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THE ENFORCEMENT OF INTELLECTUAL PROPERTY RIGHTS (IPR) IN  
TURKEY IN THE EU ACCESSION PROCESS: A PERCEPTION ANALYSIS  
OF THE POLICE OFFICERS DEALING WITH IPR CRIMES

By  
Gungor Surmeli

Thesis submitted in fulfilment of the requirement for the award of  
Philosophy of Doctorate at Durham University

School of Government and International Affairs  
Durham University  
2011

## **Abstract**

### **The Enforcement of Intellectual Property Rights (IPR) in Turkey in the EU Accession Process: A Perception Analysis of the Police Officers Dealing with IPR Crimes**

**by**  
**Gungor Surmeli**

Intellectual property rights (IPR) has become one of the most debated issues, particularly in recent years due to its relevance and importance in the intellectual, economic and industrial fields. It is widely accepted that the protection of IPR plays a crucial role in intellectual and technological developments as well as research and development (R&D) activities.

Turkey has been a party to several international treaties and conventions in terms of protection of IPR. While IPR legislations can be traced back to the Ottoman Empire time; the proactive developments with regard to IPR issues were initially expedited within the process of the Customs Union in 1995 and then with the commencement of the European Union (EU) accession negotiations in 2005. Intellectual Property (IP) law is one of the chapters that has to be adopted in accordance with the EU legislations. Therefore, harmonisation of IP law has an important function for Turkey in the EU accession process, but also is a requirement.

In addition to the importance of legislative developments, enforcement of IPR is also essential in terms of preventing piracy and counterfeiting. Therefore, this research aims to explore the enforcement of IPR in Turkey in the EU accession process by focusing on the perceptions of the main enforcers, namely police officers dedicated to deal with IPR-related crimes. In fulfilling the identified aim, apart from the secondary sources such as documents presented in the negotiations with the EU, a questionnaire schedule was administered with the police officers with the objective of gathering primary data. After exploring and analysing various issues related to IPR crimes and its enforcement, the research explores the challenges encountered by the police officers dealing with IPR crimes and then indicates the precautions and recommendations for an effective enforcement system in the fight such crimes.

The main findings of the research indicate that, as perceived by the participants, the fight against IPR crimes should be carried out by specialised IPR units, as anti-piracy commissions are not working satisfactorily; and a single organisation should be established in order to deal with both copyright and industrial property rights. In addition, it is perceived by the majority of the respondents that legislative and administrative measures should be considered in order to overcome the problems related to IPR challenges, and there is a connection between IPR criminals and organised crime groups. Furthermore, the findings suggest that IPR education can be added to the curriculum at schools.

While the Turkish police have made considerable developments with regard to the protection of IPR issues both in administrative and enforcement aspects, the research indicates that there are further issues to be tackled to bring about a more efficient and effective IPR enforcement system in Turkey.

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**Declaration**

I hereby declare that no portion of the work that appears in this study has been used in support of an application of another degree in qualification to this or any other university or institutions of learning.

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# Chapter 1

## INTRODUCTION

### 1.1. BACKGROUND

The Universal Declaration of Human Rights lays down the universality of intellectual property rights (IPR) in article 27/2 which states: “Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author” (Universal Declaration of Human Rights, 1948). Therefore, IPR has been legitimately acknowledged as an essential human right.

Due to rapid developments in media technology, IPR has become one of the most debated issues in recent years, and its importance in cultural, intellectual, economic and industrial fields has now been recognised. In this sense, the protection of IPR supports technological developments, helps to substantiate research and development (R&D) activities and promotes innovation and development with a conviction that the rights of the innovators of the developed products will not be breached.

An important aspect of IPR is its economic value. In other words, IPR plays an important role in the industrial development of countries in terms of R&D activities leading to economic growth. However, infringement of IPR and IPR-related crimes, results in economic loss. The economic loss due to piracy and counterfeiting was around US\$450 billion per year in 2003 and that money was channelled into organised crime and terrorist groups (Blakeney, 2005).

It is widely accepted that the protection of IPR should be ensured in order to encourage people to produce intellectual works and products, and hence sustain economic growth. Therefore, national and international laws have been put in place to protect IPR. Turkey has been a party to various international agreements, and therefore is obliged to protect IPR. It should be noted that Turkey’s European Union (EU) membership process has played an important role not only in the

development of new IPR related legislation and regulations, but also in supporting the establishment of new IPR-related institutions which deal with IPR issues.

The accession negotiations between the European Economic Community (EEC) and Turkey started in 1959 (Karluk, 2005). However, there have been some impediments in this process over the years. Nevertheless, 1995 was a crucial year for Turkey in the process of becoming a member of the EU, as the European Community (EC) and Turkey Association Council took “Decision No 1/95 of the EC-Turkey Association Council of 22 December 1995 on implementing the final phase of the Customs Union” in order to finalise the Customs negotiations (OJ L 35, 13/02/1996). The Customs Union Decision finalised the transition period and set out the definitions of agenda, conditions and methods for the alignment of Turkish legislation to the trade and competition policy of the European Union (EU) (Decision No 1/95, 1995; Karluk, 2005).

In addition, Turkey was recognised as a candidate country for membership of the EU in the conclusions of the Helsinki European Council in December 1999 (EC Presidency Conclusions, 1999). This necessitated that Turkey take a proactive role to approximate all of its legislation related to every aspect of life, in accordance with the EU norms, which included the adoption of IPR legislation.

Legislative, administrative and enforcement bodies in Turkey have undertaken reform and improvement tasks in order to harmonise legislation and policies in line with EU requirements. However, introducing new laws and making amendments does not necessarily stop crime. Enforcement of the law always plays a crucial role in preventing crime. As an enforcement body charged with the prevention of IPR-related crimes, the Turkish Police has undergone important changes in terms of IPR protection. Consequently, this research focuses on the enforcement of IPR and related issues with regards to the EU accession process according to the perceptions of the enforcement officers, namely the Turkish Police.

It should be noted that in terms of the organisational structure of IPR issues in Turkey, there are three important bodies: legislative, administrative, and enforcement function related entities. The legislative component refers to the Grand National Assembly or the national parliament of Turkey; the administrative

component is composed of the Ministry of Culture and Tourism and the Turkish Patent Institute, whereas the enforcement of the IPR is allocated to a number of collaborating entities, such as the police, gendarmerie, customs and judiciary.

## **1.2. AIMS, OBJECTIVES AND RESEARCH QUESTIONS**

This research aims to explore the enforcement of IPR-related legislation and regulation through various dimensions, as perceived by the police officers from state security divisions in various cities of Turkey. Thus, the research mainly focuses on the enforcement of IPR in terms of police-related issues and aims at exploring the IPR enforcement system. The research pays particular attention to the perceived impact of the EU accession process.

In order to fulfil the identified aims, the following objectives are developed:

- (i) to present legal and institutional developments related to IPR protection and prevention of IPR-related crimes in Turkey;
- (ii) to assemble primary data to measure the perceptions and opinions of police officers towards IPR-related issues including aspects of IPR crimes but also towards the enforcement of IPR-related laws and regulation;
- (iii) to conduct a descriptive and inferential statistical analysis to identify general patterns in the perceptions and opinions of the police officers charged with IPR-related crimes;
- (iv) to critically interpret the results to develop a better understanding in relation to the police officers' perceptions, so that a more efficient and effective IPR enforcement mechanism can be developed to overcome IPR-related crimes.
- (v) to develop recommendations based on the main findings of this study to identify the nature of an efficient and effective IPR system in Turkey.

In order to achieve the aims and objectives of the study, the research questions to be addressed in this research are as follows:

- (i) What is the knowledge and perception of IPR-related police officers about the EU process with regard to IPR issues?
- (ii) What are the challenges facing police units in the fight against IPR crimes?

- (iii) What is the knowledge and perception of police officers regarding research and development activities in relation to IPR?
- (iv) Is there a connection between IPR infringers and organised crime groups?
- (v) What kind of precautions should be carried out in order to protect IPR?
- (vi) What should be done in order to ensure a strong enforcement system in Turkey?

### **1.3. RESEARCH METHODOLOGY**

This research uses a qualitative research methodology, as it aims to study the identified aims and research questions according to the perceptions of the participants. Since perceptions and opinions are socially-constructed realities, measuring the perceptions and opinions of the participants (in this study the police officers) implies locating the study within the social constructivist framework, which makes this study, hence, a qualitative research in terms of its methodological frame. Hakim (1987, p. 26) points out that qualitative research deals with the ‘attitudes, motivations and behaviour’ of people, which implies, by definition, a socially-constructed nature of revealed opinions and perceptions. The social constructivist nature of behaviours, opinions and perceptions is further stated by Pritchard and Woollard (2010, p. 9) who argue that “social constructivists, however, believe that we only build knowledge of our surroundings through discourse with others, that is, through social interaction. Social constructivism really emphasises the role of culture and context in developing personal and shared interpretations and understanding of reality”. Thus, responses given to a questionnaire or interview questions are considered to be the product of socially-constructed reality, which differs from one individual to another. In other words, social scientists assume that social reality is socially created and the purpose of constructive social scientists is to identify what meanings are given to that reality by people, not to find out how reality works despite those interpretations (Asutay, 2008), which is the main aim of this study. However, a quantitative method of primary data collection through a questionnaire was utilised. The questionnaire was distributed to police chiefs and police constables who work in the offices related to IPR issues in different regions across Turkey. The data was analysed through various quantitative methods in order to achieve the aims and objectives of this research. In addition, study visits were conducted to various IPR-related institutions in the UK in order to explore

their roles, structures and policies with regard to IPR issues to develop a comparative understanding and hence substantiate qualitative interpretations.

The questionnaire was composed of forty-four questions including those requesting demographic information. The questions were designed as closed-ended questions for which the five-point Likert-scale was used in order to obtain appropriate data and information and test the research hypotheses. A total of 250 questionnaires were distributed to the police officers in Istanbul, Ankara, Izmir, Bursa, Adana and Diyarbakir with dedicated IPR offices as well as Antalya, Gaziantep, Konya and Samsun without dedicated IPR units. They are major cities in Turkey, and the numbers of operations and seized materials in these cities represent a significant quantity when compared to other cities.

The questionnaires were sent to the State Security divisions in those ten cities and in the end 227 questionnaires were returned. However, 26 of the questionnaires were considered substantially incomplete; therefore they were not taken into consideration when analysing the data. In analysing the data, descriptive and inferential analyses were utilised in the form of cross tabulation, independent-samples t-test, one way analysis of variance (ANOVA), two way analysis of variance (ANOVA), factor analysis, and multivariate analysis of variance (MANOVA).

Furthermore, organisational documents such as annual reports, press releases and strategic plans were explored. In addition, primary sources mostly in Turkish, such as acts, conventions, administrative documents, by-laws, circulars and statistics were examined. These documents provided first-hand data to enrich the work in terms of exploring the IPR enforcement system and regulations, and the precautions taken against IPR crimes.

It should be noted that a comprehensive discussion about the research methodology and research method issues is provided in Chapter Five which is the methodology chapter.

#### **1.4. OVERVIEW OF THE RESEARCH**

In responding to the aims and objectives of this research plan, the research is designed in a comprehensively-structured manner. The following, is a short description of each chapter.

After this introduction chapter, Chapter Two explores the historical development of IPR over the years. In addition, some of the main definitions of IPR as a concept are reviewed through primary (treaties, conventions etc.) and secondary sources. Furthermore, types and impacts of IPR infringements are identified. International IPR organisations which are involved in the protection of IPR are also described.

Chapter Three focuses on the history of IPR in the Ottoman Empire and in Turkey. In this sense, advancements such as the introduction of the printing press to the Ottoman Empire played an important role in the development of copyright. In addition, administrative and legislative developments in relation to IPR in Turkey are also explored. Furthermore, the developments that took place in order to harmonise the IPR laws to international and EU levels are identified. Moreover, the administrative organisations dealing with IPR issues are also introduced.

Chapter Four considers the current structure of the IPR enforcement system in terms of organisational structure of the relevant institutions and their enforcement methods in the UK and in Turkey, which are explained in a comparative manner. Additionally, in terms of Turkey's membership of the EU, the IPR Enforcement Directive of the EU and a number of EU Progress Reports are discussed. To substantiate the material and to identify the magnitude of the problem, statistics regarding piracy and counterfeiting in Turkey are also presented.

Chapter Five presents the research methodology, research design, research strategy and research activities, and discusses the questionnaire aimed at exploring the Intellectual Property (IP) issues. In addition, this questionnaire plays a significant role in terms of exploring the process of the fight against IP infringements and the perceptions of the main actors in this, with the objective of determining the shortcomings and putting forward recommendations.

