue a mutual release covering commercial disputes after the completion of the second payment.

Subsequently, on 6 July 2018 US Court imposed a maximum fine of \$1.5 million on Sinovel for theft of trade secrets in criminal proceedings. Sinovel was convicted of conspiracy to commit trade secret theft, theft of trade secrets, and wire fraud on 24 January following an 11-day jury trial in Madison, Wisconsin.³³⁹ Due to Sinovel's theft, AMSC had lost over \$1 billion in shareholder equity and almost 700 jobs, which amounted to over half its global workforce.³⁴⁰ Looking at the numbers provided by press releases, it becomes obvious that even the maximum fine and the restitution amount did not cover the losses incurred by AMSC. According to the existed purchase contract, Sinovel was obliged to pay over \$800 million to AMSC. Investigation of that case received extensive support from various bodies such as

³³⁹ The US Department of Justice, *Court Imposes Maximum Fine on Sinovel Wind Group for Theft of Trade Secrets* (US 2018)

<<https://www.justice.gov/opa/pr/court-imposes-maximum-fine-sinovel-wind-group-theft-trade-secrets>> accessed 4 February 2022.

³⁴⁰ Ibid.

different FBI divisions, the Department of Justice, the US and EU governments, and international legal entities. The extensive global support in the investigation and attention to that case shows the significance of IP rights nowadays.

Furthermore, this case emphasises the importance of effective measures protecting IP rights and possible negative consequences stemming from the infringement. Progress is only possible when the original ideas and hard work of their creators are encouraged and protected. However, it is becoming more complex to protect those results in the era of high-speed technologies such as the internet. AMSC's work focuses on the production of renewable wind energy and the reduction of processing cost. A company like AMSC makes progress possible by means of powering gigawatts of renewable energy globally and makes it more affordable. Therefore, it is crucial to find the most effective and efficient method of enforcement of IP rights globally.

Digital dispute resolution in the post-pandemic era

The global pandemic has affected the entire world, forcing almost all industries to change the way they interact. Arbitration and litigation have been impacted as well. Although Internet Technologies (IT) have gained some progress in dispute resolution during previous years, however, it was not incorporated entirely into the process. Due to the pandemic, the majority of the proceedings around the globe were conducted through the use of some sort of IT. Therefore, the question arises whether IT would become essential to all future dispute resolution proceedings or if procedures will return to their previous state before the pandemic. Undeniably, the dispute resolution process has been affected by the increased use of IT; however, a 100% shift and complete reliance on IT cannot be guaranteed to be an effective solution either.

The UK announced the HM Courts & Tribunals reform programme in 2016, declaring its key aim of modernisation of the judicial system and replacement of the paper-based, complicated system with an upgraded modern system increasing online services and remote hearing capability. In regard to the Civil justice system, it was highlighted that any disputes should be resolved entirely online, reserving the physical hearing option solely for the most complex and difficult cases. Also, arbitration and mediation were significantly encouraged as

the means to avoid the court's involvement in the dispute resolution process.³⁴¹ In addition, HM Courts & Tribunals enhanced the video hearing service and published its progress and aims for the 2021 year. It is stated in the report that video hearings are accessible using a simple website link, increasing flexibility so hearings can take place in court, fully remotely or a combination, at the discretion of the judge. There are plans to make video hearing services accessible on Android devices and smartphones and make them available in a wide range of jurisdictions.³⁴² Although the reform has great potential and substantial developments have been introduced, it will take years to incorporate these changes; meanwhile, the international arbitration society has been actively using IT during the previous years. Moreover, the use of technology in international arbitration has become increasingly widespread during the Pandemic.

In practice, the arbitration community has shown how the usage of various technologies have allowed an increase in the efficiency of proceedings. The 2021 Queen Mary International Arbitration Survey highlighted that the pandemic has served as a catalyst to hasten the wider awareness and acceptance of technology such as hearing rooms (e.g., multimedia presentations, real-time transcripts).³⁴³ The potential for greater availability of dates for hearings is seen as the greatest benefit of virtual hearings, followed closely by greater efficiency through the use of technology and greater procedural and logistical flexibility. The disadvantages included the difficulty of accommodating multiple time zones, the impression that it is harder for counsel teams and clients to confer during hearing sessions and the possible challenges of controlling witnesses and assessing their credibility. In conclusion, respondents indicated their preference for a mix of in-person and virtual formats, meanwhile wholly virtual formats are preferred for procedural hearings, and in-person format would be desirable for substantive hearings. However, 87% of arbitrators stated their determination to hold a scheduled hearing virtually if it can't be held in person. Thus, the greater incorporation of technology proposes substantial advantages; however, the community is not completely ready to switch to the online format. No doubt, the rapid speed of technology development will lead to greater time and cost

³⁴¹ UK Ministry of Justice, *Transforming our justice system: summary of reforms and consultation* (UK 2016) < https://consult.justice.gov.uk/digital-communications/transforming-our-courts-and-tribunals/supporting_documents/consultationpaper.pdf > accessed 4 February 2022.

³⁴² UK Government, *HMCTS services: Video Hearing service. Developing the Video Hearings service to support how we deliver justice* (Gov.uk 2021) < <https://www.gov.uk/guidance/hmcts-services-video-hearings-service#looking-ahead-in-2021> > accessed 4 February 2022.

³⁴³ Queen Mary University of London and White & Case, '2021 International arbitration survey: adapting arbitration to a changing world' (*Qmul.ac.uk*, 2021) < <https://arbitration.qmul.ac.uk/research/2021-international-arbitration-survey/> > accessed 16 December 2021 (72% of respondents sometimes, frequently or always use virtual hearing rooms).

efficiency in the near future once more practitioners become more familiar with the technology and adapt that into their practice.

Interviews

The interviews conducted with arbitration practitioners (party representatives and arbitrators) illustrated a rising trend in using arbitration as a method to enforce patent rights. To start with the efficiency and effectiveness of arbitration, all participants indicated that arbitration is a highly beneficial method of patent enforcement. The following factors were especially highlighted, such as global enforceability of arbitral awards, confidentiality, limited risk of parallel proceedings, specialized knowledge of an arbitrator and expedited procedure. However, arbitrability of certain aspects of patent rights in some countries, confidentiality leading to the absence of a record of arbitral awards, and difficulty to arrange post dispute arbitration were named as the main disadvantages. The key factors contributing to the increased usage of arbitration for patent cases are the developments in the law in various countries, promotion of arbitration institutions and establishment of IP panels, as well as broader awareness of the arbitration advantages by the parties. The most common type of IP dispute referred to arbitration is a patent infringement and licensing issues followed by trademark disputes. The arbitrability of patent disputes is still quite uncertain in regard to the validity of the patent. Although Hong Kong law implemented new laws on this issue, allowing all aspects of patent rights to be resolved by arbitration, in other countries, that issue is mostly decided by courts. Nevertheless, patent infringement disputes are arbitrable in most countries. Thus, litigation remains the most common way of patent dispute resolution; however, for cross-border disputes, arbitration is suggested as the better option.

To continue, institutional arbitration is preferred to ad hoc arbitration due to the reputation of global arbitration centres and their highly competent administration. English law is named as the commonly used ‘neutral law’ and Hong Kong is identified as the typical ‘neutral place’ of arbitration; however, the origin of parties and their contract would be decisive factors in determining the seat of arbitration and governing law. Discussing the time and cost efficiency, all respondents indicated that arbitration is significantly quicker than typical patent litigation. It was especially highlighted that an expedited procedure allows parties to obtain an award within six months, and the absence of an appeal option cut the time and cost significantly.

Furthermore, the rise of FRAND terms disputes, particularly involving English law and an English seat, and Asian parties was noted. In addition, The Belt & Road initiative is seen as the best platform for the promotion of arbitration in Hong Kong, Singapore or London as neutral venues.

Globalization leads to more intertwining of relationships, especially between Asian and Western entities; therefore, more IP related cross-border disputes are envisaged. Overall, it was noted that The UK remains an important arbitration seat, whereas the number of global arbitration institutions continues to rise. To conclude, raising awareness of arbitration advantages and increased transparency will contribute to the further development of international arbitration practice globally.

Interview with Robert Rhoda

Partner at Dentons LLP

Hong Kong office

- 1) From your point of view, how effective is arbitration, relative to other dispute resolution strategies in protecting patent rights in the global environment?

It really depends on the nature of a dispute, and the answer will be the same regardless of whether it is a patent or any other type of IP dispute. There is actually an IP element to most cases, whatever nature, whether you describe that as an IP case or not. For the right case, arbitration is highly effective, particularly where important considerations around enforcement and confidentiality are considered, especially in the global environment. If you have got a dispute which involves a number of jurisdictions, arbitration will remove the risk of parallel proceedings in multiple jurisdictions and courts, in that sense, arbitration is extremely effective. But there is an obvious issue which is that you have to have an arbitration agreement in order to arbitrate. For a lot of patent disputes, especially when we talk about infringement, parties do not have an arbitration agreement, and post-dispute arbitrations are not often in practice.

There are two issues that restrict arbitration that should be considered. Firstly, an absence of an arbitration agreement between parties. Not many lawyers will suggest post-dispute arbitration in an infringement case. Secondly, this is the presence of a litigation clause in a contract. For instance, in IP licensing arrangements, there is a tendency for litigation clauses.

Mainly because big tech companies historically prefer using American courts to protect their rights, and traditionally there has been a lack of understanding and reluctance towards arbitration by big IP holders sector.

- 2) What is the trend in the use of international arbitration in the protection of patent rights? Is it growing?

Yes, it is growing. Two things are happening side by side. One is that jurisdictions like Hong Kong and Singapore are encouraging it. Therefore, you have got jurisdictions and institutions which promote IP arbitration. At the same time, patent rights holders and IP lawyers are becoming better educated about the advantages of arbitration. People are engaging in arbitration more, and the trend will continue growing in the near future.

- 3) What are the most common types of patent disputes going to arbitration?

It is definitely licensing disputes. The idea in the future is that arbitration will substitute patent litigation, which is quite common now.

- 4) Can an arbitrator decide the issue of the validity of patent rights?

Yes, it is possible in Hong Kong now. IP rights are broadly defined under Hong Kong legislation now, and the issue of validity can be resolved by arbitration. The issue is how you will use this remedy. There is a suggestion that where a patent is invalid, the owner of that patent can be ordered to go unregister that, and this is how it might work in practice.

- 5) Do parties prefer arbitration or litigation for resolving patent disputes? If arbitration, which reason is the most significant: worldwide enforceability, speed, cost, freedom of choice of an arbitrator with specialized knowledge, limited appeal option or confidentiality?

In general terms, it is still litigation, but the trend of using arbitration will continue to grow. The key factor is the worldwide enforceability of arbitral awards.

- 6) Do parties prefer ad hoc or institutional arbitration?

My experience is institutional arbitration, and the second choice is UNCITRAL arbitration administered by an arbitral institution. People appreciate the experience and organization of an institution, such things as holding deposits and getting involved with appointments. However, there is a lot of ad hoc arbitration in Hong Kong in general.

7) Which arbitral institution do parties prefer and why? What is the key criterion for choosing between LCIA, HKIAC, ICC or WIPO?

LCIA, HKIAC, ICC are all highly regarded, and HKIAC is especially popular in the Asia Pacific region. WIPO has been successful in relation to domain name disputes. The key criterion people consider when choosing how to resolve a dispute remains worldwide enforceability.

8) How many patent disputes do you encounter per year?

Dozens and dozens, but mainly in China. Also, almost every commercial dispute has an IP element; whether it is a shareholder dispute or joint venture dispute, there will be trade secrets and copyright issues.

9) What is the most common law governing international contracts on patent issues? (the law governing a contract and law governing an arbitration agreement) English law, Chinese law or Hong Kong law?

English law and Chinese law are very common.

10) How popular is arbitration in Asia for parties from Western countries?

Generally, it is a bargaining position. If you are a French company, you will probably choose ICC in Paris, if you are an English company, you will probably go to LCIA, but Hong Kong will be the first choice for Chinese parties because they usually want to get away from Chinese dispute resolution process. Hong Kong is often the acceptable neutral venue for foreign transactions because both Chinese and European or American parties face two legal systems country, and Hong Kong is a good compromise with its reputable arbitral institutions.

11) Will Brexit affect the popularity of LCIA or arbitration at all?

No, it will have no effect on LCIA or arbitration because Brexit has no bearing on the New York Convention and worldwide enforceability of awards, which represents the main reason why people choose to arbitrate.

12) The average duration of the arbitration process, for instance at HKIAC, is 14-16 months, and the cost is around US\$62,000-117,000. Is litigation quicker from the real perspective?

Arbitration can be quicker and cheaper, but it still suffers from the same problems as litigation. However, in general terms, arbitration is often quicker rather than litigation in Hong Kong.

13) Newly specialized arbitrations regarding licenses for standard-essential patents on fair, reasonable, and non-discriminatory (FRAND) terms are becoming more widespread nowadays. Due to the complex nature of determining what FRAND terms are, it is suggested for parties to include that their agreement is governed by “general principles of law” and not by any national law. Do you think this attitude is reasonable?

I understand the logic behind that, but I would say it is not reasonable because of the lack of certainty, and I have not seen that in practice yet.

14) The impact of the Belt & Road Initiative on future disputes. The Initiative covers over 60 countries with a total population of about 4.4 billion, which have very different legal systems and legal cultures. Moreover, these countries are at different stages of the development of arbitration as a means of dispute resolution. How do you think will this Initiative promote arbitration as a leading method for resolving disputes?

Yes, it definitely will. I think arbitration is made for the Belt & Road Initiative because of its cross-border nature, and China has already made it clear that they are supportive of arbitration of the Belt & Road disputes, and Hong Kong has a key role in that.

15) A limited appeal option in arbitration can be considered as a disadvantage in a high-value dispute. Do you agree with that statement?

It's only a disadvantage if you lose. Generally speaking, many business people would prefer one shot rather than the possibility of multiple rounds of appeal, but it is very different if you lose, of course. I would consider that as an advantage until you have a one-person tribunal that made a bad decision. I would recommend three people tribunal for a high-value dispute because of the quality and control you receive.

16) From your point of view, what are the prospects for IP arbitration worldwide? Will it increase?

Short answer – yes, it will because key arbitral centres are pushing for it, and that raises awareness. When it is raised, people think about it, and in those contracts, whether they are transactional contracts, post-dispute contracts, arbitration agreements that are suitable for arbitration, people will decide to arbitrate. I do think it will increase.

Interview with Dr Richard Kreindler

Partner in Cleary Gottlieb Steen & Hamilton LLP

Frankfurt and New York offices

1) From your point of view, how effective is arbitration, relative to other dispute resolution strategies in protecting patent rights in the global environment?

Inter partes arbitration can be at least as if not more effective, given the ability to choose arbitrators tailored to the dispute and the greater ease of cross-border enforceability in comparison to court judgments. On the other hand, the confidentiality or secrecy of many arbitral awards, also in this area, might be seen as being counterproductive to the development of international jurisprudence and to the signal effect that known awards or judgments are known to be able to have in the market generally, thereby creating incentives or disincentives for behaviours in the future.

2) What is the trend in the use of international arbitration in the protection of patent rights? Is it growing?

My sense is that it is growing slightly, but by no means exponentially. There is an increasing willingness to subject FRAND disputes to arbitration, but I would not call this an enormous growth spurt. The increasing role of Chinese entities in intellectual property matters is likely to give a certain push to arbitration in this area, with most of the disputes subject to English law and an English arbitral seat.

3) What are the most common types of IP disputes going to arbitration?

In my experience, patent infringement and licensing disputes by far.

4) Have you ever had experience in arbitrating the issues of validity or infringement of IP rights in any country? If yes, what were the usual outcome and the remedies?

Yes, although infringement disputes are, in my experience, far more prevalent than validity disputes, in large part because of the public policy constraint on arbitral decisions purporting to have an erga omnes effect. The usual remedies sought are a declaration of infringement and resulting contract damages.

5) Do parties prefer arbitration or litigation for resolving patent disputes? If arbitration, which reason is the most significant: worldwide enforceability, speed, cost, freedom in the choice of an arbitrator with specialized knowledge, limited appeal option or confidentiality?

In a domestic setting, I see no preference for arbitration, particularly in countries such as the US, UK and Germany, which have a robust and functioning litigation culture. In a cross-border setting, arbitration is more likely to appeal, primarily as a compromise and for all of the reasons mentioned, the most important of which is usually enforceability.

6) Do parties prefer ad hoc or institutional arbitration?

By and large, I see no great appetite for ad hoc arbitration, with the partial exception of UNCITRAL ad hoc.

- 7) Which arbitral institution do parties prefer and why? What is the key criterion for choosing among LCIA, HKIAC, ICC or WIPO?

In my experience, there is a significant preference for ICC over other institutions, with the exception that in the US, the AAA/ICDR still holds its own well against the ICC. I have seen no real groundswell of interest or support for the WIPO Rules in their several years of existence, notwithstanding their well-formulated rules.

- 8) The issue of remedies proposed by arbitration is considered to be open as well as the subject of rights invalidity. Some argue that arbitrator should decide upon matters of invalidity with inter-party effect and should suggest such remedies as a royalty-free licence for the duration of the existing registration for the winning party. Others suppose that the award may not need to deal expressly with invalidity at all and instead focus on the consequences that follow and the appropriate remedies. I noticed that arbitration might suggest more flexible remedies such as sustention of a patent rather than revocation with the following grant a license to the infringer to the benefit of both parties. What remedies are available in arbitration from the real perspective? Are they better and more flexible rather than in litigation?

From a real perspective, arbitration is essentially limited to inter partes effects and shy away from purporting to have erga omnes effects for reasons of public policy. There is little question but that the remedies in litigation, including vis a vis third parties, are vaster than in arbitration, even though procedurally arbitration potentially offers more flexibility and creativity than does litigation.

- 9) How many IP disputes do you encounter per year, and which of them are in litigation and arbitration?

Roughly four or five major disputes per year in the hundreds of millions of dollars, all of them are in arbitration and all of them cross-border.

- 10) What is the most common law governing international contracts on IP issues (the law governing a contract and law governing an arbitration agreement)? Is that English law?

In my experience, yes, English law, which I believe is the law of choice for many cross-border contracts, including those involving China and Asia. Having said that, there are numerous such contracts and disputes which are subject to the choice of US law.

11) Will Brexit affect the popularity of LCIA or arbitration in general?

A complex and important question, on which I have written an article recently. I believe the answer is that Brexit will have no particularly negative effect on the popularity of English law or an English seat or the LCIA for purposes of the arbitration or on English arbitration generally.

12) The average duration of the arbitration process, for instance at HKIAC, is 12-14 months, and the cost is around US\$40,000-100,000. Does litigation is more expensive from a real perspective? How long does it take for IP litigation on average?

In my experience, the average duration before the ICC is at least 18, if not 24 months, which is typical of most commercial arbitrations generally. Arbitration of an IP dispute in England with an English seat and English law and involving English counsel is surely more expensive than almost any litigation of an IP dispute outside of England with the exception of the United States.

13) Have you ever had experience dealing with newly specialized arbitrations regarding licenses for standard-essential patents on fair, reasonable, and non-discriminatory (FRAND) terms?

Yes, I have had and currently have such matters, and they are clearly on the rise, particularly involving English law and an English seat and Asian parties.

14) The impact of the Belt & Road Initiative on future disputes. The Initiative covers over 60 countries with a total population of about 4.4 billion, which have very different legal systems and legal cultures. Moreover, these countries are at different stages of the development of arbitration as a means of dispute resolution. How do you think will this Initiative promote arbitration as a leading method for resolving disputes?

Yes, quite likely, given that many of these disputes will involve infrastructure disputes in which English law and an English seat, or Hong Kong or Singapore, have played a role. I would anticipate that the Initiative will lead to a spate of new arbitrations, many of which will be adjudicated in Hong Kong or Singapore or London.

- 15) From your point of view, what are the prospects for IP arbitration worldwide? Will it increase?

Yes, as globalization leads to more intertwining of relationships, especially between Chinese/Asian entities and Western entities, there will be more IP-related relationships, contracts and disputes, including in the FRAND area. There will also be increasing intertwining of arbitration disputes on the one hand with trade/competition commission decisions on the other, such as the competition authorities in the US, China, Korea and Taiwan.

- 16) What can be improved in the international legal environment for arbitration to become the most reliable and conventional method of resolving IP disputes?

Arbitration has recently suffered somewhat of a crisis of confidence, particularly in Europe, as a result of criticism of investor-state dispute settlement involving non-transparent awards, functioning of tribunals, selection of tribunal members, and use of taxpayer dollars to fund awards adverse to state respondents. If this spills over into the IP area, it will clearly be detrimental to the growth of IP arbitration. To the extent, FRAND arbitration begins to play a greater role but does not guarantee sufficient transparency, especially when compared to FRAND and IP litigation in such fora as the US federal courts, the German courts and elsewhere, then such FRAND arbitrations will also find disfavour. In short, transparency is a key to the growth of confidence in IP arbitration.

Interview with Pierre-Yves Gunter

Co-head of the arbitration practice at Bär & Karrer, Counsel and Arbitrator
Board member of the Swiss Arbitration Center, former co-chair of the international arbitration committee of the American Bar Association and former board member of the Singapore International Arbitration Centre (SIAC)

- 1) From your point of view, how effective is arbitration, relative to other dispute resolution strategies in protecting intellectual property rights in the global environment?

Arbitration is an efficient dispute resolution tool for IP disputes, in particular expedited arbitration, which leads to an award in 6 months approximately. More classic arbitration proceedings (lasting up to 18 to 24 months) are sometimes more problematic as users expect a quicker decision. This being said, court proceedings can last for years, in particular in civil law countries, therefore longer than arbitration.

- 2) What is the trend in the use of international arbitration in the protection of patent rights? Is it growing?

In my experience, purely patent disputes remain to a large extent, decided by national courts. Some countries like Switzerland even created recently special courts for patent disputes, such as the Swiss Patent Supreme Court. This being said, there is a certain increase in patent disputes submitted to arbitration.

- 3) What are the most common types of IP disputes going to arbitration?
I would say trademark disputes followed by patent disputes.

- 4) Have you ever had experience in arbitrating the issues of validity or infringement of IP rights in any country? If yes, what were the usual outcome and the remedies?

I had as arbitrator a limited number of disputes relating to claims based on patent infringements. I shall stress that those disputes did not relate to the validity of the patents, an issue which usually is decided by national courts.

- 5) Do parties prefer arbitration or litigation for resolving IP disputes? If arbitration, which reason is the most significant: worldwide enforceability, speed, cost, freedom in the choice of an arbitrator with specialized knowledge, limited appeal option or confidentiality?

It depends on the parties and their country of origin, but arbitration indeed has the following advantages: enforceability, possibility to appoint as arbitrator a person familiar with IP issues, speed (in particular for expedited arbitration), limited possibilities of appeal and confidentiality (though the ICC Rules do not contain a broad confidentiality provision contrary to the LCIA Rules or the Swiss Arbitration Rules).

- 6) Do parties prefer ad hoc or institutional arbitration?

Institutional arbitration. In my experience, ad hoc arbitration is less frequent than in the past and not only for IP disputes.

- 7) Which arbitral institution do parties prefer and why? What is the key criterion for choosing among LCIA, HKIAC, ICC or WIPO?

As for other types of arbitration, the reputation of the institution is very important, and for that reason, the ICC is usually preferred, but the country of origin of the parties is important and, for instance, Asian parties prefer SIAC or HKIAC, whereas European parties prefer the ICC or the LCIA. According to my experience, WIPO is sometimes referred to as a specialized arbitration centre but is more successful with domain name arbitration cases than with other IP arbitration cases.

- 8) The issue of remedies proposed by arbitration is considered to be open as well as the subject of rights invalidity. Some argue that arbitrator should decide upon matters of invalidity with inter-party effect and should suggest such remedies as a royalty-free licence for the duration of the existing registration for the winning party. Others suppose that the award may not need to deal expressly with invalidity at all and instead focus on the consequences that follow and the appropriate remedies. I noticed that arbitration might suggest more flexible remedies such as sustention of a patent rather

than revocation with the following grant a license to the infringer to the benefit of both parties.

What remedies are available in arbitration from the real perspective? Are they better and more flexible rather than in litigation?

Traditionally arbitration is more flexible and more business orientated than court litigation. This applies equally to remedies, but in many countries, the issue of validity/invalidity of a patent is not arbitrable. Therefore, arbitrators need to be careful.

- 9) How many IP disputes do you encounter per year, and which of them are in litigation and arbitration?

2 to 3 IP arbitration cases per year.

- 10) What is the most common law governing international contracts on IP issues (the law governing a contract and law governing an arbitration agreement)? Is that English law?

The governing law, as well as the seat of arbitration, is always a question of contractual negotiation. The origin of the parties has an influence. Obviously, parties coming from common law countries prefer a common law in particular English law, whereas parties coming from civil law jurisdiction prefer a civil law and, in particular, a “neutral” law like Swiss law.

- 11) Will Brexit affect the popularity of LCIA or arbitration in general?

There is definitely a risk, but London will, in my view, remain an important arbitration centre. Therefore, the LCIA will remain an important arbitration institution.

- 12) The average duration of the arbitration process, for instance at HKIAC, is 12-14 months, and the cost is around US\$40,000-100,000. Does litigation is more expensive from a real perspective? How long does it take for IP litigation on average?

Standard arbitration proceedings last on average 12 to 18 months which explain why expedited arbitration is interesting as usually, it lasts about six months. The duration of IP litigation varies from one country to the other. In civil law, European countries proceedings take several years (much longer than 12 to 18 months).

- 13) Have you ever had experience dealing with newly specialized arbitrations regarding licenses for standard-essential patents on fair, reasonable, and non-discriminatory (FRAND) terms?

I only had one experience with FRAND terms, but for confidentiality reason cannot provide information.

- 14) The impact of the Belt & Road Initiative on future disputes. The Initiative covers over 60 countries with a total population of about 4.4 billion, which have very different legal systems and legal cultures. Moreover, these countries are at different stages of the development of arbitration as a means of dispute resolution. How do you think will this Initiative promote arbitration as a leading method for resolving disputes?

I have no doubt that with so many parties and countries involved, this shall contribute to increasing the number of arbitration cases. The key question is: will China impose arbitration in Asia, or will it be open to arbitration outside Asia? In my view, this will very much depend on the bargaining power of the contracting party(ies).

- 15) From your point of view, what are the prospects for IP arbitration worldwide? Will it increase?

Yes, with globalization and increasing violation of IP rights, it will increase.

- 16) What can be improved in the international legal environment for arbitration to become the most reliable and conventional method of resolving IP disputes?

To improve the awareness of the users of the great advantages of the arbitration, including for IP disputes.

Interview with Thomas Legler

Partner and Head of Arbitration in Geneva. His practice focuses on representing clients in (inter)national arbitration and acting as arbitrator. Deputy judge of the Federal Patent Court.

- 1) From your point of view, how effective is arbitration, relative to other dispute resolution strategies in protecting intellectual property rights in the global environment?

