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# A Comparative Analysis of Intellectual Property Rights: A case of Developed versus Developing Countries Ilayda Nemlioglu<sup>1</sup>

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### Abstract

This paper aims to elaborate the concept of the intellectual property rights and comparatively analyse intellectual property laws in the UK and Turkey. The first reason of selecting one developed and one developing country for this analysis is that, after a country level analysis of the impact of intellectual property rights on capital accumulation is conducted, the empirical analysis has shown that, as well as macroeconomic indicators, the amount of intellectual property rights also explains the differences in capital accumulation in both developed and developing countries. In the countries where IP laws are stronger, it is observed that countries benefit from FDI inflows where IPR are stronger. The second reason behind the choice of countries is that, various empirical studies have shown that companies with greater intellectual capital performs better in the UK and Turkey. For the UK, the main focus of the study is English law and EU laws where relevant<sup>2</sup> as well as international agreements. As a result, it is found that there are ongoing works on improving the IP laws in Turkey in order to comply with the EU accession criteria and international obligations on intellectual property rights protections. However, all the IP laws remain to be decree laws, and the enforcement needs to be strengthened in order to provide efficiency in the use of the written laws. As multinationals tend to get attracted to countries where there are better IPR enforcement, the impact of FDI on capital accumulation in developing countries such as Turkey can be different subject to quality of institutions including IP Laws

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### 1. Introduction

There have been various debates on economic outputs of intellectual properties and how to acknowledge them. Intellectual outputs within a country can officially be registered as intellectual properties subject to national

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<sup>2</sup> As there are still on-going debates on Brexit-deal, this paper assumes that the UK is still a member of EU on the date of the submission.

intellectual property rights. Furthermore, there have also been various debates on how to define those national rights in a global framework in order to be able to acknowledge the innovations globally. After several decades of debates World Trade Organization (WTO) framed the TRIPS (Trade-Related Aspects of Intellectual Properties) agreement which aims to harmonize national intellectual property rights. The signatories to this agreement include over 120 countries that jointly contribute to more than 90 per cent of world trade. The agreement went into effect on January 1, 1995 and has had an implementation period of 1 year for industrialized countries and up to 11 years for developing and transition economies. Later on, this deadline for developing countries was extended to 2005 and then to 2013. This harmonisation of intellectual property rights at the national level aims to regulate the trade relations. And thus, some developing countries which are now less able to attract international trade will be able to benefit from capital flows through international trade or even attract foreign investment. So, previous literature on economic growth shows that stronger IP rights drive economic prosperity and stimulate growth. Thus, harmonizing IPR is essential to both developed and developing countries. Also, both Turkey and the UK are party to TRIPS.

As we suggest above, there have been various attempts on the global settlements over IP rights and harmonisation of IP laws of countries with different jurisdictions in by some international agreements and conventions such as TRIPS, Berne, and Paris. These attempts are due to the fact that at macro level, FDI flows to those developing countries with stronger IP laws where the imitation activities will be limited. Macroeconomic outcomes are strongly tied to the enforcement of IP laws in developed and developing countries. Therefore, it is important to underline the differences in IP laws between the countries especially developed and developing countries. This will help us to test whether empirical results at macro-level -that are alleged to be led by the stronger or weak IP laws – hold in the actual IP law enforcements of developed and developing countries. In this paper, we investigate the differences and similarities in IP laws of Turkey and the UK.

The first reason of choosing one developed and one developing country for this analysis is that when a country level analysis of the impact of intellectual property rights on capital accumulation is conducted and it is observed that in the countries where IP laws are stronger, it is observed that capital accumulation is higher. The second reason behind the choice of countries is that, the impact of intellectual capital on the performance of the UK firms is analysed and found that firms with greater amount of intellectual capital perform better. Therefore, in the light of the arguments in those, the UK is chosen. For the UK, the main focus of the study is English law and EU laws where relevant as well as international agreements. Moreover, Turkey is a developing country that belongs to civil law family and is mainly influenced by French, German laws. Additionally, it is geographically close enough to Europe but still a developing country, and there are on-going works on improving the IP laws in order to comply with the EU accession criteria and international obligations on intellectual property rights protections. Therefore, the comparison of IP laws in the UK and Turkey is done by the main focus being the English and Turkish IP laws, and additionally the IP laws of EU are included in the analyses when relevant.