Chapter Six is the initial empirical chapter based on descriptive analysis, which presents a comprehensive description in terms of evaluating the issues related to IPR by using the data collected through the questionnaire. The descriptive analysis is divided into seven parts. In the first part personal information of the sample regarding gender, age, education levels, rank, the duration of their experience in the police service and in the IP offices, their satisfaction levels at work, their opinions about enforcement system and legislation in Turkey, and IP training sessions are explored. The second part is about the challenges which are faced by the respondents regarding the enforcement of IPR and the locations in general where IP crimes are committed. The third part is about the profiles of the IPR criminals in terms of individuality, organised crime and terrorist groups, whereas the fourth part deals with public awareness and IP education in schools as perceived by the participants. The fifth part discusses the precautionary measures which should be implemented in order to minimise IP crimes. In the sixth part, the EU process regarding IP related issues is studied. The last part is about the general personal opinions regarding the protection of IPR in terms of its effect on the process of the development of a country, foreign direct investment, and relationship between R&D activities.

Chapter Seven, which is the second empirical chapter, provides detailed empirical findings utilising several inferential statistical methods, such as cross tabulation, independent-samples t-test, one way analysis of variance (one-way ANOVA), two way analysis of variance (two-way ANOVA), factor analysis, and multivariate analysis of variance (MANOVA). In the first part of the chapter, the enforcement system which should be more convenient in the fight against IPR crimes in terms of involvement of police, specialised IPR police, anti-piracy commissions, establishment of a single organisation in order to carry out IPR issues, protection of IPR as well as satisfaction level of the respondents are studied. Secondly, the challenges in the fight against IPR crimes and thirdly precautionary strategies for the protection of IPR are explored. Additionally, profiles of IPR criminals and the relationship between IPR crimes and organised crime are investigated. Furthermore, the EU process relating to IPR and R&D activities are explored.

Chapter Eight, as the third empirical chapter, provides an interpretative analysis with the aim of fulfilling the aims and objectives of this study by testing sixteen hypotheses. This chapter consists of six sections. The first section is related to the enforcement of IPR system and methods. The second section discusses the challenges in the IPR enforcement system, whereas the third section is about the precautionary strategies on IPR. Then, the relationship between IPR crimes and organised crime is explored. Finally, the EU process relating to IPR and R&D activities are investigated.

Chapter Nine provides the conclusion of the study and offers policy recommendations and also underlines the need for further studies.



## **Chapter 2**

# **HISTORICAL AND LEGAL BACKGROUND OF INTELLECTUAL PROPERTY RIGHTS: A LITERATURE SURVEY**

### **2.1. INTRODUCTION**

Intellectual Property (IP) can be defined as the creations of the human mind regarding which the state grants upon individuals a legal monopoly for a limited time (Blakeney, 2005; Goldstein, 1999). Hence, IP laws deal with the legal rights associated with the original intellectual attempt or trade reputation that also cover copyright, patent, trademark and other intellectual products. The existence of such a law is essential as an IP may be possessed, transferred, certified or financed (Bainbridge, 2010). Thus, Intellectual Property Rights (IPR) are temporary grants of monopoly which confer encouragement and exclusive rights regarding the works and innovations to the right holders, thereby, protecting the creations of the human mind against unauthorised exploitation and unauthorised reproduction by IP laws (Blakeney, 2005).

In other words, IP laws hinder other people from copying or exploiting the use of intellectual products without the consent of their authors or inventors. Additionally, the law grants incentives to authors and inventors to develop their creative works with an assurance that their rights emanating from their intellectual work are protected. Furthermore, the creators of such intellectual products can charge fees from other people for the special advantage of using their works.

In IPR, the copyright protects literary, musical and artistic works for a certain time against infringements. In addition, patents temporarily protect developments derived from technological creations, design rights protect the exterior part of products and trademarks protect against counterfeits as long as they are used in trade (Cornish and Llewelyn, 2003). Furthermore, due to the technological developments computer programs are also protected by copyright laws.

Historically, contemporary copyright laws are the conclusion of a long development that goes back to the invention of the printing press. Therefore, there is a close relation between the advancement of copyrights and the invention of the printing press. Before the invention of the printing press it was very difficult to reproduce works and disseminate them widely. The printing press accelerated multiple reproductions of books and other publications. Thus, the invention of the printing press, which accelerated the wider and faster dissemination of knowledge, had a significant impact on the development of IP law. Gutenberg invented the moveable type and then Caxton, who developed the printing press, published *Canterbury Tales* of Chaucer in 1478 which is known as the first ‘best seller’ (Bainbridge, 2010).

After the invention of the printing press a new commercial group of ‘publishers’ was born which enabled the fast reproduction and printing of already-published works, thus generating more money and profit. The publishers of first editions were thus always tasked with the hard job of finding the original work and making it ready for printing, spending time and money on this activity. The ‘finished product’ was thus an easy and effortless ‘product’ for publishers of later editions. Therefore, the publisher who first published was privileged for a limited time by copyright law over the work to prevent unfair competition. This is how the term ‘copyright’ started being used as one of the domains of the IPR. Mainly, copyright and industrial property rights are two types of IP. However, there are also sub-rights either in copyright or in industrial property rights. In the next section, the definition of IPR is explored to provide a clear understanding in the field of IP.

## **2.2. DEFINITION OF INTELLECTUAL PROPERTY RIGHTS**

IP is an umbrella expression used to define both copyright with related/neighbouring rights and industrial property rights. The major role of IP law is to encourage research and development in cultural, esthetical and technical areas by providing incentives to the creators. Thus, the difference between the patent and the copyright may be clarified as patents protect ideas, whereas copyright protects the expression of ideas (May and Sell, 2006). In addition, Keyder (1996) points out that IP, is an exclusive right granted by legal authorities in order to protect the

efforts and knowledge of those producers by appreciating their support to the public domain.

Unlike substance property rights, IPRs are granted for a certain time since the public need is taken into consideration. When the duration of protection has expired, the protected material can be used by the public freely, and this ensures the balance between the protection of the right owner and the benefit of the public.

Although there are some discussions regarding expressions used to describe those intellectual creations, it is defined in Article 2 of the Convention Establishing the World Intellectual Property Organization (CEWIPO). The expression ‘intellectual property’ should be used to define the “literary, artistic and scientific works, performances of performing artists, phonograms, and broadcasts, inventions in all fields of human endeavor, 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”(CEWIPO, 1967).

In addition, the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) is another important world-wide agreement on IP, which classifies IPR as ‘Copyright and Related Rights’, ‘Trademarks’, ‘Geographical Indications’, ‘Industrial Designs’, ‘Patents’, ‘Layout-designs (Topographies) of Integrated Circuits’ and ‘Undisclosed Information’(TRIPS, 1994).

Goldstein states that copyright law focuses on granting exclusive rights for a limited time to authors, artists and publishers to promote the production and circulation of original expressions. In addition, patent law exploits IP to encourage people to invest in novel, non-obvious and handy technological developments. Furthermore, trademark law attracts corporations for investment in figurative information indicating the supply of goods and services by preventing other companies from exploiting the identical signs or symbols on their products (Goldstein, 1999). In addition, Dutfield (2003) argues that copyrights, patents and trademarks are the cornerstones of international IP law and that they are also the most important issues in the industrialisation of North America and Europe with regard to their economic impact.

It should be noted that copyright, patents and trademarks are within the scope of this thesis, and are explored in detail in the following sections.

### **2.3. JUSTIFICATIONS OF INTELLECTUAL PROPERTY**

IP law does not allow the use of a work without the consent of authors, inventors or right owners. In other words, a person can buy a book but cannot change its contents, title, etc. On the other hand, the protection of IP is restricted by law to a certain time. When the protection expires the work can be used by anyone and becomes a public domain piece. Furthermore, IP also has moral rights which cannot be changed or assigned.

It should be noted that there is a distinction between property rights and intellectual property rights in terms of consumption. Tangible property exists in one place at a time and cannot be used by others without the authorisation of the owner; however, intangible property may simultaneously exist in various places. For instance: original computer software may be copied to several CDs and the pirated CDs may be used by others without expending the original CD. However, in terms of economic income, the profits of right holders drop and they make less money. Therefore, the tax income of countries falls due to the illegal reproduction of products and in some cases the money goes to the infringers who have not put in any effort apart from copying.

The economic and social impacts of IP protection are very broad and controversial and have been discussed for a long time. Scholars have in general had economic and philosophical discussions over the intellectual property rights. They have tried to answer why the IPR should be protected. In this regard, the principle of granting IPR is to give a privilege to creators regarding their knowledge used in the creation of such intellectual products and to prevent infringements (Colston and Galloway, 2010; Drahos, 1996).

#### **2.3.1. Economic Justification**

There is a relation between IPR and markets; characteristics of IP rights are on the basis of an economic argument. In this sense, IPR is connected with markets and has a critical function in the creation of information markets, and economic

justification is a significant source to disregard in the philosophical handling of IP (Drahos, 1996). In addition, Torremans (2008) argues that IPR is a major aspect of economy in terms of technological developments; thus, justification can be indicated in terms of a global economic argument due to its international characteristics. Furthermore, Colston and Galloway (2010) state that IPR has a crucial impact on the enlargement of economy, cultural development and the establishment of new occupations which depend partly on producing and using new ideas, creations, procedures and technical advancements.

IP also has an intangible character which is argued to be a problem by the economists, and production of an original and inventive IP takes time and can be very expensive. For that reason, once an intellectual asset has been exemplified in a tangible shape, it is quite inexpensive and effortless to reproduce; thus, concerning this argument, IPR deserves an essential incentive in terms of creating new intellectual products (Davis, 2008). As a result, protection of IPR is very important in terms of encouraging people to invest time and money in generating innovations. Otherwise, if the investors spend money but cannot compensate their expenses they will probably stop their research and development programs. Without the protection of IPR people and corporations might be reluctant to make new investments; thus, the markets might also be destroyed financially. Therefore, the protection and encouragement of inventions and innovations are at the centre of IPR.

### **2.3.2. Personality Right Theory**

Hegel contributed to the personality theory through his philosophical writings. Hughes (1988) argues that for Hegel property is the manifestation of one's personality and it is the way people express their personalities to the world. In other words, it embodies the personality and property is something that represents personality.

In addition, Drahos, (1996) states that for Hegel property is the expression of personal will created as an external subject in the public. Therefore, IP and other kinds of properties have functions in the person's individual progress. However, the problem of using IP without consent lies in its use by the public that threatens the ethical concerns of the society.

### 2.3.3. Natural Rights Theory

This theory was mostly developed in the 18<sup>th</sup> century in the school of natural law. During the French Revolution, this theory was developed by the effect of the natural law in continental Europe. The revolution strongly highlighted the significance of the protection of ideas and after the French Revolution it was adopted in the patent law (Blakeney, 1989). Theorists of natural rights argue that the purpose of granting copyright protection is not so that the community will benefit from this protection but because it is a natural right which should be protected. In addition, intellectual properties stem from the creator's mind, their intellectual attempts and motivations; thus, IP infringements should be seen as the same as property theft (Bently and Sherman, 2009).

Another version of this theory, generally signified in the US literature, deals with labour. This is represented by Locke as people acquiring natural rights over their works when they apply their labour to their creations (Bently and Sherman, 2009).

The English philosopher John Locke's *Two Treatises of Government*, first published in 1689, is very famous and almost compulsory in studies on the features of property. Hughes (1988) states that Locke's theory of property is understood in two different forms. Firstly, labour is rewarded by the society due to the efforts expended on a product; thus, rewards should be given for labour. On the other hand, labour should be rewarded in terms of normative issues.

In his *Two Treatises of Government*, Locke (2008) argues that properties are given to people as a gift from God, and God confers this gift for its pleasure but the properties cannot be taken for pleasure in their natural condition. Furthermore, property is a natural right which is derived from labour. People apply their labours to the goods to change them into personal property. In addition, labour inserts value to the common good and as a consequence the goods in common are also developed. Therefore, a creator has a natural right to get advantage from the fruits of his labour. In addition, for Locke, to produce personal property the inventor takes materials from their natural state and combines them with his labour to produce a separate property (Gordon, 1993; Rose, 1993).

Locke's labour theory can also be applied to intellectual property. In this approach, the common products are symbolised by the public domain. IPR enhances the public domain and encourages people to produce creations. Intellectual properties, which are completed after applying labour to them, are no longer considered as a component of public domain; thus, they become private property and are protected by the legislation. However, when the protection expires those intellectual properties will return to the public domain (Davis, 2008).

In addition, Drahos (1996, p. 43) summarises the main arguments of Locke's Labour Theory as follows:

- God has given the world to people in common
- Every person has a property in his own person
- A person's labour belongs to him
- Whenever a person mixes his labour with something in the commons he thereby makes it his property
- The right of property is conditional upon a person leaving in the commons enough and as good for the other commoners
- A person cannot take more out of the commons than they can use to advantage.