It is quite effective insofar as the New York Convention is, from a global point of view, a widely accepted international agreement for the enforcement of any arbitral award. For court decisions outside the applicability of the Lugano Convention, you need a bilateral agreement for the enforcement. However, some states still do not recognize the jurisdiction of arbitral tribunals over all possible IP claims, in particular, validity claims (so-called “arbitrability” issue); that may play a role for the jurisdiction of the arbitral tribunal itself as for the enforcement phase.

- 2) What is the trend in the use of international arbitration in the protection of patent rights? Is it growing?

There are only a few statistics, and they often only give a partial answer to this question (Queen Mary, WIPO). My subjective view is that it is indeed growing. This is also reflected in some legislative initiatives abroad (Hong Kong, Singapore) accepting formally arbitration for IP claims and the trend of new institutions promoting IP/tech arbitration (SVAMC, new EU legislation for an EU patent court system).

- 3) What are the most common types of IP disputes going to arbitration?

Clearly disputes about license agreements related to patents (sometimes know-how, rarely trademarks).

- 4) Have you ever had experience in arbitrating the issues of validity or infringement of IP rights in any country? If yes, what were the usual outcome and the remedies?

Yes, both but this is rather exceptional. Most cases deal with purely contractual issues.

- 5) Do parties prefer arbitration or litigation for resolving IP disputes? If arbitration, which reason is the most significant: worldwide enforceability, speed, cost, freedom in the choice of an arbitrator with specialized knowledge, limited appeal option or confidentiality?

As indicated, there is probably a trend towards more IP dispute resolution through arbitration. All the reasons you indicate are valid, but I believe that specialized knowledge is the most important one.

- 6) Do parties prefer ad hoc or institutional arbitration?

Clearly institutional arbitration.

- 7) Which arbitral institution do parties prefer and why? What is the key criterion for choosing among LCIA, HKIAC, ICC or WIPO?

ICC, WIPO, but the others are also important. Difficult to say what pushes a party to choose one institution over the other. It probably simply depends on geographical considerations as well as the past experience and routine of the legal counsel drafting the arbitration clause.

- 8) The issue of remedies proposed by arbitration is considered to be open as well as the subject of rights invalidity. Some argue that arbitrator should decide upon matters of invalidity with inter-party effect and should suggest such remedies as a royalty-free licence for the duration of the existing registration for the winning party. Others suppose that the award may not need to deal expressly with invalidity at all and instead focus on the consequences that follow and the appropriate remedies. I noticed that arbitration might suggest more flexible remedies such as sustention of a patent rather than revocation with the following grant a license to the infringer to the benefit of both parties.

What remedies are available in arbitration from the real perspective? Are they better and more flexible rather than in litigation?

The answer depends on the applicable law. I can only give you the Swiss law perspective, which is very broad. We accept all claims, including invalidity claims, and such an award would also be enforceable in Switzerland. But you are right in saying that arbitration may give more flexibility to the parties in formulating their claims (without claiming directly for invalidity) which is certainly an advantage compared to the strict procedural framework in state litigation.

9) How many IP disputes do you encounter per year, and which of them are in litigation and arbitration?

Many IP disputes are turned down after the sending of cease and desist letters and/or settlement talks. Some go to court (maybe we have 5-10 court cases per year for the whole firm), some to arbitration (maybe 1-3 for the whole firm per year). But this is the best guess, and it will be difficult for you to scale that indication up in terms of statistics.

10) What is the most common law governing international contracts on IP issues (the law governing a contract and law governing an arbitration agreement)? Is that English law?

We only see disputes which come to our firm based on a Swiss law problem. Sometimes we also handle French or German law. Again, this is rather subjective and does not really give a general answer to your question. However, Swiss law is generally very much appreciated by many parties as it is considered to be a pragmatic and neutral law.

11) Will Brexit affect the popularity of LCIA or arbitration in general?

As a Swiss lawyer, I have not enough knowledge about the mechanics and consequences of Brexit on LCIA or arbitration.

12) The average duration of the arbitration process, for instance at HKIAC, is 12-14 months, and the cost is around US\$40,000-100,000. Does litigation is more expensive from a real perspective? How long does it take for IP litigation on average?

WIPO or other institutions may have statistics. For Swiss arbitration, I would also guess that the average duration is between 1 and 1 ½ year. Compared to state litigation, this is rather quick

as you do not have two further instances (except the set-aside proceedings). This also has an effect on the overall costs. IP arbitration and litigation are both rather expensive (and the difference is probably not so big) as you need highly qualified lawyers and experts.

- 13) Have you ever had experience dealing with newly specialized arbitrations regarding licenses for standard-essential patents on fair, reasonable, and non-discriminatory (FRAND) terms?

Not for the time being, as Switzerland has never been attractive for these cases. Germany is a more attractive homeland for FRAND disputes.

- 14) The impact of the Belt & Road Initiative on future disputes. The Initiative covers over 60 countries with a total population of about 4.4 billion, which have very different legal systems and legal cultures. Moreover, these countries are at different stages of the development of arbitration as a means of dispute resolution. How do you think will this Initiative promote arbitration as a leading method for resolving disputes?

It will probably influence the promotion of arbitration but rather in Asia than in Europe, although some European companies may be engaged in this Initiative.

- 15) From your point of view, what are the prospects for IP arbitration worldwide? Will it increase?

It will probably rather increase due to our world, which becomes more tech-related, in particular, due to the development of the Internet and in the future blockchain technologies and Metaverse.

- 16) What can be improved in the international legal environment for arbitration to become the most reliable and conventional method of resolving IP disputes?

SVAMC is a good example: they are promoting arbitration actively for tech-related disputes through conferences, seminars and various publications.

Conclusions

International arbitration as a method to enforce patent rights has its advantages and disadvantages, which can be referred to as duality of the nature of patent arbitration. Some advantages may be transformed into disadvantages from a different perspective. The key distinctive advantages of patent arbitration are time and cost efficiency, neutrality and flexibility, the resolution of multiple patent suits in one proceeding, expert tribunals possessing broad jurisdiction based on the kompetenz-kompetenz principle, exclusive remedies and global enforceability, emergency arbitrator relief, negotiated nature of the process allowing parties to preserve their productive business relationship, no jury participation and readiness for the online dispute resolution platform.

Meanwhile, other advantages such as confidentiality, limited right to appeal and inter partes effect of the award can bear some potential limitations for the participants. Although the confidentiality of arbitration allows the dispute and arbitral award to remain private, preserving parties' public image and policy, the lack of transparency leads to the situation where the result might be unpredictable and arbitral awards cannot be assessed by the wider society. The limited right to appeal represents another key feature of patent arbitration, providing an opportunity to significantly cut time and cost leading to greater efficiency. However, taking into account the high stakes usually involved in a patent dispute, it is worthwhile to consider including an appeal option in the arbitration agreement in a limited number of circumstances. Lastly, the inter partes effect of the award preserves patent holder rights against all third parties without possible permanent revocation or invalidity of the patent. However, the inter partes effect of the arbitral award causes the risk that patent holders will need to arbitrate in each country against every defendant separately where a legal issue arises. In addition, new rules incorporating joinder and consolidation to the existing arbitral proceeding are innovative and allow parties to increase time and cost efficiency even more; however, it requires agreement from all the parties which might lead to the parallel proceedings and potentially incompatible decisions. Furthermore, the negotiated nature of patent arbitration gives parties freedom in designing their dispute resolution process almost entirely; the necessity of a valid arbitration agreement between the parties is a limiting factor at the same time. In case the arbitration agreement was not concluded properly, and it was found to be invalid, further arbitration will not be possible.

Therefore, the choice of the method of patent right enforcement should be made in consideration of all the possible advantages and disadvantages. International arbitration society has shown its wide acceptance of arbitration. According to the Queen Mary Arbitration Survey

2021, 90% of respondents stated that international arbitration is their preferred method of cross-border disputes resolution either on a stand-alone basis or in conjunction with ADR.³⁴⁴ International arbitration triumphs over litigation on numerous grounds ranging from time and cost efficiency, privacy, neutrality and flexibility to global enforceability and exclusive remedies. Consequently, international arbitration might be proposed as a favourable method for international patent enforcement owing to the effectiveness and efficiency it can provide.

³⁴⁴ Queen Mary University of London and White & Case, '2021 International arbitration survey: adapting arbitration to a changing world' (*Qmul.ac.uk*, 2021).
<<https://arbitration.qmul.ac.uk/research/2021-international-arbitration-survey/>> accessed 16 December 2021.

Chapter V. Case study: Arbitration vs. Litigation in the case of SEP/FRAND disputes - arbitration as an optimal solution

What are FRAND and SEP and their importance?

Microsoft, Huawei, Interdigital and many others started SEP disputes resolution in 2019, and more disputes are envisaged to come. Therefore, understanding the reasons for this kind of dispute and its origin are vital.

Standardisation became essential with the development of wireless technologies. Additionally, the development and usage of smartphones and computers on a daily basis has led to the merge of the various industries such as the mobile phone industry, computer technologies and consumer electronics. Possible conflicts might involve three participants, such as a technology developer, a technology implementer, and a consumer. According to Richard Vary,³⁴⁵ the following chronology outlines the origin of the FRAND terms license agreement. During the 1990s and early 2000s, there was a 2G era of cross-licensing where patent owners and implementers were the same identities. There was little patent litigation at that time because both sides were interested in reaching an agreement as they needed each other for the development of these technologies.

The next stage started in 2006 and lasted approximately ten years. The milestone of this era was the development of the smartphone and launch of the first iPhone in 2007, followed by the Smartphone Wars. This decade was characterised by the merger of Mobile and IT industry, where implementers were no longer the SEP owners.³⁴⁶ At this point, the issue of the standard-essential patents (SEP) and licensing on fair, reasonable and non-discriminatory (FRAND) terms arose. SEP refers to standard patents which are essential for a particular industry technology, for instance, WIFI, 3G, 4G technologies for the consumer electronics industry. Standardisation is crucial to growth, allowing different market participants to develop their technologies based on the major industry developments. Therefore, to accelerate the innovation, SEP-owners are required by Standard-Setting organisations (SSOs) to participate in an irrevocable undertaking to grant competitors licences on FRAND terms. It is quite often the case that SEP-owners and technology implementers are not able to agree on the rate of the royalties and other license terms which caused The Smartphone Wars, characterised by patent

³⁴⁵ Richard Vary, 'Patent licensing: what next for FRAND?' *Bird & Bird LLP* (London 2019).

³⁴⁶ *Ibid.*

litigation seeking injunctions from the one side, and fines against SEP owners from the other side.

The final results of smartphone related cases might include numerous patents leading to possible disputes among involved stakeholders. The Smartphone Wars were a part of bigger patent litigation proceedings involving Apple Inc., Samsung, Google, Nokia, Microsoft, Motorola, Huawei and other major IP rights holders. The consequence of that affected consumers and resulted in higher prices for the final product. Therefore, a consensus between the interests of developers and implementers is vital.

The current practice to determine what FRAND terms are in a specific case is delegated to the negotiation by the involved parties and the court's determination.³⁴⁷ When parties are unable to agree on the FRAND terms, the issue is then transferred to a court. According to the survey on patents and standards 2014, essential patents are more than five times as likely to be litigated in comparison with non-essential patents.³⁴⁸ Litigation proceedings quite often start after the announcement that a patent has become essential. Moreover, the number of litigations on IP issues has grown over the last 30 years, showing that SEPs litigations have grown much faster than those involving non-SEPs.³⁴⁹

One of the main reasons causing that is the lack of transparency in SEPs.³⁵⁰ The same position was confirmed by the Communication from the Commission to the European Parliament, the Council and the European Economic and Social Committee setting out the EU approach to Standard Essential Patents in 2017.³⁵¹ Most of the SSOs provide publicly available databases on SEPs, however, this information is entered on the basis of self-declaration by SEP owners, and it is not examined by the external bodies which is why such issues as validity, essentiality, scope, enforceability, and ownership cannot be guaranteed as factual. Moreover, this information might be difficult to obtain - which creates difficulties for SMEs and start-ups in regard to licencing negotiations and risk management.³⁵²

³⁴⁷ European Commission, *Patents and Standards: a modern framework for IPR-based standardization* (Publication office of the European Union 2014) < <https://op.europa.eu/en/publication-detail/-/publication/43222f7f-4604-46db-95bd-6650ae5fa441/language-en> > accessed 16 December 2021, 10.

³⁴⁸ Ibid, the survey shows that 6.7% (393 of 5,768) of all essential patents in the dataset were subject of litigation, whereas this was only 1.5% (89 of 5,768) for other patents 125.

³⁴⁹ Ibid, 125.

³⁵⁰ Ibid, 127.

³⁵¹ European Commission, *Communication from The Commission to the European Parliament, the Council and the European Economic and Social Committee setting out the EU approach to Standard Essential Patents* (Brussels 2017) <<https://ec.europa.eu/docsroom/documents/26583>> accessed 4 February 2022.

³⁵² Luke McDonagh and Enrico Bonadio, *Standard Essential Patents and the Internet of Things* (Brussels, Belgium: European Parliament 2019)

In addition, in practice, a situation arises called “blanket disclosure” which consequently leads to more transparency problems. This happens when a company declares its ownership of some patents for a particular standard, while not exposing the identity of these patents or they may stay silent about ownership of a specific patent at all before their technology is chosen as the standard.³⁵³ For instance, a similar situation arose in the case of *the Dell “VESA Local Bus”*.³⁵⁴ It involved Dell Computer Corporation (“Dell”) and Federal Trade Commission (“FTC”). In 1992 Dell became a member of Video Electronics Standards Association (“VESA”), and later that year VESA initiated the process of establishing a standard for a computer bus design known as VESA Local Bus or “VL-bus”.³⁵⁵ A year earlier, Dell became an owner of the US patent number 5,036,481 (the “481 patent”), which was adopted to VL-bus standard later.³⁵⁶ Prior to the approval of the standard design in 1992, Dell stated in writing that, to the best of its knowledge, the design of VL-bus standard does not infringe on any trademarks, copyrights, or patents that Dell possessed.³⁵⁷ The Commission concluded that Dell did not act in good faith by not exposing their ownership of the 481 patent before the implementation of the standard. Only after the successful application of the VL-bus standard which was included in over 1.4 million computers sold, Dell revealed their ownership of the standard and asked the implementors of the standard to stop infringing on their exclusive rights.³⁵⁸ The case was finalised in 1996 by the Consent agreement between Dell and FTC, stating that Dell was prohibited from enforcing its 481 patent against companies using VL-bus standard.³⁵⁹ The Commission emphasised that VESA as a standard-setting organisation had a policy imposing on its members to disclose the ownership of any potentially conflicting patents. If VESA knew that the 481 patent was a proprietary technology, it would have chosen another technology for VL-bus standard.³⁶⁰

<<https://openaccess.city.ac.uk/id/eprint/21619/1/Standard%20Essential%20Patents.pdf>> accessed 4 February 2022.

³⁵³ European Commission, *Patents and Standards: a modern framework for IPR-based standardization* (Publication office of the European Union 2014) < <https://op.europa.eu/en/publication-detail/-/publication/43222f7f-4604-46db-95bd-6650ae5fa441/language-en> > accessed 16 December 2021, 117.

³⁵⁴ *The matter of Dell Computer Corporation*, FTC Docket C-3658, 121 FTC (1996).

³⁵⁵ *The matter of Dell Computer Corporation*, FTC Docket C-3658, 121 FTC (1996) § 4.5.

³⁵⁶ *Ibid*, § 6.

³⁵⁷ *Ibid*, § 7.

³⁵⁸ *Ibid*, § 8.

³⁵⁹ *The matter of Dell Computer Corporation*, FTC Docket C-3658, 121 FTC (1996).

³⁶⁰ *The matter of Dell Computer Corporation*, FTC Docket C-3658, 121 FTC (1996).

The next two main reasons of the rise of SEP disputes are first of all that FRAND conditions are not always clear, and secondly the issues surrounding the transfer of FRAND conditions made by the previous SEP owner to the new one.³⁶¹ Indeed, it is quite often the case that parties cannot agree on what fair terms and reasonable rate of royalties mean. Also, in the case of the transfer of SEPs, a situation may arise when it is not clear whether FRAND commitments made by the previous owner transferred automatically to the new one.

The last stage of the SEP and FRAND terms development started from 2016 onwards. The development of 5G set the basis for the convergence of many industries from different backgrounds. Wireless technologies are being incorporated not only into laptops and smartphones but also in cars, security systems, and electronic appliances leading to the creation of "smart homes", "smart cities", connected healthcare etc. That is usually referred to as the Internet of things "IoT" field. According to the report conducted by Gartner, IoT will make a significant impact on everyday life and society in general by means of cutting costs, conserving resources, improving safety and security, as well as generating revenues, enhancing services and improving well-being. Besides, by 2020 Gartner expects to see 20 billion internet-connected things and 65% of enterprises are supposed to adopt IoT products.³⁶² HP supported the view of the growing connected technologies in its survey, indicating that the number of connected devices in 1990 was equal to 0.3 million, growing to 5 billion in 2010 with a continuing rise to 1.0 trillion by 2025.³⁶³ Due to the merge of various industries and an increasing number of new players in the IoT field, it is not surprising to see a rise in disputes between developers and implementers.

Regulation framework

The rise of the FRAND terms disputes resolution through arbitration has led to the issue of the regulation frameworks essential for the effective functioning of the system. Since this phenomenon is relatively new, there are not many official regulations available. However, this approach is supported by the Federal Trade Commission (FTC), The European Commission

³⁶¹European Commission, *Patents and Standards: a modern framework for IPR-based standardization* (Publication office of the European Union 2014) < <https://op.europa.eu/en/publication-detail/-/publication/43222f7f-4604-46db-95bd-6650ae5fa441/language-en> > accessed 16 December 2021, 128.

³⁶² Gartner, 'Leading the IoT. Gartner Insights on how to lead in a connected world' (*Gartner.com*, 2017) <https://www.gartner.com/imagesrv/books/iot/iotEbook_digital.pdf> accessed on 23 April 2021.

³⁶³HP, 'HP Survey 2019' (*Hp.com*, 2019) <<http://h30614.www3.hp.com/collateral/Barcelona2013/presentations/IT3112.pdf>> accessed 12 December 2019.

(EC) and The Court of Justice of the European Union (CJEU). The first commission involved was FTC, which in 2013 ruled on a Google Consent Order and obliged Google to offer potential licensees arbitration before seeking an injunction in case negotiations of FRAND terms failed.³⁶⁴ A year later, EC procured investigation of Samsung's behaviour on the matter of competition law seeking injunctions against Apple over SEPs.³⁶⁵ It resulted in Samsung's commitments not to seek injunctions against potential licensees who are willing to comply with the Licensing Framework. The Licensing Framework established requirements that any dispute over FRAND terms would be resolved by a court or arbitration providing a "safe harbour" for the willing licensees. In *Huawei v ZTE*, the CJEU acknowledged that determination of FRAND terms by the third party was a viable alternative to the court.³⁶⁶ In addition, the CJEU established the following guidance which a court should use to evaluate the willingness of both parties to reach an agreement before seeking an injunction. If one party refuses to use arbitration when negotiations fail, that refusal might be used against them in the later court proceedings because it shows an unwillingness to reach an agreement. Therefore, these cases established a firm ground for the usage of arbitration in FRAND terms disputes. Moreover, WIPO issued detailed Guidance on FRAND Alternative Dispute Resolution (ADR) in collaboration with the European Telecommunications Standards Institute (ETSI) Legal Department, where it included model submission agreements.³⁶⁷

Another important aspect of FRAND arbitration regulation is Standard Setting Organisations (SSOs) which more and more include arbitration clauses in their bylaws and policies. Some SSOs include arbitrations clauses in their membership agreements, therefore obliging its members to use arbitration which creates the issue of mandatory arbitration. Some SSOs propose independent arbitration procedures under the rules of the arbitration centre such as AAA,³⁶⁸ others offer arbitration governed by the SSO itself.³⁶⁹ Therefore, two issues should

³⁶⁴ *The Matter of Motorola Mobility LLC and Google Inc.* FTC File No 1210120.

³⁶⁵ *Samsung Electronics – Enforcement of UMTS Standard Essential Patents* COMP/C – 3/39.939.

³⁶⁶ *Huawei Technologies Co. Ltd v ZTE Corp., ZTE Deutschland GmbH* C-170/13, ECLI: EU:C:2014:2391.

³⁶⁷ WIPO, 'Guidance on WIPO FRAND Alternative Dispute Resolution (ADR)' (*Wipo.com*, 2021) <<https://www.wipo.int/export/sites/www/amc/en/docs/wipofrandadrguidance.pdf>> accessed on 23 January 2022.

³⁶⁸ Blu-Ray Disc Association, 'Amended & restated bylaws' (*Blu-raydisc.com*, 24 October 2008) <[http://blu-raydisc.com/Assets/Downloadablefile/BDA-Bylaws-\(v1.6\)-16278.pdf](http://blu-raydisc.com/Assets/Downloadablefile/BDA-Bylaws-(v1.6)-16278.pdf)> accessed 16 December 2021, clause 16.5.

³⁶⁹ VITA, 'VSO Policies and Procedures' (*Vita.com*, 1 September 2015), <<https://www.vita.com/resources/Documents/Policies/vso-pp-r2d8.pdf>> accessed 16 December 2021, clause 10.5.

be considered: the mandatory or voluntary arbitration of FRAND disputes; the institutional arbitration under the rules of established arbitration centre or arbitration under SSO rules.

Mandatory arbitration was successfully introduced by WIPO in Uniform Dispute Resolution Procedure (UDRP) for the resolution of Internet domain name disputes mandated by ICANN's agreements with domain name registrars. However, litigation is proposed as an option for that mandatory proceeding. The UDRP Policy allows the domain name registrant (Respondent) or the third party (Complainant) to submit the claim to a court before a proceeding takes place or after it is concluded if a party is not satisfied with the outcome.³⁷⁰ The Policy named those administrative proceedings rather than arbitration, although WIPO Arbitration and Mediation Center administers such proceedings. Some commentators equal these administrative proceedings to arbitration; nevertheless, it seems not to be the case for the following reasons. First of all, arbitration presumes its consensual character by means of which parties must agree to arbitrate which contradicts the mandatory nature of these administrative proceedings imposed on the domain name registrars or the third party violating the usage of the domain name. In addition, in this Policy, litigation is suggested as an option; therefore, it undermines the meaning of arbitration because when parties opt for arbitration, one of the aims is to exclude the possibility of court dispute resolution. Secondly, the outcome of the administrative proceedings is subject to the possible later court proceedings; thus, the award will not have *res judicata* effect as it has in arbitration in most jurisdictions. After arbitral award is rendered, parties are not entitled to submit the same claim between the same parties before the court; the above Policy does not provide the final decision with *res judicata* effect. Lastly, the UDRP Policy was developed to resolve the similarly narrow type of disputes that explain the efficiency and internationally recognised success of UDRP dispute resolution, however, will that be applicable to FRAND terms disputes which are complicated and unique by nature?

For instance, Digital Video Broadcasting (DVB) Project's Memorandum of Understanding imposed its members to use ICC arbitration to resolve licensing disputes of DVB Standards.³⁷¹ On the other hand, although ETSI cooperated with WIPO on its Guidance on FRAND Alternative Dispute Resolution, it keeps arbitration as an option giving its members

³⁷⁰ICANN, 'Uniform Domain Name Dispute Resolution Policy' (*Icann.org*, 2012) <<https://www.icann.org/resources/pages/policy-2012-02-25-en>> accessed 9 January 2022, clause 4(k).

³⁷¹ DVB, 'Memorandum of understanding further amended and restated for the development of harmonised Digital Video Broadcasting (DVB) services based on European specifications' (*Dvb.org*, 2019) <https://dvb.org/wp-content/uploads/2019/12/dvb_mou.pdf> accessed on 23 January 2022, clause 14(7).

the right to choose.³⁷² In the ETSI newsletter, their legal director Christian Loyau named two reasons why FRAND arbitration should be voluntary: firstly, the choice should belong to parties whether the IPR mentions the option or not; secondly, the modification of ETSI Directives to include mandatory arbitration would lead to an uncertain outcome.³⁷³ Indeed, FRAND disputes are a relatively new dispute resolution area, and mandatory arbitration can create unprecedented complications.

One of the possible solutions was introduced by Mark A. Lemley and Carl Shapiro, who proposed that SSOs should oblige their members to use mandatory "baseball-style" arbitration.³⁷⁴ In other words, under this form of arbitration, both parties are required to submit reasonable offers with final figures and the arbitrator picks one of the two offers without making modifications. The reasoning behind such a proposal was that parties would submit offers with reasonable rates and the balance of interest between the SEP holder and implementer would be easier to reach. Although this approach has advantages such as fast resolution and limited disclosure, it has never been used in practice. "Baseball-style" arbitration has been harshly criticised by Pierre Larouche, J. Gregory Sidak and Jorge L. Contreras including the following grounds. First of all, an arbitral award rendered through baseball-style arbitration cannot guarantee a FRAND royalty rate. Indeed, an arbitrator would be given only two options to choose from, whereas, during a typical procedure, all parties' initial offers are usually rejected by the judge or arbitrator. For instance, as it happened in *TCL v Ericsson*, a judge rejected the two final offers made by the SEP owner because he found them not to be FRAND.

In the case of baseball arbitration, the role of an arbitrator would be limited to making a choice without appropriate consideration, thus, negating the value of an arbitrator's opinion. No special knowledge or analytical skills would be required to render such a decision, therefore, destroying one of the major points of arbitration. Also, such an arbitral award might be biased and less accurate because an arbitrator would not analyse the offers in detail, and the reasoning behind his decision would not be clear. Therefore, mandatory or baseball-style arbitration is not the solution for the FRAND disputes as it undermines the value of arbitration itself. The consensual nature of arbitration is rooted in the freedom of parties' choice from the

³⁷²ETSI, 'Directives, version 38' (*Etsi.org*, 2018) <https://portal.etsi.org/directives/38_directives_feb_2018.pdf> accessed on 23 January 2022.

³⁷³ETSI, 'ETSI Newsletter' (*Etsi.org*, 2014) <https://www.etsi.org/images/files/ETSInewsletter/etsinewsletter_feb2014.pdf> accessed on 23 January 2022.

³⁷⁴Mark A Lemley and Carl Shapiro, 'A Simple Approach to Setting Reasonable Royalties for Standard-Essential Pate' (2013) 28 Berkeley Technology Law Journal 1135.

initial decision to arbitrate, to choosing the peculiarities of the procedure such as governing law, the scope of the dispute, venue, language, time scale etc. Thus, parties should have the choice between the options of litigation and arbitration, as well as between negotiation and dispute resolution as it corresponds to the nature of arbitration itself.

Such freedom of choice should also cover the right to choose between the institutional arbitration under the rules of an established arbitration centre or arbitration under SSO rules. Although arbitration centres are better equipped to deal with FRAND terms disputes for the reasons discussed below, it should be up to the parties to choose between SSO procedures or an arbitration centre to resolve a particular dispute.