In this paper, we conduct a comparative analysis of IP laws of a developed country with a developing country: English IP law and Turkish IP law. After a review of intellectual property legislation in both countries, the analysis shows that although Turkey is a member of TRIPs and accepts all international treaties, the enforcements of IP laws were not successful in the past. With the efforts of compliance with European Union's criteria, Turkey started making an extensive improvement on its IP law since 1995. However, all the IP laws remain to be decree laws, and the enforcement needs to be improved to comply fully with the international standards. As multinationals tend to get attracted to countries where there are better IPR enforcement, the impact of FDI on capital accumulation in developing countries such as Turkey can be different subject to quality of institutions including IP Laws.

# 2. A Review of Intellectual Property Rights in the International Arena

## 2.1. An overview of Intellectual Property Rights

"Intellectual property includes the rights relating to —literary, artistic and scientific works-performances and performing artists, photographs and broadcasts-inventions in all fields of human endeavour-scientific discoveries-industrial designs-trademarks, service marks, and commercial names and designations-protection against unfair competition and all other rights resulting from intellectual activity in the industrial, scientific, literary or artistic

fields." IP rights are generally negative rights, in other words those rights aim to stop the other people from pursuing actions without the consent of the right owner. There are also positive rights such as patent grants [2].

Patents give protection to technological inventions and design rights to the appearance of mass-produced goods for limited time periods, copyright covers literary, artistic and musical works for longer time periods, trademarks are protected against copying as long as the brand is actively in the market. All of them are subjects of intellectual property rights; it is also possible to encounter the term 'industrial property' which covers the rest of the subjects except copyrights. Patents are granted for inventiveness and for being different from the works done previously.

Latest European standards state that patents are issued by a state or regional patent office after an examination of their validity. They last maximum of 20 years from the application. They require public disclosure of patent in a manner that describes aim of the invention. Patents are special as they give owner a right to prevent others from using the invention in their product and services. They are not freely available to any industrial improvements; there need to be 'a patentable invention' [2].

A copyright is a right given in order to protect cultural, informational and entertainment productions. It is generally referred as 'literary and artistic works' meaning creations of authors, playwrights, composers, artists, film directors. They last typically authors' life plus 70 years in EU. With rapid technology change, illegal copying and piracy activities increased. Therefore, there are other rights that protect the works of the producers of sound recordings, films, broadcasters and others for shorter period of times, called 'neighbouring rights'. Those rights extend the existing rights in a manner protecting from piracy [2].

Trademarks are related to trading goodwill (get-up, trade names etc.). They help to be distinguished by consumers for the specific goods and services. Those rights are granted either by registration or by the reputation generated by trading with this name or/and symbol [2]. Trade Secrets and other confidential information, have been claims to protect business information, know-how, ideas for new products, commercial information etc. Those are the facts that create difference for a brand in the market. In some jurisdictions those are protected by general civil remedies, some built specific provisions into their law of unfair competition, some countries that are in common law jurisdiction preferred creating a form of 'sui-generis' protection (for instance in the UK, protection of trade secrets also covers governmental secrets and personal confidences and privacy of individuals) [2]. Recently, countries started to demand short-term patent rights protecting technological advancements, where know-how cannot be kept as trade secret. Those are called petty patents and utility models and they are granted from six to ten years. This form is rejected in UK [2].

Industrial designs are related to the design of industrial products. They are subjects to different protection mechanisms in different jurisdictions, some may require registration while others granted with respect to copyrights or patents. There are others who add 'sui-generis' right to the both designs and shape of the product. One of the examples to that case is United Kingdom, did with unregistered design rights to protect shape of the product, technical and non-technical design of the product [2]. In Turkey however, the unregistered design is protected under the Unfair Competition Law [8], [7]).

# 2.1.1. Intellectual property: International and European aspects

Intellectual Property rights are granted in a national territory and do not operate outside that territory. This feature of intellectual property rights (IPRs) causes some problem for the creators of the works when those are traded internationally. In the 19<sup>th</sup> century some countries entered into bilateral agreements to protect owners of IPRs in other jurisdictions. By the late 19<sup>th</sup> century, multilateral agreements have been signed which can be listed below:

- 1883 Paris Convention for the Protection of Industrial Property
- 1886 Berne Convention for the protection of Literary and Artistic Works
- 1891 Madrid Agreement on the International Registration of Marks
- 1989 Madrid Protocol (for registration of trademarks)
- 1952 Universal Copyright Convention
- 1961 Rome Convention for the Protection of Performers, Phonograms and Broadcasting Organisations partially protect 'neighbouring rights' or 'related rights'.

- 1970 Patent Cooperation Treaty came in force in 1978
- In 1994 finalising the Uruguay Round of GATT, WTO established and developed TRIPs agreement.