In conclusion, it can be said that intellectual property should be protected in order to acknowledge and appreciate the intellectual input, labour and skills applied to the works and products by the authors or producers.

#### **2.3.4. Reward Theory**

According to reward theory, IP protection is conferred since it is useful to reward creators for their attempts to create a work and submit it to the community. Authors or producers carry out a favourable service for the public; therefore, people have a moral compulsion to reward their contributions to the public. For instance, copyright is a monopoly which is given to authors as a legal term of appreciation for doing work which is beneficial to the public that they are not forced to do (Bently and Sherman, 2009).

IPR is also a reward to the creator of an invention or service which is beneficial to the public; thus, the public has an ethical duty to recompense those creators. However, this is not enough to justify the patent procedure even it is agreed that the creator would be rewarded, since a patentable product has to be used in industry and commercially valuable, otherwise it is not granted a patent (Machlup and Penrose, 1950 as cited in Torremans, 2008, p. 21). In some countries reward is

granted to the inventor directly by the government such as a title, medal or money. Furthermore, in intermediate systems inventions are taken by the government and inventors are paid revenue in terms of the usefulness of their inventions (Blakeney, 1989; Colston and Galloway, 2010).

The reward theory and incentive-based theory are slightly different from each other. Bently and Sherman (2009) point out that “in reward theory proper the reward is an end in itself, in incentive theory the reward is a means to an end”. As a result, a reward is given to encourage people for their efforts which are good for the community.

### **2.3.5. Incentive-Based Theories and Utilitarianism**

Another argument regarding IP is incentive-based theory, which is generally based on the idea of what is beneficial or good for the community or people, rather than pointing out that IP is a right for authors or producers. It is generally based on IP protection, which is not only conferred as a reward for creations, but also aims to encourage scientific and technical development for the common welfare of the society. The initial creation of a work is very expensive, but after publishing it becomes ready for copying and can be reproduced very cheaply. Therefore, legal protection attempts to deal with this unfair infringement by encouraging the production and spreading of works (Bently and Sherman, 2009). Therefore, it is argued that an author or a producer of an IP should be encouraged with incentives due to their products being good and useful for the common good.

Jeremy Bentham and John Stuart Mill are classical period scholars who have contributed to the debate on utilitarianism. Bentham (2003, p. 18) defines utility as “property in any object”, which aims to create “benefit, advantage, pleasure, good and happiness”, or to stop “mischief, pain, evil, or unhappiness” to those concerned. In addition, if it concerns the whole community then the happiness is the happiness of the community or if it is personal then it is the happiness of that person.

Furthermore, utilitarianism’s maximum happiness rule holds that activities are right in terms of promoting happiness. On the other hand, they are wrong if they try to reverse happiness. Moreover happiness gives pleasure and prevents pain, but unhappiness gives pain and deprivation of pleasure. Therefore, produced material



in the form of writing and art material is a contribution to the happiness of the society in the utilitarian manner (Mill, 2003).

As a result, according to utilitarian justification the distribution and utilisation of information should be maximised. It is a moral philosophy that deals with the maximum good and utility for the largest number of individuals. Therefore, utilitarianism focuses on the outcomes of an action rather than on its natural character. It is assumed that innovation is very good for the public because society needs to be developed to maintain its well-being.

#### **2.4. COPYRIGHT AND RELATED/NEIGHBOURING RIGHTS**

Copyright and related rights are legally-recognised instruments which protect the rights of creators in their works and in this manner contribute to the cultural and economic development of countries. IP laws, therefore, protect not only the original works but also related/neighbouring rights such as performances, original recordings and broadcasts of work (WIPO, 2011). Bentley and Sherman (2009) argue that copyright may be informally classified into two groups: ‘author’s rights’ and ‘neighbouring rights’. The former deals with the works created by authors such as books, movies, songs, drawings and sculptures, whereas neighbouring rights refer to creations such as performances, broadcasts, cassettes, CDs or cable programs produced by businessmen.

Colston and Galloway (2010) state that copyright grants the authors or right holders the right to make certain things related to their works such as the way in which the ideas are expressed but does not protect the ideas or mere facts themselves. Therefore, others can make similar works as long as they accomplish them separately and by their own attempts. The owner of a copyright has the right to control the abuse of work by producing or trading copies to the community or by conferring consent to another to undertake this activity in return for a fee. As a result, if someone reproduces a work without the consent of the copyright owner, the latter can be sued for violation of his copyright and obtain compensation (Bainbridge, 2010).

Originality is an important issue in copyright. In this regard, Rose (1993) states that in copyright law, originality only means that the work is not copied from a different

work. Bainbridge (2010) points out that the expression of copyright is the exclusive way in which words, musical notes, colours and figures are selected and organised; thus, it is the term that makes a work original. In other words, this means that there can be many different works on the same idea and all of them will be protected by copyright, as long as they express this idea in an original way.

In conclusion, originality is a requirement in order to obtain a copyright protection. Therefore, there has to be a relation between the work and the author, and labour should be applied in the work. Torremans (2008) states that the European countries describe an original creation as a work that comprises its author's expression of character and the personal intellectual product of the author. Thus, this description of originality is also created in the copyright directives of the European Community.

In the next section the terms related to copyright are explored.

#### **2.4.1. Work**

One of the main terms about copyright protection which should be considered is 'work'. Colston and Galloway (2010) point out that there is not a legislative description of 'work'; however, case law proposes that a minimum level of effort must have been made by its author. In addition, Bainbridge (2010, p. 39) states that a 'work' will be said to have been created when all of the factors, like personal ability, employment or decisions have been employed together for its creation.

#### **2.4.2. Authorship**

Copyright works are created by the authors. Therefore, the general rule in terms of determining authorship is that the author is the first owner of the copyright. Bainbridge (2010) states that ownership of copyright in a work is often accepted with the author of the work as the person who created the work or arranged the requirements for the work. However, if an employee creates a dramatic, artistic, musical or literary work during the employment process, the employer will possess the copyright subject to agreement to the opposite. Colston and Galloway (2010) state that the author of a work has to devote his 'skill, labour, and judgement' to the work.

The IP issues were enacted by the Copyrights, Designs and Patents Act (CDPA) in 1988 in the United Kingdom (UK). In Article 9 (1) of the CDPA the author of a work is defined as “the person who creates it”. In addition, Article 9 (2) of CDPA designates the author as “in the case of a sound recording, the producer” and “in the case of a film, the producer and the principal director” (CDPA, 1988).

### **2.4.3. Joint Authorship**

In some circumstances works are created by more than one person. Therefore, joint authorship is an important term in IP law. Bentley and Sherman (2009) specify that there is also likely to be more than one owner of the copyright in a joint work if it is a work of joint authorship. In the UK, the law states that films are treated as works of joint authorship between the producer and director if they are different people. In Article 10 (1) of the CDPA a general principle, which is applied to joint authorship, is that if “a work produced by the collaboration of two or more authors in which the contribution of each author is not distinct from that of the other author or authors” it has joint authorship (CDPA, 1988). In addition, the joint authorship of films is also designated in the CDPA as “a film shall be treated as a work of joint authorship unless the producer and the principal director are the same person” (CDPA, 1988).

In addition, Torremans (2008) points out that a great number of works are created between two or more authors as a consequence of teamwork. If their contribution to a work is identified, each of the authors is named as the creator or author of their own contributions to the work and principles of the copyright are applied to the individual authors separately. Otherwise, they will be accepted as joint authors.

### **2.4.4. Moral Rights**

Another important argument which should be explored in order to understand copyright protection is that of moral rights. In this respect, Bainbridge (2010) argues that the right of the author is in the primary position in continental Europe and much attention is paid to the author’s rights. Furthermore, UK copyright law traditionally focuses on the financial rights related to copyright; while French copyright law emphasizes the author’s right to manage and be categorized with her work despite the ownership of financial rights.

Moral rights are also explained comprehensively in the Berne Convention. Article 6bis of the Berne Convention lays down the moral rights as follows:

- (i) Independently of the author's economic rights, and even after the transfer of the said rights, the author shall have the right to claim authorship of the work and to object to any distortion, mutilation or other modification of, or other derogatory action in relation to, the said work, which would be prejudicial to his honor or reputation
- (ii) The rights granted to the author in accordance with the preceding paragraph shall, after his death, be maintained, at least until the expiry of the economic rights, and shall be exercisable by the persons or institutions authorized by the legislation of the country where protection is claimed. However, those countries whose legislation, at the moment of their ratification of or accession to this Act, does not provide for the protection after the death of the author of all the rights set out in the preceding paragraph may provide that some of these rights may, after his death, cease to be maintained
- (iii) The means of redress for safeguarding the rights granted by this Article shall be governed by the legislation of the country where protection is claimed (Berne Convention, 1886).

Torremans (2008) also argues that until the approval of the CDPA entrepreneurs were more dominant in the UK's copyright legislation. The actual copyrights are the original copyrights whereas moral rights are a substantial part of the rights conferred by copyright law. Furthermore, moral rights are granted to all authors of original works and film directors, but not conferred to entrepreneurs as the owners of neighbouring rights, which are secondary rights, depend on copyright works such as recordings, linked to the commercial use of copyrights.

Furthermore, Bainbridge (2010, p. 121) states that the moral rights designated in Article 77-85 of CDPA are as follows:

- the right to be identified as the author of a work or director of a film, the 'paternity right'
- the right of an author of a work or director of a film to object to derogatory treatment of that work or film, the 'integrity right'
- a general right, that every person has, not to have a work falsely attributed to him
- the commissioner's right of privacy in respect of a photograph or film made for private and domestic purposes.

Nevertheless, Torremans (2008) argues that the first and second rights above are solely complete moral rights, whilst the others are a mixture, as they do not grant exclusive rights to the author of the work. In addition, all these rights attempt to organise the balance between the interests of the entrepreneurs and the creators of the works. This is not done during the contracting negotiations in which authors or directors generally have a weak position.

#### **2.4.5. Registration Procedure of Copyright**

In most countries there is no registration procedure to acquire copyright protection for works. In addition, there are no charges to pay or forms to fill in to obtain copyright protection. As long as the work is created, copyright protection starts automatically due to requirements of a variety of international agreements on copyrights (UK-IPO, 2011). According to the Berne Convention for the Protection of Literary and Artistic Works, there is no procedure to protect literary and artistic works in the signatory countries to this Convention. Furthermore, WIPO does not have any category of copyright registration arrangement (WIPO, 2011).

It is recommended that the © symbol, the author's or right owner's name and publication year should be used to assist the protection of works but it is not mandatory. Nevertheless, at least it allows others to know that the work is protected by copyright. In addition, it shows who to contact should someone need to request consent to use the creation (IPO 2008).

#### **2.4.6. Duration of Copyright**

Copyright protects a wide range of works such as literary and artistic works and musical works as well as computer software, which exists after the creation of a work and in general covers the life of the author plus 50 or 70 years. However, in the past copyright was granted for only 14 years (Dutfield, 2003; May and Sell, 2006; Torremans, 2008).

Generally copyright protection ensured by Article 7 of the Berne Convention is the life of the author plus 50 years after their death; however, photographs are protected for 25 years. In addition, when the copyright protection has expired, the work comes into the public domain and anyone can use it freely. The terms of protection are laid down in Article 7 of the Berne Convention and vary depending on the type of the work (Berne Convention, 1886).

Duration always starts from the first of January of the year following the death or the occasion revealed. However, national laws can give extra protection above the conditions of the Berne Convention. Duration of protection varies; therefore, before using a work in a country the related laws of that country should be checked.

### **2.4.7. Fair Use Policy**

Fair use policy is a kind of exception in copyright law. In some circumstances people may use works without the permission of the authors. Nevertheless, they have to be within the limits of the fair use policy. Therefore, unauthorised use of a copyright does not always cause an infringement of IPR. Some types of using copyrighted material are allowed even without the consent of the owner of the work. This use is acknowledged as fair use, which is essential and limits the protection of copyright (Poltorak and Lerner, 2002). For instance, in some cases, copying some parts of a work might be done without the consent of the author, such as for the aim of research, personal learning, analysis or re-evaluation which is known as permitted acts that limit the range of copyright protection, and is not contrary to fair use policy (Bainbridge, 2010).

In the CDPA, fair use policy is described in Chapter Three as “Acts Permitted to Copyright Works”. In general, according to the CDPA there are some exceptions in the case of using them for non commercial purposes, such as “making of temporary copies, research and private study, criticism, review and news reporting and incidental inclusion of copyright material, visual impairment, education, libraries and achieves, public administration, computer programs: lawful users, etc. ” (CDPA, 1988).