Case study

The patent portfolio has proved to be one of the most valuable assets of a company nowadays. One of the brightest examples is Nokia. In 2014 Nokia sold its devices and services business to Microsoft for \$7.2 billion; nevertheless, it keeps playing an important role in the smartphone industry. Nokia has roughly 30,000 patents relating to 2G, 3G, and 4G mobile communication technologies licensed by over 60 companies. After 2014 Nokia stopped the production of mobile devices; however, its patent portfolio still is a necessary source for the other companies producing devices. Due to this fact, Nokia concluded licensing agreements with Samsung, LG, Blackberry etc. Each of these agreements contained an arbitration clause stating that in case a dispute arises, it will be resolved through arbitration. Disputes indeed arose and were referred to the International Court of Arbitration of the International Chamber of Commerce (ICC). All the disputes were rendered in Nokia's favour. Nokia's chief legal officer Maria Varsellona confirmed the status of arbitration as the preferred method of resolving patent disputes in the press release after ICC's decision on *Nokia v LG*: "The use of independent arbitration to resolve differences in patent cases is a recognised best practice. We believe that this award confirms the quality of Nokia's patent portfolio."³⁷⁵

In 2017 ICC pronounced the final award on the dispute between Nokia and LG. The terms of the award remain confidential; however, Nokia made it public that LG was obliged to pay onetime catch-up revenue plus ongoing licencing revenue payments. Similar decisions were rendered for the disputes, *Nokia and Samsung*, *Nokia and Blackberry*. Although most of the sums and terms of the award remained confidential, it was made public that BlackBerry

³⁷⁵ Nokia, 'Press release' (*Nokia.com*, 2017) <<https://www.nokia.com/about-us/news/releases/2017/09/18/nokia-receives-decision-in-patent-license-arbitration-with-lg-electronics/>> accessed on 23 January 2022.

was obliged to pay \$137 million to Nokia and in return, it filed a patent lawsuit in federal court in Wilmington, Delaware. The patents in question were 11 SEPs essential for 3G standard in the networking industry. However, in 2018 the court dismissed the claim based on the mutual agreement of the parties. A similar situation arose between *Nokia and Samsung*. After a favourable decision of ICC to Nokia, in 2018 parties agreed to extend the license agreement covering 5G technology.

These cases illustrate the strength of Nokia's patent portfolio and show that sooner or later, it becomes obvious for the parties that reaching an agreement is far more beneficial for both sides rather than endless dispute resolution. Even when a dispute arises, it is more efficient to resolve it through arbitration as proved by Nokia's example. Moreover, Nokia has moved from solo patent licensing agreements to business collaboration models. Most of these agreements would contain an arbitration clause, showing a clear preference of arbitration as a method to resolve patent disputes by the leading company on the IP market.

It is envisaged that with the launch of 5G technology, more SEPs disputes will arise globally; therefore, an inevitable issue arises: litigation or arbitration? Some parties choose litigation because it is a traditional business strategy, others are unaware of the advantages of arbitration, however, can arbitration be substituted for litigation or are courts better equipped to resolve patent disputes? The answer lies in the choice of jurisdiction. If we look at the UK, the US or Hong Kong, all of these jurisdictions are highly skilled to deal with FRAND-terms disputes, but still, even in those jurisdictions, arbitration seems to be a more efficient option. Looking at the litigation experience of *Nokia v Apple* in 2016, Nokia sued Apple in eleven countries claiming that the company had refused to take out a new license on forty patents; Apple in return stated that Nokia acted like a “patent troll” refusing to license its patents on fair terms. Taking the US trial route,³⁷⁶ Nokia claimed that ten patents that had been issued were infringed upon and requested a jury trial at the District Court for the Eastern District of Texas Marshall Division. The dispute was settled in 2017 by means of mutual agreement between the parties followed by the new licensing agreement and digital health collaboration agreement. Nokia expected to spend 100 million euros annually on this litigation. For the cases like that involving multiple jurisdictions, arbitration seems to be a better option not only because it allows parties to combine multiple litigation proceedings with the single worldwide arbitration proceeding, but also it proposes additional advantages which will be examined in

³⁷⁶ *Nokia v Apple* 2:16-cv-01441-JRG (2016).

this chapter through the example of a case study of *TCL v Ericsson* and *Unwired Planet v Huawei*.

TCL v Ericsson³⁷⁷

During the 2000s Ericsson developed technologies which were chosen as a standard for 2G, 3G, and 4G wireless communication. Being a member of European Telecommunications Standards Institute (ETSI), Ericsson committed to licence its technology on FRAND terms to all willing licensees. The first license agreement with TCL was concluded in 2007. However, later parties were unable to agree on the terms for the future license, and as a result between 2012-2014 Ericsson sued TCL in a minimum of six jurisdictions stating infringement of its patents. TCL in return sued Ericsson in the United States District Court for the Central District of California on the basis that the company refused to license its SEPs on FRAND terms. The court was faced with the following issues:

- a) whether Ericsson completed its FRAND obligations during negotiations by acting in good faith;
- b) whether the conditions of two final offers (offer A and offer B) were satisfying its FRAND commitments. If they were not, the Court was obliged to determine what terms were material to a FRAND license, and then supply the FRAND terms.

The court stated that Ericsson did not violate its FRAND commitments and was acting in good faith, however, the offers made did not comply with the FRAND terms. Therefore, the court proceeded in the determination of the royalty rate. However, before resolving these two main issues, the uniqueness of FRAND-terms disputes required the court to consider the following issues which were relevant to most of the international disputes concerning SEPs and FRAND terms:

1. Jurisdiction
2. Applicable law
3. Valuing SEPs

³⁷⁷ *TCL v Ericsson* SACV 14-341 JVS(DFMx) (C.D. Cal. Mar. 9, 2018).

4. The FRAND obligation and non-discrimination obligation
5. The role of licenses in the SEP's analysis

Jurisdiction

The court stated that since the parties agreed to binding court adjudication of the FRAND royalty rate for the worldwide portfolio license after their negotiations failed, they committed to obey the court's decision in regard to the whole worldwide portfolio. Therefore, all other pending claims against the same SEPs in different jurisdictions were resolved by the court's injunction. It seems to be a reasonable decision because that prevented the possibility of forum shopping, controversial decisions, in addition to a waste of time and money on parallel proceedings.

Forum shopping is not a new phenomenon in patent litigation. Some courts are known as "plaintiff-friendly," and parties would try bringing their claim to this court even when there is little or no connection between the legal issues and the jurisdiction where the litigation is going to take place. This situation arose in the US, making the United States District Court for Eastern District of Texas the most popular court for patent infringement cases brought by so-called "patent-trolls" (non-practising companies who make their profits on the usage of its patents by the other practising companies). In 1957 The Supreme Court ruled that patent infringement cases were to be litigated in the state where the defendant was incorporated. However, further changes made by Congress has led to the pattern that these cases may be heard anywhere the defendant conducted infringing business. However, the situation was amended by the *TC Heartland LLC v. Kraft Foods Group Brands LLC* ³⁷⁸ where The United States Supreme Court ruled unanimously affirming the decision of 1957 that patent infringement cases must be heard in the district within which the defendant is incorporated.

In contrast, arbitration is conducted absolutely free of the place of defendant or claimant incorporation. Moreover, arbitration is often conducted in a neutral venue for both parties. For instance, Hong Kong would be a suitable venue if the SEP owner is in the UK and the implementer is in the US. In addition, when parties conclude an arbitration agreement for a final, binding resolution, they cannot refer to the other binding authority for a dispute settlement. They might use mediation along with arbitration, but they are not able to file the same claim to courts in any other jurisdictions. When such a claim is submitted to a court, and

³⁷⁸*TC Heartland LLC v Kraft Foods Group Brands LLC* 581 US (2017).

there is a binding arbitration clause between the same parties on the same merits, the court should stay this proceeding.³⁷⁹ One of the recent developments in international arbitration is the usage of an arbitration-mediation-arbitration clause allowing parties an additional chance to reach a consensus-based on mutual interests without the interference of the court system.³⁸⁰ If mediation fails, parties are able to continue resolution through arbitration rendering a final, binding award.

IP rights are territorial in nature because they have a strong connection with the country of its origin, giving exclusive right of the ownership on the limited territory and the common way of its enforcement is local litigation. However, FRAND disputes with patents registered worldwide would lead to a situation where courts rely on the local understanding of SEP, therefore causing controversial decisions. In *TCL v Ericsson*, the court accepted its jurisdiction over FRAND matters on the basis that FRAND obligations were to be interpreted as an encumbrance on IP rights “where applicable under the laws of the jurisdiction”. It leads to the conclusion that the scope of a court's jurisdiction over FRAND disputes depends on the local laws and therefore it will differ. Arbitration, on the other hand, can offer a whole SEP portfolio determination according to the one set of laws determined by the agreement of the parties. Although the authority of an arbitral tribunal is anchored to a specific jurisdiction and limited by its *lex arbitri* provisions, arbitration is global in nature. *Lex arbitri* provisions set minimum requirements and define the basic rules for arbitration; however, a tribunal can adopt any laws it finds suitable and is entitled to rule on its own jurisdiction.

Applicable law

The court acknowledged the right of a potential licensee to enforce a SEP holder's obligations under contract law applying the doctrine of stipulation on behalf of a third party (‘stipulation pour autrui’) under French law which is similar to the concept of a third-party beneficiary under the common law. ETSI's acceptance of a patent holder's patent as a SEP, formed a contract which included the patent holder's obligation to license. ETSI is a not-for-profit association under French law, and Ericsson formed a contract with it by making FRAND commitments; thus, the FRAND commitments must be interpreted, and its performance evaluated under French Law.³⁸¹ Also, the parties did not argue that the case was governed by

³⁷⁹ Arbitration Act 1996.

³⁸⁰ HKIAC 2018 Rules.

³⁸¹ See *Apple Inc v Motorola Mobility Inc.* 886 F.Supp. 2d 061,1081-1082 (WD Wis. 2012).

the ETSI Directives, and the Directives were governed by French law. Therefore, the court combined approaches of common law referring to *Apple Inc v Motorola Mobility Inc.* and legal principles of French law.

In arbitration, the applicable law is quite a complex issue. It is flexible from one side and quite uncertain on the other side. There are three types of law applicable to a dispute:

- a) the law applicable to the arbitration clause/agreement;
- b) the law applicable to the process of arbitration
- c) the law applicable to the substance of a dispute.

In this section, we will examine the law applicable to the arbitration clause/ agreement.

The law applicable to the arbitration clause/agreement

The first type of law will decide whether there is a valid, binding arbitration clause between the parties. An arbitration agreement is a basis on which the whole arbitration is based. It confirms parties' intention to use alternative dispute resolution instead of courts and creates arbitral tribunal authority. Considering the importance mentioned above, most of the national laws require that agreements must be in writing. Therefore, it is a good practice to include an arbitration clause in FRAND licences. An appealing side of using arbitration in FRAND terms disputes is that parties may limit the scope of what should be decided by the tribunal in the arbitration agreement. They can agree that only part of the portfolio would be evaluated and determined based on FRAND and those terms would be applied to the rest of the portfolio. This will significantly shorten the time of the proceedings as well as cost. One of the requirements of the validity of the arbitration clause is the subject matter of the arbitration. It is generally acknowledged that matters of competition, criminal and family law cannot be arbitrated; therefore, an arbitration clause containing a provision with that subject would be void. When it concerns the subject matter of intellectual property rights, in recent years most jurisdictions allow it to be a subject of arbitration with some limitations. Therefore, an issue arises in terms of the arbitrability of FRAND-terms disputes. Before that, it is worth considering the arbitrability of patent disputes in general.

Arbitrability of patent disputes

Jurisdiction	Patent validity	Patent ownership	Patent infringement
England	permitted (with inter partes effect)	permitted (with inter partes effect)	permitted ³⁸²
The US	permitted (with inter partes effect) ³⁸³	permitted (with inter partes effect) ³⁸⁴	permitted ³⁸⁵
Hong Kong	permitted (with inter partes effect) ³⁸⁶	permitted (with inter partes effect) ³⁸⁷	permitted ³⁸⁸

The law above does not provide guidance on what parties should do in case a tribunal recognises that patent is invalid. Some authors propose that a tribunal may rule on issues of material validity or ownership between the parties but are not entitled to invalidate the IP right in issue.³⁸⁹ Since patents are IP rights granted by the public authority, it cannot be invalidated by the private decision-maker, thus this decision will not be recognised by the enforcing authority unless it is clearly allowed by law. In addition to public policy considerations, a patent's validity is bound by its effect on third parties who are not participants in arbitration proceedings when a registered patent is declared invalid. Will parties' decision to confer additional authority to the tribunal allowing invalidation/ transfer of patent change the situation?

Some propose that a tribunal's power should be extended to the possibility of the revocation or transfer of the patent on the basis that the IPR owner is free to limit, revoke, or transfer its material rights to IP to the same degree as any other property. Therefore, it should be possible for an arbitral tribunal to order revocation or transfer of the patent, provided that

³⁸² English Patents Act 1977, s. 61 (1).

³⁸³ 35 USC §294(a), (c).

³⁸⁴ 35 USC §294(a), (c).

³⁸⁵ 35 USC §135(d), 294(a).

³⁸⁶ Arbitration Ordinance 2011(Cap 609), art. 103I.

³⁸⁷ Ibid, 103C(a).

³⁸⁸ Ibid, 103C(a).

³⁸⁹ Peter Chrocziel, Boris Kasolowsky, Robert Whitener, Waldeck und Pyrmont and Wolrad Prinz, *International Arbitration of Intellectual Property Disputes: A Practitioner's Guide* (Hart 2017), 16.

the parties expressly include that authority to the tribunal in their arbitration agreement.³⁹⁰ Arguably, in this scenario of revocation or transfer of the ownership of the patent, the award will have erga omnes effect, because it will affect third party rights bound by the patent owner by licences. This would result in the conflict between the process of private decision making and its public consequences. Therefore, clear law provisions stating that IPR might be subject to revocation or invalidation during arbitration are required. Such new provisions clarifying the issue of IPR arbitrability were introduced in Hong Kong and took effect in January 2018. These provisions put Hong Kong ahead other jurisdictions by means of reducing the uncertainty of what IPR can be subject to regarding arbitration and its effect.

Hong Kong law supports an expansive point of view in interpretation of parties' powers in provision 103D (6) expressly declaring that "the power given to an arbitral tribunal to award any remedy or relief in deciding an IPR dispute is subject to *any agreement* between the parties to the IPR dispute." Therefore, this legislation provides an expansive interpretation of parties' power in terms of granting special authority to the arbitral tribunal. However, parties are also allowed to limit the scope of tribunal's authority and what remedies it can grant. Generally, an arbitrator will have the same range of available remedies and relief to grant as a judge in civil proceedings. This usually includes monetary damages and specific performance. If it is stated in an arbitration agreement, an arbitrator could order the owner of a registered IPR to surrender or amend the scope of the IPR or to transfer it to another entity as well as an injunctive relief such as an order to refrain from infringing acts.

Moreover, Arbitration Ordinance clarified specifically that "section 101(2) of the Patents Ordinance (Cap. 514) does not prevent a party from putting the validity of a patent in issue in arbitral proceedings".³⁹¹ On the other hand, in section 103D (1) the law declares "an IPR dispute is capable of settlement by arbitration *as between the parties* to the IPR dispute" limiting the effect of arbitration between the parties. Consequently, the effect of such an award is not clear. Although Arbitration Ordinance clarified that the enforcement of arbitral award concerning the validity of the patent would not be in contrary to the public policy, still the award is the result of the private decision-makers, and it cannot be registered or recorded by the Registrar of Patents in Hong Kong; otherwise, it would give rise to the erga omnes effect. Therefore, additional law provisions are necessary to clarify the possible consequences of the arbitral award stating invalidity or transfer of the patent and permission for the registration of

³⁹⁰ Ibid, 16.

³⁹¹ Arbitration Ordinance 2011(Cap 609), art. 103I.

such awards. Otherwise, if a newly granted right cannot be registered, for instance, in case of the change of the ownership, the issue arises as to the meaning of such an award at all. Thus, even though the law allowed the arbitrability of all aspects of the patent rights, at the moment it still does not provide the full guidance as to the consequences of the awards dealing with validity and ownership issues.

Nevertheless, following the law provisions, the conclusion is that an arbitral award has limited inter partes effect and cannot be registered or recorded by the Registrar of Patents in Hong Kong at the moment. Therefore, for the award to have an effect on third parties, parties to the arbitration agreement must stipulate that in the agreement. A potential solution to expand the limits of the award is that parties might include an additional licensee as an additional party who will benefit from consequences of the arbitral award. This situation may arise with a sub-licensee of an IPR. Will this person/entity be bound by the arbitration agreement and its consequences between the owner of the IPR and the head licensee? If this entity was not a party to the arbitration agreement and did not act as a "person claiming through or under any of the parties", then it is not bound by the award. However, in a case when arbitral award renders the head licensee unable to perform his existing contracts, for instance, his IPR license with the IPR owner is terminated, the sub-licensee would be affected even though he was not a party to that dispute. In such a case, the legal consequences on the sub-licensee will be determined according to the terms of the sub-licence including indemnity and termination clauses, provisions on the right to be informed of and/or joined as a party to the arbitration. Consequently, it leads us to the question of arbitrability of FRAND-terms disputes.

Are FRAND disputes arbitrable?

From the first impression, yes, it is, especially if there is no counterclaim on the validity or infringement of patents involved, solely in a case when parties are unable to determine the royalty rate. The task of the tribunal then is similar to any commercial arbitration, and it is to determine the appropriate rate of the remuneration. Moreover, it makes sense for parties to state in the agreement directly that the tribunal's authority will be limited to the determination of the royalty rate only, without consideration of the validity and infringement issues. However, even if those issues are involved in the dispute, most of the jurisdictions nowadays allow that to be solved through arbitration. In this thesis, we are particularly looking at the US, the UK, and Hong Kong approaches on the reasons discussed above. All of these jurisdictions allow

arbitrability of validity, ownership and infringement of patents, solely limiting the effect of the award to inter partes scope (see the table above).

Competition law issue

Another important aspect of arbitrability of FRAND-terms disputes is its connection with competition law. In theory, if FRAND obligations create competition law concerns, it cannot be decided by arbitration or might have limited availability of being a subject for arbitration due to the public policy considerations. As happened in *Samsung v Apple*, in response to the infringement claim, Apple filed counterclaims of unlawful abuse of dominance under article 102 of the Treaty on the Functioning of the EU ("TFEU").³⁹² The EU Commission found that Samsung's behaviour may have amounted to an abuse of a dominant position, however, if Samsung follows a Licensing Framework for the determination of FRAND terms and conditions, it fulfilled its FRAND obligations and all further disagreements should be resolved between parties by means of litigation or arbitration. Also, in *TCL v Ericsson* and *Apple Inc v Motorola Mobility Inc*, the court acknowledged the contractual character of FRAND obligations. Therefore, if a SEP owner follows the guidelines established by the competition law authorities, FRAND-terms disagreements should be treated as a dispute over contractual terms, therefore eliminating the competition effect of SEP disputes.

Essentiality

Another unique feature of FRAND dispute is the issue of essentiality of the declared patents and whether it can be a subject of arbitration. SEPs owners declare many patents to be essential, but in practice, these patents might not be. According to the Communication from the Commission to the European Parliament, only between 10% and 50% of declared patents are really essential.³⁹³ Also, in *TCL v Ericsson* the court found that of the 235 Ericsson SEPs considered essential to 2G, 3G and 4G standards, only 148 patents were truly essential. Over time some patents lose their essentiality, some cease to exist, and more patents are added which makes the exact number of the truly essential patents highly difficult to trace. The situation is

³⁹² *Samsung Electronics – Enforcement of UMTS Standard Essential Patents* COMP/C – 3/39.939.

³⁹³ European Commission, *Communication from The Commission to the European Parliament, the Council and the European Economic and Social Committee setting out the EU approach to Standard Essential Patents* (Brussels 2017) <<https://ec.europa.eu/docsroom/documents/26583>> accessed 4 February 2022.

even more challenging due to the fact that SSOs do not have an obligation to check the status of patents which clearly undermines SEP implementers' interests. Therefore, an appropriate solution seems to be an up-to-date centralised online depository with allowed access through due diligence to all SEP's implementers. Some SSOs provide access to the files about adopted standards related to SEPs, however, the information might not be accurate or up to date. Thus, it seems appropriate to create one system where SEP holders are required to submit relevant information about SEPs, update that regularly and grant access to SEP's implementers without unreasonable delay. One may argue that this kind of information should be confidential; therefore, access should only be granted for due diligence purposes along with confidentiality agreements to be signed by each SEP implementer.

Regarding the question of essentiality as an issue, there does not seem to be a reason not to consider it as part of arbitration. There are three acknowledged limitations about the subject matter of the arbitration:

- the outcome must not have erga omnes effect, only inter partes effect;
- when a right has to be registered by the public authority;
- exclusive jurisdiction of judicial or administrative authority over a subject matter.

The answer for the first requirement is that literally, essentiality will have erga omnes effect as it will be applicable to any SEPs implementer wishing to use a declared patent. However, in the end, the license will have effect only between specific parties, which eliminates the consequences of the erga omnes effect.

Secondly, when a specific technology is adopted as a standard, related patents are declared to be essential for this standard. Then the company which is the owner of chosen patents takes the responsibility of declaring that its patent becomes essential; however, there is no specific procedure involved such as registration by a public (governmental) authority. Therefore, this declaration bears contractual character between SEPs owners and SSOs, making a SEPs implementer a third-party beneficiary.³⁹⁴

Lastly, SEPs declaration does not require judicial or official administrative authorities' involvement, neither do they have exclusive competence to determine whether a patent is essential or not. **Therefore, the essentiality of the patent does not bear any obstacles for being a subject of arbitration.**

³⁹⁴ *Apple Inc v Motorola Mobility Inc*. 886 F.Supp. 2d 061,1081-1082 (WD Wis. 2012).

Valuing SEPs

In *TCL v Ericsson*, the court identified crucial principles it used for the analysis, which can be applied equally to both litigation and arbitration proceedings. The court stated that standardisation of patent could lead to the situation where a SEP holder overvalues their patents and engages in "anti-competitive behaviour" by means of demanding more than the value of their patented technology. Also, there is a tactic of withholding a license unless and until a manufacturer agrees to pay an unduly high royalty rate for an SEP which is known as a 'hold-up'. FRAND-terms negotiations are meant to exclude the possibility of 'hold-ups'. The court emphasised that "the patentee's royalty must be premised on the value of the patented feature, not any value added by the standard's adoption of the patented technology... [so that] the royalty award is based on the incremental value that the patented invention adds to the product, not any value added by the standardisation of that technology".

There are three main approaches in determination of FRAND-rate: comparable licences, top-down and bottom-up analysis. In *TCL v Ericsson*, Judge Selna applied a top-down approach with a comparable licences approach as a cross-check. On the contrary, Judge Briss applied comparable licences as the main method and top-down analysis as a double check in *Unwired Planet v Huawei*. Therefore, the question arises as to what the rationale is behind the choice of an approach.

A comparable licences approach presumes that the tribunal will look to other comparable licences granted by the SEP owner involved in the dispute or other SEP owners in the industry. Choosing this approach, it is essential to evaluate a patent portfolio's strength at the relevant date as the patent portfolio will be different in size and value over time. A top-down approach is based on the fact that the SEP owner holds a share of all the SEPs in the industry (or a certain share in technology in the standard) and is entitled to a share of the total aggregate royalty rate in the industry (or a share of the value created by the standard).

In *TCL v Ericsson*, the court justified its choice of a top-down approach, stating that starting calculation with an aggregate value is preferable because it avoids the possibility that a licensee will be forced to pay an unreasonable amount. The court specified two steps for the proper use of top-down analysis: first of all, it is necessary to evaluate the value of a standard by reference to the aggregate royalty a licensee would need to pay to implement the relevant

standard; secondly, to calculate the share of value attributable to Ericsson's SEPs. In the double-check of its findings, the court used a comparable licences approach. The court identified six firms comparable to TCL such as Apple, Samsung, Huawei, LG, HTC, and ZTE. The decisive factor was the *geographic scope* of the licensee's business. The court rejected Ericsson's argument that TCL should be treated similarly to smaller regional players, stating that "sales volume alone does not justify giving lower rates", as the global nature of the license required comparison to other global players. Therefore, the court concluded that "similarly situated firms" are the large firms making the same product. Thus, this decision provides step by step guidance in the valuation of SEP and states main principles which should be used in top-down and comparable licences approaches which may be equally useful in prospect litigation and arbitration proceedings.

The FRAND obligation and non-discrimination obligation

The line should be drawn between the nature of FRAND obligation and the non-discrimination obligation. By FRAND obligation, should be understood the behaviour pattern followed by the SEP holder procuring in negotiations. FRAND obligation can be also known as *FRAND negotiating obligation*, meaning that the SEP holder must act in good faith during FRAND negotiations; however, his offer does not have to contain FRAND terms. The court in *TCL v Ericsson* stated that since Ericsson proposed rates, it complied with their FRAND obligations and mere proposal of rates is enough, it does not have to be fair and reasonable. In cases when parties are unable to agree on the rates, then it should be referred to a court or arbitral tribunal for final resolution.

Therefore, the court left the issue open whether a SEP holder is liable for breaching its commitments if his proposed rates are found to be non-FRAND. The logic of the decision suggests that a SEP holder is relieved from his obligations by means of just proposing the rates and acting in negotiations. Highly probably, the court left that issue open not without reason. The possible explanation of its rationale is that FRAND disputes are a unique and developing area; thus, the aim of the decision is to encourage negotiations between parties before putting some penalties on SEP holders and to establish firm frames of what terms should be understood as FRAND.

Another aspect of FRAND obligation is a non-discrimination obligation. The court emphasised that no previous American cases have definitely addressed the non-discrimination

requirement.³⁹⁵ It considered opinions of economics and law experts who stated that the FRAND obligation is not violated if there is a small difference in rates between similarly-situated companies which would fluctuate between 0.5% and 2% rate. In addition, the French law expert, Dr Huber declared that FRAND rates should be considered as a range, and there is not a single fixed rate that is right.³⁹⁶ Therefore, the court concluded that the non-discrimination obligation did not require the same lowest terms to all licensees. The ETSI policy did not require the "the most favoured licensee" protocol; therefore, the FRAND rates would depend on "the economics of the specific licence". Moreover, the court stated that a licensee need not prove distortion of competition in the market to demonstrate that a rate is discriminatory saying that harm to the competitor firm offered discriminatory rates is sufficient.³⁹⁷ On the other hand, Judge Birss in *Unwired Planet v Huawei* required a competitive disadvantage as a proof of a discriminatory element of FRAND stating that FRAND does not introduce a non-discrimination obligation unless there is the distortion of competition.³⁹⁸

The role of licenses in the SEP's analysis

The final crucial principle the court took into consideration in *TCL v Ericsson* was the importance of the similar licences in FRAND-terms determination. The court stated that licences are a proper measure for determining the FRAND terms, but not the exclusive tool. TCL questioned the fairness of comparable licences on the basis that solely an agreement by a licensee to a licences' terms does not make it fair and reasonable automatically. Judge Holderman in *In re Innovatio IP Ventures* supported that view by stating that FRAND determination requires more "quantitative and analytical rigour" than simply deferring to the patent owner's licences.³⁹⁹ Nevertheless, the court confirmed comparable licences value due to its reflection of the economic value of the patented technology in the market place. The parties proposed different approaches in FRAND-determination, and the court proceeded with a combination of comparable licences and top-down approaches. The ranges of results were surprisingly similar to what convinced the court that its final rates were FRAND. Thus, the outcome of the combination of two approaches represents a beneficial attitude proposing that one method of FRAND determination should be double-checked with an additional method,

³⁹⁵ *TCL v Ericsson* SACV 14-341 JVS(DFMx) (C.D. Cal. Mar. 9, 2018).