The Paris Convention is for the Protection of Industrial Property of 1883 and Berne Convention is for the protection of Literary and Artistic Works 1886. One of the important points of those conventions is "national treatment" that allows nations to develop their own laws as well as obeying the rules for international protection. In that sense, it was a system that protects IPRs without harmonisation of the laws of member states. An additional issue was the cost and time spent for application in each country that works needed to be protected. Berne Convention solved the problem in copyright field by requiring from its members to grant copyrights without formalities such as registration. In the field of trademarks, national trademark owner could make international trademark registration which would have an impact on all designated countries automatically.

All, the Paris Convention on Industrial Property, the Patent Co-operation Treaty, the Berne and the Rome Conventions on Copyright and neighbouring rights and the Madrid Agreements on trade mark registration are now administered by the World Intellectual Property Organisation (WIPO) which is headquartered in Geneva within the United Nations (UN) frame, administers. Paris and Berne Conventions have been revised, new treaties have been added. Until 1980, USA did not join to those conventions. However; at 1980 USA decided that they were net exporters so a need for IPR protection on an international basis arose.

USA joined to Berne Convention in 1980 and brought IPR protection within the General Agreement on Tariffs and Trade Systems (GATT). It is a separate development and completely apart from WIPO. At 1986, negotiations called Uruguay Round began on 'Trade-Related Aspects of Intellectual Property (TRIP)', and were concluded in 1994, created WTO which is also situated in Geneva (just like WIPO). It became a part of World Trade Organisation (WTO) agreement signed in Marrakesh in April 1994. 146 parties are involved in the agreement. WTO administers, the Agreement on Trade-Related Aspects of Intellectual Property Rights including Trade in Counterfeited Goods (TRIPs).

TRIPs require of the members of WTO to recognise Paris and Berne Conventions. With TRIPs agreement 'neighbouring rights' to copyright, trademarks, geographical indications, design, patents, topographies of integral circuits, and undisclosed information. Although TRIPs become more significant, WIPO does not stop its operations. After Marrakesh Agreement of WTO was signed, WIPO formulated two new treaties: 1996 WIPO Copyright Treaty and the 1996 WIPO Performances and Phonograms Treaty. Those incorporate the elements of Berne Convention, TRIPs and add new elements.

1992 Convention on Biological Diversity (CBD) recognises the right of people who owns biological resources. This caused further needs for protecting the folklore, plant culture, indigenous medical products of the developing countries. At the Doha Review of TRIPS in December 2001, it is agreed on the establishment on a registration system for geographical indications (GI) on an international level. These attempts failed. However further attempts to protect geographical indications was done by EU, also in Paris Convention and TRIPs defined the GI in their framework.

One of the relevant themes in the area is the 'common market'. A common market is the product of a political decision to promote trade competition without the interposition of legal or fiscal barriers. It is a normal consequence of political unification (UK) or federation (USA, Canada, and Australia). On the other hand, in EU, the absence of political union caused the movement towards unified or harmonised laws of patents, copyrights, trademarks. In the past, national Intellectual property laws in each state caused preventing the movement of goods from one state to another in the common market. With ECJ and EU Commission's interpretation of the Treaty of Rome within a frame that will limit national IP laws and also two important aspects of Treaty persisted: competition (arts. 81-86) and free movement of goods (arts. 28-30).

The Treaty of Rome 1957 established the European Economic Community, and the original treaty was extended by further acts and treaties<sup>4</sup>. The aims of EC stated by the (Firth, 2002) [3] as harmonisation and approximation of national laws <sup>5</sup> and the creation of a unified market, consisting of all member states, within which there are no

<sup>&</sup>lt;sup>4</sup> Those are: The Single European Act 1985, the Treaty of Maastricht (the Treaty on European Union-TEU) in 7 Feb 1992, Treaty of Amsterdam 1997, Treaty of Nice 2001, the Lisbon Treaty 2009. Treaty of Amsterdam introduced a consolidated version of the Treaty of Rome establishing European Community (EC), it is operative from 1999 and referred as EC Treaty in this context.

<sup>5</sup> EC Treaty Art. 3, particularly 3(b)

unjustifiable barriers to free trade<sup>6</sup>. European Economic Area was created in 1994 by the decision of creating a joint EC-EFTA initiate and formed European Economic Area. EFTA means European Free Trade Area, its members have become members of EEA (except Switzerland, it refused joining).