Referencing is particularly crucial in academia. Therefore, citing, criticising or commenting is not considered an infringement of copyright laws. In this sense, Vaidhyathan (2001) states that fair use is a restricted freedom to be exempt from the copyright monopoly; thus, quoting or referencing the original works is essential in academic studies in terms of criticism and giving comments.

### **2.4.8. The Origin and Evaluation of Copyright**

England played a significant role in the development of copyright laws. In 1483 Richard III passed a law which supported the import of books from foreign countries. In 1518, primary printing privilege was granted to a royal printer, Richard Pynson, who barred the printing of a speech by others for two years (Bowker, 1912 as cited in Bainbridge, 2010, pp. 33-34). Printing was conducted freely in England until the first part of the 16<sup>th</sup> century as England was a significant

country for printing in Europe. However, Henry VIII decided to restrict and control the printing of religious and political books, even prohibiting the import of books into England. In 1529, he passed a law, which privileged Stationers' Company to control printing; thus, a selected group of printers (members of the Stationers' Company) were authorised for printing and publishing. This right over the years became a right which is known as copyright or in other words the right of copying. Moreover, the Stationers' Company was authorised to impose fines, grant reimbursement and seize infringed copies (Bainbridge, 2010).

The Licensing Act of 1662 passed by parliament, (expired in 1679) ensured a registration process of certified books requiring a copy to be kept with the Stationers' Company and allowed stationers to assert an everlasting copyright (May and Sell, 2006). The King granted royal privilege to arrange the trade of books and protect publishers against piracy. This was the first of various legislations to control what was being printed and authorised the Stationers' Company to confiscate books containing issues antagonistic to the government or church (UK-IPO, 2011).

The Statute of Anne, 1709, was the first real copyright act in the world that gave the right of printing to writers and their successors. Furthermore, it granted the 'sole right and liberty of printing books' to writers and their successors (Torremans, 2008, p. 8). This Act had two main interests: supporting the writing of books which are useful to the public and preventing piracy. However, the works had to be registered at Stationers' Company. Furthermore, the Statute of Anne introduced the 'copyrights deposit' structure, which still exists today, as every publisher was obliged to deliver copies of their books and other works to nine libraries across the country, including the Royal Library and those of Oxford and Cambridge Universities (May and Sell, 2006). There was no automatic copyright protection for unpublished works. The act also designed fixed terms of protection. The duration of right on work was 14 years from the first publication (books published by 1710 were awarded 21 years protection). However, if the writer was still alive 14 additional protection years was granted to the author (Bainbridge, 2010; Cornish and Llewelyn, 2003). Furthermore, infringers had to pay one penny fine for every page of infringed book; half of the fine went to the author and the other half went to the Crown (Bainbridge, 2010).

The other significant source in copyright law is French copyright law, which is known as *Droit D'auteur* (author's right) and considers the natural rights of writers instead of copyright. It differed from the United Kingdom's copyright law in that it aimed not only to protect economic rights but also to introduce moral rights to the authors (Bently and Sherman, 2009). Keyder (1996, p. 147) describes *Droit D'auteur* as follows:

‘Author's rights’, the rough but adequate translation given to French *droit d'auteur* also deals with the rights of author, but from a different perspective. Although it also gives authors and other creators of tangible works of art the right to benefit financially from their work, its origin - some would say its main function - is to protect the creative work as extension of the personality of an individual author.

In particular, *Droit D'auteur* deals with the rights of authors in their works. It does not only attempt to protect their economic rights but also attempts to avoid infringements against moral rights (Bently and Sherman, 2009). Copyright and patent concepts, thus, became a universal issue in the United Kingdom and later throughout Europe and eventually in the United States towards the end of the 18<sup>th</sup> century. In addition, IPR was considered as a privilege rather than a right until the end of the 18<sup>th</sup> century (May and Sell, 2006).

The Copyright Act of 1911 consolidated the former copyright acts and revised them. It extended the term of protection whereby gramophone recordings, photographs and works of architecture obtained protection, and abolished formalities (Bently and Sherman, 2009; Phillips and Firth, 2001).

The Copyright Act of 1956, came into force on 1 June 1957, allowing new technological developments to be protected for the first time by the copyright law such as films and broadcasts (UK-IPO, 2011). The present legislation, namely the Copyright, Designs and Patents Act (CDPA), which has been effective since 1 August 1989, amended the 1956 Act and defines copyright as ‘a property right’ as an intangible property (Phillips and Firth, 2001, p. 128). The current IP law CDPA has been amended several times in line with European Union directives and other related laws (UK-IPO, 2011).



## 2.5. PATENTS

Patent gives a special right to the creator of an invention granted by an authorised entity, which stops others from trading, reproducing, distributing or using the product, without certificate or consent, for a certain time. In other words, patent is granted for industrial products and inventions, and it protects those patented products against illegal use (Blakeney, 2005; Dutfield, 2003; Karahan *et al.*, 2007; Torremans, 2008).

In the field of industrial property there is another term, namely utility model, which is an IP right which protects inventions. Blakeney (2005) defines the utility model as a kind of patent which is given in some countries, through which protection is offered; however, the protection period is shorter than patents.

Patent and utility model legislation protects invented or developed materials in industry on one hand, and on the other it protects the distinctive production techniques of materials and their operating principles (Karahan, *et al.*, 2007). Patent law deals with novel and industrially appropriate innovations and in general as well as the other IPR, a patent is a type of individual property that might be mortgaged, transferred or certified. The grant of a patent gives the creator a monopoly to use the invention for a certain time, which lasts a maximum of 20 years. After expiry of the patent anyone is free to use the invention. The patent system protects inventors and investors to encourage research and development activities and grants them a privilege for a period of time to compensate their expenses and to make a profit (Bainbridge, 2010).

Patents are instruments for the financial development of a nation which contribute to the welfare of the public through the broadest probable accessibility of novel and practical facilities, supplies and technological information derived from invention (Dutfield, 2003). Therefore, the protection of IPR also encourages investors in terms of making investments in a foreign country which could facilitate the import of technology.

### **2.5.1. The Requirements to Obtain Patent**

Patents play an essential role in the technological advancement of a country. However, unlike copyright there are some requirements needed to obtain a patent. May and Sell (2006, p. 7) state that an idea which is patentable must have the following conditions:

*New:* The idea to be patented should not already be in the public domain or the subject of a previous patent.

*Nonobvious:* The idea (be it a technique or answer to a specific technical problem) should not be commonsense to any accomplished practitioner in the field who, having been asked to solve a particular practical problem, would see this solution immediately. The idea should not be self-evident using available skills or technologies.

*Useful, or applicable in industry:* The device for which the patent is requested must have a stated function and could immediately be produced to fulfil this function.

In addition, Agreement on Trade Related Aspects of Intellectual Property regulates the patentability requirements (TRIPS, 1994) as “... patents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application, ... patents shall be available and patent rights enjoyable without discrimination as to the place of invention, the field of technology and whether products are imported or locally produced” .

In conclusion, novelty, inventive step and industrial functionality are the fundamental obligations in order to obtain a patent, and countries should not discriminate between national and international patents.

When these requirements are fulfilled the ideas can be patented either by the national patent institutes or European Patent Office. In addition, the World Trade Organization and all its member states have to establish institutions for registration and legal action processes (May and Sell, 2006).

### **2.5.2. The Origin and Evaluation of Patent**

The first patent system was introduced in the 15<sup>th</sup> century in Venice. The Venice Senate passed the decree in March 1474, which made the practice exclusive. For the first time an official and organisational structure of IPR created ownership. In the long run this process had to be formalised in a reasonable way for all authors and

publishers to establish a legal and acceptable formula for all parties. Thus, to date many regulations and legislations have been issued regarding this important issue (May and Sell, 2006; Torremans, 2008).

Until the 17<sup>th</sup> century, conferring patent was mainly subject to the whim of political authority and private dealings in Europe. However, some European countries had formulated patent granting systems, and Britain was the first country to issue modern legislation for intellectual property rights, using an organised system of conferring patents and soon after copyrights (May and Sell, 2006).

In this sense, England was the prime scene of the significant movements towards the Industrial Revolution, due to the part the patent system played. In searching the impact of patent in the development of England, the emergence of patent law can be traced back to medieval times. Letters patent are a sort of lawful appliance in the form of open letters with the King's great seal which granted rights, cartel, heading, or position to a person, frequently to foreign craftsmen and weavers or allowed them to carry out business and beat guild arrangements which restrained rivalry. In 1311, the first such letters for patent were conferred to a Flemish weaver, John Kempe, who wished to practise his business in England (Bainbridge, 2010).

The Statute of Monopolies of 1623, which was the first English patent law, invalidated all other privileges and monopolies (Colston and Galloway, 2010, p. 63). It was initially a reaction against the trading monopolies and existing implementation; nevertheless, it also introduced the idea that sometimes an incentive can be good for innovation (Torremans, 2008, p. 5). Therefore, the new inventions were granted for a certain number of years. Fourteen years was granted to the 'true and first inventor' and limited their use by others (Colston and Galloway, 2010, p. 64). Parliament restricted the Crown's authority with the Statute of Monopolies. Therefore, the King could only grant letter patent to the inventors of original creations for a definite time (May and Sell, 2006).

The Patents Law Amendment Act of 1852 entirely revolutionised the British patent scheme, removed any doubtful or useless practices and set down basic procedures for getting patents for inventions (Torremans, 2008, p. 6). This act established the first modern patent law in the world and the Patent Office was founded on 1

October 1852. Patents were conferred upon registration at a reduced fee. This amendment increased the number of patents. Separate patents for the Union's people were replaced by the register of a sole United Kingdom patent. The Patents, Designs and Trade Marks Acts of 1883 and 1902 made an important contribution to the United Kingdom's Patent system. Finally, the Patents Act of 1977 as amended in January 2010 is still in force and aims to comply with the requirements of contemporary industry and technological developments in addition to adopting international conditions (UK-IPO, 2011).

## **2.6. TRADEMARKS**

In addition to copyright and patent, the other significant topic in the field of IP is trademark. Trademark is a sign used to distinguish products or services from other companies' goods or services, it is also a right to prevent illegal use through a lawful action for infringement (Cornish and Llewelyn, 2003; Karahan, *et al.*, 2007). Goods and services are generally ordered by reference to a trademark and people rely on trademarks as a sign of quality and producer of goods and services. Trademarks grant "exclusive rights to use distinctive, visible signs, such as brands, symbols, colours, letters, shapes or names to identify the producer of a product. In order to be eligible for protection a mark must be distinctive of the proprietor so as to identify the origin of the proprietor's goods or services" (Blakeney, 2005, p. 5). In other words, in order to be eligible for protection, a trademark must be unique to the owner so that their products or services are recognisable as belonging to him, and also to protect customers from being misled. Trademarks have considerable importance in commercial and industrial life, and are connected to company name and popularity. In addition, registered trademarks become invalid if not used for at least five years (Bainbridge, 2010). The period of trademark protection varies and in many countries a trademark can be renewed forever.

### **2.6.1. Registration Process of Trademark**

Trademarks are registered at a national level by an authorised official entity and limited to the country in which they are registered. However, the Madrid System ensures international registration of trademarks in order to facilitate the procedures for applicants within the members of the Madrid Union. In this sense, the Madrid

System provides a trademark protection in many countries by only completing an application form with the applicant's own national trademark bureau (Bainbridge, 2010; Torremans, 2008). In addition, within the European Union a trademark is protected by the Community Trade Mark Directive. Registered trademarks can be recognised by the abbreviation 'TM', or the '®' symbol. Until the registration of a trademark it is illegal to use the ® symbol or declare that the trademark is registered. On the other hand, unregistered trademarks are also protected in the UK; however, the plaintiff has to prove that he is the owner of that trademark; he has worked for the development of that trademark and he has suffered somehow by someone exploiting that trademark (UK-IPO, 2011).

Historically, in Roman times, pottery was often impressed with a mark for trading purposes. In the 19<sup>th</sup> century, trademarks distinguished a trader's product and concerned priceless goodwill of companies and afterwards it became a type of property (Bainbridge, 2010).

The Trade Marks Registration Act of 1875 was introduced as an official registration of marks as well as the first Trade Marks Registry in the UK. The Trade Marks Act of 1905 conferred the first legislative explanation of a trademark and in 1938 there were more changes were introduced, which affected trademark registration significantly. The Trade Marks Act of 1984 amended the 1938 Act and initiated the registration of service marks like banking. Counterfeiting of a trademark became a criminal offence in the UK according to the Patents, Designs and Trade Marks Act of 1986, and additional changes were introduced by the Copyright, Designs and Patents Act of 1988. Finally, The Trade Marks Act of 1994 was put into force to complete the process (Bainbridge, 2010; UK-IPO, 2011).