³⁹⁶ *Ibid*, §1136-42.

³⁹⁷ *TCL v Ericsson* SACV 14-341 JVS(DFMx) (C.D. Cal. Mar. 9, 2018), § 91.

³⁹⁸ *Ibid*, §501-503.

³⁹⁹ *Ibid*, § 109.

meaning that two approaches complement each other and should not be treated as mutually exclusive.

Although this decision represents views of the District Court of California and is not binding on other district courts and other jurisdictions, it provides SEP holders and implementers, judges and arbitrators around the world with valuable insights into the FRAND-terms determination. It provides answers to the scope of FRAND determination, the steps in its evaluation and establishes the universal principles that can be used in global FRAND determination.

Advantages and disadvantages of using arbitration in resolving FRAND disputes

Smartphone wars are characterised by patent-by-patent and country-by-country litigation, whereas a more reasonable option would be patent portfolio determination by means of the single arbitration procedure. By patent portfolio should be understood a collection of patents owned by one company. That is often a case that one company may possess hundreds or thousands of patents, therefore, at the negotiation stage for the future licensing or sale, it is reasonable to determine terms considering the whole patent portfolio rather than every single patent. The same applies to the FRAND terms determination procedure. However, SEP owners tried to exploit their exclusive rights for maximum financial benefits, preventing its competitors from using the patented technologies without a chance to negotiate FRAND terms. For instance, in the case of *Samsung Electronics – Enforcement of UMTS Standard Essential Patents*,⁴⁰⁰ Samsung was suspected by the EU Commission of an abuse of dominant position and breach of antitrust EU law seeking preliminary and permanent injunctions against Apple in regard to its SEPs related to the 3G UMTS standard.⁴⁰¹ The issue was finalised by Samsung's consent, who voluntarily agreed to the following provisions:

Samsung Electronics committed not to file a claim seeking injunctive relief before any court or tribunal in the EEA for infringement of Samsung Electronics' Mobile SEPs against any potential licensee that agrees to and complies with the “Licensing Framework” for the determination of FRAND terms and conditions, through signing and returning Samsung Electronics' Invitation to Negotiate within 60 days of receipt. In the event of a failure in

⁴⁰⁰ *Samsung Electronics – Enforcement of UMTS Standard Essential Patents* COMP/C – 3/39.939.

⁴⁰¹ European Commission, *Antitrust: Commission sends Statement of Objections to Samsung on potential misuse of mobile phone standard-essential patents* (Brussels 2012), <https://ec.europa.eu/commission/presscorner/detail/en/IP_12_1448> accessed 4 February 2022.

determination of FRAND terms, the issue would be delegated to arbitration or court adjudication (“The third-party determination of FRAND terms”). However, Samsung was relieved from its obligations under commitments and could file a claim for Injunctive Relief before any court or tribunal in the EEA in case the potential licensee failed to agree or comply with the provisions of the “Licensing Framework”.

The commitments also contain a provision stating that if parties failed to decide between arbitration and a court option within sixty days, the matter was supposed to be referred to court adjudication. Regarding the third-party determination of FRAND-terms, the procedure and method for determining FRAND-terms would be decided by judges or arbitrators exclusively.

Besides, the commitments also contained an example of an exhaustive arbitration clause stating that a dispute shall be finally settled either under the International Chamber of Commerce (ICC) rules or the Patent Arbitration and Mediation centre established under the Agreement of Unified Patent Court (UPC), which is still pending its official launch. The arbitration clause contains detailed requirements of the arbitral tribunal and the dispute resolution process for resolving a FRAND-terms dispute, analysis of which is essential for the understanding of possible advantages and disadvantages of arbitration as a method to resolve SEP/FRAND disputes.

According to the proposed arbitration clause, the panel shall be made up of three members and each of the arbitrators must possess ten years of relevant experience in the information and communication technology sector and/or in IP licensing. There is also a special requirement to the president of the tribunal who must be a qualified practising lawyer with experience in either patent licensing or patent litigation.⁴⁰²

Although ICC remains in the top four locations for international arbitration,⁴⁰³ it still does not have a list of arbitrators specifically with IP experience in contrast for instance to HKIAC, which proposes a Panel of arbitrators for intellectual property disputes. The Panel includes members who have demonstrated experience and strong expertise in resolving intellectual property disputes. Membership of the panel includes arbitrators from a range of

⁴⁰² *Samsung Electronics – Enforcement of UMTS Standard Essential Patents* COMP/C – 3/39.939.

⁴⁰³ Queen Mary University of London and White & Case, ‘2018 International Arbitration Survey: The Evolution of International Arbitration’ (*Qmul.ac.uk*, 2018)
< <https://arbitration.qmul.ac.uk/research/2018/> > accessed 16 December 2021.

practice locations such as Hong Kong, Australia, United States, Switzerland, France, the United Kingdom and lasts for three years.⁴⁰⁴

Creating such specific criteria for an arbitral tribunal imposes possible difficulties in finding perfect candidates. First of all, not all disputes require a three-member tribunal; a one-member tribunal can be much more efficient in terms of time and costs. The usage of the three member tribunals will significantly increase the cost of the arbitration (at least by three times in regard to arbitrators' fees) and time of proceedings, what constitutes a serious drawback. One of the main goals of arbitration is efficiency, and choosing a three-arbitrator tribunal does not contribute to that aim at all. Others might argue that a three-member tribunal would be more objective; however, if parties are happy with the candidate for the one-member tribunal, it is a better option to save time and cost. Therefore, it is reasonable solely for the extremely high-value disputes to create a panel consisting of three members.

Also, one of the advantages of arbitration is a less formal procedure in contrast to litigation, which does not require an arbitrator to be a qualified lawyer. Arbitrators are valued on their various professional backgrounds and specialised knowledge. The requirement of the legal qualification for the presiding arbitrator eliminates, for instance, experienced patent arbitrators who usually do not hold a law degree but have extensive knowledge in intellectual property law. A patent attorney might possess more valuable experience and a completely different mindset helpful for resolving a particular case in contrast to an IP lawyer. The clause stated that legal qualification is not an '*absolute*' requirement for the other arbitrators, however, if parties choose to have an adversarial attitude, they might stick to the word '*absolute*' requiring all arbitrators to have a legal qualification. Consequently, it might lead to the point where parties are unable to agree on the candidates and object to them which will postpone the whole process.

According to the section 24 of Arbitration Act 1966, a party to arbitral proceedings may upon notice to the other parties, apply to the court to remove an arbitrator on the grounds that he does not possess the qualifications required by the arbitration agreement.⁴⁰⁵ However, a party must present evidence that all possible options to remove the arbitrator were utilised before applying to a court.⁴⁰⁶ That means that in case of institutional arbitration, the governing arbitral institution shall exercise its power to remove an arbitrator first. If an arbitral institution

⁴⁰⁴ HKIAC, 'Panel of Arbitrators for Intellectual Property Disputes' (*Hkiac.org*, 2019) < <https://www.hkiac.org/arbitration/arbitrators/panel-arbitrators-intellectual-property> > accessed 9 January 2022.

⁴⁰⁵ Arbitration Act 1966.

⁴⁰⁶ Arbitration Act 1966, sec. 24(2).

fails to do so, then the court may exercise its power in this regard. Another example can be found in HKIAC Administered Arbitration Rules adopted in 2018, stating that an arbitrator can be challenged if he does not possess qualifications agreed upon by the parties.⁴⁰⁷ A party is given fifteen days to submit its claim to HKIAC, all other parties, the challenged arbitrator and any other members of the arbitral tribunal.⁴⁰⁸ HKIAC will make the decision if the challenged arbitrator does not resign and in case the non-challenging party does not agree to the challenge within fifteen days from receiving the notice.⁴⁰⁹ While the challenge is being decided; an arbitration proceeding may be continued.

Furthermore, this standard arbitration clause contains the word ‘practising’ lawyer. Does that exclude judges in retirement who possess unique and extremely high-value knowledge in the IP sector? If we strictly follow the wording of the arbitration clause, the answer will be affirmative. Also, the issue of admission of judges as arbitrators depends on the national legislation. For instance, acting judges and judges in retirement according to Russian law cannot be involved in the dispute resolution process in any role, including being an arbitrator. They solely can be engaged in teaching or other activity which does not have commercial value.⁴¹⁰ The English law does not contain such a prohibition which could explain its popularity as parties’ choice for a governing law in international arbitration proceedings. In addition, this clause in section (c) confirms the status of the laws of England and Wales to be one of the most common choices as governing law for arbitration. This choice of law is interesting because of this decision made by the EU Commission confirming the status of the English law within EU territory. Here arises the issue of what law takes this place after the Brexit?

Section (d) of the arbitration clause also states the following: “The seat of the arbitration will be in an EEA jurisdiction in which national laws permit parties to agree to make an arbitration decision subject to appeal to a second arbitral tribunal.”⁴¹¹ One of the main advantages of arbitration is the finality of the decision. This allows parties to reduce expenses on the appeals and accelerate the process of obtaining a final, binding decision. This arbitration clause gives an appeal option to another arbitral tribunal in addition to courts which rarely happens in practice because arbitral awards are treated as final. Nevertheless, mostly all

⁴⁰⁷ HKIAC Arbitration Rules 2018, art. 11.6.

⁴⁰⁸ Ibid, art.11.8

⁴⁰⁹ Ibid, art 11.9

⁴¹⁰ The Law of the Russian Federation “On the Status of Judges in the Russian Federation” dated 06.06.1992 N 3132-1, article 3.

⁴¹¹ *Samsung Electronics – Enforcement of UMTS Standard Essential Patents* COMP/C – 3/39.939, art. 9 (d).

national laws contain provisions allowing an appeal to the court of an arbitral award in limited circumstances. Considering English law as an example of a popular choice for international arbitration, Arbitration Act 1966 presumes an appeal option to court on the point of law, a challenge to the award in case of serious irregularity which caused substantial injustice, and a challenge of the award in regards to substantive jurisdiction of the tribunal.⁴¹² However, parties by mutual agreement may decide to exclude a possibility to appeal on the point of law stating that directly in the arbitration agreement, thus making an appeal possible only on the procedural grounds. Nevertheless, provisions 67 and 68 are mandatory; that is why it cannot be excluded by the mutual agreement of parties.

Additionally, the clause describes a specific set of rules regarding an appeal to the second arbitral tribunal. The appeal is available on both issues of fact and law. Moreover, parties can agree to limit the issues considered by the new tribunal. The second arbitral tribunal is delegated with authority to revisit all issues decided by the first tribunal. The first arbitral tribunal's decision shall be final and binding if it's not appealed within thirty days.⁴¹³ These conditions seem reasonable as a party is given a sufficient period of thirty days to make up its mind about the appeal and for the avoidance of any doubt it is worth including the list of issues that might be reconsidered by the new tribunal in the arbitration clause.

Section (g) of the arbitration clause touches on an extremely important issue of the arbitral tribunal authority. It declares that an arbitral tribunal shall consider issues of validity, infringement, and essentiality. This is still a controversial issue in practice. One of the most progressive jurisdictions regarding the arbitration of intellectual property disputes is Hong Kong. The new amendments to the Arbitration Ordinance took place in 2018 and resulted in exhaustive clarification and affirmation of admission of IPR as an arbitration object. There is a separate Part 11A that covers all the issues arising in the process of IP arbitration. According to the article, 103C IPR dispute includes:

- a dispute over the enforceability infringement, subsistence, validity, ownership, scope, duration or any other aspect of an IPR;
- a dispute over a transaction in respect of an IPR; and
- a dispute over any compensation payable for an IPR.⁴¹⁴

⁴¹² Arbitration Act 1966, art. 67, 68, 69.

⁴¹³ Ibid, clause 9, sec. (f).

⁴¹⁴ Arbitration Ordinance 2011 (Cap 609).

By IPR shall be understood a patent, a trademark, a geographical indication, a design, a copyright, a domain name, a layout-design (topography) of an integrated circuit, a plant variety right, a right in confidential information, trade secret or know-how; a right to protect goodwill by way of passing off a similar action against unfair competition; or any other IPR of whatever nature either registered or not.⁴¹⁵ Moreover, article 103I states that the validity of a patent may be put in issue in the arbitral proceeding.⁴¹⁶

There is no analogy to this legislation. In other jurisdictions such as the UK, Italy and France there has been judicial, rather than statutory recognition of the arbitrability of IP rights. According to English law, for instance, patent arbitration is available in limited cases solely with sanctions of the courts.⁴¹⁷

The requirement of arbitrators regarding experience in patent licensing and patent litigation looks justifiable in the resolution of FRAND-terms disputes; however, the requirement of a minimum ten years of such experience might make a search for candidates harder which consequently may lead to the postponing of proceedings and longer duration of the arbitration in the end. Notwithstanding all the above, it is in the parties' capacity to decline or agree with these conditions to tailor the procedure for a unique business relationship. Quite often in practice, parties do not spend enough time to check the arbitration clause and instead they deal with all the requirements and consequences later. If a party does not object to the arbitration clause in the beginning, he would be bound by that later. Hence it is vital to remember the importance of the wording of an arbitration clause.

As it was mentioned previously, when parties are unable to determine what FRAND terms are, the issue is transferred to the court or arbitral tribunal. The problem is to find the balance between the interests of SEP-holders and technology implementers. One of the seminal decisions in this area was a ruling of The Court of Justice of the European Union on *Huawei Technologies Co. Ltd v ZTE Corp.*⁴¹⁸ Huawei Technologies Co. Ltd. "Huawei" applied to Dusseldorf District Court seeking for an injunction against ZTE Corp., "ZTE" in regard to its technology included in the LTE wireless broadband standard. Huawei committed to license this technology on the FRAND terms; however, negotiations with ZTE failed. Dusseldorf District Court referred the case to the Court of Justice of the European Union for a preliminary ruling asking for clarification of the conditions according to which a SEP-holder can ask for

⁴¹⁵ Ibid, art. 103B.

⁴¹⁶ Ibid.

⁴¹⁷ English Patents Act 1977, sec.52 (5).

⁴¹⁸ *Huawei Technologies Co. Ltd v ZTE Corp.*, *ZTE Deutschland GmbH* C-170/13, ECLI: EU:C:2014:2391.

an injunction against its competitors without infringement of EU competition laws. The final decision was announced on 16 July 2015 declaring the negotiation guide for both sides of the conflict, SEP-holder and implementers:

- SEP-holder will not abuse its dominant position by asking for an injunctive relief against an implementer if before that action, first of all, the SEP-holder alerts the alleged infringer of the infringement complained about by designating that SEP and specifying the way in which it has been infringed. Due to the larger number of SEPs included in a standard, an implementer might not be aware that it is using a specific technology which is both valid and essential to a standard.⁴¹⁹
- Secondly, after the alleged infringer has expressed its willingness to conclude a licensing agreement on FRAND terms, the SEP-holder ought to present to that alleged infringer a specific, written offer for a license on FRAND terms, specifying, in particular, the amount of the royalty and how that royalty is to be calculated.⁴²⁰
- Thirdly, the alleged infringer should diligently respond to that offer, in accordance with recognised commercial practices in the field and good faith, a point which must be established on the basis of objective factors and which implies, in particular, that there are no delaying tactics.⁴²¹
- Fourthly, in case the alleged infringer does not accept the offer, it must propose in writing a specific counter-offer that corresponds to FRAND terms. Moreover, if the alleged infringer is using the technology before a licensing agreement has been concluded, it should provide security for past royalties by means of providing a bank guarantee or by placing the necessary amount on deposit, in case the offer is rejected.⁴²²

⁴¹⁹ Ibid, § 61, 62.

⁴²⁰ Ibid, § 63.

⁴²¹ Ibid, § 65.

⁴²² *Huawei Technologies Co. Ltd v ZTE Corp., ZTE Deutschland GmbH* C-170/13, ECLI: EU:C:2014:2391, §66,67.

- Lastly, if no agreement is reached on the details of the FRAND terms following the counter-offer, the parties may request that the amount of the royalty be determined by an independent third party without delay.⁴²³

The significance of the Court of Justice of the European Union ruling cannot be underestimated. The court implied equal responsibility of both parties in order to reach an agreement on FRAND terms. The case established a necessary procedure for a SEP-holder to go through before it can apply to a court for injunctive relief against an implementer. Meanwhile, a technology implementer, must participate diligently in negotiations and provide a justifiable counter-offer in case it does not agree with the SEP-owner's proposals. Moreover, the ruling refers to the independent third party as a possible way to determine the amount of the royalty by which shall be understood arbitration as one of the possible options. Let's take a closer look at the unique advantages of arbitration in these particular cases.

Confidentiality of licensing terms and FRAND-terms containing the royalty rate is essential for IPR holders because it may affect the company's policy negatively in general if competitors prefer to keep this information private. Also, in case another third party will later decide to sue the SEP owner claiming invalidity of a patent, it will not be able to rely upon the evidence given in the arbitration by the previous party. Although courts may provide confidentiality measures, arbitration is better equipped for that. First of all, all arbitration proceedings and decisions are confidential by default unless parties agree otherwise. Almost all arbitral institution rules contain an obligatory confidentiality clause. In addition, in practice, parties who are willing to increase the level of confidentiality add additional confidentiality clauses to their arbitration agreements. As an example, let's consider HKIAC 2018 Administered Arbitration rules. Article 45 includes the following participants in the arbitration process who share the confidentiality obligation: parties, party representatives, arbitral tribunal, emergency arbitrator, expert, witness, tribunal secretary and HKIAC itself. These entities are not allowed to publish, disclose or communicate any information relating to the arbitration proceedings, an award, or an emergency decision made in the arbitration.⁴²⁴ However, the disclosure is possible in limited circumstances:

- to protect or pursue a legal right or interest of the party;
- to enforce or challenge the award or Emergency Decision;

⁴²³ Ibid, §68.

⁴²⁴ HKIAC Arbitration Rules 2018, art. 45.

- where the party is obliged by law to make the publication, disclosure or communication;
- to a professional or any other adviser of any of the parties, including any actual or potential witness or expert;
- to any party or additional party and any confirmed or appointed arbitrator for the purposes of articles 27 (joinder of additional parties), art.28 (consolidation of arbitrations), art.29 (single arbitration under multiple contracts) or art.30 (concurrent proceedings);
- to a person for the purposes of having, or seeking, third party funding of arbitration.⁴²⁵

HKIAC reserves a right to publish any award either in the original form or in the form of summary only if two conditions are met. First of all, all parties' names and other identifying information must be deleted. Secondly, there is no objection from any party within the time limit fixed by HKIAC. If one of those conditions is not met, HKIAC has no right for publication.⁴²⁶

As can be noticed from the named example, an arbitration institution treats confidentiality seriously, considering any possible situations which may arise in practice. Also, Hong Kong legislation supports that in the statute, prohibiting disclosure of any information relating to the arbitral proceeding and awards.⁴²⁷ In practice, leaks from arbitration are quite rare and almost impossible in comparison to courts. Even when courts propose confidentiality, it is not something that is established automatically. Moreover, there is a clear contrast of the court's duty to publish an award compared to the confidential nature of the arbitration. For instance, the *TCL v Ericsson* decision was published in its original form on the court's website by mistake, only later was it substituted with a redacted version.⁴²⁸ Sometimes when courts publish a redacted version, it is possible to figure out sensitive details based on the published text, which increases risks of negative consequences for parties who intended to keep specific disputes undisclosed.

On the other hand, the confidentiality of FRAND terms defined by arbitration can be considered as a disadvantage from the public perspective. New entrants to the FRAND market will face difficulties in determination of the reasonable and fair royalty rate in addition to the other confidential issues discussed in section 1.1 of this chapter. Secondly, due to

⁴²⁵ Ibid.

⁴²⁶ Ibid.

⁴²⁷ Arbitration Ordinance 2011 (Cap 609), art. 18.

⁴²⁸ Richard Vary, 'Patent licensing: what next for FRAND?' *Bird & Bird LLP* (London 2019).

confidentiality in arbitration, there is no system of binding precedents between arbitral awards which makes it challenging to envisage a possible outcome of proceedings. If it is a partly published award, the rationale behind a decision will be unavailable as well, which constitutes a drawback not only for future parties of a similar dispute but also it creates more work for arbitrators which makes arbitration longer and more expensive because, in this scenario, arbitrators will have to reinvent the wheel for each case, by not having an opportunity to compare an existing situation with other similar ones. In addition, there is no possibility for academics to analyse the quality and depth of the decision, as well as possible trends of the similar disputes in the future, and finally reasons for this category of dispute and how it could be avoided. Although the confidentiality of FRAND terms disputes bears some limitations in the public interest, taking into account the stakes involved in this kind of proceedings, it is reasonable to pursue that for the two main reasons. First of all, parties can be sure that their business secrets will not become publicly available in a case of dispute resolution; secondly, maintaining silence about the existence of a dispute itself will preserve a company's reputation by keeping it untainted by the lawsuits with possible negative consequences for the company's stakeholders.

In addition, keeping the existence of a dispute or a final award secret would allow for retaining a company's position on the market. News relating to the ongoing disputes can impact a company's value in an unpredictable manner. For instance, in 2016, when Nokia released a positive outcome of its patent licensing arbitration with Samsung, its share price fell by over 10 percent within hours. Financial experts were unable to explain this reaction, but it is highly probable that if Nokia did not make that press release, its market position would have remained the same. Therefore, arbitration proposes a unique opportunity to keep the existence of a dispute a secret; meanwhile, litigation promotes open access to the information with an unpredictable impact on the parties.

The next advantage of FRAND-terms disputes arbitration is the speed of proceedings and the issue closely linked to that, the cost. It is generally acknowledged that arbitration takes less time than litigation due to a number of factors. Firstly, an appeal option is not always presumed in arbitration, making the decision final and cutting the time/cost for additional proceedings. Secondly, new arbitration rules established an option for expedited arbitration proceedings, meaning that the whole process is framed within a fixed period (usually six months) and arbitrators are obliged to render a final award within these timeframes. HKIAC

2018 Administered Arbitration rules can serve as an example. The expedited arbitration procedure is possible in three cases:

- the amount in dispute including claim and counterclaim does not exceed the sum stated on HKIAC's website on the submission date;
- the parties are agreed;
- in cases of exceptional urgency.⁴²⁹

The rules propose to appoint one arbitrator instead of a three-member tribunal. Also, HKIAC may reduce any time frames fixed in the Rules, considering circumstances in each separate case individually. The parties are entitled to submit only one statement of claim and one statement of defence (counterclaim). Besides, no hearings should take place, requiring arbitrators to render a decision based on documentary evidence only, except in the situation when a panel decides that a hearing is necessary. The final award must be rendered to the parties within six months from the date when HKIAC sent the case file to the arbitral tribunal.⁴³⁰ Arbitrations under the HKIAC rules have a median duration of 12.43 months and median arbitration cost of US\$40,671. In the case of the expedited procedure, these figures are reduced roughly by half. However, a balance between efficiency and quality must be sustained. Quickly made decisions do not always mean they are successful and reasonable. Even if arbitral proceedings do not involve extensive disclosure or hearings as part of their due process, there should be fixed time frames for each step of the process and enough time for arbitrators to make a weighted fair decision.

Arbitration and litigation practitioners confirm that arbitration in practice takes less time. Richard Vary claims that theoretically, a UK court could perform a FRAND valuation in around 18 months, in contrast to US court, which would take rather longer. As examples, both *Unwired Planet v Huawei* and *TCL v Ericsson* took more than three years without appeals. In contrast, typical arbitration timeframes for FRAND-terms disputes vary from a year and a half to two years for a final decision.⁴³¹

Moreover, a FRAND-terms determination is quite often based on the patent family (e.g. the same technology registered in many jurisdictions) rather than on a single patent. In this case, courts will rely on their domestic SEPs rules and examples related to the registered IPR, which will consequently lead to the time-loss and increase of the cost because of the parallel

⁴²⁹ HKIAC Arbitration Rules 2018, art. 42.

⁴³⁰ Ibid.

⁴³¹ Richard Vary, 'Patent licensing: what next for FRAND?' *Bird & Bird LLP* (London 2019).

proceedings in various jurisdictions and possibly controversial decisions. In contrast, arbitration would be a much better option, allowing parties to decide which law to choose, the place of hearings and determine the whole patent portfolio disputes in one single procedure significantly reducing the time and costs in the end.

Although the cost of arbitration is a controversial issue, in arbitration, it is rather more flexible than in litigation. For instance, the HKIAC's 2013 Administered Arbitration Rules were considered the most progressive and detailed on the market. The rules were nominated by GAR as one of the best developments of 2013. One of the distinctive innovations was the choice of the structure for payment of arbitrators' fees. HKIAC is the first arbitral centre that delegated parties with a choice between paying the fees based on hourly rates or the amount in dispute.⁴³²

Another useful element of arbitration which facilitates reductions in time and cost of proceedings is limited disclosure. In contrast to patent litigation, especially in the US courts where the average discovery process takes three years, disclosure of the information in the arbitration is limited to the documents that parties intend to rely upon and an approach of “minimal disclosure” is often used in practice. For instance, in *Apple v Samsung* the discovery process and preparation for the trial took years; therefore, if parties chose arbitration instead, they would have been able to save a substantial amount of time and cost. In addition, parties are entitled to limit the scope of the documents which can be submitted before a tribunal in their arbitration agreement.

One of the distinctive features of FRAND-terms arbitration is the inter partes’ effect of the arbitral award. The final award states the rates applicable to the parties involved in the dispute. On the one hand, it is an advantage because the award will not affect the other licences the SEP owner concluded with the other parties. However, if the award could have erga omnes effect, it could potentially clarify some disagreements between the SEP owner and its licensees with similar agreements. For instance, it could state the range of the rates which the SEP owner must propose to the licensees depending on the number of patents involved and its value. Thus, inter partes effect of the award might be both a benefit and a drawback. Moreover, inter partes effect of the arbitration, gives a limited selection of final remedies available to the arbitral tribunal. An arbitral tribunal with the small exception of Belgium, cannot revoke the patent or find it invalid with erga omnes effect in contrast to courts.⁴³³

⁴³² Ibid.

⁴³³ Belgian Patent Law 1984, art. 51 (1), 73(6).

The next attractive feature of arbitration in FRAND-terms disputes is flexibility. This term as it applies to arbitration has various meanings. Parties in arbitration are masters of the proceedings. They can tailor a procedure to their specific needs and requirements. First of all, in case of a FRAND-term dispute, parties will have an opportunity to choose an arbitrator with professional knowledge of the specific technology involved in the dispute or an arbitrator experienced in the determination of FRAND rates. This makes arbitration a much more advantageous option in contrast to litigation, where judges possess more general knowledge and expertise in this area, making possible awards not as effective as they might be.