Several 'Europe Agreements' were signed with EU candidate countries as well as 'Euro-Med Association Agreement', 'Partnership and Co-operation Agreements' and 'Stabilisation and Association Agreements'. Typically, these agreements state provisions similar to prohibitions on quantitative restrictions on imports' as well as competition provisions in Article 81 and 82 EC Treaty. These provisions usually required parties to join various IP treaties such as EPC, the Madrid Protocol, the Paris and Berne Convention, the Madrid Agreement and the PCT.

The rules on competition in the Treaty on Functioning of European Union (TFEU Treaty) are subject to two articles: Article 101 TFEU (ex- 81 EC Treaty) that deals with restrictive practices between enterprises, art. 102 TFEU (ex-82 EC Treaty) deals with abuse by one or more firms with their dominant position in EU. Article 133 EC, amended in 2003 by the Treaty of Nice, the Community's treaty powers. Community is party to TRIPs, The Madrid Protocol on international registration of trademarks, the WIPO Copyright Treaty and WIPO Performances and Phonograms Treaty as well as bilateral agreements with Morocco, Tunisia, and Australia to protect of wine. In October 2007, it was announced that anti-counterfeiting agreements would be held (and authorities are wanted for that) with the US, Japan, Korea, Mexico, New Zealand.

The Lisbon Treaty 2009 provides latest revisions and involves the Treaty of European Union TEU and the Treaty on Functioning of European Union TFEU. The Council together with European parliament has power to make regulations and issue directives to member states (Under arts 288-92 TFEU –ex art 249 TEC). For instance, a regulation under art 352 TFEU states the establishing the EU wide Community trademark and Office in Alicante, Spain for operation of its registration process [2].

There have been efforts by EU of creating a unitary IP regime within the union. That resulted with the opening of Community Patent Office, in the field of trademarks it resulted with a Community-wide system of registration. A Community Plant Varieties Office opened, Community design regime is in place, with other developments such as protection of database, semi-conductor chip design, industrial design etc. The Community Trademark is operative since 1996; the Community Registered Design came on scene in 2003. Each is governed by direct EU legislation, administered in part by a Community granting Office and in part through national courts. That Community IPRs are alternatives to those mentioned in each state's national law.

A unified market policy of EEA demands free movement of goods and elimination of price differentials within. In EU law there is a doctrine of exhaustion. So, in the existence of that doctrine, the parallel importation restrictions and any penalties will be void under the EEA laws for the competition. It is not a guarantee on a trade system in the internal market without any barriers as national IP laws had still differed. So, need for harmonisation of national laws arose. There are four different stages where Community involvement with IP occurred.

First, the aim of establishment of Community Patent System took attention. In 1975 Community Patent Convention agreed between member states however it was never materialised in reality. The reason behind this was that, in 1973 a separate entity called European Patent Convention (EPC) has been agreed between member states, and this made the establishment of Community Patent less urgent. Second one is Community Trademark that started to interest authorities in 1980s. It was solved by a two steps action plan. First step was realised by 'Trade Marks Directive'. Second action was to establish offices that would grand community trademarks and Community Trade Mark Courts. Community Trademark was introduced by a way of 'Council Regulation' and in 1996 Office of Harmonisation in the Internal Market OHIM was established in Alicante, Spain. As Council's Regulation and 'Trade Marks Directive' has substantially identical rules; OHIMs's Board of Appeal, Court of First Instance and European Court of Justice can offer guidance to national authorities.

Third one is Harmonisation of Copyright law that started to take attention of Commission in 1980s. It was needed because different laws in each state had created barriers to trade. Community passed seven 'Directives' each deal with a particular area of Copyright Law. The fourth one is called 'Sui-generis IP rights' that took action in 1990s. A Community Plant Variety Regulation established a Community Office in Angers, France. A directive related to design

<sup>&</sup>lt;sup>6</sup> EC Treaty Art. 3, particularly 3(c)

was passed, followed by Regulation of introducing a Community Registered Design that would be issued by OHIM and a Community Unregistered Design. Community Unregistered Design is available since 2002, which is the first European-wide right that is unitary and granted automatically rather than application.

In the UK, new statues such as with Trade Marks Act 1994 were introduced in order to implement the 'directives'. With this implementation, UK government has tended to rewrite directives in a more common language that is found in British Statues. However, judges complained about this as it makes interpretation more difficult. On the other hand, fortunately, regulations do not need to be implemented into national law to be effective.