## **2.7. INTERNATIONAL TREATIES ON INTELLECTUAL PROPERTY**

International cooperation and coordination is essential in the fight against intellectual property infringements. Due to technological developments, infringers share their products and information worldwide. Without international cooperation it is impossible to prevent violation against IPR fraud. Global collaboration and harmonisation are traced back to the 1880s in both copyrights and industrial

property rights. The most important international conventions on intellectual property rights are briefly explained below.

### **2.7.1. Berne Convention for the Protection of Literary and Artistic Works**

The most significant international development in the field of copyright protection was the Berne Convention for the Protection of Literary and Artistic Works, which is in general, known as the Berne Convention. Due to industrialisation and bilateral commerce within various countries a necessity for regulating international copyright system was introduced in the 19<sup>th</sup> century. The Berne Convention is an international convention on copyright, which was initially signed in Berne, Switzerland in 1886. It established a union amongst the signatory states to secure the rights of authors in their literary and artistic works, which later covered cinematographic works too. The Berne Convention has been revised several times and as of March 2011, the number of member states increased to 164 (WIPO, 2011).

The Berne Convention was completed in Paris in 1896, and then revised in Berlin in 1908, completed in Berne in 1914, revised in Rome in 1928, in Brussels in 1948, in Stockholm in 1967 and in Paris in 1971, and finally amended in 1979 (Berne Convention, 1886). The Berne Convention introduced reciprocal acknowledgment of copyright among the member states as well as encouraging the advancement of international principles for copyright protection. It disposed of separate registration processes for works in each county. Furthermore, it extended copyright protection to unpublished works and removed the procedure for registration.

Bently and Sherman (2009) argue that in its primary structure, the Berne Convention had two essential terms. The first one was national treatment rule which means a state of the union should not discriminate between its citizens and other people from different countries of the union. The second principle was removing registration formalities, which means there cannot be any preconditions for registration. In other words, international protection occurs automatically and there is no need for international systems which complicate registration procedures.

In general, prior to the Berne Convention national copyright laws only applied for works created within each state. So, a work, which was published in France by a

French citizen, was protected by French copyright law in France; however, it could be copied and traded by someone in England or other countries or *vice versa*.

Despite the contribution and regulations introduced by the Berne Convention, work and author terms were not defined clearly in it; nevertheless, the works were explained in detail. According to Article 2 of the Berne Convention, the literary and artistic works and derivative works, which are the subjects of the convention, are:

...every production in the literary, scientific and artistic domain, whatever may be the mode or form of its expression, such as books, pamphlets and other writings; lectures, addresses, sermons and other works of the same nature; dramatic or dramatico-musical works; choreographic works and entertainments in dumb show; musical compositions with or without words; cinematographic works to which are assimilated works expressed by a process analogous to cinematography; works of drawing, painting, architecture, sculpture, engraving and lithography; photographic works to which are assimilated works expressed by a process analogous to photography; works of applied art; illustrations, maps, plans, sketches and three-dimensional works relative to geography, topography, architecture or science. And also translations, adaptations, arrangements of music and other alterations of a literary or artistic work shall be protected as original works without prejudice to the copyright in the original work (Berne Convention, 1886).

In conclusion, all types of products listed in the Berne Convention must be completely protected by the copyright law within the member countries. In addition, it is required that the signatory countries have to ensure protection of copyright to works which are produced in other signatory states. Furthermore, it protects not only the original works but also other products compiled from the originals, and it has also removed the registration procedures.

### **2.7.2. Paris Convention for the Protection of Industrial Property**

The Paris Convention for the Protection of Industrial Property (the Paris Convention), formed a system for international cooperation of industrial property by covering trademarks, patents, utility models, industrial designs and unfair competition. The Paris Convention, concluded in 1883, was revised in Brussels in 1900, in Washington in 1911, in The Hague in 1925, in London in 1934, in Lisbon in 1958 and in Stockholm in 1967, and was amended in 1979 (Paris Convention, 1883). The Paris Convention, which is one of the most broadly adopted agreements in the world and is administered by the WIPO, has 173 contracting states as of March 2011 (WIPO, 2011). The members of the Paris Convention are required to ensure equal protection to the citizens of the other member countries as well as its

own citizens (Colston and Galloway, 2010). In addition, according to Article 10bis of the Paris Convention, the member states are obliged to prevent unfair competition (Paris Convention, 1883).

### **2.7.3. Agreement on Trade Related Aspects of Intellectual Property Rights**

The Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) is an international treaty, administered by the World Trade Organization (WTO), which sets out minimum principles for intellectual property. The TRIPS agreement was contracted by the secretaries from majority of 123 involving countries at the end of the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) on 15 April 1994, in Marrakesh, Morocco (WTO, 2011).

Annex 1C of the Agreement Establishing the World Trade Organization was entitled Agreement on Trade Related Aspects of Intellectual Property Rights. GATT was replaced by the WTO as an international organisation; nevertheless, it still continues as an agreement of the WTO for trade in goods. GATT was mostly concerned with trade in goods; however, the WTO also deals with other issues such as trade in services, intellectual property, agriculture, environment, textiles and clothing (WTO, 2011).

Parties to the TRIPS agreement have to apply minimum standards to protect IPR which are laid down in TRIPS. Signatories are obliged to protect IPR, but, the system for protection is not important, whereas, the consequences are significant (May and Sell, 2006). In addition, Worthy (1994 ) points out that the TRIPS agreement has introduced three major issues such as minimum standards for protection of IPR, 'national treatment principle' and 'most favoured nation' principle.

The TRIPS agreement aims to reduce obstacles to international trade and also to encourage sufficient protection of IPR. TRIPS also contains provisions that countries' laws must assemble for copyright as well as the rights of performers, producers of sound recordings and broadcasting organizations, geographical indications, industrial designs, integrated circuit topographies, trademarks, patents, secret information and new plant varieties (TRIPS, 1994). The TRIPS agreement introduced enforcement procedures, general requirements and a system for dispute



resolution (Firth *et al.*, 2005). It sets the minimum standards for the protection of intellectual property; however, its enforcement may vary from country to country.

#### **2.7.4. Madrid Agreement Concerning the International Registration of Marks, and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks**

The Madrid Agreement Concerning the International Registration of Marks (Madrid Agreement) was first signed in 1891, and revised in 1900, 1911, 1925, 1934, 1957 and 1967, and amended in 1979 (Madrid Agreement, 1891; WIPO, 2011). Subsequently, the Madrid Protocol was adopted in 1989, and was amended in 2006 and 2007 (Madrid Protocol, 1989; WIPO, 2011). The Madrid System, which is administered by the WIPO, was established in order to provide international registration of trademarks under the Madrid Agreement and the Madrid Protocol (Bainbridge, 2010).

The Madrid System ensures international registration of marks in order to facilitate the procedure for applicants within the members of the Madrid Union. In this sense, the Madrid System provides trademark protection in many countries by simply filling in an application form with the applicant's own national trademark bureau. Member countries of the Paris Convention can either be a party to the Madrid Agreement or the Madrid Protocol, or both. An applicant must be a real or legal person and has to designate one or more countries to the Agreement or the Protocol which is appropriate. In this sense, an applicant who wants his trademark to be registered at international level through the Madrid System has to be a citizen of a member state of the Madrid Agreement or the Madrid Protocol or he has to have a business or trade company in a signatory state to the Madrid Agreement or Madrid Protocol. If the requirements are fulfilled and there are no irregularities, the trademark is recorded in the International Register of the Trade Marks and the International Bureau of the WIPO informs each designated country (Bainbridge, 2010; Bently and Sherman, 2009; Torremans, 2008; WIPO, 2011).

In conclusion, it should be kept in mind that the Madrid Agreement and Madrid Protocol are separate agreements and their members are not same; however, some

countries are members of both. As of March 2011, there are 56 member states of the Madrid Agreement and 83 of the Madrid Protocol (WIPO, 2011).

## **2.8. INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS**

Infringement of intellectual property is the violation or abuse of intellectual property rights such as copyright, patent, trademark and etc., which can be due to free-riding behaviour of individuals. Drahos (2002) describes a free-rider as a person who acquires the profit of a financial achievement without making any contribution to the costs required to produce that profit; thus, free-riders acquire the advantage of valuable information without contribution to the costs of an invention or work. Producers of IP do not lose their information; however, they encounter unfair competition from the free-riders.

Copyright infringement is the illegal use of work that infringes the owner's exclusive rights over the work. Briefly, there are two types of copyright infringement in UK law. These are primary and secondary infringement. Bently and Sherman (2009) point out that primary infringement is concerned with the range of protection where the infringers directly take part in activities like performance or reproduction. On the other hand, secondary infringement deals with the infringers in a trade framework in terms of illegal copying or facilitating performance.

Patent infringement is the unauthorised use of a patented invention. Economic advantage is assured merely during the exclusive time of patent protection. Without the certain time of utilisation it is unlikely that corporations would spend money on research and development projects just to invent something which is likely to be used by their rivals (Parr, 1999). Anyone who wants to use a kind of patent has to get permission from the patent holder and it is usually given in the form of a licence. A patent is valid in a territory and violation is merely likely in the country where a patent is in force. The range of patent protection might vary from state to state; hence, patents are inspected by the national patent offices in each state or union which might have different forms of patentability. As a result, a patent owner has to apply to national patent offices in each country in which he wants his patent to be protected. However, in Europe, the European Patent Office is authorised to

grant patents which are valid throughout the signatory countries (Bently and Sherman, 2009).

Trademark infringement takes place when someone uses a trademark which looks the same or very similar to services or goods of other people or companies protected by the related IP laws. In this sense, a proprietor of a trademark can start legal action against a person or party in case of a violation of his trademark (Karahan, *et al.*, 2007).

As a result, intellectual properties are protected in order to encourage right owners and to deter infringers.

### **2.8.1. Impacts of Intellectual Property Infringements**

Piracy and counterfeiting causes a very high level of economic loss to domestic economies, as the types of pirate and counterfeit goods occupy a wide range of products which results in lack of collecting tax. Blakeney (2005) argues that the expenses to those companies whose products are affected by piracy and counterfeiting covers are: loss of trade, unfair competition to the companies that free-ride on research and development programs, trading costs of legal companies, the likelihood of a product's legal responsibility from faulty replication product, failure of trademark reputation where imitations are freely available and the cost of taking legal actions against intellectual property violators. In addition, insufficient protection of intellectual property causes severe economic loss.

The World Customs Organization notified in The World Economic Forum in January 2003 that due to piracy and counterfeiting economic loss was as much as US\$450 billion per year and the money was controlled by organised crimes gangs and was exploited to finance terrorist attacks (Blakeney, 2005)

In addition, according to the 2004 special 301 report of the Office of the United States Trade Representative, economic ruin due to counterfeiting is massive. U.S. trade losses alone are estimated at \$200 to \$250 billion per year (*Special 301 Report*, 2004). Industrial losses will be the losses of public income which result in unemployment. In addition, it is likely that foreign businessmen may not invest

money in those countries where high levels of intellectual property infringement take place.

Furthermore, intellectual property violation has a negative effect on public safety where the money goes to gangs or organised criminals for their illegal activities. According to a European survey the products which are most pirated and counterfeited by organised crime gangs are cosmetics, pharmaceuticals, footwear, clothes, software, recorded music, alcoholic drinks, tobacco and domestic goods (Blakeney, 2005). Consequently, due to developments in transportation and international communication via internet or telephone, criminals communicate far more than ever before. For instance, they extensively share films or music on the internet.

## **2.9. ENFORCEMENT OF INTELLECTUAL PROPERTY RIGHTS**

In general, introducing new laws and making amendments does not necessarily stop crimes; thus, enforcement of the law always plays a crucial role in preventing crime. In this regard, the fight against IPR is essential in regard to IP policy or vision of national and international organisations. Blakeney (2005) argues that the violation of intellectual property has not yet been established by the public as well as other crimes such as robbery, fraud or burglary because the authorised associations and trade bodies have failed to communicate to customers that they should avoid the use of illegal goods and also because there are insufficient judicial penalties. Therefore, the functionality of authorised bodies and public awareness should be developed to provide an effective and deterrent protection system against IPR infringements.

In order to reduce IP violation, national and international cooperation and coordination is essential in the fight against IP fraud. National bodies such as police, judiciary, customs, guilds and other governmental and nongovernmental enforcement organisations should work very closely together to prevent IP infringements. In general, an enforcement system is composed of administrative bodies, border measures, police operations, and civil and criminal proceedings. In particular, specialised IPR courts are very important in improving the capacity of national enforcement. In addition, training and the exchange of information between customs authorities and police is of crucial importance.

On the other hand, due to globalisation and rapid technological developments international cooperation and coordination is vital in the struggle against IP violations. Furthermore, countries should share their information and experience regarding piracy and counterfeiting with other countries in order to prevent IP crimes. In this regard, international IPR-related entities are explored in the next section.