Secondly, some courts are not perceived as neutral to some specific industry or are thought of as being pro or anti-patent.⁴³⁴ Meanwhile, arbitrators are neutral as they are chosen by the parties according to their professional and cultural background in addition to their internationally recognised reputation. Moreover, arbitrators' independence and impartiality is supported by the local laws (*lex arbitri*) and soft law such as IBA 'Guidelines on conflicts of interest in international arbitration'.

Thirdly, parties may choose the applicable law, location of the hearing, and language of the proceedings. One of the major restrictions in the arbitration is *lex arbitri* provisions. *Lex arbitri* is the mandatory provisions of the local law of the place of arbitration. This law imposes certain restrictions and requirements which cannot be excluded by the parties and must be complied with. However, the difference must be mentioned between the place of arbitration and the place of the hearing. The former does not impose *lex arbitri* obligations. It means that if parties choose English law as a governing law with a place of arbitration in New York, the arbitration will be anchored to the New York's *lex arbitri* provisions and the hearing might take place at any place in the world for the convenience of all parties. Although arbitration must be anchored to some jurisdiction, it is not territorial in nature, but it's global. The only restriction of the global nature of arbitration is *lex arbitri*; however, these provisions are minimal and affect the basic rules of the procedure solely. This has a great significance in patent disputes. A patent is territorial in nature and linked to the specific jurisdiction where it was granted, making litigation the usual way of its enforcement. However, in the case of FRAND-terms disputes, patents acquire global nature because it often involves various patent families registered globally. Therefore, arbitration anchored solely with the basic provision of *lex arbitri* would be a more suitable option for global FRAND-terms disputes.

⁴³⁴ Richard Vary, 'Patent licensing: what next for FRAND?' *Bird & Bird LLP* (London 2019).

Another argument in favour of FRAND-terms arbitration is that parties are able to determine a method by which FRAND-terms will be assessed in addition to the scope of what should be determined during proceedings. Due to the fact that arbitral awards are confidential, the similar cases will be considered on the example of *TCL v Ericsson* and *Unwired Planet v Huawei* over standard-essential patents. The first interesting issue in these cases is the possibility to use an arbitral award as a basis for the method of the comparable licence of FRAND rate determination. Comparable licences method presumes that the tribunal will examine other licences issued by the SEP owner involved in the dispute or other SEP owners. This usually happens at the discovery stage where each party is granted access to the other's comparable agreements. During litigation between TCL and Ericsson, TCL filed a motion in 2016 claiming to use the arbitration ruling between Ericsson and Huawei Technologies Co. Ltd for the jury's consideration. That award stated that Ericsson breached its FRAND obligation by means of offering a discriminatory royalty rate to Huawei Technologies Co. Ltd. Thus, TCL intended to demonstrate that Ericsson proposed a discriminatory royalty rate to them as well. However, Judge James Selna denied that motion stating that the doctrine of collateral estoppel should not be applied. He based this decision on the following grounds: first of all, he emphasised the differences in the two proceedings and pointed out additional issues included in the trial which were not part of the arbitral process; secondly, Judge Selna stated that parties could be discouraged to arbitrate if findings made in arbitration are used to adversely impact their position in other litigation or licencing disputes.⁴³⁵

On the contrary, in *Unwired Planet v Huawei* Judge Birss did not exclude the possibility to use previous arbitral decisions for comparable license determination. However, it would be only possible if a judge can have access not only to the eventual license terms but also to the reasoning leading to its determination.⁴³⁶ Therefore, from this point of view, the confidentiality of arbitral awards can be treated as a negative feature because it will not simplify the judge, arbitrator or jury's task.

On the other hand, one of the possible disadvantages of a court trial is that FRAND-determination might be assigned to the jury's consideration. FRAND-terms determination is a complicated process which requires special knowledge; therefore, it does not seem fair to expect a jury to handle this task because they are not specialists in this area. Arbitration, on the

⁴³⁵ *TCL Commc'ns Tech. Holdings Ltd. v. Telefonaktenbologet LM Ericsson*, No. SACV 8-14-cv-00341-JVS (C.D. Cal. May 26, 2016).

⁴³⁶ *Unwired Planet Int'l Ltd. v. Huawei Technologies Co.* [2017] EWHC 711 (Pat), §171, 411–13.

contrary, gives an opportunity for parties to choose from the experts in this field to resolve a dispute.

In addition, parties are able to choose between a sole arbitrator or a panel of three, between institutional and ad hoc arbitration. The choice of the number of arbitrators will often depend on the value of a dispute. Since in most cases an arbitral award is final, it is worth it to refer a high-value dispute to a panel of arbitrators. In practice, it is common for a panel to consist of a legally qualified chairman together with two technical panel members. This would also allow for resolving technical issues using the technical expertise of the panel without any additional technical expert evidence saving the proceedings potentially cost and time. Since FRAND-terms disputes usually involve high stakes, it is recommended to choose a panel instead of a sole arbitrator.

The choice between ad hoc and institutional arbitration in resolving FRAND-terms disputes will depend on parties' experience. Due to the complexity of this type of disputes, it is preferable to use institutional arbitration for several reasons. First of all, arbitral institutions adopted a quick and efficient process of arbitrators' appointment as well as mechanisms to resolve parties' disagreement on this issue. Secondly, some arbitral institutions propose a list of arbitrators with special expertise in the IP area, for instance, HKIAC and WIPO. Parties are not obliged to choose from these lists; however, the list of proposed arbitrators can reduce time spent on the search for the appropriate candidate. Thirdly, some institutions provide guidance specifically adopted to resolve FRAND-terms disputes. WIPO introduced its Guidance on WIPO FRAND Alternative Dispute Resolution (ADR) in 2017, where it included model submission agreements.⁴³⁷ Model agreements are highly useful for parties without the extensive experience of FRAND-terms resolution because they touch all possible issues which can arise during proceedings and give valuable insights specific to FRAND disputes. WIPO's guidance is another example of how flexible and autonomous arbitration can be. The Guidance draws parties' attention to the following issues and explains how they can tailor FRAND ADR proceedings to their needs:

A. Scope of the dispute

⁴³⁷ WIPO, 'Guidance on WIPO FRAND Alternative Dispute Resolution (ADR)' (*Wipo.int*, 2021) <<https://www.wipo.int/export/sites/www/amc/en/docs/wipofrandadrguidance.pdf>> accessed 9 January 2022.

Due to the complexity of FRAND disputes, the scope of the subject matter should be clearly identified by the parties. This includes the number of patents in issue; parties may submit specific SEPs, a collection of SEPs, an entire SEP-portfolio, or a “sample” of representative patents consensually chosen from a SEP-portfolio.⁴³⁸ Secondly, parties are able to limit the scope of claims and defences by means of excluding such issues as patent essentiality, validity, infringement, and enforceability which can be brought before a tribunal. Thirdly, parties should determine the geographical scope of the FRAND licensing terms. They can choose the determination of licensing terms globally, or it might be limited to certain jurisdictions or markets. Lastly, parties are advised to choose the methodology to determine FRAND terms. For the expedited procedure, it is suggested to limit the scope to a small number of SEPs to ensure time and cost-efficiency can be achieved; therefore, submission of specific SEPs or "sampling" is the best option in this case.

B. Appointment procedure and qualifications of the arbitrators and mediators

It is proposed that the tribunal should consist of a three-member tribunal with expertise in patent disputes. For the expedited arbitrations, a sole arbitrator is recommended. The time frames for the appointments may be shortened to 15 days.⁴³⁹ The guidance emphasised the importance of the neutral arbitrators to have specialised knowledge in patent disputes and SEP licensing for achieving high-quality outcomes. The appointment procedure is the same as for other types of arbitrations: for a three-member tribunal, each party appoints one arbitrator, then the appointed arbitrators will appoint the presiding arbitrator. The sole arbitrator shall be appointed jointly by the parties, in case if an appointment is not made, the Center shall apply its appointment procedure and propose candidates from the list of neutral arbitrators for a patent in standards.

C. Procedural Schedule; eADR

⁴³⁸ WIPO, ‘Guidance on WIPO FRAND Alternative Dispute Resolution (ADR)’ (*Wipo.int*, 2021) <<https://www.wipo.int/export/sites/www/amc/en/docs/wipofrandadrguidance.pdf>> accessed 9 January 2022, section 18.

⁴³⁹ *Ibid*, sections 24,25.

Based on the WIPO's patent arbitration experience, a detailed procedural schedule is proposed to the parties to be incorporated into an arbitration agreement. The schedules set 14-16 months for a final award to be rendered in FRAND arbitration, and 6-8 months for the FRAND expedited arbitration.⁴⁴⁰ For time efficiency acceleration, parties are encouraged to use online case administration tools. WIPO's eADR allows all arbitration participants to have access to increased communication options, online storage, as well as the ability to view a case summary and an overview of timelines and financial status of the case.

D. Applicable law; Place of Arbitration; Language

All the above issues are essential for the proceedings and parties are free to make a choice which tailors the disputes resolution specifically to their needs.

E. Confidentiality provisions

In addition to the general provision that the existence of the arbitration, disclosure information and the arbitral award is confidential, rules suggest additional measures to protect confidentiality such as protective orders which can be issued by the arbitral tribunal. For instance, in case there is a request for the production of documents related to comparable licences of SEPs, these licenses may contain confidentiality obligations. WIPO rules propose additional protection measures such as an attorneys-eyes-only designation or the appointment of a confidentiality advisor.⁴⁴¹ In addition, the rules did not omit public interest in information concerning methodologies used by arbitrators to determine FRAND terms. WIPO suggests that parties could agree to disclose such specific information while maintaining confidentiality in other aspects. This is a valuable suggestion due to the confidential nature of arbitration which sometimes is treated as a substantial drawback.

F. Interim measures

⁴⁴⁰ WIPO, 'Guidance on WIPO FRAND Alternative Dispute Resolution (ADR)' (*Wipo.int*, 2021) <<https://www.wipo.int/export/sites/www/amc/en/docs/wipofrandadrguidance.pdf>> accessed 9 January 2022, section 29.

⁴⁴¹ *Ibid*, section 35.

The arbitral tribunal may issue any provisional order it finds necessary; nevertheless, the model agreements suggest limiting arbitral tribunal authority in this regard, putting all the power into the parties' hands.⁴⁴²

G. Appeal

In general the award is final, binding and enforceable internationally; however, parties may wish to agree that the award might be appealed to a different arbitral tribunal under certain circumstances. Moreover, parties may limit the appeal to selected issues in the award. In practice, arbitral awards are rarely subject to appeal because when parties opt for arbitration, they try to limit the time and cost to reach the final award. On the other hand, a limited appeal option can be considered a disadvantage from the perspective of the losing party. FRAND-terms disputes often involve a substantive amount of money and when the outcome is not favourable, the party loses an opportunity to appeal the decision. Therefore, this risk should be kept in mind before the conclusion of the arbitration agreement.

Thus, as can be seen in WIPO's example, in FRAND-terms arbitrations parties are allowed an extremely high level of flexibility. They are not only able to specify the applicable law, possible interim measures or appeal options, but they can also define the scope of subject matter in a FRAND-terms dispute from a single SEP to an entire portfolio or "sampling". Consequently, parties are given an opportunity to determine tribunals' authority applicable to their dispute which is not possible in a litigation process and model clauses are designed to guide them through the main issues which can arise during proceedings. Therefore, SEPs arbitration provides parties with control over proceedings and many famous IP companies have already used that opportunity, for instance publicly announced FRAND arbitrations have included *Nokia v LG Electronics*, *Nokia v BlackBerry*, *Interdigital v Huawei* etc.

The next advantage of arbitration in FRAND disputes is the possibility of interim and conservatory measures as well as emergency relief. It includes interim measures to preserve evidence, freezing assets, provide security for costs and refrain from certain activity. Generally, the range of interim measures available to an arbitral tribunal is the same as in litigation and sometimes there are even more options. For instance, the English court cannot issue an anti-suit injunction in relation to proceedings within EU as it would interfere with the

⁴⁴² WIPO, 'Guidance on WIPO FRAND Alternative Dispute Resolution (ADR)' (*Wipo.int*, 2021) <<https://www.wipo.int/export/sites/www/amc/en/docs/wipofrandadrguidance.pdf>> accessed 9 January 2022, section 38.

power of an EU court to rule on its own jurisdiction.⁴⁴³ However, this restriction is not imposed on anti-suit injunctions issued by an arbitral tribunal.⁴⁴⁴ This is especially important in international FRAND disputes because usually, it involves patents registered globally which consequently can lead to parallel proceedings in different states. In case such proceedings take place, a party can make a claim to the arbitral tribunal which can then grant an anti-suit injunction to prevent the loss of time and money as well as contradictory decisions.

Moreover, parties are entitled to ask for interim relief from both courts, and arbitral tribunals, the limits and range of these measures will depend on the local law. The court intervention may be required in a situation when a party is asking for an emergency measure, but the arbitral tribunal has not been constituted yet. To resolve this problem, most of the arbitral institutions created provisions establishing emergency arbitrator relief.⁴⁴⁵ An arbitral institution will appoint an emergency arbitrator according to a party's request within a short amount of time if the request is satisfied with certain conditions. Once appointed, an emergency arbitrator is able to grant any interim measure before the main tribunal is constituted which sometimes can last for months. This is extremely important in FRAND term disputes where timing plays a significant role in counting each day of a licence and fluctuating royalty rate.

The main obstacle in granting interim relief by the arbitral tribunal is the possibility to approach the tribunal on an ex parte basis, i.e. “without notice to the party against whom the measure is directed”.⁴⁴⁶ The debate concerns the purpose of the ex parte interim measure and the arbitral tribunal's authority to grant that. Most of the arbitration laws and rules provide a requirement stating that before the grant of any interim measure, a claiming party must notify the other party. However, such a notice may frustrate the purpose of the interim measure when an element of surprise or confidentiality is required to make an order effective, for instance, in case of freezing orders. Revised in 2006, UNCITRAL Model Law on International Commercial Arbitration stipulated an ex parte approach in article 17B stating “unless otherwise agreed by the parties, a party may, without notice to any other party, make a request for an interim measure together with an application for a preliminary order directing a party not to frustrate the purpose of the interim measure requested. The arbitral tribunal may grant a preliminary order provided it considers that prior disclosure of the request for the interim measure to the

⁴⁴³ *Allianz SpA and Generali Assicurazioni Generali SpA v West Tankers Inc.* C-185/07, [2009] ECR I-00663.

⁴⁴⁴ “*Gazprom*” *OAO v Lietuvos Respublika*, Case C-536/13, ECLI: EU:C:2015:316.

⁴⁴⁵ See LCIA Rules art 9B; WIPO Arbitration Rules art 49; HKIAC Rules art 23 and schedule 4.

⁴⁴⁶ Peter Chrocziel, Boris Kasolowsky, Robert Whitener, Waldeck und Pyrmont and Wolrad Prinz, *International Arbitration of Intellectual Property Disputes: A Practitioner's Guide* (Hart 2017), 106.

party against whom it is directed risks frustrating the purpose of the measure.”⁴⁴⁷ Thus, the UNCITRAL Model Law cleared that debate and provided criterion in which case an *ex parte* approach should be used by an arbitral tribunal. Indeed, although the rules established the "risk of the frustration of the main purpose of the measure" as a criterion, most of the jurisdictions and arbitration rules stayed silent on this matter. One of the exceptions is Hong Kong legislation which adopted the UNCITRAL Model Law article 17B in Hong Kong Ordinance article 37, asserting its leading position on international arbitration market legislations. Also, one of the latest developments in Hong Kong legislation is the Agreement between Hong Kong and Mainland China on Mutual Assistance in court-ordered interim measures in support of arbitrations seated in Hong Kong.⁴⁴⁸ The agreement came into force in October 2019, making Hong Kong the only jurisdiction having the benefit of support from Mainland Chinese courts in granting interim relief outside China.

Also, The Chartered Institute of Arbitrators in London in its Guidelines on “Application for Interim Measures” confirmed the possibility of granting measures on an *ex parte* basis in cases of extreme urgency if it is not to the contrary to *lex arbitri* and arbitration rules. Consequently, the adoption by the local law of UNCITRAL Model Law is a necessary condition for the granting of interim measures on an *ex parte* basis. Hong Kong is the first, and still, the only jurisdiction which has adopted this provision; therefore, global adoption of article 17B is needed to make *ex parte* application possible in arbitral proceedings elsewhere in the world.

In addition, in case a party does not voluntarily follow interim orders of an arbitral tribunal, another party will have to apply to a local court for its enforcement. Meanwhile, claiming interim orders straight from local courts would be much quicker. Also, the issue arises as to the enforcement of such orders made by the tribunal. The New York Convention declares that it covers the enforcement of awards, not the enforcement of orders; therefore, it is not clear whether a party can rely on the Convention in this case.⁴⁴⁹ Some legislations clarified that issue, allowing enforcement of interim measures to be ordered in any form either award or order,

⁴⁴⁷ UNCITRAL Model Law on International Commercial Arbitration (adopted June 1985, amended July 2006).

⁴⁴⁸ Arrangement Concerning Mutual Assistance in Court-ordered Interim Measures in Aid of Arbitral Proceedings by the Courts of the Mainland and of the Hong Kong Special Administrative Region 2019.

⁴⁴⁹ United Nations Convention on the Recognition and Enforcement of Foreign Arbitral Awards (adopted June 1958, entered into force 7 June 1959), art I(1).

meanwhile, others stayed silent on this matter giving rise to the potential complications.⁴⁵⁰ Therefore, courts possess more freedom in terms of granting interim measures, and it might be much quicker in contrast to arbitral tribunals, however, the arbitration legislation is developing quickly and provides appropriate solutions.

Another valuable feature of arbitration in FRAND disputes is the award's international enforcement. FRAND-terms arbitration awards will be easier to enforce than multiple court decisions from different jurisdictions. More than 150 countries are members of the New York Convention 1958 on Recognition and Enforcement of foreign arbitral awards. Recognition and enforcement of foreign awards are specifically relevant in FRAND disputes because it usually involves global licensing terms and parties from different states and/or countries. Foreign court judgements and enforcement will depend on the mutual agreement between the countries; meanwhile, most of the modern countries are signatories to New York Convention which states the limited number of grounds upon which enforcement might be refused. Taking into account the practice, courts seldom refuse recognition and enforcement of foreign arbitral awards confirming the pro-arbitration spirit of the Convention. One of the possible reasons why the award is refused to be recognised is that it is contrary to public policy.⁴⁵¹ In which cases might a FRAND-terms award violate public policy? The concept of public policy is considered similar but quite different in each country; therefore, its interpretation will depend on the local law. Some countries include competition / antitrust law issues in the matter of public policy granting exclusive authority of these issues to courts or administrative body; therefore, an arbitral award containing such issues may be refused in enforcement.

Going back to the two flagship cases, *Google Consent Order - FTC*⁴⁵² and *Samsung Electronic Commitments to the European Commission*,⁴⁵³ both companies were alleged to be in abuse of dominant position prohibited by antitrust law by means of seeking injunctions against its competitors in regard to its SEPs. Therefore, in theory, a SEP holder can be involved in antitrust liability when it refuses to grant licences or to seek injunctions against implementers. However, if it agrees to refer that issue to judicial or arbitral consideration, it is released from antitrust liability.⁴⁵⁴ These two cases established the procedure by following which SEP holder would not be dragged into antitrust issues. Thus, competition law elements

⁴⁵⁰ Arbitration Act 1996, sec.42; Hong Kong Arbitration Ordinance 2011 s. 61.

⁴⁵¹ United Nations Convention on the Recognition and Enforcement of Foreign Arbitral Awards (adopted June 1958, entered into force 7 June 1959), art. V.

⁴⁵² *The Matter of Motorola Mobility LLC, and Google Inc.* FTC File No 1210120.

⁴⁵³ *Samsung Electronics – Enforcement of UMTS Standard Essential Patents* COMP/C – 3/39.939.

⁴⁵⁴ Ibid, para II.E.2.

in the relationship between SEP holder and implementer do not give rise to concerns in regards to award's enforcement.

To conclude, arbitration proposes distinctive advantages in FRAND dispute resolution, including but not limited to confidentiality, time and cost efficiency, flexibility, choice of specialised arbitrators, and international enforceability. However, it also has its limitations such as ex parte basis of interim measures, inter-parties' effect of the award, restricted range of the final remedies as well as its advantages such as confidentiality and limited appeal option which can also be treated as disadvantages from certain points of view. Therefore, opting for arbitration in FRAND-terms disputes bears its opportunities and limitations at the same time, nevertheless, there is no other global solution such as arbitration which provides resolution to multi-jurisdictional patent disputes in one single procedure. The prospect of establishment of UPC suggests a possible harmonisation and systematisation of global patent disputes; however, its competence will be limited only to 28 EU Member States; secondly, it is still a question if UPC will start functioning. Many leading IP companies already gave their preferences to arbitration in resolving FRAND disputes such as Nokia, LG, Huawei, Ericsson, Samsung etc. In addition, it is supported by government and administrative bodies such as European Commission, The Court of Justice of the European Union, The US Federal Trade Commission, The US Department of Justice, and Hong Kong's Department of Justice. Lastly, legal representatives are encouraging their clients to make a choice in favour of arbitration, including international leading law firms such as Bird & Bird, Dentons, Debevoise and Plimpton and etc. International litigation might be a traditional business strategy for some technology companies; however, the obvious advantages of arbitration are intended to change the patterns and enlighten parties about advantages of using arbitration allowing them to use saved cost and time for further research and innovation for the benefit of IPR holders, implementers, consumers and society as a whole.

Issues relating to the arbitration clause / agreement referring to FRAND resolution

In case parties choose arbitration as a method to resolve FRAND terms disputes, the following issues must be considered and included in the arbitration agreement.

- The scope of the dispute must be clearly identified.

Parties should come to agreement about what terms and conditions should be included such as if they wish to refer the whole portfolio for determination or only part of it or single patents; the scope of claims and defences including or excluding such issues as patent essentiality, validity, infringement and enforceability; the geographical scope of the claim; methodology of FRAND terms determination; interim measures and final remedies.

- The choice of seat and venue.

In consideration of the venue and seat the following criteria should be considered: the neutrality of seat or venue for both parties; lex arbitri provisions of the national law of the seat such as its provisions relating to court's supervision to arbitration including powers to rule on tribunal's jurisdictions, removal of arbitrators, enforcement of the interim measures; the rules on the disclosure and confidentiality; and if a country is a signatory to The New York Convention 1958 for the enforceability purposes.

- The choice of the arbitration centre or ad hoc arbitration.

Due to the complexity of FRAND terms disputes, it is reasonable to choose the institutional arbitration rather than ad hoc, especially because some centres provide tailored FRAND dispute resolution such as WIPO and HKIAC.

- Qualifications and number of arbitrators

Parties may stipulate the range of the requirements related to the possible arbitrators such as nationality, education, number of years of experience in the IP sector, however, the requirements should be reasonable; otherwise, it might become unnecessarily difficult to find the appropriate candidates.

- Applicable law

Parties should clearly identify the law governing the dispute; otherwise, the arbitrator will use the conflict of law rules or choose the law they find has the closest connection to the dispute which may be a surprise to the parties.

- Time frame

Parties should stipulate the main stages of the proceedings with the minimum and maximum time allowed for each stage. In the case of the low-value dispute, an expedited procedure might be used.

- Appeal option

Parties should include provisions on the possible appeal of the arbitral award. The value of the dispute should be considered, as FRAND terms disputes often are high in value, it might make sense to include a possibility of the appeal to another tribunal on the limited grounds specified in the agreement.

Chapter VI. Conclusions

Answers to the research objectives and questions

The study explores the effectiveness of international arbitration as a method of enforcing patent rights. The following are the specific research objectives of the study:

- To explore the efficiency and effectiveness of the legal framework for enforcing patent rights in the global sphere. This includes analysis of litigation and arbitration as the two primary methods, noting that some jurisdictions such as the UK and US are popular venues for both litigation and arbitration, whereas other jurisdictions such as Hong Kong are primarily arbitration venues.
- This thesis examined an analysis of international studies (in chapters 3 and 4), exploring complex global disputes that began either in courts or by arbitration submission in different jurisdictions showing strong and weak sides of both approaches.
- Standard essential patents (SEPs) form a key case study (in chapter 5) for the argument that arbitration is preferable to litigation in high-profile global patent disputes.

The study addresses the following research questions:

- How efficient is arbitration, relative to litigation, in protecting patent rights in the global environment?
- What do the case studies demonstrate about the advantages and disadvantages of litigation and arbitration in the patents field? What are the strengths and weaknesses of both approaches?
- What is the optimal method of enforcing patents – litigation or arbitration?
- Are disputes on standard-essential patents a special case? Does their multijurisdictional nature mean they are particularly suited to be resolved by arbitration?

How efficient is arbitration, relative to litigation, in protecting patent rights in the global environment?

The efficiency of patent arbitration and litigation – time, cost, accuracy, and enforceability

Conclusions for the thesis starts with the analysis of the first research objective and question. The first research objective was to explore the efficiency and effectiveness of the legal framework for enforcing patent rights in the global sphere. This includes analysis of litigation and arbitration as the two primary methods, noting that some jurisdictions such as the UK and US are popular venues for both litigation and arbitration, whereas other jurisdictions such as Hong Kong are primarily arbitration venues. To begin with the first research objective, it is worth reviewing what is understood by the efficiency and effectiveness of arbitration and litigation proceedings in this thesis. As it is mentioned in Chapter I, efficiency should be understood as the “minimization of net social cost”.⁴⁵⁵ Efficiency as discussed in the thesis is considered in four dimensions – time, cost, accuracy, and enforceability of decisions.

Time and cost-efficiency

A direct comparison of the time and cost spent on patent litigation and arbitration is not possible due to the confidential nature of the arbitration process. The confidentiality of arbitration presumes that the existence of a dispute is kept private as well as the arbitral award. Therefore, there is no information publicly available to conduct a direct comparison of time and cost spent on patent litigation and arbitration. Nevertheless, according to the various surveys, studies, and official arbitral institutions’ calculations, average time and cost can be estimated.

The data relevant to US patent litigation revealed that the average cost for patent cases ranges from \$1.4 million to \$4 million with a duration from 18 to 42 months.^{456, 457, 458} The same high figures of patent litigation are relevant in the UK. The data shows that most cases

⁴⁵⁵ Robert Cooter and Thomas Ulen, *Law and Economics*, 6th edition (Berkeley Law Books 2016) 385.

⁴⁵⁶ The American Intellectual Property Lawyer’s Association, ‘Bi-annual survey of IP-related costs’ (*AIPLA.org*, 2019) <https://www.aipla.org/home/news-publications/economic-survey?utm_source=NewsDirect&utm_medium=PressRelease&utm_campaign=LitigationCosts> accessed 16 December 2021.

⁴⁵⁷ William Spence, ‘Prepare for litigation and avoid it where possible’ (*Iam-media.com*, 3 October 2019) <<https://www.iam-media.com/prepare-litigation-and-avoid-it-where-possible>> accessed 16 December 2021.