# 2.1.2. The historical development of Intellectual Property Rights in the United Kingdom

In Britain, the majority of IPRs have statutory basis. The patent system has its origins from Statute of Monopolies 1624 onwards came to be conditioned by legislation. In copyright system Statute of Anne 1710 was brought however strategic decision were reached in 1774. Today copyright is used by the Parliament to protect new subject matters such as records, films, broadcasts, published format, computer programs and databases, and judge reserve to use their decision rights for matters such as remedies.

In the recent history judges experienced substantially tort and passing off and Parliament introduced a system for registering trademarks. Protection against direct imitation of products began to assume the character of a category of intellectual property. When this occurred, reverse engineering was diminished however, one of the main assumptions of competitive economy is that whenever one producer enters to the market, the imitation should be present at least potentially, and such competition protects consumer welfare. Therefore, it is important for a law to preserve the freedom of 'reverse engineering' as long as there is no convincing reason against it. Reverse engineering can be defined as; the processes of extracting knowledge or design information from anything man-made and re-producing it or re-producing anything based on the extracted information. However, the reverse engineering process in itself is not concerned with creating a copy or changing the artefact in some way; it is only an analysis in order to deduce design features from products with little or no additional knowledge about the procedures involved in their original production<sup>8</sup>. Therefore, often no intellectual property rights are breached. The technology increased the reverse engineering and made imitations less traceable and thus distorts the value of existing inventions. This requires additional measures to protect the existing IP. The best example can be given by history, when London stationers collected and published the case of their authors and then procured the world's first copyright statute in 1710 (The Statute of Anne). At those times, the problem was caused by the improvements in typesetting, transportation that reduced the cost of imitation and transportation of those imitated products. Nowadays, with the advancement in technology the new needs on computer industry arise such as protection of semi- conductor chip designs, protection of databases.

The major British statutes on IPRs have been revised substantially in the last thirty years. Particularly the Patents Act 1977, the Copyright, Designs and Patents Act 1988 and the Trade Marks Act 1994. The protection of registered and unregistered designs, semi-conductor chip topographies with special protection are closely dealt in 1988 the Copyrights, Designs and Patent Act. Additional measures come from European Union with the major amendments to the system of registered designs.

# 2.1.3. The Development of Intellectual Property Rights in Turkey

The protection of Turkish IPRs goes back to the Ottoman Empire. The Patent Code dated 1879, which was adapted from the French Patent Code dated 1844, is the sixth patent code of the world. On the other hand, the first Turkish Copyright Code was regulated in 1850 while the first Turkish Trademark Code was regulated in 1872 by the influence of French law. The process of codifications on the subject matters continued after the foundation of Turkish Republic in 1923 as well.

Turkey is a developing country and for several decades the country had spent all of its efforts on providing the macroeconomic stability fighting with the budget deficit and inflation and maintaining growth. Therefore, all these factors prevent focusing on IP laws. [4] points out the mid-1980s as a turning point as Turkey recognised that current

<sup>7</sup> Eilam, Eldad (2005). Reversing: secrets of reverse engineering. John Wiley & Sons 8 Chikofsky, E. J. & Cross, J. H., II (1990). "Reverse Engineering and Design Recovery: A Taxonomy". IEEE Software. 7 (1): 13–17. doi:10.1109/52.43044.

economic policies were not successful in providing economic development and thus opened its doors to world trade. It is followed by the signing of the WTO's TRIPs agreement (1995) and Customs Union Agreement with European Union (1996). With the growth of trade, it became necessary to tighten the IP laws of the country. By signing these two agreements Turkey promised to revise its IP laws to comply with the WTO's and EU's requirements.[4] states that the speed and the span of legal reforms have been outstanding in Turkey. Most of the contents of the changes in IP laws are taken from the EU countries. The changes in general can be listed as: Trademark Decree Law, No. 556, Patent Decree Law, No. 551, Industrial Design Decree Law, No. 554, The Geographical Indications Decree-Law, No. 555. All of them published in the official journal of Turkey by 1995. It is noteworthy that the utility models, industrial designs and geographical indications were introduced for the first time in Turkey by these decree laws. Additionally, the law of copyright and related rights was last amended in 2001, with the Law on Intellectual and Artistic Works, No.4630.

Despite the attempts on strengthening the IP laws in Turkey, the infringements and counterfeit goods are widespread and especially in the piracy of copyrights. EU's Progress Report, (2007) [5] stated that IP laws were not enforced properly and therefore Turkey still remains problematic on that aspect. It has been stated in the more recent Progress Report of EU, (2015) [6] that the EU has harmonised rules for the legal protection of copyright and related rights covering the areas such as computer programs, broadcasting and trademarks, designs, biotechnological inventions and pharmaceuticals. This report suggests that Turkey has a good level of preparation in these areas and some progress has been made in the past year but counterfeiting and piracy remain as an issue. Also, it is suggested in the same report that Turkey should in particular; adopt pending industrial property and copyright legislation, improve enforcement measures in the fight against piracy and counterfeiting, further increase awareness of intellectual property protection beyond current initiatives.