### **2.9.1. United Nations Economic Commission for Europe**

The United Nations Economic Commission for Europe (UNECE) was established in 1947 by the United Nations Economic and Social Council (ECOSOC) in order to encourage economic integration among the 56 member countries from Europe, North America and Central Asia. It also assures models and agreements to facilitate regional and international cooperation in economy, environment and trade and industry (UNECE, 2011; *The UN Today*, 2008). In addition, UNECE organises international IP rights protection conferences with other international IP-related organisations to promote IP rights and develop awareness among the member states (*UNECE Report*, 2010).

### **2.9.2. World Trade Organisation**

The World Trade Organization (WTO) is the only global establishment which handles international rules of trade among countries. In addition, it aims to reduce trading obstacles in order to promote trade and fair competition. The General Agreement on Tariffs and Trade (GATT) governed international trade until the establishment of the WTO in 1995 (WTO, 2011). Furthermore, the WTO deals with international trade in terms of negotiating and signing agreements among member states and cooperates with other international organisations; thus, it is an organisation through which member states can meet to solve their trade-related problems through its dispute settlement system (Narlikar, 2005).

The WTO aims at organising international trade by setting up ‘Most Favoured Nation’ and ‘National Treatment’ principles. In this sense, the Most-Favoured-Nation (MFN) principle treats individuals in an equal manner. Member countries of the WTO cannot discriminate between trade partners. If someone is granted a particular offer such as low customs rate for particular goods, that offer is applied to

all members of the WTO equally. In addition, the National Treatment (NT) principle treats locals and foreigners in an equal manner. In other words, it ensures the same treatment for foreign nationals as for individuals of a country. In addition, locally-produced and imported goods are treated equally (TRIPS, 1994; Narlikar, 2005; WTO, 2011).

### **2.9.3. World Customs Organisation**

The World Customs Organization (WCO) was founded in 1952 under the name of the Customs Co-operation Council, changing its name to the World Customs Organisation in 1994. The WCO is the only international organisation dealing with customs-related issues and is currently acknowledged as the leading worldwide customs organisation with 176 members as of November 2009 (Mission Objectives Activities, 2009).

Furthermore, the WCO is concerned with the improvement of worldwide principles such as approximating and reducing the complexity of customs procedures, strengthening enforcement, protecting IPR and developing international customs capability construction plans. In addition, members of the WCO take part in the training WCO's training activities (WCOOMD, 2011).

### **2.9.4. World Intellectual Property Organization**

WIPO was officially formed by the Convention Establishing the World Intellectual Property Organization, which was signed in Stockholm on July 14, 1967, coming into force in 1970 and amended on September 28, 1979. WIPO currently has 184 member states, administers 24 international treaties, and its headquarter is in Geneva, Switzerland (WIPO, 2011).

In addition, WIPO became one of the specialised organisations of the United Nations in 1974 to encourage and manage IP-related issues on behalf of the member states (Davis, 2008, p. 9). WIPO has two major objectives laid down in Article 3 of the Convention: "to promote the protection of intellectual property throughout the world through cooperation among States and, where appropriate, in collaboration with any other international organization, and to ensure administrative cooperation among the Unions" (CEWIPO, 1967).

WIPO is an expert organisation which encourages innovation and creativity. It is devoted to setting up a fair and obtainable IP structure and contributing to financial enlargement of all states (*WIPO Overview*, 2010). Since its foundation there has been a forum for the members of WIPO to argue IP-related subjects in order to discover solutions. The Arbitration and Mediation Centre was established in order to solve the IP related disputes in 1994 (Davis, 2008).

### **2.9.5. European Patent Office**

The European Patent Convention (EPC) was signed in 1973; however it did not come into force until 1978. It introduced a regional patent system in Europe so that a single application would be enough to obtain patent protection among the member countries. In addition, the European Patent Convention was revised in 2000, but did not come into force until 13 December 2007 (Bently and Sherman, 2009; Colston and Galloway, 2010).

The European Patent Office (EPO), which was founded in 1977 with its main office located in Munich, is an international organisation with 38 members as of March 2011 across Europe. The European patent expression is used to address patents conferred under the European Patent Convention. The EPO and the Administrative Council are two main bodies of the European Patent Organisation. The Administrative Council is the parliamentary part, which is composed of representatives from the member states and supervises the activities of the EPO (EPO, 2011). On the other hand, the EPO examines patent applications to determine whether it is appropriate to grant them European patents. In addition, the EPO encourages originality, competitiveness and financial development within the member countries (*EPO Annual Report*, 2008).

There is a unique application process for enterprises and individual inventors. An applicant who wants to obtain a European patent fills out a form and indicates the states where he wants his patent to be protected by the EPO among the signatory states. There is no European Patent Court, thus people may obtain different results when they go to court for the same product in a different country (Jacob *et al.*, 2004). Applicants may fill out the forms in any language; however, they have to translate their applications into an official language of the EPO within two months.

The official languages of the EPO are English, French and German (Bently and Sherman, 2009).

### **2.9.6. Interpol**

The establishment of the International Criminal Police Organization (Interpol) was decided by a group of police officers from various countries in 1923 in Vienna (Barnett and Coleman, 2005; Jensen, 1981). Interpol, which is based in Lyon, France and has 188 members, is the leading international police organisation for the prevention of international crime and ensuring cooperation between police organisations (INTERPOL, 2011).

IPR crimes have an international aspect; thus, it is important for there to be international cooperation between countries. Interpol has been fighting IPR crimes since 2002 in order to stop international organised crime groups related to IPR. For this purpose, Interpol has also allocated a considerable amount of its supplies. In addition, Interpol aims to increase the level of IPR awareness among the enforcement bodies, facilitate the cooperation between police forces and private sectors, and organise IPR training facilities for law enforcement entities (INTERPOL, 2011).

### **2.9.7. Europol**

The European Police Office (Europol) is the European Union's law enforcement organisation which fights international organised crimes and terrorism by gathering criminal intelligence and cooperating with the security forces of the EU member states (Agnieszka and Agnieszka, 2010). The main office of Europol is in The Hague. It has more than six hundred police officers from 27 EU member states collecting and analysing information, and coordinate operations; however, they do not have operational power. In addition, there are liaison officers working at Europol from the EU member states and other countries (EUROPOL, 2011).

The Council of the EU considers intellectual property crimes to be a serious organised crime derived from the EU Organised Crime Threat Assessment (*OCTA*, 2006; *Europol Annual Report*, 2007). As a result, Europol has been working in



close cooperation with the police unit in order to prevent counterfeiting and piracy and taking part in the training facilities related to IPR issues.

## **2.10. SUMMARY**

In this chapter, the definition and the historical developments of IP, justifications for IP protection, and international major treaties and conventions related to IP have been explored. In particular, the three main IP terms, namely copyright, patent and trademark, and their historical advancement have been discussed. Furthermore, the justifications for IP protection have also been discussed. Subsequently, the fundamental international IP treaties and conventions in relation to copyright, patent and trademark have been explored. Additionally, the international institutions, which are related to protection of IPR, have also been presented.

Based on this foundation chapter, the developments related to IP, both in the Ottoman Empire and in Turkey, have been explored in order to contextualise the research in the next chapter.

## **Chapter 3**

# **DEVELOPMENTS OF INTELLECTUAL PROPERTY RIGHTS IN TURKEY**

### **3.1. INTRODUCTION**

The first examples of the protection of industrial property rights can be traced back to the 15<sup>th</sup> century: the first known patent law was in Venice in 1474. One and a half centuries later in the United Kingdom in 1624, subsequently in the USA in 1790, after the revolution in France in 1791, and in Germany in 1877, patent regulations were adopted to acknowledge and protect industrial property rights (*Annual 2006 Report, 2007; May and Sell, 2006; Soyak, 2005*).

In this regard, technology regarding mass printing underwent a number of improvements most notably affected the academic arena (Cosgel *et al.*, March 2009; May and Sell, 2006). The development of the printing press in particular had a significant impact on the advancement of copyright laws. Historically, contemporary copyright laws are the conclusion of a long development that goes back to its invention. Therefore, there is a close relation between the development of copyright and the invention of the printing press (Jackson, 2002). Before the invention of the printing press duplicating works in large quantities and distributing them broadly was a very complicated process. In addition, the use of the printing press made the multiple reproduction of works cheaper (Ersoy, 1959). The publisher of the first edition had to find an original work to prepare it for printing, which incurred a cost. Conversely, the publishers of later editions were able to produce them more easily and cheaper. Thus, in order to prevent unfair competition the first publisher of a work was privileged for a restricted time by copyright law over the work.

In Europe, Johan Gutenberg invented the moveable type printing press in 1455 which accelerated the dissemination of written knowledge (Bainbridge, 2010). Turkish IP law developed over the years parallel to that of other countries, and can be traced back to the Ottoman Era. The minorities in the Ottoman Empire were Jews, Armenians and Greeks who played a significant role in the development of

the printing press. However, they were not authorised to print their works in Turkish or Arabic (Ersoy, 1959, pp. 18-19). Thus, Jewish immigrants who came to Istanbul from Spain and Portugal in large numbers in 1492 introduced the first printing press into the Ottoman Empire. Consequently, the first printing press was established in Istanbul in 1493 by Jews around 40 years after its invention. The Torah in Hebrew characters was printed in 1494 by Jews. Consequently, the printing press was established by the Armenians in 1567 and by the Greeks in 1627 in Istanbul (Gercek, 1939). In addition, Ersoy (1959) argues that there is a relation between the immigration of the Jews and the establishment of the printing press. Thus, it is not a coincidence that the printing of the first book was in 1494 by the Jews.

On the other hand, there were no restrictions on importing books to the Ottoman Empire. Before the establishment of the printing press in the Ottoman Empire there were printed works in Turkish and in Arabic. Two European merchants petitioned the authorities in order to obtain permission to carry out book trading in the Ottoman Empire. Consequently, Padishah Murat III issued an Imperial Edict<sup>1</sup> to allow European dealers to import books in Arabic script in 1588 (Atiyeh, 1995; Ersoy, 1959). As a result the *Kitab-i Tahrir-i Usul-ul-Oklides* was printed in Rome in 1594 and this edict was put at the beginning of the books which were exported to the Ottoman Empire (Ersoy, 1959, pp. 18-19).

However, the movable type press was not established by Muslims in the Ottoman Empire until 1728, prior to which no works were printed there in Turkish. Ibrahim Muteferrika and Sait Efendi were the first Muslim citizens in the Ottoman Empire authorised to print in Turkish. Ibrahim Muteferrika printed the first significant work ‘*Vankuli Lugati*’ or the Vankuli Dictionary in January 1729 and he printed his last work in October 1742. Ibrahim Muteferrika was a Muslim Ottoman diplomatist and was recognized for his contributions to the reformation period in the 18<sup>th</sup> century. It should be noted that the name Muteferrika, means publisher. Muteferrika ‘the messenger of the viziers’ was of Hungarian origin but converted to Islam. In addition, Sait Effendi went to Paris as his father was Ottoman Ambassador to Paris.

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<sup>1</sup> English translation of the Imperial Edict can be seen in *The Book in the Islamic World: The Written Word and Communication in the Middle East*, Edited by Atiyeh G.N. (1995), Albany: State University of New York Press; The Library of Congress.

Sait Effendi visited some places in Paris and after returning to Istanbul he decided to establish a printing press. Initially, Ibrahim Muteferrika petitioned the Grand Vizier Ibrahim Pasha with a brief treatise named '*Vesiletu't-tibaa*' about the benefits and advantages of the printing press. In addition, upon that petition Sheikh Ul-Islam Abdullah Effendi issued a '*fatwa*' or religious edict. Accordingly, in July 1729 Padishah Ahmed III allowed Ibrahim Muteferrika and his colleague Sait Effendi to the privilege of printing in Turkish in Arabic characters<sup>2</sup> (Atiyeh, 1995; Cosgel, *et al.*, March 2009; Ersoy, 1959; Gercek, 1939; Iskit, 1939). The edict of the Sultan and the religious edict of the Sheikh Ul-Islam were also put at the beginning of the Vankuli Dictionary (Ersoy, 1959). However, Sait Efendi wanted a high political position and did not have adequate time to deal with printing. Therefore, he quit the partnership within a couple of years of the printing of the first book in 1729. Therefore, the new privilege was granted only to Muteferrika by Sultan Mahmut I in 1732 (Cosgel, *et al.*, March 2009, p. 16; Iskit, 1939).