⁴⁵⁸ WIPO, ‘An overview of patent litigation systems across jurisdictions’ (*Wipo.int*, 2018) <https://www.wipo.int/edocs/pubdocs/en/wipo_pub_941_2018-chapter1.pdf> accessed 16 December 2021.

involve total costs for both claimant and defendant between £1 million to £6 million⁴⁵⁹ and lasts between 24-36 months.⁴⁶⁰ The data relevant to Hong Kong illustrates that it takes 12 to 18 months to obtain a first-instance decision. Regarding the costs, if a case is not concluded by summary judgment, the trial will cost between HK\$400,000 and HK\$2 million depending on the extent of discovery, the number of witnesses and the number and complexity of issues in dispute. In cases when a full trial is necessary, further costs are typically between HK\$1.5million and HK\$2.5 million.⁴⁶¹

Moreover, the studies show that annual spending on IP litigation matters continues to increase.⁴⁶² It is highlighted that patent claims became larger, more complex and multijurisdictional.⁴⁶³ There is an expected increase in litigation outside the United States, particularly in Europe and China, which inevitably lead to the rational suggestion to use arbitration in those regions instead of courts, for instance, London and Hong Kong arbitration centres. The laws and precedents of those jurisdictions vary significantly; thus, the usage of arbitration would be beneficial for the enforcement of multijurisdictional patent disputes. Using official calculators provided by the arbitral institutions' websites and published data on their statistics and case examples, the following time and cost frames for arbitration were established. For a case with a value of US\$1 million, the arbitration costs will be around US\$63,000.00 under ICC administration and HKIAC administration. Other figures show that the median duration of HKIAC arbitration is 12.9 months and costs US\$56,138.00; meanwhile, the expedited procedure would last from 6 to 9 months with costs of US\$24,319.00.⁴⁶⁴

The median duration of an LCIA arbitration is 16 months, with the median cost of US\$99,000.00.⁴⁶⁵ The median cost of arbitration conducted under The International Centre for Dispute Resolution (ICDR) of the American Arbitration Association (AAA) is evaluated at USD 20,000 based on a case regardless of the claim size and USD75,000 for cases with a claim

⁴⁵⁹ Christian Helmers and Luke McDonagh, 'Patent litigation in the UK' (2012) LSE Law, Society and Economy Working Papers 12/2012 <<https://orca.cardiff.ac.uk/60863/1/Patent%20Litigation%20in%20the%20UK.pdf>> accessed 16 December 2021.

⁴⁶⁰ WIPO, 'An overview of patent litigation systems across jurisdictions' (*Wipo.int*, 2018) <https://www.wipo.int/edocs/pubdocs/en/wipo_pub_941_2018-chapter1.pdf> accessed 16 December 2021.

⁴⁶¹ CWL Partners, 'Patent enforcement through the courts in Hong Kong' (*Lexology.com*, 4 August 2015) <<https://www.lexology.com/library/detail.aspx?g=a98a1dc3-0b95-4b65-9c92-dedfabd8fcb5>> accessed 16 December 2021.

⁴⁶² Morrison and Foerster, 'Benchmarking IP litigation 2019' (*Media2.mofo.com*, 2019)

<<https://media2.mofo.com/documents/benchmarking-ip-litigation-2019.pdf>> accessed 16 December 2021.

⁴⁶³ Ibid.

⁴⁶⁴ HKIAC, 'Average cost and duration' (*Hkiac.org*, 2021) <<https://www.hkiac.org/content/costs-duration>> accessed 16 December 2021.

⁴⁶⁵ LCIA, 'Tools to facilitate smart and informed choices' (*Lcia.org*, 3 November 2015)

<<https://www.lcia.org/News/lcia-releases-costs-and-duration-data.aspx>> accessed 16 December 2021.

in the range of USD1 million to 9.9 million. The median duration of ICDR arbitrations equals 13.1 months.⁴⁶⁶ Moreover, ICDR arbitrations settle prior to an award 72% of the time, and 39% of those settled cases are resolved prior to incurring any tribunal fees. In this case, median tribunal fees for settled cases cost \$3,000 with a median time to settlement of 9 months.⁴⁶⁷

Furthermore, the WIPO international survey on dispute resolution in technology transactions showed that an average of 60% in time and 55% in costs were saved by using arbitration instead of litigation to resolve technology disputes. The median time of a patent case going to trial has increased over the last decade to 2.5 years.⁴⁶⁸ AAA statistics from 2016 shows that the median number of days for arbitration was 405, including large IP cases.⁴⁶⁹

In addition, new provisions provided by the arbitral institutions, for instance, HKIAC and SIAC, allow for the filing of a single arbitration under multiple contracts, which accelerates dispute resolution efficiency. That is a unique opportunity to resolve multiple patent disputes in one forum. Besides, when parties choose arbitration, it is possible to unify applicable law in contracts with licensees from different jurisdictions. This way, it excludes the problem of issues being subject to different jurisdictions in multiple courts. This option allows parties to avoid the situation that happened in *Apple v Samsung* where parties litigated in twelve courts in nine countries on four continents.

Furthermore, additional studies revealed that arbitration accelerates the pace of dispute resolution. It proves that arbitration is faster to reach a resolution than court, and the difference can be assessed monetarily.⁴⁷⁰ On average, US district court cases took more than 12 months longer to get to trial than cases resolved by arbitration (24.2 months v. 11.6 months). US district and circuit court cases required at least 21 months longer than arbitration to resolve when the case went through an appeal (33.6 months v 11.6 months).

The cost range for litigation in USD is from 1 to 6 million and the time required for litigation ranges from 1 to 3 years; meanwhile for the costs for arbitration is up to USD100,000,

⁴⁶⁶ ICDR, 'Arbitration Report. Time and Cost. Considering the Impact of Settling International Arbitrations' (Icdr.org, 2017)

<https://www.icdr.org/sites/default/files/document_repository/AAA241_ICDR_Time_and_Cost_Study.pdf?_ga=2.124690250.1934215673.1611296782-1119081202.1610956750> accessed 16 December 2021.

⁴⁶⁷ Ibid.

⁴⁶⁸ WIPO, 'The international survey on dispute resolution in technology transactions' (Wipo.int, 2013) <<https://www.wipo.int/amc/en/center/survey/results.html>> accessed 16 December 2021.

⁴⁶⁹ AAA, '2016 data report' (Adr.org, 2016) <<https://www.adr.org/research>> accessed 12 September 2020.

⁴⁷⁰ Roy Weinstein, Cullen Edes, Joe Hale and Nels Pearsall, 'Efficiency and economic benefits of dispute resolution through arbitration compared with U.S. District court proceedings' (Adr.org, March 2017) <https://go.adr.org/impactsofdelay.html?_ga=2.72324819.1934215673.1611296782-1119081202.1610956750> accessed 16 December 2021.

and the time range varies from 6 to 16 months. Thus arbitration is an undeniably beneficial method for multijurisdictional patent enforcement. The main factors contributing to arbitration success are: limited discovery, agreed schedule of the proceeding, absence of appeal (typically adds a minimum of one more year), effective expedited arbitration (cut costs and time in half), there is a choice of the method of fees assessment depending on the circumstances of a dispute, many arbitration cases settle prior to award or before significant arbitrator involvement.

Accuracy

The accuracy of the final award consists of the following elements: neutrality and impartiality of the decision-makers, appeals and qualifications of judges and arbitrators. In case a multijurisdictional patent dispute arises with parties from different countries, and over the patents protected in many jurisdictions, the choice of the forum might be complicated. The selection of the neutral forum would benefit both parties as none of them receive “home” litigation privilege. By means of arbitration, parties can avoid the uncertainty of foreign laws and courts. Arbitral institutions are neutral to the culture of parties, law, and language. Arbitral institution rules often require that the nationality of an arbitrator must be different than that of parties.⁴⁷¹

Furthermore, it is supported by national laws, international regulations, and arbitral institution rules that arbitrators are independent and impartial.⁴⁷² The same principles are firmly established in all legal systems in relation to judges as well. However, in arbitration, it coexists with the fact that parties participate in arbitrators’ appointments which increases the level of trust to reach an impartial and independent resolution. Arbitrators are selected based on their recognised reputation, and the involvement of parties in selecting the arbitrators best suited to their needs reduces the chances of arbitrators’ challenges.

On the other hand, the risk of conflicts of interest in arbitration might be higher than that of litigation. International arbitration, especially international patent arbitration, is represented by a relatively small society. There might be an overlap of duties of arbitrator and counsel. Conflicts of interest are most likely to occur in smaller jurisdictions such as Hong

⁴⁷¹ See HKIAC Administered Arbitration Rules 2018, article 11.

⁴⁷² See section 24(a) of the Arbitration Act 1996, section 24(1) of the Hong Kong Arbitration Ordinance, Chapter 609; New York Convention on Recognition and Enforcement of Foreign Arbitral Awards articles 5(1)(d) and 5(2)(b)); IBA Guidelines on conflict of interests in international arbitration; article 18 of the AAA Commercial Arbitration Rules; article 5 of the LCIA Arbitration Rules; 2018 HKIAC Administered Arbitration Rules article 11.

Kong; thus, it has led to the fact that the IBA Guidelines are actively used and promoted, reducing potential conflicts to the minimum.

Both litigation and arbitration are equipped with qualified experts; however, arbitration allows direct control in the selection process. This is beneficial not only for the reduction of the possible bias challenges but also the free choice of arbitrators allows choosing an expert suitable to resolve a highly specific dispute. For instance, one report illustrates that 52% of all first-instance decisions in patent disputes are changed on appeal.⁴⁷³ Another report provided by AAA shows that a majority of the patent-damage jury or bench decisions are overturned or adjusted, increasing the time and cost of patent litigation. Eighty percent of district court decisions are appealed; fifty-three percent of appealed decisions are modified in some regard, and thirty-plus percent of decisions are reversed.⁴⁷⁴

The high rate of appeals in patent cases might be explained by the fact that judges might not possess technical knowledge of a specific technology at issue. The US Supreme Court's decision *Markman v. Westview Instruments Inc.* held that district court judges are to decide the meaning of the words used in patent claims, including the scope of the patent.⁴⁷⁵ That might require the knowledge of the patent at issue and its underlying technology which might be problematic for judges who possess more general knowledge. In contrast, arbitrators often possess narrow-subject technical knowledge and make decisions relying on their knowledge of the law, technology, and relevant market tendencies. Moreover, when an arbitrator is educated in a specific area, she/ he can evaluate expert evidence in a more efficient way. Thus, an arbitrator qualified in the narrow subject area might propose a more justified and fair decision.

Analysis of the explored jurisdictions showed that only in the UK there are Patent Courts and Intellectual Property Enterprise Courts with special jurisdictions over patent disputes; meanwhile, The USA and Hong Kong do not propose such an option. On the other hand, many arbitral institutions launched Panels of Arbitrators with expertise in the IP; other institutions do not provide IP Panels but keep the Lists of Neutral Parties experienced in the specific subject matter.

⁴⁷³ PWC, '2015 Patent Litigation Study. A change in patentee fortunes' (*Pwc.com*, 2015)
<<https://www.pwc.com/us/en/forensic-services/publications/assets/2015-pwc-patent-litigation-study.pdf>>
accessed 16 December 2021.

⁴⁷⁴ AAA, "'Products of the Mind' require special handling: arbitration surpasses litigation for intellectual property disputes' (*Adr.org*, 2017)
<https://www.adr.org/sites/default/files/document_repository/AAA192_Intellectual_Property_Disputes.pdf>
accessed 16 December 2021.

⁴⁷⁵ *Markman v. Westview Instruments Inc.*, 517 U.S.370 (1996).

Enforceability

The next key advantage of patent arbitration is the global enforceability of arbitral awards. By choosing the UK, Hong Kong, the USA or other signatories of the New York Convention, the parties are ensured that an arbitral award would be enforceable in more than 150 countries. Enforcement of foreign judgements depends on whether or not there is a mutual agreement on the enforcement of foreign judgements between states. In most cases, these agreements have limited coverage for a specific region, such as the EU, and do not offer global coverage as the New York Convention does. Moreover, the New York Convention limits the grounds on which domestic courts of signatory states can refuse to recognise and enforce arbitral awards, making arbitration final and reducing further time and cost expenditure. For instance, HKIAC has published recent statistics on the enforcement of arbitral awards in Hong Kong, compiled and provided by the Hong Kong judiciary. The statistics continue to show the strong record of enforcement of awards by the Hong Kong courts. From 2009 to 2020, the Hong Kong courts granted 360 out of 372 enforcement applications, making the enforcement rate 97%.⁴⁷⁶

On the other hand, the cross-border enforcement of judgements has become even more complicated in the EU because the UK is no longer subject to EU regulations governing enforcement. Meanwhile, arbitration seated in the UK has not been affected by Brexit at all. The recognition and enforcement of international arbitration awards are governed by the New York Convention, and the UK's withdrawal from the EU had no impact on the status and effect of the Convention on the enforcement of international awards. Thus, the stability and global acceptance offered by the New York Convention give arbitration a significant advantage over litigation and makes it a reliable method for protecting patents around the world.

Furthermore, national legislations set a strict number of grounds allowing a challenge of arbitral awards. For instance, Arbitration Act 1996 contains three provisions on the challenge of an arbitral award. Under sec 67., a party to arbitral proceedings may challenge an award in a case when the arbitral tribunal lacked substantive jurisdiction; under sec. 68 in case there was a serious irregularity causing substantial injustice and under sec. 69, there is a possibility to appeal the award on the point of law.⁴⁷⁷ Those limited grounds for the appeal

⁴⁷⁶ HKIAC, 'Enforcement of awards in Hong Kong: 2020' (*Hkiac.org*, 2020) <<https://www.hkiac.org/about-us/statistics/enforcement-awards>> accessed 16 December 2021.

⁴⁷⁷ See Arbitration Act 1996 sec. 67, 68, 69.

serve as the basis for the finality of the arbitral awards which consequently led to the practice that arbitral awards are rarely overturned.⁴⁷⁸

Thus, the efficiency of patent arbitration is undeniably high in comparison to that of patent litigation. All four aspects of efficiency, such as time, cost, accuracy, and enforceability of arbitration, have shown quantitative and qualitative triumph over litigation. In addition, arbitration would save “net social cost” in contrast to no enforcement. Arbitration is a better option than no enforcement at all due to the fact that no enforcement would save cost and delay in proceedings; however, it would not minimise social cost due to the harm done to the patent system which would itself create higher costs later in terms of lost innovation.⁴⁷⁹ The Queen Mary Arbitration Survey 2021 illustrated the dominance of arbitration on the global market showing that 90% of respondents stated that international arbitration is their preferred method of cross-border disputes resolution either on a stand-alone basis or in conjunction with ADR.⁴⁸⁰

The effectiveness - advantages and disadvantages of global patent arbitration and litigation with references to the international case studies

Effectiveness

By effectiveness in this thesis, I consider specific advantages and disadvantages of patent arbitration in comparison to that of patent litigation. That covers the second research objective including analysis of complex global disputes made in chapters III and IV.

What do the case studies demonstrate about the advantages and disadvantages of litigation and arbitration in the patents field? What are the strengths and weaknesses of both approaches?

The main advantages of global patent arbitration besides high time and cost efficiency, include flexibility and neutrality of procedure, independence and impartiality of arbitrators; a possibility to resolve a multijurisdictional dispute in a single arbitral forum; high level of

⁴⁷⁸ The Commercial Court (England and Wales) User Group, ‘November Meeting Minutes’ (*Judiciary.uk*, 2020) < <https://www.judiciary.uk/wp-content/uploads/2020/12/CCUG-Minutes-November-2020-0112.pdf> > accessed 16 December 2021.

⁴⁷⁹ Robert Cooter and Thomas Ulen, *Law and Economics*, 6th edition (Berkeley Law Books 2016) 385.

⁴⁸⁰ White & Case and Queen Mary University of London, ‘2021 International arbitration survey: adapting arbitration to a changing world’ (*Qmul.ac.uk*, 2021) < <https://arbitration.qmul.ac.uk/research/2021-international-arbitration-survey/> > accessed 16 December 2021.

expertise of the tribunal complemented by the IP Panels and Lists; broad jurisdiction of the arbitral tribunal based on the kompetenz-kompetenz principle; exclusive remedies and global enforceability; limited right to appeal - finality (an advantage for the winning parties); availability of the emergency arbitrator relief; confidentiality – allowing companies to keep the existence of the dispute and awards in private; inter partes effect of the award – does not revoke or cancel aspects of patent rights in relation to the third parties; negotiated nature of arbitration; separability of the arbitration agreement from the main contract; preservation of business relationship; arbitral institutions implemented new rules to entail proceedings, including: expedient arbitration, consolidation of several proceedings, joinder to the existing proceedings; no jury participation; and arbitration possesses solid potential to be the best equipped tool for digital dispute resolution procedure on the global arena.

Notwithstanding the rising trend of patent arbitration, litigation remains a widespread method of patent enforcement. Not only because it was established and developed much earlier than arbitration but also because the right of access to justice is one of the fundamental rights provided by all modern states. That right is supported by the developed system of courts and support measures and based on the system of binding precedents in the UK, the USA and Hong Kong. That makes litigation a relatively predictable and highly regulated option for patent enforcement. In addition, it allows direct and quick access to obtaining provisional or interim measures. In contrast, provisional measures in arbitration are enforced through courts. Moreover, the award gained through courts bears the erga omnes effect which leads to the grant of a permanent injunction, delivery up and/or destruction of products under infringement, provision of disclosure to information and documents associated with infringement, infringement declaration, and total or partial compensation for loss and associated damages.

Analysis of the disadvantages of patent arbitration revealed the following. Arbitration always requires a valid arbitration agreement between parties for a proceeding to take place. In case the arbitration agreement was not prepared properly, and it was found to be invalid, the arbitration will not be possible. Moreover, the risk of parallel proceedings involving courts and administrative bodies is high, in addition to the risk of the conflict of interests. Patent arbitration is represented by a relatively small circle of the patent arbitrator community, even on the global level; thus, the risk of conflict of interests is higher than in patent litigation. The issue of arbitrability of some aspects of patent rights is still not consistent globally; however, in the UK, USA and Hong Kong, validity, ownership and infringement of patent rights are arbitrable with inter partes effect. Confidentiality of arbitration allows companies to keep the dispute and arbitral award in private preserving parties' public image and policy; however, the lack of

transparency leads to the situation where the result might be unpredictable and arbitral awards cannot be assessed by the wider society. That also leads to the absence of the body of precedent of arbitral awards, which does not contribute to the development of law and does not help with the analysis of the previous decisions.

The limited right to appeal represents another key feature of patent arbitration, giving parties a chance to significantly cut time and cost leading to greater efficiency. However, taking into account the high stakes usually involved in a patent dispute, it is worthwhile to consider including an appeal option in the arbitration agreement in a limited number of circumstances. The inter partes effect of the award preserves patent holder rights against all third parties without possible permanent revocation or invalidity of the patent. However, the inter partes effect of the arbitral award causes the risk that parties will be required to arbitrate in each country against every defendant separately where a legal issue arises. In addition, new rules incorporating joinder and consolidation to the existing arbitral proceeding are innovative and allow parties to increase time and cost efficiency even more; however, it requires agreement from all the parties which might lead to the parallel proceedings and potentially incompatible decisions. To continue, the cost of arbitration might be high depending on the method of calculating the fees and circumstances of the particular case. In addition, the freedom proposed by arbitration, such as flexibility, might become a disadvantage in the case of an ad hoc arbitration. In this case, there is a risk of the proceedings lacking structure unless agreed upon by the parties.

The analysis of patent litigation revealed its main disadvantages as a method of patent enforcement. It has been established that patent litigations take years, as evidenced by the case law. The cost was another distinctive disadvantage, where the losing party is obligated to pay the winning party millions of dollars in compensation for patent infringement or as a cross-undertaking. Considering the sensitivity of the patented information, there is questionable confidentiality following disclosure of relevant documents appended to the patent litigation from the contesting parties. In addition, expansive disclosure often takes place in patent litigations, and limited global enforceability of litigation decisions has been shown to impede patent litigations. Equally, there are strict formal procedures in every country with binding precedents creating no room for creativity of decision-makers and parties and leading to the limited remedies available in patent disputes. Moreover, erga omnes effect of the award creates permanent consequences towards all third parties and results in revocation of a patent or other unfavourable action for a patent holder. The adversarial nature of the litigation proceedings affects both parties since the defendant is obligated to incur costs in the event the court affirms

infringement, while the plaintiff may incur a cross-undertaking for failure to substantively show infringement which is consequently leading to the deterioration of future business relationships.

Furthermore, the lack of specialised IP courts, as well as judges with particular IP experience and knowledge, hamper the correct interpretation of patent law and decisions made. Equally, the participation of a jury during the trial has been described as a disadvantage due to technical complexity and their lack of legal knowledge. Other examined disadvantages in the analysis include the potential for delays prior to judgment, causing litigation proceedings to take years to conclude and opening up the potential for contradictory decisions, especially with appeals as evidenced in the *Sanofi-Aventis Deutschland GmbH v. Genentech, Inc.*, 716 F.3d 586 (Fed. Cir. 2013) case. The limited availability of cross-border injunctions due to the strict court systems and binding precedence potentiate the need to litigate in numerous countries, as evidenced in the *Apple Inc. v. Samsung Electronics Co., Ltd.* Lastly, global patent litigation bears a limited possibility to claim extraterritorial damages.

What is the optimal method of enforcing patents – litigation or arbitration?

Therefore, global patent arbitration and litigation have their distinct advantages and disadvantages. In the course of the study, the specific feature of the duality of patent arbitration advantages was revealed. Some of its advantages may be transformed into disadvantages from a different perspective. Thus, it is worth weighing all the advantages and potential risks before making a choice between methods of global patent enforcement. In some cases, it might be worth the time and effort to combine both procedures. For instance, in a country where patent arbitration is restricted, the issues of validity and ownership of patents can be considered by courts, meanwhile, royalty rates and FRAND-terms can be determined by arbitral tribunal. Nevertheless, patent arbitration triumphs over litigation on numerous grounds ranging from time and cost efficiency, confidentiality, neutrality and flexibility to global enforceability and exclusive remedies. Consequently, from the points made in this thesis, international arbitration might be proposed as a favourable method for international patent enforcement owing to the effectiveness and efficiency it can provide.

Arbitration from the Standard Essential Patents (SEPs) disputes' perspective as the key case study

Are disputes on standard-essential patents a special case? Does their multijurisdictional nature mean they are particularly suited to be resolved by arbitration?

The merge of the Mobile and IT industry resulted in the Smartphone Wars where the issue of the standard-essential patents (SEP) and licensing on fair, reasonable and non-discriminatory (FRAND) terms arose. The research revealed that essential patents are more than five times as likely to be litigated in comparison with non-essential patents.⁴⁸¹ Moreover, the number of litigations on IP issues has grown over the last 30 years, showing that SEPs litigations have grown much faster than cases involving non-SEPs.⁴⁸² In addition, from 2016 onwards, the development of 5G set the basis for the convergence of many industries from different backgrounds leading to the new wave of SEP disputes. Smartphone wars are characterised by patent-by-patent and country-by-country litigation, whereas a more reasonable option would be patent portfolio determination by means of the single arbitration procedure. It is a common occurrence that one company may possess hundreds or thousands of patents; therefore, at the negotiation stage for the future licensing or sale, it is reasonable to define terms while considering the whole patent portfolio rather than every single patent. The same applies to the FRAND terms determination procedure.

The regulations of FRAND arbitration are relatively new, and the basis was established by the Federal Trade Commission (FTC), The European Commission (EC) and The Court of Justice of the European Union (CJEU). In addition, SSO's bylaws and policies play a significant role in FRAND arbitration regulations. Some SSOs include arbitration clauses in their membership agreements, therefore obliging their members to use arbitration which creates the issue of mandatory arbitration. Some SSOs propose independent arbitration procedures

⁴⁸¹ European Commission, *Patents and Standards: a modern framework for IPR-based standardization* (Publication office of the European Union 2014) < <https://op.europa.eu/en/publication-detail/-/publication/43222f7f-4604-46db-95bd-6650ae5fa441/language-en> > accessed 16 December 2021.

⁴⁸² Ibid, the survey shows that 6.7% (393 of 5,768) of all essential patents in the dataset were subject of litigation, whereas this was only 1.5% (89 of 5,768) for other patents, 125.

under the rules of the arbitration centre, such as AAA;⁴⁸³ others offer arbitration governed by the SSO itself.⁴⁸⁴ Therefore, the analysis revealed two major issues relevant to FRAND arbitration regulations: shall FRAND terms arbitration be mandatory or voluntary? What rules are more suitable for the resolution of FRAND disputes, the institutional rules of an established arbitration centre or arbitration rules under SSO rules?

The analysis showed that, notwithstanding the successful mandatory arbitration introduced by WIPO in Uniform Dispute Resolution Procedure (UDRP) for the resolution of Internet domain name disputes, mandatory arbitration should not be applicable to the FRAND terms disputes. Mandatory UDRP in domain name disputes is closer to the administrative proceedings by its nature. Arbitration, on the other hand, bears consensual characteristics by means of which parties must agree to arbitrate which contradicts the mandatory nature of these UDRP imposed on the domain name registrars or the third party violating the usage of the domain name. In addition, litigation is proposed as an alternative to mandatory UDRP; therefore, it undermines the meaning of arbitration because when parties opt for arbitration, one of the aims is to exclude the possibility of court dispute resolution. Secondly, the outcome of the administrative proceedings is subject to possible later court proceedings; thus, the award will not have a *res judicata* effect as it has in arbitration in most jurisdictions. After the arbitral award is rendered, parties are not entitled to submit the same claim between the same parties before the court; the UDRP Policy does not provide the final decision with *res judicata* effect. Lastly, the UDRP Policy was developed to resolve similar types of disputes which explains its efficiency and internationally recognised success of UDRP dispute resolution; however, will that be applicable to FRAND terms disputes which are complicated and unique in their nature?

The answer would be no due to the consensual nature of arbitration. The parties to the dispute should always have a right to choose the type of dispute resolution process. The analysis revealed that FRAND disputes are a relatively new dispute resolution area, and mandatory arbitration can create unprecedented complications.

One of the possible solutions was introduced by Mark A. Lemley and Carl Shapiro, who proposed that SSOs should oblige their members to mandatory “baseball-style”

⁴⁸³ See clause 16.5 of Blu-Ray Disc Association, ‘Amended & restated bylaws’ (*Blu-raydisc.com*, 24 October 2008) <[http://blu-raydisc.com/Assets/Downloadablefile/BDA-Bylaws-\(v1.6\)-16278.pdf](http://blu-raydisc.com/Assets/Downloadablefile/BDA-Bylaws-(v1.6)-16278.pdf)> accessed 16 December 2021.

⁴⁸⁴ See clause 10.5 of VITA, ‘VSO Policies and Procedures’ (*Vita.com*, 1 September 2015), <<https://www.vita.com/resources/Documents/Policies/vso-pp-r2d8.pdf>> accessed 16 December 2021.

arbitration.⁴⁸⁵ Notwithstanding that approach has advantages such as high speed and limited disclosure, it has never been used in practice. “Baseball-style” arbitration has been harshly criticised by Pierre Larouche, J. Gregory Sidak and Jorge L. Contreras including the following grounds. First of all, an arbitral award rendered through baseball-style arbitration cannot guarantee a FRAND royalty rate. Indeed, an arbitrator would be given only two options to choose from, whereas, during a typical procedure, all parties’ initial offers are usually rejected by a judge or arbitrator.