Turkey has been a party to some conventions and international agreements, such as Paris (since 1925) and Bern (since 1952) Conventions for a long time. However, as it is stated above starting from 1995 Turkey participated the other fundamental agreements, such as WTO/ TRIPs, PCT, Madrid Protocol, Hague, Rome, WCT and WPPT. Nevertheless, one serious issue has arisen with these efforts in 1995 that is, the legislation with respect to patents, trademarks, designs and geographical indications were regulated by the government through decree laws, instead of acts. This is done order to quickly fulfil the international obligations such as the EU accession criteria and international obligations such as TRIPs agreement.

The concept of decree laws in Turkey, is similar to their usage in French law<sup>10</sup> which comes from the French word *décret*, "decree" in English, is an old legal usage in France used to refer to orders issued by the French President or Prime Minister. Any such order must not violate the French Constitution or Code of Law of France, and a party has the right to request an order be nullified in the French Council of State. Orders must be ratified by Parliament before they can be modified into legislative Acts. On the other hand, in the UK, there is a similar concept to decree laws in Turkey, but a different term is used for it. These are called statutory instruments in the UK. Statutory instruments are the principal form in which delegated or secondary legislation is made in the UK. The process of creating statutory instruments is governed by the section 1 of the Statutory Instruments Act 1946. This act replaced the previous system in which statutory rules and orders were made under the Rules Publication Act 1893. The change took place in 1948. In Turkish legislation, decree laws are orders that of president and have to be approved by the vote of the parliament.

However, unlike in general application in French jurisdiction, there is no obligation that decree laws should not violate the Constitution of the country. This means that decree laws could be placed in force even in the possibility of contradicting with the Constitution. For instance, IP disputes were being subjected to the authority of the general courts for long time. However, in 2001 the specialised courts of IP were founded by decree laws rather than being in accordance with the Constitution of Turkey. Therefore, their statuses are still arguable today. Currently there are IP courts in Istanbul, Ankara, Izmir and in the other cities county courts are authorised to handle IP cases.

Another negative outcome of regulating such areas by decree laws is that the Constitutional Court has cancelled most

<sup>&</sup>lt;sup>9</sup> In (Kula & Ozoguz, 2008) the term used as "The Geographical Designations" however, in English, in the sources such as Bentley & Sherman, Cornish et. al and many other resources in English, the term is used as "geographical indications". Here we used the term as "geographical indications".

<sup>&</sup>lt;sup>10</sup> Here we bring the French law in our arguments because Turkish legal system in general is influenced by French and German laws. More specifically for instance, the 1879 Patent Act of the Ottoman Empire is actually translated from the French Patent Act dated 1844.

of the criminal provisions of the decree laws, only because they were not regulated by acts and these cancellations substantially inhibit the fight against piracy and counterfeiting.

Even though, Turkey became a party to some conventions and international agreements, enforcement of the rules is not enough. Furthermore, Turkey has also developed in the administrative structure along with the law reform. (Please see figure 1). For instance copyrights and industrial rights are dealt separately. Patent and trademarks are dealt by Turkish Patent Institute (TPI) which was founded in 1994. TPI has a modern structure. Nevertheless, there has been no improvement in the structure of the Turkish Copyrights and Cinema Administration, which is under the authority of Ministry of Culture and Tourism. The relevant institution is in the shape of a classic governmental body. The common problem of both institutions is the absence of qualified examiners and experts.

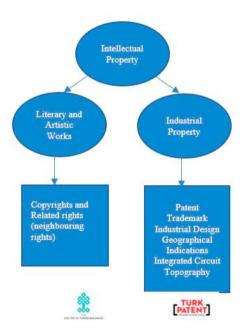


Figure 1 Intellectual Property Rights and its sub-sections in Turkey

The numbers of the active trademark and patent agencies have also increased after 1995. Today there are hundreds of patent and trademark agencies all around Turkey. This rapid increase is relatively unhealthy although it aims to satisfy the needs of the private and public sector. Although this sector requires experts in the fields, the existence of the trademark attorneys that have no prior law education, or patent attorneys that do not possess technical background, doubles the problems as opposed to solving them. This is one of the biggest weaknesses of the IP system in Turkey. However fortunately, interest to the IP law education has risen in the recent years. Universities seem to put a considerable effort on the IP awareness and education by imposing the IP law classes that used to be elective to be compulsory lectures instead [8].