The establishment of the printing press in the Ottoman Era has been a controversial topic over the years. The discussion has specifically focused on why the Muslims were late in terms of using printing press. However, according to the religious edict '*musahhihs*' or proofreaders had to assure that the manuscript copy which is ready to be printed had no grammatical mistakes and stylistic errors. Besides, the authorisation was confined to books that were not related to Islamic science. In other words, the printing of religious books was excluded by the Padishah's edict (Iskit, 1939). Therefore, Ersoy (1959) argues that all of Muteferrika's works indicated important topics which filled the gaps in Turkish culture, and he printed 17 books and four maps during his time. His works were about history, science and army and religious topics were left to the '*hattats*' or writers. Besides, the number of printed books was not so great as to undermine the jobs of the writers. Furthermore, Gercek (1939) argues that the Muslims were reluctant to establish the printing press and one of the reasons for this was that the writers who were dependent on writing books would have become redundant. In addition, at that time

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<sup>2</sup> English translations of the Imperial Edict and '*Vesiletu't-tibaa*' can be seen in *The Book in the Islamic World: The Written Word and Communication in the Middle East*, Edited by Atiyeh G.N. (1995), Albany: State University of New York Press; The Library of Congress.

the Muslims did not alter their habits easily and they did not buy printed books. Although, printed books were easier to read the Ottomans preferred to read handwritten manuscripts rather than printed books. Consequently, the printing of Islamic Science books was allowed in 1802 and the lithographic press was introduced to the Ottoman Empire later on its invention (Cosgel, *et al.*, March 2009).

In conclusion, as part of the reformation and progression, Muteferrika put a great deal of effort into being the first person to lead the printing initiative and introduced it into the Turkish realm in the 1720's during the Ottoman Empire.

### **3.2. DEVELOPMENT OF COPYRIGHT**

The legal regulations on IPR in the Ottoman Empire took some time to develop; and this did not occur until the 19<sup>th</sup> century. The first copyright law '*Encümen-i Daniş Nizamnamesi*' or the Consultation Council Regulation was adopted in 1850. Afterwards, '*Telif Nizamnamesi*' or the Copyright Regulation (1857), '*Telif ve Tercüme Nizamnamesi*' or the Copyright and Translation Regulation (1870), '*Hakk-ı Telif Kanunu*' or the Copyright Law (1910) and the Law on Intellectual and Artistic Works (1951) were enacted in order to protect copyright (Cakmak, 2007; Iskit, 1939).

#### **3.2.1. 'Encümen-i Daniş Nizamnamesi' Consultation Council Regulation (1850)**

The Consultation Council Regulation, which was decreed in 1850, aimed to regulate copyright-related issues in the Ottoman Empire for the first time. The Consultation Council Regulation had four chapters. The first chapter was about the establishment of the '*Encümen-i Daniş*' or the Consultation Council, and regulated the election procedures of the Consultation Council members. The second chapter determined the rules for the eligibility of members. The third chapter provided the framework for the service of the Consultation Council, while the final chapter was about the reward system. It regulated the principles and the procedures of the works which were expressed verbally and also the publication of books (Cakmak, 2007; Consultation Council Regulation, 1850). It was the first legal regulation on intellectual property during the time of the Ottoman Empire. The members of the Consultation Council were composed of internal and external members. The number of internal members was strictly limited to forty but there was no limitation

on the number of external members (Consultation Council Regulation, 1850; Iskit, 1939). One of the most important aims of the Consultation Council was to promote the translation of foreign books into Turkish. It was expected that this would be beneficial for the development of knowledge and science by forming a knowledge base. Berkes (1998, p. 194) argues that one of the main interests of the Consultation Council was the codification of the Turkish language. Therefore, it was determined to found a committee to prepare a Turkish dictionary which was independent of Arabic and Persian. However, this codification did not take place at that time.

According to this regulation, after examining a work and upon approval of its originality, the author was privileged with the copyright for the work. Therefore, this examining was a kind of censorship. Moreover, it was the first time that the term copyright was mentioned in a regulation, according to which the authors of published books were granted copyright rewards in terms of efforts regarding their works. Therefore, a reward system was introduced as an incentive system to contribute to the knowledge base through the translation of books into Turkish. The types of rewards were money, copyright privilege, author's name written on an inscription panel or a medal (Cakmak, 2007; Consultation Council Regulation, 1850; Iskit, 1939). In addition, Giritlioglu (1967) as cited in Memduhoglu (2008) argues that the reason for paying royalties after examining a work is actually an effort to control books before printing. On the other hand, the Consultation Council did not achieve sufficient advancements; thus, it was abolished in 1862 (Erdogdu, 1996; Iskit, 1939).

### **3.2.2. 'Telif Nizamnamesi' Copyright Regulation (1857)**

The main development in terms of copyright regulation subsequently came into force with the Copyright Regulation in 1857. According to this regulation, publishing books was free for anybody and the publisher of a book was privileged until the published copies ran out, and authors were privileged until the end of their lives by this regulation. In addition, the Copyright Regulation gave the publisher of a book temporary possession of that book until the agreed number of books ran out in accordance with the agreement between the publisher and the author. Therefore, copyright permission was given to a publisher by the author and nobody was allowed to copy that book apart from the agreed publisher. If the publisher copied

more books than the agreed number of the books the publisher had to be punished in accordance with the penal code (Cakmak, 2007; Iskit, 1939; Copyright Regulation, 1857). In essence, the Copyright Regulation granted lifelong privileges to the authors whose works were published, and regulated the relationship between the authors and the publishers as well as laying down the punishment procedure if publishers copied more than the number stipulated in the agreements.

Due to the developments of copyright-related issues, the Copyright Regulation was amended twice, in 1872 and 1876. According to the first amendment in 1872 the protection of a copyright was extended to 45 years and the copyright protection of translated books was regulated as 20 years (Iskit, 1939; Parmaksiz, 2007).

The Copyright Regulation was amended again in 1876. According to this second amendment, the publishers of big and comprehensive books, which have at least eight hundred pages and thirty seven lines in a page, were allowed to publish those books for four years. However, publishers who did not print those books within one and a half years of obtaining the copyright lost their copyright privileges (Iskit, 1939). In addition, a book which had two hundred pages with at least twenty lines to a page and fifty maps, atlases or template maps etc. was considered as a big and comprehensive book. Therefore, the publishers of such books were also granted copyright for four years (Cakmak, 2007).

### **3.2.3. ‘Telif ve Tercüme Nizamnamesi’ Copyright and Translation Regulation (1870)**

The Copyright and Translation Regulation was enacted in 1870 as the main regulation regarding the copyright and translation regulation in terms of carrying out the development process of IP in the Ottoman Empire. The objective of the Copyright and Translation Regulation was to fill the gaps of the Copyright Regulation; thus, it was complementary to the Copyright Regulation (Cakmak, 2007). According to the Copyright and Translation Regulation, translations of works were encouraged and some rewards were given to the authors and furthermore their names were announced to the public as an incentive for authors to contribute to the development of the country’s knowledge base. After publication the translators of the books were granted a financial reward. Furthermore, the

translators of big and comprehensive books were rewarded with more money. Moreover, intangible IP products were evaluated together with their tangible products. On the other hand, the translator's input to a work was not considered to add to the work and compilations were not accepted as separate works (Cakmak, 2007; Copyright and Translation Regulation, 1870).

#### **3.2.4. 'Hakk-ı Telif Kanunu' Copyright Law (1910)**

Another essential regulation of copyright development was the Copyright Law which was adopted in 1910. This was the first copyright law to define the term copyright in Ottoman-Turkish Republic history (Cakmak, 2007; Iskit, 1939; Memduhoglu, 2008; Oztrak, 1970; Parmaksiz, 2007). According to this law, the right of an author over the intellectual product is defined as a kind of possession and entitled to copyright. Moreover, all kinds of books, intellectual works, pictures, drawings, sculptures, plans, maps, topographies, geography, architectural designs, geometrics, reliefs, music melodies and musical notes were included for protection by this law. In addition, the usages of books such as publication, translation, trading, stage plays in theatres, usage for lectures, speeches, conferences and other types of use were approved as copyright issues. Furthermore, the consent of the author, or if the author had passed away permission of the inheritors, was required for the use of a work. In addition, the law regulating authorship decreed that more than one author could be the authors of a single work (Copyright Law, 1910).

Additionally, the protection period of the works was regulated in this law: books and musical works were protected for the life of the author plus thirty years after their death. The protection time for topography, calligraphy, geography and maps was the life of the author plus eighteen years. Translated works were protected for the life of the translator plus fifteen years. Laws and legislations were not subject to this law. On the other hand, works explaining laws and legislations were protected by copyright. Furthermore, regarding letters, the consent of the writer, or if he was dead the consent of the heirs, was required for the use of that letter (Copyright Law, 1910).

Additionally, according to this new regulation, if a work was translated by more than one translator, the translators were granted joint rightholdership of the work.



On the other hand, authors or translators who worked for a company or institution were not granted copyright for the works which they created on behalf of their companies or institutions. The Ministry of Education was authorised to publish those works which were essential to the country's culture but all their published copies had run out and the heirs did not have economic power to publish those works or were reluctant to publish them, or where there was disagreement among the inheritors. For those works whose owners were not known and not published, the Ministry of Education was authorised to grant publication privilege to someone for ten to fifteen years. If that privileged person did not commence the publishing of that work within a year the privilege was taken back (Copyright Law, 1910).

Another issue regulating the law was the registration procedure through which works were protected (Ates, 2006). According to the Copyright Law, registration of a work was compulsory in terms of copyright protection. At that time, Istanbul was the capital city, and the Ministry of Education was authorised to undertake registration procedures. However, in other cities sub-divisions of the Ministry of Education were the competent bodies for registration procedures. Three copies of the works were given to the legal authorities in terms of registration. The name of the author, the name of the work and its subject were written in a notebook while the author's or his representative's signature was taken during registration. In addition, the right holders who wanted their works to be registered had to pay a quarter Ottoman gold coin as the registration fee. At the end of the registration process a record document was given to the right holders as proof of registration. Oztrak (1970) argues that the registration procedure and other issues were not compatible with the Berne Convention and as the Ottoman Empire did not sign the Convention it should not be expected to be answerable to it before passing a new law which had the requirements of the Berne Convention.

The sanctions were also taken into consideration in the law, and regulated in terms of infringement incidents. Any changes to a work were banned without the consent of the author. Piracy was also defined in the law and both administrative and imprisonment sanctions were regulated for pirates in the case of copyright infringements. Anyone who infringed a work without the consent of the author was fined twenty five to one hundred Ottoman gold coins and given one week to two

months imprisonment. In addition, as sanctioned in the law, anyone who sold the works consciously was fined five to twenty five Ottoman gold coins. Furthermore, the injured parties were also able to take actions for their damages (Copyright Law, 1910).

The proceedings were also covered by the law. The proceedings on the copyright infringements depended on complaints by the right holders. Therefore, it was also added to the law that people who did not obtain the consent of the author of a work before this amendment were required to obtain the consent of the author in terms of publication. On the other hand, the financial rights of the rightholders were covered in the law (Copyright Law, 1910).

These regulations were all enacted during the time of the Ottoman Empire. However, the amendments continued to be effective after the foundation of the Turkish Republic. World War I (1914-1918) and other wars such as the Independency War in Turkey ended by 1923 with the demise of the Ottoman Empire. Turkey signed the Lausanne Treaty of Peace on 24 July 1923 leading to the foundation of the modern Turkish Republic.

According to the Lausanne Peace Treaty, Turkey would be a contracting party to the international agreements on industrial, literary and artistic property right protection within twelve months. However, Turkey had an objection regarding translated works, and did not become a member of the Berne Convention at that time. Subsequently, after the agreement on the translated works Turkey signed the 1948 Brussels Revision of the Berne Convention and became a party to the Berne Convention in 1951. (Memduhoglu, 2008; Oztrak, 1970). In conclusion, the Copyright Law of 1910 was effective until the adoption of Intellectual and Artistic Work Law No: 5846 of 1952. On the other hand, some articles about intellectual property were regulated in Chapter Twelve of the Code of Obligations of 1926 (OJ: 29/04/1926 - 359).

### **3.2.5. Copyright Developments after the Foundation of the Republic of Turkey**

The Copyright Law of 1910 was not compatible with the Berne Convention, and it was not up to date. For instance, registration was not required by the Berne Convention, whereas registration was mandatory for copyright protection.

Moreover, photographs and cinematographic and broadcasting issues were not included in the Copyright Law of 1910.

Since Turkey did not become a signatory to the Berne Convention until 1951, a new copyright law was required for compatibility with the Berne convention to fulfil the requirements (Memduhoglu, 2008). A new legislation process started and it was agreed in principle that a new copyright law was required to bring Turkey into alignment with international conventions and current developments. Professor Ernst E. Hirsch was authorised to prepare a draft copyright law (Hirsch, 1943). Finally the law which he drafted was enacted by the Turkish Great National Assembly with Law No: 5846 on Intellectual and Artistic Works on 5 December 1951 and became effective on 1 January 1952 (OJ: 13/12/1951 - 7931). In essence, after the foundation of the Republic of Turkey the first law on copyright entitled Intellectual and Artistic Works Act was adopted in 1951, and was amended in 1983, 1995, 2001, 2004 and finally in 2008.