In the case of baseball arbitration, the role of an arbitrator would be limited to making a choice without appropriate consideration, thus, discounting the value of an arbitrator’s opinion. No special knowledge or analytical skills would be required to render such a decision, therefore, destroying one of the major points of arbitration. Also, such an arbitral award might be biased and less accurate because an arbitrator will not analyse the offers in detail, and the reasoning behind his decision will not be clear. Therefore, mandatory or baseball-style arbitration is not the solution for the FRAND disputes as it undermines the value of arbitration itself. The consensual nature of arbitration is rooted in the freedom of parties’ choice from the initial decision to arbitrate, to choosing the peculiarities of the procedure such as governing law, the scope of the dispute, venue, language, time scale etc. Thus, parties should have the choice between the litigation and arbitration option, and between negotiation and dispute resolution as it corresponds with the nature of arbitration itself.

Such freedom of choice should also cover the right to choose between institutional arbitration under the rules of established arbitration centres or arbitration under SSO rules. Although arbitration centres are equipped very well to deal with FRAND terms disputes, it should be the parties’ choice to choose between SSO procedures or an arbitration centre to resolve a particular dispute.

Thus, what would be the optimal method to resolve FRAND terms disputes: arbitration or litigation? Some parties choose litigation because it is a traditional business strategy; others are unaware of the advantages of arbitration; however, can arbitration be a substitute for litigation or courts better equipped to resolve these disputes? The answer lies in the choice of jurisdiction. If the choice lies in the UK, the US or Hong Kong litigation, all of those jurisdictions are highly skilled to deal with FRAND-terms disputes, but still, even in those jurisdictions, arbitration seems to be a more efficient option. For the cases like *Nokia v Apple*

⁴⁸⁵ Mark Lemley and Carl Shapiro, ‘A Simple Approach to Setting Reasonable Royalties for Standard-Essential Pate’ (2013) 28 Berkeley Technology Law Journal 1135.

that involve multiple jurisdictions, arbitration seems to be a better option not only because it allows parties to substitute multiple litigation proceedings with the single worldwide arbitration proceeding, but also it proposes additional advantages which were examined in the case study example of *TCL v Ericsson* and *Unwired Planet v Huawei*.

In addition to the general advantages of arbitration, such as neutrality, flexibility, impartiality, and enforceability, there are specific advantages allowing arbitration to be particularly suited to resolve FRAND disputes.

First of all, arbitration eliminates the forum shopping phenomenon, which is relevant to patent litigation. Some courts are known as “plaintiff-friendly,” and parties would try bringing their claim to this court even when there is little or no connection between the legal issues and the jurisdiction where the litigation is going to take place. In contrast, arbitration is absolutely free of the place of defendant or claimant incorporation. Moreover, arbitration is often conducted in a neutral venue for both parties. For instance, Hong Kong would be a suitable venue if the SEP owner is in the UK and the implementer is in the US. In addition, when parties conclude an arbitration agreement for a final, binding resolution, they cannot refer to the other binding authority for a dispute settlement. They might use mediation along with arbitration, but they are not able to file the same claim to courts in any other jurisdictions.⁴⁸⁶ Moreover, one of the recent developments in international arbitration is the usage of the arbitration-mediation-arbitration clause allowing parties an additional chance to reach a consensus based on mutual interests without the interference of the court system.⁴⁸⁷ If mediation fails, parties are able to continue resolution through arbitration rendering a final, binding award.

Secondly, patent rights are territorial in nature because they have a strong connection with the country of its origin, giving exclusive rights of the ownership on the limited territory, and the common way of its enforcement is local litigation. However, FRAND disputes with patents registered worldwide would lead to a situation where courts rely on the local understanding of SEP, therefore causing controversial decisions. In *TCL v Ericsson*, the court accepted its jurisdiction over FRAND matters on the basis that FRAND obligations were to be interpreted as an encumbrance on IP rights “where applicable under the laws of the jurisdiction”. It leads to the conclusion that the scope of a court’s jurisdiction over FRAND

⁴⁸⁶ Arbitration Act 1996.

⁴⁸⁷ HKIAC, ‘2018 Administered Arbitration Rules’ (*Hkiac.org*, 2018) < <https://www.hkiac.org/arbitration/rules-practice-notes/hkiac-administered-2018> > accessed 16 December 2021.

disputes depends on the local laws, and therefore it will differ. Arbitration, on the other hand, can offer a whole SEP portfolio determination according to the one set of laws determined by the agreement of the parties. Although the authority of an arbitral tribunal is anchored to a specific jurisdiction and limited by its *lex arbitri* provisions, arbitration is global in nature. *Lex arbitri* provisions set minimum requirements and define the basic rules for arbitration; however, a tribunal can adopt any laws it finds suitable and is entitled to rule on its own jurisdiction.

Thirdly, an appealing side of using arbitration in FRAND terms disputes is that parties may limit the scope of what should be decided by the tribunal in the arbitration agreement as well as to determine the method by which FRAND-terms will be assessed. They can agree that only part of the portfolio would be evaluated, and determined FRAND terms would be applied to the rest of the portfolio. This will significantly shorten the time of the proceedings as well as the cost. The analysis also revealed that FRAND terms disputes could be arbitrable globally, especially in the UK, USA and Hong Kong jurisdictions. All of these jurisdictions allow arbitrability of validity, ownership and infringement of patents, solely limiting the effect of the award to *inter partes* scope. Moreover, parties can state in the agreement directly that the tribunal's authority will be limited to the determination of the royalty rate only, without consideration of the validity and infringement issues.

Fourthly, the specific feature of FRAND terms disputes is whether the declared patents are truly essential or not and whether the question of essentiality might be subject to arbitration. SEPs owners declare many patents to be essential, but in practice, that might not be the case. According to the Communication from the Commission to the European Parliament, only between 10% and 50% of declared patents are truly essential.⁴⁸⁸ Also, in *TCL v Ericsson* the court found that of the 235 Ericsson's SEPs families essential to 2G, 3G and 4G standards, only 148 patents were truly essential. The analysis showed that essentiality could be subject to arbitration because the outcome of proceedings bears strictly *inter partes* effect, the right does not have to be registered by the public authority, and the issue does not involve exclusive jurisdiction of judicial or administrative authority.

The next advantage of FRAND arbitration is the higher level of confidentiality rather than that of litigation. In practice, leaks from arbitration are quite rare and almost impossible in comparison to courts, as it happened in *TCL v Ericsson*. Even when courts propose confidentiality, it is not something that is established automatically. Moreover, there is a clear

⁴⁸⁸ European Commission, *Communication from the Commission to the European Parliament, the Council and the European Economic and Social Committee setting out the EU approach to Standard Essential Patents* (Brussels 2017) < <https://ec.europa.eu/docsroom/documents/26583> > accessed 16 December 2021.

contrast of the court's duty to publish an award compared to the confidential nature of arbitration. Sometimes when courts publish a redacted version, it is possible to figure out sensitive details relying on the published text, which increases risks of negative consequences for parties who intended to keep specific disputes undisclosed. Also, in case another third party later decides to sue the SEP owner claiming invalidity of a patent, it will not be able to rely upon the evidence given in the arbitration by the previous party.

In addition, the time and cost-efficiency of FRAND arbitrations are much higher than that of litigation. The analysis showed that a UK court could perform a FRAND valuation in around 18 months, in contrast to a US court, which would take even longer. As examples, both *Unwired Planet v Huawei* and *TCL v Ericsson* took more than three years without appeals. In contrast, typical arbitration timeframes for FRAND-terms disputes vary from a year and a half to two years for a final decision.⁴⁸⁹ Moreover, FRAND-terms determination is quite often based on the patent family (e.g. the same technology registered in many jurisdictions) rather than on a single patent. In this case, courts will rely on their domestic SEPs rules and examples related to the registered IPR, which will consequently lead to the time-loss and increase of the cost because of parallel proceedings in various jurisdictions and possibly controversial decisions. In contrast, arbitration would be a much better option, allowing parties to decide which law to choose, where to hold the hearings and determine the whole patent portfolio disputes in one single procedure, significantly reducing the time and costs in the end.

To sum up, FRAND-terms disputes are indeed unique in nature, and this is a relatively new area of law. Arbitration proposes unprecedented advantages when it is chosen as a method to resolve FRAND-terms disputes. Arbitration ceases the issue of forum shopping; it can offer a whole SEP portfolio determination according to the one set of laws determined by the agreement of the parties instead of multiple litigations in different jurisdictions; by means of arbitration, parties are given an opportunity to limit the scope of what should be decided by the tribunal in the arbitration agreement as well as to determine the method by which FRAND-terms will be assessed; the analysis also showed that patent essentiality could be subject to arbitration when it is an issue between the parties. Nevertheless, arbitration proposes distinctive advantages in FRAND dispute resolution; it also has its limitations such as *ex parte* basis of interim measures, *inter partes* effect of the award, restricted range of the final remedies as well as its advantages such as confidentiality and limited appeal option can also be treated as disadvantages from certain points of view. Therefore, choosing arbitration in FRAND-terms

⁴⁸⁹ Richard Vary, 'Patent licensing: what next for FRAND?' *Bird & Bird LLP* (London 2019).

disputes bears its opportunities and limitations at the same time; nevertheless, there is no other global solution such as arbitration providing resolution to multijurisdictional patent disputes in one single procedure. Lastly, mandatory “baseball-style” arbitration could not be recommended for FRAND-terms disputes due to the consensual nature of arbitration; however, this issue might be suggested for further research once more case law and regulations are available.

To conclude the thesis, the following recommendations are proposed. The analysis revealed that the lack of transparency is one of the most significant challenges of arbitration. Therefore, it is suggested to conclude an international agreement for the country-signatories of the New York Convention regarding the transparency in international commercial arbitration. The agreement might take the form of an additional international agreement to the New York Convention or the form of soft law guidance such as IBA guidance on international arbitration. The United Nations Convention on Transparency in Treaty-based Investor-State Arbitration would be a useful instrument for the drafting Convention on the transparency for international commercial arbitration. It should allow for creating a body of arbitration cases that will not only promote arbitration globally but also educate the global community on the most recent issues linked to the global patent disputes. Additionally, it will contribute to further development for FRAND-terms disputes regulations as the rise of FRAND-terms disputes is envisaged. Also, it is suggested for the arbitration centres to expand their annual statistics by including a more detailed summary of the cases and disputed issues.

Secondly, mandatory arbitration is suggested in a limited number of circumstances. Mandatory arbitration would be beneficial for the repetitive patent disputes between the same parties. Although consent is one of the core features of arbitration, the research has revealed that IPR owners prefer arbitration as a method to resolve global patent disputes, and it is recognised as the best-adopted practice for such cases. Therefore, it is proposed to incorporate an arbitration clause in all further contracts between the parties involved in the dispute.

Furthermore, the prospect of the establishment of the Unified Patent Court suggests a possible harmonisation and systematisation of global patent disputes; however, its competence will be limited only to the EU Member States; secondly, it is still a question if UPC will start functioning. Thus, the UPC function and its role are suggested for further research when UPC starts functioning.

Lastly, the switch to the digital dispute resolution system has created unprecedented opportunities for effective global patent dispute resolution. Litigation and arbitration systems introduced and implemented online systems to resolve global disputes in an efficient manner.

Thus, due to the growing opportunities of the online systems, it is suggested for further research to investigate whether a judicial or arbitration system could become the most effective solution in the digital dispute resolution era.

Table of cases

Actavis v Eli Lilly [2012] EWHC 3316 (Pat)

Allianz SpA and Generali Assicurazioni Generali SpA v West Tankers Inc. C-185/07, [2009] ECR I-0066

Allied-Bruce Terminix Co. v Dobson 513 U.S. 265 (1995)

Ali Shipping Corp v Shipyard Trogir [1999] 1 W.L.R. 314

Alice v CLS Bank 573 [2014] 134 S. Ct. 2347

American Cyanamid Co v Ethicon Ltd [1975] AC 396

American Superconductor Co v Sinovel Wind Group arbitration (2012)

American Superconductor Co. v Sinovel Wind Group 22 Fed. Cir. (2018) B.J. 641

AMP v Myriad [2013] 12-398 569

Apple Inc. v BYD Co. Ltd., 15-cv-04985-RS (N.D. Cal. Mar. 2, 2016)

Apple Inc v Motorola Mobility Inc. 886 F.Supp. 2d 061,1081-1082 (WD Wis. 2012)

Apple Inc. v Samsung Electronics Co., Ltd. 888 F. Supp. 2d 976 (N.D. Cal. 2012)

Apple Inc. v Samsung Electronics. Co., 786 F.3d 983 (Fed. Cir. 2015)

British Technology Group Ltd v Boehringer Mannheim Corporation [1998] EWHC Patents 314

Caringal v Karteria Shipping 2001 WL 874705 (E.D. La .2001)

Contship Container Lines v PPG Indus 2003 WL 1948807 (S.D.N.Y. 2003)

eBay Inc v MercExchange LLC 547 US 388 (2006)

Emmott v Wilson & Partners Limited [2008] EWCA Civ 184

Ericsson Inc. v Huawei arbitration 2016

Ericsson Inc. v InterDigital Communications 3:93-CV-1809-M (N.D. Tex. Jun. 3, 2004)

Ericsson Inc. v InterDigital Communications 418 F.3d 1217 (Fed. Cir. 2005)

Ericsson Inc. v TCL Communication Tech. Holdings, Ltd., 2:15-cv-00011-RSP (2020)

Gao Haiyan v Keeneye Holdings Ltd and another (No 2) [2012] 1 HKC 491

Gazprom OAO v Lietuvos Respublika C-536/13, ECLI: EU:C:2015:316

Genentech Inc. v Hoechst GmbH and Sanofi-Aventis Deutschland GmbH [2016] ECLI:EU:C:2016:526

Gerald Metals SA v The Trustees of the Timis Trust and others [2016] EWHC 2327

Gilmer v Interstate/Johnson Lane Corporation 500 U.S. 20, 24 (1991)

Habas Sinai Ve Tibbi Gazlar Isthisal Endustri AS v Sometal SAL [2010] EWHC 29 (Comm)

Halliburton Company v Chubb Bermuda Insurance Ltd [2020] UKSC 48

Henry Schein, Inc. v Archer & White Sales, Inc. 586 U.S., 139 S. Ct. 524 (2019)

HTC Corporation v Nokia Corporation [2013] EWCA Civ. 1759

HTC Corporation v Nokia Corporation (No2) [2013] EWHC 3778 (Pat)

Huawei Technologies Co. v Samsung Elecs. No. 3:16-cv-02787-WHO (N.D. Cal. Apr.13, 2018)

Huawei Technologies Co. v ZTE Corp., ZTE Deutschland GmbH C-170/13, ECLI: EU:C:2014:2391

InterDigital Communications Corp. v Nokia Corp. 407 F. Supp. 2d 522 (S.D.N.Y. 2005)

Ipcom GmbH & Co Kg v HTC Europe Co Ltd and others [2013] EWHC 2880

Lin Ming and another v Chen Shu Quan and others HCA 1900/2011

Markman v Westview Instruments Inc. 517 U.S.370 (1996)

Mastrobuono v Shearson Lehman Hutton, 514 US 52, 58 (1995)

Mitchell v HCL America Inc. No. 5:2015cv00565 (E.D.N.C. 2016)

Nokia Corporation v Apple 2:16-cv-01441-JRG (2016)

Nokia Corporation v BlackBerry arbitration 2017

Nokia Corporation v InterDigital Technology Corporation arbitration 2003

Nokia Corporation v Interdigital Technology Corporation [2005] EWCA CIV 614

Nokia Corporation v LG arbitration 2017

Nokia Corporation v Samsung arbitration 2016

Novartis AG v Hospira UK Limited [2013] EWHC 1285

OOO Abbott v Econowall UK Ltd [2016] EWHC 660 (IPEC)

Oracle America Inc. v Myriad Group A.G. No. 11-17186 (9th Cir. 2013)

Pacific China Holding Ltd v Grand Pacific Holdings Ltd [2012] 4 HKLRD 1

Pharmacia & Upjohn Co. v Elan Pharmaceuticals Inc. 2004 NY Slip Op 06448 [10 AD3d 331]

Qualcomm v LG arbitration 2016

Roussel-Uclaf v GD Searle & Co Ltd [1978] 1 Lloyd's Rep, Ch. Div. 225

Samsung Electronics v Apple No. 15-777 (2016) WL 7078449

Samsung Electronics – Enforcement of UMTS Standard Essential Patents COMP/C – 3/39.939 (2013)

Sanofi-Aventis Deutschland GmbH v Genentech, Inc., 716 F.3d 586 (Fed. Cir. 2013)
 SDL Hair Ltd v Next Row Ltd & others [2014] EWHC 2084
 Simula Inc. v Autoliv Inc 175 F.3d 716 (9th. Cir.1999)
 Smart Techs. ULC v Rapt Touch Ireland Ltd 2016 WL 3871179
 Symbian Ltd v Comptroller General of Patents [2008] EWCA Civ 1066
 Taxfield Shipping v Asiana Marine [2006] HKCU 445
 TC Heartland LLC v Kraft Foods Group Brands LLC 581 US (2017)
 TCL Commc'ns Tech. Holdings Ltd. v Telefonaktenbologet LM Ericsson, No. SACV 8-14-cv-00341-JVS (C.D. Cal. May 26, 2016)
 TCL Commc'ns Tech. Holdings, Ltd. v Telefonaktiebolaget LM Ericsson SACV 14-341 JVS(DFMx) (C.D. Cal. Mar. 9, 2018)
 The Athena [2000] 2 All ER 566
 The Matter of Dell Computer Corporation, FTC Docket C-3658, 121 FTC (1996)
 The Matter of Motorola Mobility LLC and Google Inc. FTC File No 1210120 (2013)
 Thomas v Portsea [1912] AC 1
 TQ Delta LLC v Zyxel Communications UK Ltd and another [2018] EWHC 1515
 United States v Panhandle Eastern Corp 118 FRD 346 (Del. 1988)
 Unwired Planet International Ltd v Huawei Technologies Co Ltd [2017] EWHC 711 (Pat)
 Unwired Planet International Ltd v Huawei Technologies Co Ltd [2018] EWCA CIV 2344
 Unwired Planet International Ltd v Huawei Technologies Co Ltd [2020] UKSC 37
 US v Sinovel Wind Group Co., Ltd. 794 F.3d 787 (7th Cir. 2015)
 Vital Pharmaceuticals d/b/a VPX Sports v Pepsico. Inc 20-CIV-62415-RAR (2020)
 WesternGeco v ION Geophysical, No. 16-1011 (2018)
 Willemijn Houdstermaatschappij BV v Standard Microsystems Corporation, 103 f.3d 9 (2nd Cir. 1997)

Table of Legislation

Arbitration Act 1996

Arbitration (Amendment) Bill 2016 of the Hong Kong Special Administrative Region

Arbitration (Amendment) Ordinance 2017 of the Hong Kong Special Administrative Region

Arbitration Ordinance (Cap 609) 2011 of the Hong Kong Special Administrative Region

Patents Act 1977

Patents (General) Rules (Cap514C) of the Hong Kong Special Administrative Region

Patents Ordinance (Cap 514) of the Hong Kong Special Administrative Region

The Basic Law of the Hong Kong Special Administrative Region

The Patent Rules 2007

Title 35 of the United States Code (Patents)

Title 9 of the United States Code (The Federal Arbitration Act)

International Treaties

Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) is Annex 1C of the Marrakesh Agreement Establishing the World Trade Organization (signed 15 April 1994, entered into force 1 January 1995)

Arrangement Concerning Mutual Assistance in Court-ordered Interim Measures in Aid of Arbitral Proceedings by the Courts of the Mainland and of the Hong Kong Special Administrative Region (signed 2 April 2019, entered into force 1 October 2019)

Brussels I Regulation (signed 2001, entered into force 1 March 2002)

The European Patent Convention (signed 5 October 1973, entered into force 7 October 1977)

The Lugano Convention (signed 2007, entered into force 1 January 2010)

The Paris Convention for the Protection of Industrial Property (signed 20 March 1883, entered into force 7 July 1884)

The Patent Cooperation Treaty (signed 19 June 1970, entered into force 24 January 1978)

Treaty on the Functioning of the European Union (signed 25 March 1957, entered into force 1 January 1958)

UNCITRAL Model Law on International Commercial Arbitration (adopted June 1985, amended July 2006)

United Nations Convention on the Recognition and Enforcement of Foreign Arbitral Awards (adopted June 1958, entered into force 7 June 1959)

Bibliography

AAA, 'Arbitrator Survey Finds: How parties and counsel increase costs and lower efficiency of their cases' (*Adr.org*, 2018) <<https://go.adr.org/arbitrator-survey-downloads.html?aliId=eyJpIjoizVVqVHZqQjNcL0NBSDAzQ0YiLCJ0IjoieW5ZVjGNEZjYlM5SFVaamM0NW5YQT09In0%253D>> accessed 19 December 2022

AAA, '2016 data report' (*Adr.org*, 2016) <<https://www.adr.org/research>> accessed 12 September 2020

AAA-ICDR, '2018 ICDR case data infographic' (*Icdr.org*, 2018) <https://www.icdr.org/sites/default/files/document_repository/2018_ICDR_Case_Data.pdf?ga=2.99414750.1934215673.1611296782-1119081202.1610956750> accessed 2 February 2022

AAA, "'Products of the Mind" require special handling: arbitration surpasses litigation for intellectual property disputes' (*Adr.org*, 2017) <https://www.adr.org/sites/default/files/document_repository/AAA192_Intellectual_Property_Disputes.pdf> accessed 16 December 2021

AAA, 'The Top 10 Ways to Make Arbitration Faster and More Cost Effective' (*Adr.org*, 2018) <https://www.adr.org/sites/default/files/document_repository/The%20Top%20Ten%20Ways%20to%20Make%20Arbitration%20Faster%20and%20More%20Cost%20Effective.pdf> accessed 19 December 2022

Adamo KR, 'Overview of international arbitration in the intellectual property context' (2011) 2 The Global Business Law Review 7

Ailworth E, 'Data theft case may test US, China ties' (2011) 19 Boston Globe 19

- Alcácer J, Beukel K and Cassiman B, 'Capturing value from IP in a global environment' (2015) Harvard Business School Working Paper 17-068
- Allison J, Lemley M and Schwartz D, 'Understanding the realities of modern patent litigation' (2014) 92 Texas Law Review 1769
- Aplin TF and Davis J, *Intellectual property law: Text, cases, and materials* (4th edn, Oxford University Press 2022)
- Bajwa S, 'Apple v Samsung: Is It Time to Change Our Patent Trial System' (2014) 27(1) Pacific McGeorge Global Business & Development Law Journal 77
- Basedow J, Kono T and Metzger A, *Intellectual Property In The Global Arena: Jurisdiction, Applicable Law, and the Recognition of Judgments in Europe, Japan and the US* (Mohr Siebeck 2012)
- Binns R and Walles N, 'Royalties for Unpatented Technology' (2017) 52(1) Les Nouvelles-Journal of the Licensing Executives Society 27
- Blu-Ray Disc Association, 'Amended & restated bylaws' (*Blu-raydisc.com*, 24 October 2008)
- <[http://blu-raydisc.com/Assets/Downloadablefile/BDA-Bylaws-\(v1.6\)-16278.pdf](http://blu-raydisc.com/Assets/Downloadablefile/BDA-Bylaws-(v1.6)-16278.pdf)> accessed 16 December 2021
- Bochanczyk-Kupka D, 'A comparative analysis of intellectual property rights protection in China and India in the XXI century' (2016) 9 (1) The Journal of International Studies 56
- Boeker M, Howard M, Basu S and Sahaym A, 'Interpersonal relationships, digital technologies, and innovation in entrepreneurial ventures' (2021) 125 Journal of Business Research 495
- Born G, *International Arbitration: Law and Practice* (3rd edn, Wolters Kluwer 2021)
- Born G, *International Commercial Arbitration* (3rd edn, Kluwer Law International BV 2021)

Brannen E, Barnes J and Murphy A, 'Patent Litigation May Be On The Rise During Pandemic' (*Law360.com*, 2020) <<https://www.law360.com/articles/1273734/patent-litigation-may-be-on-the-rise-during-pandemic>> accessed 9 January 2022

Brock D and Pither R, 'How international law firms might approach the subject of ADR with clients' in JC Goldsmith, A Ingen-Housz and GH Pointon (eds), *ADR in business: Practice and issues across countries and cultures* (Kluwer Law International 2011)

Bryer LG, Lebson SJ and Asbel MD, *Intellectual property strategies for the 21st century corporation: A shift in strategic and financial management* (John Wiley & Sons, Inc. 2011)

Bultman M, 'Patent Lawsuits on Rise, Buying Spree Hints More To Come' (*Bloomberglaw.com*, 2020) <<https://news.bloomberglaw.com/ip-law/patent-lawsuits-on-rise-buying-spree-hints-more-to-come>> accessed 9 January 2022

Burnham W, *Introduction to the Law and Legal System of the United States* (6th edn, West Academic Publishing 2016)

Callens P and Granata S, *The Unitary Patent and the Unified Patent Court* (Kluwer Law International BV 2017)

Cappuyns P and Vanherpe J, 'Patent Royalties and Competition Law: The Genentech Judgment of the Court of Justice of the European Union' (2016) 51 (4) *Les Nouvelles-Journal of the Licensing Executives Society* 283

Carbonneau T, 'A Comment on the 1996 United Kingdom Arbitration Act' (1998) 22 *Tulane Maritime Law Journal* 131

Certilman SA, 'This is a Brief History of Arbitration in the United States' (2010) 3(1) *New York Dispute Resolution Lawyer* 10

Chrocziel P, Kasolowsky B, Whitener R, Waldeck P and Wolrad P, *International Arbitration of Intellectual Property Disputes: A Practitioner's Guide* (Hart 2017)

Cook TM and Garcia AI, *International Intellectual Property Arbitration* (Aspen Publishers 2010)

Coombe G, 'The Resolution of Intellectual Property Disputes Involving East Asian Parties' (1996) 19 *Hastings International and Comparative Law Review* 707

Cooter R and Ulen T, *Law and Economics*, 6th edition (Berkeley Law Books 2016)

Cremers K, Ernicke M, Gaessler F, Harhoff D, Helmers C, McDonagh L, Schliessler P and Van Zeebroeck N, 'Patent litigation in Europe' (2017) 44 *European Journal of Law and Economics* 1

Creswell JW and Creswell JD, *Research design: Qualitative, quantitative, and mixed methods approaches* (5th edn, SAGE 2018)

Creswell JW and Plano Clark VL, *Designing and conducting mixed research methods* (3rd edn, SAGE 2018)

CWL Partners, 'Patent enforcement through the courts in Hong Kong' (*Lexology.com*, 2015) <<https://www.lexology.com/library/detail.aspx?g=a98a1dc3-0b95-4b65-9c92-dedfabd8fcb5>> accessed 9 January 2022

Daniels JP and Van Hoose DD, *Global economic issues and policies* (4th edn, Routledge 2018)