Furthermore, the number of trademarks, patent and design applications has incredibly increased in the recent years (See Figure 2). In addition to the applications and the registrations and the disputes passed to the courts are in the tendency to accelerate as well. The reason could be the fact that, now the domestic firms started discovering the importance of the protection of IPRs as well as the increase in the interest of the foreign firms. The mentioned positive developments reflect to the process of legal remedy. For instance, in the area of IP law disputes, the Supreme Court manages to conclude approximately one thousand and five hundred cases per year. Furthermore, depending on the increase in workload new IP courts are being founded in every day. Briefly, it can be expressed that there have been essential improvements in the Turkish IP system compared to the pre-1995 regulations, despite some shortcomings and flaws. These improvements are not only in the legislative, administrative or judicial phases but also on the enforcements, which is in the interest of the many industries in the economy.

As strong intellectual property help increasing foreign direct investment (FDI) inflows to a country, it is possible to

see how FDI inflows to Turkey changed post 1995 period in comparison with the pre 1995 period where IP system was weak. If we compare the relationship between FDI inflows and IP applications (total TM and patent applications) in Turkey and in the UK between 1960-2014, it is possible to see how Turkey's performance gets better post 1995. (Figure 3). In 1995 Turkey started improving its IPR system as a EU accession criteria. Therefore, it is possible to see how patent and TM application has increased in the post 1995 period. Also if we look at the entire period (1960-2014) Turkey attracts higher amount of FDI (as % of GDP) from an increase in IPR applications whereas the trend seems to be downwards for the UK. This is due to the reason that as Turkey is a developing country, a marginal improvement in the IPR system still contributes to FDI inflows whereas for the UK the marginal effect is negative as it already has a developed IP system.

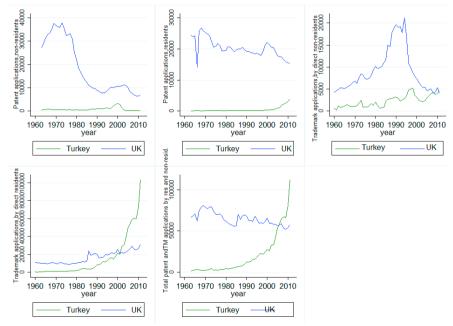


Figure 2 Total Patent and Trademark Applications by direct residents and non-residents in Turkey and UK

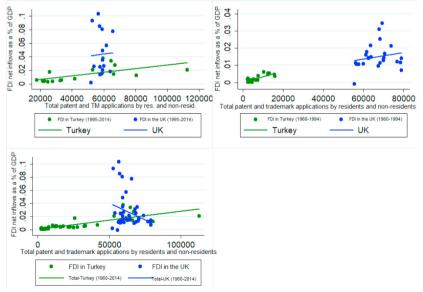


Figure 3 FDI inflows vs Total patent and TM applications in pre and post-1995 in Turkey and the UK

## 3. Legal issues within EU and across the boundaries

One of the major challenges was the enforcement of TRIPS to developing countries, as many of them were opposed to that and had suspicions. This is due to the fact that strong intellectual property laws are believed to have detrimental effects on 'learning-by-doing' and also harmful in various sectors such as pharmaceuticals. However, with some modifications such as adding traditional knowledge for protecting the local knowledge that tribes developed through time and the medical solution to diseases also protecting folklore and local music and art were introduced in Doha meeting 2001 of TRIPs Council. Also, there are other issues such as Geographical Indications to specify the origin of the product and rather than providing it to any trademark, granting it to local areas where those products originally belong to.

Articles 28 and 30 of EC (formerly article 30 and 36 of the Treaty of Rome) reflect the aim to create a single market with no national barriers or international frontiers to trade. Article 28 prohibits quantitative restrictions on trade. However, Article 30 permits such restrictions where they are necessary to protect IP. This is conditional on the fact that restrictions do not create discrimination on trade between member states. While Art. 28 and 30 seem to contradict in that sense, they allow to use national IP laws, while simultaneously limiting the negative effects arise from the territorial nature of such rights by 'doctrine of exhaustion'. The doctrine of exhaustion prohibits the IP owner to control the resale, import or export of any good that have been placed into market with their consent. This is based on the idea that 'first sale' gives IP owner the reward that constitutes the 'specific subject matter' of the right. Here the patentees' prohibition of reselling the product is ineffective because, the 'first sale' gives the consent. Doctrine of exhaustion states that 'parallel importation' of goods operates to minimize the price differential of identical goods within the community. The doctrine applies to the right to control resale, import and export does not apply to rent, perform or show in public where 'specific subject matter' allows the owner to control each use [1].