Dechezleprêtre A, Ménière Y and Mohnen M, 'International patent families: from application strategies to statistical indicators' (2017) 111(2) *Scientometrics* 793

Denae RT, 'Expansive Disclosure: Regulating Third-Party Funding for Future Analysis and Reform' (2018) 59 (8) *Boston College Law Review* 2935

Denscombe M, *The good research guide: For small-scale social research projects* (6th edn, McGraw Hill Education 2017)

De Werra J, 'The Expanding Significance of Arbitration for Patent Licensing Disputes: from Post-Termination Disputes to Pre-Licensing FRAND Disputes' (2014) 32(4) *ASA Bulletin* 692

Dinwoodie GB, 'International Intellectual Property Litigation: A Vehicle for Resurgent Comparativist Thought?' (2001) 49(3) The American Journal of Comparative Law 429

Di Vita G, 'International strengthen of intellectual property rights, and financial markets development'(2016) 40(1) The Journal of Economics & Finance 60

Dong A, 'Is an Infringement Claim within the Scope of Arbitration Clause under Laws of PRC? (*Kluwerarbitration.com*, 2014)

<<http://arbitrationblog.kluwerarbitration.com/author/arthur-dong/>>accessed on 23 April 2021

Durosaro W, 'The Role of Arbitration in International Commercial Disputes' (2014) 1(3) International Journal of Humaninties, Social Sciences and Education 1

DVB, 'Memorandum of understanding further amended and restated for the development of harmonised Digital Video Broadcasting (DVB) services based on European specifications' (*Dvb.org*, 2019) < https://dvb.org/wp-content/uploads/2019/12/dvb_mou.pdf> accessed on 23 January 2022

Erk-Kubat N, *Parallel Proceedings in International Arbitration: A Comparative European Perspective* (Kluwer Law International 2014)

ETSI, 'Directives, version 38' (*Etsi.org*, 2018)

<https://portal.etsi.org/directives/38_directives_feb_2018.pdf> accessed on 23 January 2022

ETSI, 'ETSI Newsletter' (*Etsi.org*, 2014)

<https://www.etsi.org/images/files/ETSInewsletter/etsinewsletter_feb2014.pdf> accessed on 23 January 2022

European Commission, *Antitrust: Commission sends Statement of Objections to Samsung on potential misuse of mobile phone standard-essential patents* (Brussels 2012),

<https://ec.europa.eu/commission/presscorner/detail/en/IP_12_1448> accessed 4 February 2022

European Commission, *Communication from The Commission to the European Parliament, the Council and the European Economic and Social Committee setting out the EU approach to Standard Essential Patents* (Brussels 2017)

<<https://ec.europa.eu/docsroom/documents/26583>> accessed 4 February 2022

European Commission, *Patents and Standards: a modern framework for IPR-based standardization* (Publication office of the European Union 2014) <

<https://op.europa.eu/en/publication-detail/-/publication/43222f7f-4604-46db-95bd-6650ae5fa441/language-en> > accessed 16 December 2021

Fishburne B and Lian C, 'Commercial Arbitration in Hong Kong and China: A Comparative Analysis' (1997) 18(1) *University of Pennsylvania Journal of International Economic Law* 297

Fraizer T and Auvil S, 'Patent Litigation Filings on the Increase with the COVID-19 Pandemic' (*Iptechblog.com*, 2020) < <https://www.iptechblog.com/2020/05/patent-litigation-filings-on-the-increase-with-the-covid-19-pandemic/> > accessed 9 January 2022

Gartner, 'Leading the IoT. Gartner Insights on how to lead in a connected world' (*Gartner.com*, 2017) <https://www.gartner.com/imagesrv/books/iot/iotEbook_digital.pdf> accessed on 23 April 2021

Geradin D, 'Access for All v. License to All: A Response to Richard Vary' (*Ssrn.com*, 2020) < <https://ssrn.com/abstract=3587319> > accessed 2 February 2022

Glenn PH, 'Aims of Comparative Law' in Jan M Smits (ed), *Elgar Encyclopedia of Comparative Law* (2ndedn, Edward Elgar Publishing 2014)

Graham S and Van Zeebroeck N, 'Comparing patent litigation across Europe: A first look' (2014) 17 *Stanford Technology Law Review* 655

Guzman AT and Meyer TL, 'International soft law' (2010) 2(1) *Journal of Legal Analysis* 171

Hacking D, 'The Story of the Arbitration Act 1979' (2010) 76 (1) *Arbitration: The International Journal of Arbitration, Mediation and Dispute Management* 125

Halket TD, *Arbitration of international intellectual property disputes* (2nd edn, Juris Publishing Inc. 2021)

Hart T, Clark S and Fazzani L, *Intellectual property law* (6th edn, Palgrave Macmillan 2013)

Heiskanen V, 'Key to Efficiency in International Arbitration' (*Kluwerarbitration.com*, 2015) < <http://arbitrationblog.kluwerarbitration.com/2015/05/29/key-to-efficiency-in-international-arbitration/> > accessed 8 January 2022

Helmets C and McDonagh L, 'Patent litigation in the UK' (2012) LSE Law, Society and Economy Working Papers 12/2012 < <https://orca.cardiff.ac.uk/60863/1/Patent%20Litigation%20in%20the%20UK.pdf> > accessed 16 December 2021

Helmets C and McDonagh L 'Patent litigation in England and Wales and the issue-based approach to costs' (2013b) 32(3) *Civil Justice Quarterly* 369

Helmets C, Lefouili Y and McDonagh L, 'Examining Patent Cases at the Patents Court and Intellectual Property Enterprise Court 2007-2013' (UK Intellectual Property Office 2015)

Helmets C, Lefouili Y and McDonagh L, 'Evaluation of the Reforms of the Intellectual Property Enterprise Court 2010-2013' (UK Intellectual Property Office 2015)

Helmets C, 'The economic analysis of patent litigation data' (2018) WIPO Economic Research Working Paper 48

HKIAC, 'Case Statistics 2016' (*Hkiac.org*, 2016) <<http://www.hkiac.org/about-us/statistics>> accessed 7 August 2017

HKIAC, '2018 Administered Arbitration Rules' (*Hkiac.org*, 2018) <<https://www.hkiac.org/arbitration/rules-practice-notes/hkiac-administered-2018>> accessed 16 December 2021

HKIAC, 'Fee calculator' (*Hkiac.org*, 2018)

<<https://www.hkiac.org/arbitration/fees/administered-arbitration-fees/fee-calculator-2018>>
accessed 16 February 2022

HKIAC, 'Panel of Arbitrators for Intellectual Property Disputes' (*Hkiac.org*, 2019)

<<https://www.hkiac.org/arbitration/arbitrators/panel-arbitrators-intellectual-property>>
accessed 9 January 2022

HKIAC, 'Enforcement of awards in Hong Kong: 2020' (*Hkiac.org*, 2020)

<<https://www.hkiac.org/about-us/statistics/enforcement-awards>> accessed 16 December 2021

HKIAC, 'Average cost and duration' (*Hkiac.org*, 2021)

<<https://www.hkiac.org/content/costs-duration>> accessed 16 December 2021

HKIAC, 'HKIAC Average Costs and Duration' (*Hkiac.org*, 2021)

<<http://www.hkiac.org/content/costs-duration>> accessed 9 January 2022

Hoecke MV, 'Methodology of Comparative Legal Research' [2015] *Law and Method* 1

Hopson H, 'Genentech: No EU Competition Law Barrier to Patent Royalties Despite Invalidity or Non-infringement of the Licensed Patent (s)' (2016) 7(10) *Journal of European Competition Law & Practice* 679

Horwitz H and Oldham J, 'John Locke, Lord Mansfield, and Arbitration During the Eighteenth Century' (1993) 36(1) *The Historical Journal* 137

HP, 'HP Survey 2019' (*Hp.com*, 2019)

<<http://h30614.www3.hp.com/collateral/Barcelona2013/presentations/IT3112.pdf>> accessed 12 December 2019

ICANN, 'Uniform Domain Name Dispute Resolution Policy' (*Icann.org*, 2012)

<<https://www.icann.org/resources/pages/policy-2012-02-25-en>> accessed 9 January 2022

ICC, 'Cost calculator' (*Iccwbo.org*, 2022) < [https://iccwbo.org/dispute-resolution-](https://iccwbo.org/dispute-resolution-services/arbitration/costs-and-payments/cost-calculator/)

[services/arbitration/costs-and-payments/cost-calculator/](https://iccwbo.org/dispute-resolution-services/arbitration/costs-and-payments/cost-calculator/)> accessed 16 February 2022

ICDR, 'Arbitration Report. Time and Cost. Considering the Impact of Settling International Arbitrations' (*Icdr.org*, 2017)

<https://www.icdr.org/sites/default/files/document_repository/AAA241_ICDR_Time_and_Cost_Study.pdf?_ga=2.124690250.1934215673.1611296782-1119081202.1610956750>
accessed 16 December 2021

Intellectual Property Department, Government of Hong Kong, *Review of the patent system* (Hong Kong 2011)

<https://www.ipd.gov.hk/eng/intellectual_property/patents/Review_of_the_Patent_System.htm> accessed 4 February 2022

Intellectual Property Department, Government of Hong Kong, *Intellectual Property Arbitration* (Hong Kong 2018) <https://www.ipd.gov.hk/eng/IP_Arbitration.htm> accessed 19 December 2021

Intellectual Property Office, 'Focus on Intellectual Property Right' (*Zis.gov.rs* 2018) <https://zis.gov.rs/upload/documents/pdf-en/pdf/What%20is%20IP_WIPO.pdf> accessed 19 December 2022

Jurcys P, 'International Jurisdiction in Intellectual Property Disputes: CLIP, ALI Principles and Other Legislative Proposals in a Comparative Perspective' (2012) 3 *Jipitec* 2190

Kaplan N, 'The History and Development of Arbitration in Hong Kong' (1996) 1 *International Journal of Finance and Economics* 203

Kartuzou M, 'Advantages and disadvantages of International Commercial Arbitration in Comparison to Litigation and other Means of Dispute Resolution' (2015) 2(3) *European Political and Law Discourse Journal* 64

Kaufmann-Kohler G, 'Soft Law in International Arbitration: Codification and Normativity' (2010) 1(2) *Journal of International Dispute Settlement* 283

Kesan J, 'Patent trolls' in Ben Depoorter (ed), *Research Handbook on the Economics of Intellectual Property Law* (Edward Elgar Publishing 2019)

Kim SY, Park ST and Kim YK, 'Samsung-Apple patent war case analysis: focus on the strategy to deal with patent litigation' (2015) 13(3) *Journal of Digital Convergence* 117

Kirby J, 'Efficiency in International Arbitration: Whose Duty Is It?' (2015) 32 *Journal of International Arbitration* 689

Kok M and Wong S, 'The Storm Over A Teacup: Hong Kong Top Court Clarifies IP Law' (2016) 11 (6) *Journal of Intellectual Property Law & Practice* 410

La Belle MM, 'Patent Law as Public Law' (2012) 20 *Mason Law Review* 41

Langbroek P, Den Bos KV, Thomas MS, Milo M, Van Rossum W, 'Methodology of Legal Research: Challenges and Opportunities' (2017) 13 (3) *Utrecht Law Review* 1

LCIA, 'LCIA Releases costs and duration data' (*Lcia.org*, 2015)

<<https://www.lcia.org/News/lcia-releases-costs-and-duration-data.aspx>> accessed 16 December 2021

LCIA, 'Tools to facilitate smart and informed choices' (*Lcia.org*, 3 November 2015)

<<https://www.lcia.org/News/lcia-releases-costs-and-duration-data.aspx>> accessed 16 December 2021

Lee P, 'Toward a Distributive Agenda for US Patent Law' (2017) 55(2) *Houston Law Review* 321

Legislative Council Brief, *Arbitration (Amendment) Bill 2016* (Hong Kong 2016)

<https://www.legco.gov.hk/yr16-17/english/bills/brief/b201612021_brf.pdf> accessed 7 January 2022

Legler T and Schaffler A, 'A look to the future of international IP arbitration' in John V H Pierce and Pierre-Yves Gunter (eds), *The Guide to IP Arbitration* (Law Business Research 2021)

Lemley M and Shapiro C, 'A Simple Approach to Setting Reasonable Royalties for Standard-Essential Pate' (2013) 28 *Berkeley Technology Law Journal* 1135

Luginbuehl S, *European patent law: towards a uniform interpretation* (Edward Elgar Publishing 2011)

Lundstedt L, 'Territoriality in Intellectual Property Law: A comparative study of the interpretation and operation of the territoriality principle in the resolution of transborder intellectual property infringement disputes with respect to international civil jurisdiction, applicable law and the territorial scope of application of substantive intellectual property law in the European Union and United States (Doctoral dissertation, Stockholm University 2016).

Magnusson A and Quero CES, 'Recent Developments in International Arbitration. Allocation of Costs: a Case study (*Sccinstitute.com*, 2014)

<https://sccinstitute.com/media/56023/allocation-of-costs-in-scc-cases_taipei-30-august-2014.pdf> accessed 7 January 2022

McDonagh L and Bonadio E, *Standard Essential Patents and the Internet of Things* (Brussels, Belgium: European Parliament 2019)

<<https://openaccess.city.ac.uk/id/eprint/21619/1/Standard%20Essential%20Patents.pdf>> accessed 4 February 2022

Mereminskaya E, 'Results of the Survey on the Use of Soft Law Instruments in International Arbitration' (*Kluwerarbitration.com*, 2014)

<<http://arbitrationblog.kluwerarbitration.com/2014/06/06/results-of-the-survey-on-the-use-of-soft-law-instruments-in-international-arbitration/>> accessed 2 February 2022

Micronomics, 'Measuring the costs of delays in dispute resolution' (*Adr.org*, 2015)

<https://go.adr.org/impactsofdelay.html?_ga=2.72324819.1934215673.1611296782-1119081202.1610956750> accessed 9 January 2022

Morrison and Foerster, 'Benchmarking IP litigation 2019' (*Media2.mofo.com*, 2019)

<<https://media2.mofo.com/documents/benchmarking-ip-litigation-2019.pdf>> accessed 16 December 2021

Negm MH and Bustanji H, 'Particularity of Arbitration in International Intellectual Property Disputes: Fitting Square Peg into Round Hole' (2018) 14 Asian International Arbitration Journal 89

Nokia, 'Press release' (*Nokia.com*, 2017) <<https://www.nokia.com/about-us/news/releases/2017/09/18/nokia-receives-decision-in-patent-license-arbitration-with-lg-electronics/>> accessed on 23 January 2022

Ogawa K, 'Overcoming problems with use of arbitration for intellectual property disputes'(2011) 20 *The IPP Bulletin* 13

Oldham J and Kim SJ, 'Arbitration in America: The Early History' (2013) 31(1) *Law and History Review* 241

Olijnyk A, *Justice and efficiency in mega-litigation* (Hart 2019)

Oswald LJ, 'International issues in secondary liability for intellectual property rights infringement' (2008) 45 *American Business Law Journal* 247

Park WW, 'Chapter 26: Arbitration and Fine Dining: Two Faces of Efficiency' in Patricia Shaughnessy and Sherlin Tung (eds), *The Powers and Duties of an Arbitrator* (Kluwer Law International 2017)

Pegram J, 'Should the US Court of International Trade be Given Patent Jurisdiction Concurrent with That of the District Courts' (1995) 32(1) *Houston Law Review* 67

Pelegriova L and Lancy M, 'Protection of intellectual property and its economic aspects'(2016) 5 (3) *The Journal of Economic Development, Environment, & People* 5

Prasad P, 'Arbitration in Singapore and Hong Kong' (2017) *University of Chicago Law School International Immersion Program Papers* 57

PWC, '2015 Patent Litigation Study. A change in patentee fortunes' (*Pwc.com*, 2015) <<https://www.pwc.com/us/en/forensic-services/publications/assets/2015-pwc-patent-litigation-study.pdf>> accessed 16 December 2021

Queen Mary University of London and White & Case, '2015 International Arbitration Survey: Improvements and Innovations in International Arbitration' (*Qmul.ac.uk*, 2015)

< <http://www.arbitration.qmul.ac.uk/research/2015/index.html> > accessed 9 January 2022

Queen Mary University of London and Pinset Masons, 'Pre-empting and Resolving Technology, Media and Telecoms Disputes. International Dispute Resolution Survey' (*Qmul.ac.uk*, 2016) <<http://www.arbitration.qmul.ac.uk/research/2016/index.html> > accessed 3 January 2022

Queen Mary University of London and White & Case, '2018 International Arbitration Survey: The Evolution of International Arbitration' (*Qmul.ac.uk*, 2018) < <https://arbitration.qmul.ac.uk/research/2018/> > accessed 16 December 2021

Queen Mary University of London and White & Case, '2021 International arbitration survey: adapting arbitration to a changing world' (*Qmul.ac.uk*, 2021) <<https://arbitration.qmul.ac.uk/research/2021-international-arbitration-survey/> > accessed 16 December 2021

Roberts G, *International Patent Litigation - Developing an Effective Strategy* (2ndedn, Globe Law and Business 2018)

Rogers C, 'The Arrival of the "Have-Nots" in International Arbitration' (2007) 8 Nevada Law Journal 341

Samuel G, *An Introduction to Comparative Law Theory and Method* (Hart 2014)

Scherpe JM and Marten B, 'Mediation in England and Wales' in Klaus J Hopt and Felix Steffek (eds), *Mediation: Principles and regulation in comparative perspectives* (Oxford University Press 2013)

Schimmel D and Kapoor I, 'Resolving international intellectual property disputes in arbitration' (2009) 21 Intellectual Property & Technology Law Journal 5

Schultz T, 'The roles of dispute settlement and ODR' in JC Goldsmith, A Ingen-Housz and GH Pointon (eds), *ADR in business: Practice and issues across countries and cultures, Volume 2* (Kluwer Law International 2011)

Shapiro C, 'Patent system reform: economic analysis and critique' (2004) 19(3) Berkeley Technology Law Journal 1017

Sidheswar P and Ruchi S, 'Impact of patent rights on innovation: A meta-analysis' (2020) 20(2) Journal of Public Affairs 2000

Smit R and Robinson T, 'Cost awards in international commercial arbitration: proposed guidelines for promoting time and cost efficiency' (2009) 20(3) The American review of international arbitration 267

Spence WC, 'Prepare for litigation and avoid it where possible' (*Iam-media.com*, 3 Oct 2019) <<https://www.iam-media.com/prepare-litigation-and-avoid-it-where-possible>> accessed 2 February 2022

Starr P, 'Case Study: Belt and Road Disputes – Choosing Hong Kong as the Seat of Arbitration' (*Lexology.com*, 2018) <<https://www.lexology.com/library/detail.aspx?g=2c317b69-a79d-468e-93e2-6528e293b52d>> accessed 2 February 2022

Starr P, 'One Belt, One Road' (*Beltandroadsummit.hktdc*, 2017) <https://beltandroadsummit.hktdc.com/2017/pdf/programme/DOJ_Mr_Paul_Starr.pdf> accessed 2 February 2022

Stipanowich TJ, 'Soft Law in the Organization and General Conduct of Commercial Arbitration Proceedings' (2021) Legal Studies Research Paper Series 2021/15

Sussman E and Wilkinson J, 'Benefits of Arbitration in Commercial Disputes' (*Americanbar.org*, 2012) <https://www.americanbar.org/content/dam/aba/publications/dispute_resolution_magazine/March_2012_Sussman_Wilkinson_March_5.authcheckdam.pdf> accessed 19 December 2021

Sweet C and Eterovic D, 'Do patent rights matter? 40 years of innovation, complexity and productivity' (2019) 115 World Development 78

Swiss International Arbitration Decisions, ‘Arbitration clause survives termination. Its scope is to be interpreted liberally’ (*Swissarbitrationdecisions.com*, 2019)

<<http://www.swissarbitrationdecisions.com/arbitration-clause-survives-termination-its-scope-be-interpreted-liberally>> accessed on 23 April 2021

Tackett TQ, ‘The Us-China IP Dispute: How Will the US Respond to and Address China’s Persistent Violation of International and US IP Regulations?’ (2019) 5 *European Journal of Humanities and Social Sciences* 77

The American Intellectual Property Lawyer’s Association, ‘Bi-annual survey of IP-related costs 2019’ (*Aipla.org*, 2019) < https://www.aipla.org/home/news-publications/economic-survey?utm_source=NewsDirect&utm_medium=PressRelease&utm_campaign=LitigationCosts> accessed 9 January 2022

The Commercial Court (England and Wales) User Group, ‘November Meeting Minutes’ (*Judiciary.uk*, 2020) < <https://www.judiciary.uk/wp-content/uploads/2020/12/CCUG-Minutes-November-2020-0112.pdf>> accessed 16 December 2021

The New York Arbitration Convention on the Recognition and Enforcement of Foreign Arbitral Awards 1958, ‘Contracting States’ (*Newyorkconvention.org*, 1958)
<www.newyorkconvention.org/countries> accessed 17 December 2021

The Official Journal of the Law Society of Hong Kong, ‘Intellectual Property Arbitration: Industry Insights’ (*Hk-lawyer.org*, 2017) < <http://www.hk-lawyer.org/content/intellectual-property-arbitration> > accessed 1 February 2022

The US Department of Justice, *Court Imposes Maximum Fine on Sinovel Wind Group for Theft of Trade Secrets* (US 2018)
<<https://www.justice.gov/opa/pr/court-imposes-maximum-fine-sinovel-wind-group-theft-trade-secrets>> accessed 4 February 2022

Thorne C, ‘Are you making the right choice?’ (2017) (spring) *The Resolver* by CIArb

Thorne C, ‘Practitioners overlook arbitration when resolving patent infringement’ (*Mondaq.com*, 2014)

<<http://www.mondaq.com/uk/x/314964/Patent/Practitioners+Overlook+Arbitration+When+Resolving+Patent+Infringement>> accessed 1 January 2022

Todd CB and Vondra AA, 'Alternative dispute resolution: Why it doesn't work and why it does' (1994) 72 Harvard Business Review 120

Torremans P, 'Jurisdiction for cross-border intellectual property infringement cases in Europe' (2016) 53(6) Common Market Law Review 1625

Trimble M, 'Cross-Border Injunctions in US Patent Cases and Their Enforcement Abroad' (2009) 13(2) Marquette Intellectual Property Law Review 331

Ubertazzi B, *Exclusive jurisdiction in intellectual property* (Mohr Siebeck 2012)

UK Government, *HMCTS services: Video Hearing service. Developing the Video Hearings service to support how we deliver justice* (UK 2021) < <https://www.gov.uk/guidance/hmcts-services-video-hearings-service#looking-ahead-in-2021> > accessed 4 February 2022

UK Ministry of Justice, *Transforming our justice system: summary of reforms and consultation* (UK 2016) < https://consult.justice.gov.uk/digital-communications/transforming-our-courts-and-tribunals/supporting_documents/consultationpaper.pdf > accessed 4 February 2022

UNCITRAL, 'Model Law on International Commercial Arbitration (1985) with amendments as adopted in 2006' (*Uncitral.org*, 1985) < https://uncitral.un.org/en/texts/arbitration/modellaw/commercial_arbitration > accessed 2 February 2022

UNCITRAL, 'Status: Convention on the Recognition and Enforcement of Foreign Arbitral Awards (New York, 1958) (the "New York Convention")' (*Uncitral.org*, 1958)
<https://uncitral.un.org/en/texts/arbitration/conventions/foreign_arbitral_awards/status2>
accessed 2 February 2022

UNCITRAL, 'Status: UNCITRAL Model Law on International Commercial Arbitration (1985), with amendments as adopted in 2006' (*Uncitral.org*, 1985)
<https://uncitral.un.org/en/texts/arbitration/modellaw/commercial_arbitration/status>
accessed 2 February 2022

Vary R, 'Patent licensing: what next for FRAND?' *Bird & Bird LLP* (London 2019)

VITA, 'VSO Policies and Procedures' (*Vita.com*, 1 September 2015),
<<https://www.vita.com/resources/Documents/Policies/vso-pp-r2d8.pdf>> accessed 16
December 2021

VonMühlendahl A and Stauder D, 'Territorial intellectual property rights in a global economy - Transit and other 'free zones'' in Pyrmont WPW, Adelman MJ, Brauneis R, Drexler J and Nack R (eds), *Patents and Technological Progress in a Globalized World* (Springer 2009)

Yoon JC, 'IP Litigation in the United States' (2016) Stanford Law School 1

Waelde C, Graeme L, Brown A, Kheria S and Cornwell J, *Contemporary intellectual property: law and policy* (Oxford University Press 2014)

Warner S, 'Patent litigation in multiple jurisdictions: And end to cross-border relief in Europe?' (2006) 28 (11) European Intellectual Property Review 580

Wehland H, 'The Regulation of Parallel Proceedings in Investor-State Dispute' (2016) 31(3) ICSID Review-Foreign Investment Law Journal 576

Weinstein R, Edes C, Hale J and Pearsall N, 'Efficiency and economic benefits of dispute resolution through arbitration compared with U.S. District court proceedings' (*Adr.org*,

March 2017)

<https://go.adr.org/impactsofdelay.html?_ga=2.72324819.1934215673.1611296782-1119081202.1610956750> accessed 16 December 2021

Weiss A and Profaizer J, 'Techniques and Tradeoffs for Incorporating Cost- and Time-Saving Measures into International Arbitration Agreements' (2017) 34(2) *Journal of International Arbitration* 257

WIPO Arbitration and Mediation Center, 'Results of the WIPO Arbitration and Mediation Center International Survey on Dispute Resolution in Technology Transactions' (*Wipo.int*, 2013) <<https://www.wipo.int/amc/en/center/survey/results.html>> accessed 9 January 2022

WIPO, 'An overview of patent litigation systems across jurisdictions' (*Wipo.int*, 2018), <https://www.wipo.int/edocs/pubdocs/en/wipo_pub_941_2018-chapter1.pdf> accessed 9 January 2022

WIPO, 'What is Intellectual Property?' (*Wipo.int* 2018) <https://www.wipo.int/edocs/pubdocs/en/intproperty/450/wipo_pub_450.pdf> accessed 19 December 2022

WIPO, 'WIPO Arbitration Case Examples' (*Wipo.int*, 2021) <<https://www.wipo.int/amc/en/arbitration/case-example.html>> accessed 7 January 2022

WIPO, 'WIPO Caseload Summary' (*Wipo.int*, 2021) <<http://www.wipo.int/amc/en/center/caseload.html>> accessed 7 January 2022

WIPO, 'What is Arbitration?' (*Wipo.int*, 2021) <<https://www.wipo.int/amc/en/arbitration/what-is-arb.html>> accessed 7 January 2022

WIPO, 'Guidance on WIPO FRAND Alternative Dispute Resolution (ADR)' (*Wipo.int*, 2021) <<https://www.wipo.int/export/sites/www/amc/en/docs/wipofrandadrguidance.pdf>> accessed 9 January 2022

WIPO, 'Schedule of Fees and Costs' (*WIPO.int*, 2022) <<https://www.wipo.int/amc/en/arbitration/fees/>> accessed 16 February 2022

Zammit JP and Hu J, 'Arbitrating international intellectual property disputes' (2009) 64 (4) *Dispute Resolution Journal* 74