National exhaustion states that after a product that possesses an IP right is put on the market in a country by the right owner or with his/her permission, the right owner cannot prevent the circulation of that product within that country. Turkey has acknowledged the national exhaustion principle except for the integrated circuits for which the international exhaustion is acknowledged. In regional exhaustion type, the principle of exhaustion is applied by accepting a region as a country. Within EU, the regional exhaustion is acknowledged. According to this principle, when a product is put on the market with the permission of the right owner in any EU country, the right exhausts within the whole region. Moreover, the countries within the European Economic Area (EEA) have been included to this region as well. International exhaustion applies, when a product, that possesses an IP right, is put on the market anywhere on the world by or with permission from the right owner, the right exhausts and the right owner cannot prevent the sale of that product in another country. In case of the acceptance of this principle, for instance a product, which is put on a market in Germany by its owner, can be sold in Turkey without the permission of the right owner.

Generally, in many jurisdictions including the UK the rights are 'exhausted' following the first sale by the right-owner or with his consent. Generally, the sales within national territory cause 'exhaustion', while those rights are still be enforced against importation of goods sold abroad and exhaustion is a national subject rather than international. It carries a crucial importance which type of principle is acknowledged, since the international companies can divide the countries into different markets and price them out whereby national or regional or international exhaustion. Here the notions of parallel importation and re-importation come into consideration.

In the UK and Europe, it's been a phenomenon to determine the extent of national IP laws in effecting international movement of goods. It is more of a political decision and made in the light of satisfying the conflicting demands. Parallel importation refers to an activity where legitimate goods are acquired from one country where cheaper and transported to another country for sale. It should be distinguished from exclusive rights which give rights to manufacture and distribute a good in a particular country. Yet, it is a business strategy that product developer chose for market penetration.

The doctrine of exhaustion also applies in Turkey. For instance, the wholesaler that buys ADIDAS labelled shoes can sell these original shoes to the retailers and the retails can sell them to consumers. The wholesaler does not need permission from the owner of the trademark "ADIDAS" while selling these to a retailer. The legal status of the subsellers, who bought the shoes from the wholesaler, is not different. This situation, where the right owner (in this case the right owner of the ADIDAS) may not interfere with the further sales after the first sale of the products, is called the principle of exhaustion in terms of IP law. This principle is also known as the "first sale doctrine". According to the Dexter and Police decisions of Supreme Court (1999), the right, in relation to the products subjected to the right, would be exhausted when these products for the first time put on the market in Turkey by the right owner or with the

permission of the right owner and this exhaustion also includes the products that are put on the market in abroad by the right owner or with the permission of the right owner. In other words, the owner of the trademark cannot prevent the importation of these products to Turkey, which has already been put on the market in abroad. The Turkish Competition Board has dealt with the case regarding the Police labelled sunglasses as well and the board reached to the same conclusion with the Supreme Court by referring to its decision dated to 1999. The Supreme Court persists on its opinion in the forthcoming years.

### 4. Conclusion

There have been various debates on economic outputs of intellectual properties and how to acknowledge them. Intellectual outputs within a country can officially be registered subject to national intellectual property rights. Furthermore, there have also been various attempts Such as WTO-TRIPs, on how to define those national rights in a global framework in order to be able to acknowledge the innovations globally. This harmonisation of intellectual property rights aims to regulate the trade relations. And thus, some developing countries which are now less able to attract capital will be able to benefit from capital flows through international trade. Foreign direct investment (FDI) inflows to those developing countries with stronger IP laws where the imitation activities will be limited. So, stronger IP rights drive economic prosperity and stimulate growth. Therefore, it is possible to see that macroeconomic outcomes are strongly tied to the enforcement of IP laws in developed and developing countries. After a review of intellectual property legislation in both countries, the analysis shows that although Turkey is a member of TRIPs and accepts all international treaties, the enforcements of IP laws were not successful as expected in the past 20 years. With the efforts of compliance with European Union's criteria, Turkey started making an extensive improvement on its IP law since 1995. However, all the IP laws remain to be decree laws, and the enforcement needs to be improved to comply fully with the international standards. As multinationals tend to get attracted to countries where there are better IPR enforcement, the impact of FDI on capital accumulation in developing countries such as Turkey can be different subject to quality of institutions including IP Laws.

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