Law No: 5846, which is still the fundamental IP law in Turkey, was adopted in 1951 to fulfil the requirements of international conventions and recent developments. However, since then there have been a number of amendments to the Law on Intellectual and Artistic Works due to recent global and technological needs. Firstly, it was amended by Law No: 2906 on 1 November 1983 (OJ: 03/11/1983 - 18210). In order to make the later laws compatible with European Union legislation, the copyright law was amended again by Law No: 4110 on 7 June 1995 (OJ: 12/06/1995 - 22311), by Law No: 4360 on 21 February 2001(OJ: 03/03/2001 - 24335), by Law No: 5101 on 3 March 2004 (OJ: 12/03/2004 - 25400), by Law No: 5217 on 14 July 2004 (OJ: 23/07/2004 - 25531), by Law No: 5571 on 28 December 2006 (OJ: 13/01/2007 - 26402) and finally by Law No: 5728 on 2 January 2008 (OJ: 08/02/2008 - 26781). In addition, due to developments and insufficient implementation, apart from the Law on Intellectual and Artistic Works, Law No: 3257 Cinema, Video and Musical Works Law was enacted on 2 January 1986 (OJ: 07/02/1986 - 19012). However, this law was also amended one year later by Law No: 3329 on 29 January 1987 (OJ: 04/02/1987 - 19362). Besides, it was amended by Law No: 4928 on 15 July 2003 (OJ: 19/07/2003 - 25173). Finally, Law

No: 3257 was abolished and replaced by Law No: 5224 on Evaluation, Classification and Supporting of Movies on 14 July 2004 (OJ: 21/07/2004 - 25529).

### **3.2.5.1. The Law on Intellectual and Artistic Works of 1951**

The reference law for copyright in Turkey is Law No: 5846 on Intellectual and Artistic Works. In this law, intellectual and artistic works are defined and classified, into scientific and literary works, musical works, fine arts works and cinematographic works. Moreover, compilations were also accepted as works in the law. Thus, any work published with the consent of the author was accepted as communicated to the public. The definition of the author was the person who created the work. In the case of there being more than one author and where the separation of a work was possible, the authors owned the parts of the work which they created. However, if separation was not possible, creators were named as joint authors.

In addition, economic and moral rights, the protection period of the works, assignment of rights to heirs, works which were not subject to copyright, infringement of rights, sanctions and proceedings, unfair competition and precautions to prevent unfair competition, rights of composers and the broadcasting of the intellectual and artistic works on the radio were regulated. In addition, the procedures for using intellectual and artistic works, the foundation of guilds and the distribution of the income gained from the copyright fees were also regulated.

It should also be noted that according to this law the right of protection period was 50 years after the death of the author. In addition, for the works of legal people the protection period was considered to be for 20 years after the publication date.

#### ***3.2.5.1.1. Amendment of 1983***

Law No: 5846, namely the Law on Intellectual and Artistic Works was first amended in 1983 by Law No: 2936 (OJ: 05/12/1983 - 7981). An important amendment to the law was the foundation of specialised guilds. Although the IPR law of 1951 enacted the foundation of guilds, none were founded until the amendment of 1983. According to the new amendment, guilds were authorised to protect the common benefits of their members and to fulfil the requirements of the

legal procedures regarding pursuing the financial rights of their members. The foundation of four guilds was enacted in 1983; however they were founded in 1986 (Acun, 2008; Pinar *et al.*, 2007). In addition, their names were indicated in the amendment as the Guild of Science and Literature Works Owners, the Guild of Musical Works Owners, the Guild of Fine Arts Owners and the Guild of Cinematographic Works Owners. They were also permitted to establish branches in various provinces. Furthermore, it was not allowed for other guilds to be founded under different names in the same field, and the foundation of a single Federation of the Guilds of Intellectual and Artistic Work Owners was adopted. Moreover, to prevent the infringement of intellectual and artistic works, the works were required to have identification signs and serial numbers on them.

Another issue was the broadcasting of radio and television programs on the Turkish Radio and Television Corporation (TRT) which were to be regulated by this amendment in terms of intellectual property related issues. The first television broadcasting was carried out at Istanbul Technical University in Turkey in 1952. In terms of institutionalisation, the TRT was founded on 1 May 1964, and was entirely authorised to run the state owned radio channels. TRT Ankara Television commenced initial test runs in 1968 (Can, 1999; TRTENGLISH, 2010).

#### ***3.2.5.1.2. Amendment of 1995***

The negotiations between Turkey and the European Economic Community (EEC) commenced in 1959. Soon after the foundation of the EEC, Turkey applied for membership in July 1959. The negotiations were finalised, and the Agreement Creating an Association between the Republic of Turkey and the EEC, (the Ankara Agreement) was signed on 12 September 1963. The Ankara Agreement was a starting point for relations between Turkey and the EEC. An ‘Additional Protocol’ was signed in 1970 and put into force in January 1973. However, due to some problems negotiations were stopped. Consequently, Turkey applied for full membership to the EEC in 1987 (Karluk, 2005).

The European Community and Turkey Association Council took “Decision No 1/95 of the EC-Turkey Association Council of 22nd December 1995 on implementing the final phase of the Customs Union” in order to finalise the Customs negotiations

(OJ L 35, 13/02/1996). The Customs Union Decision finalised the transition period and made the definitions of agenda, conditions and methods for the alignment of Turkish legislation to the trade and competition policy of the European Union (Karluk, 2005). The purpose of the Decision 1/95 was to establish the free movement of industrial goods and processed agricultural goods, equal conditions for commerce and free competitive surroundings (Duna and Kutay, 1996; Uyar, 2001).

Turkey had to harmonise its legislation in line with the directives of the EU and international conventions in order to be a party to the Customs Union by the 1<sup>st</sup> January, 1996. Therefore, Turkey worked hard in 1995 to issue new legislations on IPR protection. In this respect, Turkey's membership of the Customs Union has been deemed as a step on the way to full membership of the EU. Besides, Customs Union membership increases the wealth level and gives confidence to foreigners to invest in Turkey (Neyapti *et al.*, 2007). The alignments of "Protection of Intellectual, Industrial and Commercial Property" to international standards were regulated by Article 31 under Chapter IV and the details were mentioned in Annex 8 of 1/95 Customs Union Decision (Decision No 1/95, 1995). As a result, Turkey amended its copyright and industrial property rights legislation and became a member of the Customs Union on the 1<sup>st</sup> of January 1996.

Intellectual and Artistic Works law was amended by Law No: 4110 in 1995 (OJ: 12/06/1995 - 22311). The protection period of copyright was increased to life plus 70 years after the death of the author. In addition, for the works of legal persons the protection period was extended to 70 years after the publication date.

Another significant amendment in the law was the foundation of guilds, as the establishment of more than one guild in the same field was now allowed. In addition, criminal sanctions and fines applied to the infringers of intellectual property were increased. Furthermore, the ownership of related rights was added in the Law on Intellectual and Artistic Works. In addition, sanctions in terms of violations of related rights were enacted.

#### ***3.2.5.1.3. Amendment of 2001***

The Law on Intellectual and Artistic Works was amended by the Law No: 4360 in 2001 (OJ: 03/03/2001 – 24335) due to the developments in copyright issues. One of the most important amendments was the foundation of specialised IP courts, which are the competent courts in terms of conflicts on any IP related lawsuits. However, the IP courts were not founded in all provinces, therefore, until the foundation of the Specialised IP courts some civil and criminal courts were authorised by the Judges and Prosecutors Board through the proposal of the Ministry of Justice to deal with intellectual property related cases.

In addition, the attaching of banderols to works was regulated in terms of preventing copyright infringement. To this end, it was introduced that the enforcement of the banderol system would be inspected by the anti-piracy commissions.

Importantly, copyright violation via the internet was added to the law and the sanction of a copyright infringement through the internet was also regulated by law. In addition, a fine for the infringement of compilations was included in the law. Furthermore, economic and moral rights of the owners of related rights were regulated. The ownership of related rights was granted for reproduction, distribution and communication to the public. Besides, film producers were also approved as owners of related rights. Additionally, in the case of infringements, duration of imprisonment and the amount of the fine sanctions were increased.

#### ***3.2.5.1.4. Amendments of 2004***

Law No: 5846 on Intellectual and Artistic Works was amended twice in 2004 to bring it into line with European Directives and current developments. According to the first amendment of 2004 (OJ: 12/03/2004 – 25400), the Ministry of Culture and Tourism was authorised to inspect the activities of guilds and to demand their inspection by independent inspection bodies. The amendment stated that at the end of an inspection, a report must be submitted to the Ministry of Culture and Tourism and administrative sanctions should be given in the case of any shortcomings with regard to the administration or operation of a guild.

Another issue was enforcement against piracy. The Ministry of Culture and Tourism and the governors of provinces were authorised to conduct inspections to ensure that copyright related works had banderols attached to them. The governor of a province could either establish an anti-piracy commission by the order of the Ministry or due to the local requirements in the fight against IPR crimes. The representatives of the Ministry and related guilds would be assigned to carry out tasks in those commissions. In the case of an infringement, legal action would be taken against the infringer. The legal action would either be in the form of a fine and/or imprisonment.

On the other hand, police officers were authorised to fulfil ex-officio operations against IP violations. Therefore, the operations against IP crimes and the amount of confiscated materials increased, as did operations against the selling of materials which are protected by Intellectual and Artistic Law and legally reproduced products with banderols in streets, open spaces, marketplaces, pavements, docks, bridges etc. Any person violating this rule would be fined by the municipal police officers.

According to the second amendment of 2004, by Law No: 5217 on 14 July 2004, members of the arbitration commission shall be paid a certain amount of money for their efforts when they meet in order to negotiate the tariffs (OJ: 23/07/2004 - 25531).

#### ***3.2.5.1.5. Amendment of 2006***

According to the amendment of 2006, by Law No: 5571 on 28 December 2006, a reward system was introduced (OJ: 13/01/2007 - 26402). The civil servant members of the anti-piracy commissions who took part in operations to confiscate pirate materials would be rewarded.

#### ***3.2.5.1.6. Amendment of 2008***

The final amendment to Law No: 5846 on Intellectual and Artistic Works was enacted on 23 January 2008 by Law No: 5728 (OJ: 08/02/2008 - 26781). The fines and imprisonment duration were changed in this amendment. In addition, the ex-officio confiscation by the security forces was abolished. This does not mean that



security forces stopped fighting IP crimes because it is still against the law to infringe IP rights. Therefore, security forces take part in the fight against IP violations as well as other crimes.

### **3.2.6. Guilds for Copyright Protection**

There has been a great effort by the Turkish authorities since 1995 to bring Turkish IP legislation into line with EU regulations after the Customs Union agreement. Authors' rights and related rights have been comprehensively modified in line with global contemporary IP legislation. There has been a parallel IP legislation development with other countries, which has not necessarily made sufficient improvement to the guilds system.

Unfortunately, the guild system does not work properly and there is no harmonised relationship between the guilds, the right owners and the users due to the lack of properly-identified jurisdictions (Pinar, *et al.*, 2007). There are 24 specialised guilds charged with the protection of IPR in the fields of Guilds Related to Authors, Guilds on Related Rights, and Guilds Related to Publishers. The Guilds Related to Authors are composed of owners of science and literary works, musical works, fine arts works, cinematographic works and compilation works. The Guilds on Related Rights are composed of phonogram producers, performers, radio and television entities and producers of the first fixation of cinematographic works. Publishers and press owners are members of the Guilds Related to Publishers (TELIFHAKLARI, 2009).

Article 42/A (OJ: 03/03/2004 - 5101/13) was added to the Intellectual and Artistic Works in 2004 regarding the responsibilities and obligations of the guilds as follows:

- i. All information, which will be open to relevant parties, should be reported to the Ministry relating to their members and the works, performances, phonograms and producers they represent and brought up to date every three months;
- ii. Administration of the rights resultant from the activities of their members should be offered in a fair way;
- iii. Income acquired from members' activities regarding the administration of their members' rights to the right holders should be paid out according to a sharing scheme;
- iv. Information should be given regarding the works, performances, phonograms and productions they represent to those who present written requests;

- v. Guilds should act in an equitable manner when signing contracts regarding the rights they run; to ensure discounts and facilitated payment methods that they deem necessary for their economic and/or moral interests;
- vi. Payment tariffs should be determined concerning the rights they handle in due time for contracts to be made and such tariffs and any changes in such tariffs should be announced in good time;
- vii. Accounts should be approved by certified financial consultants.

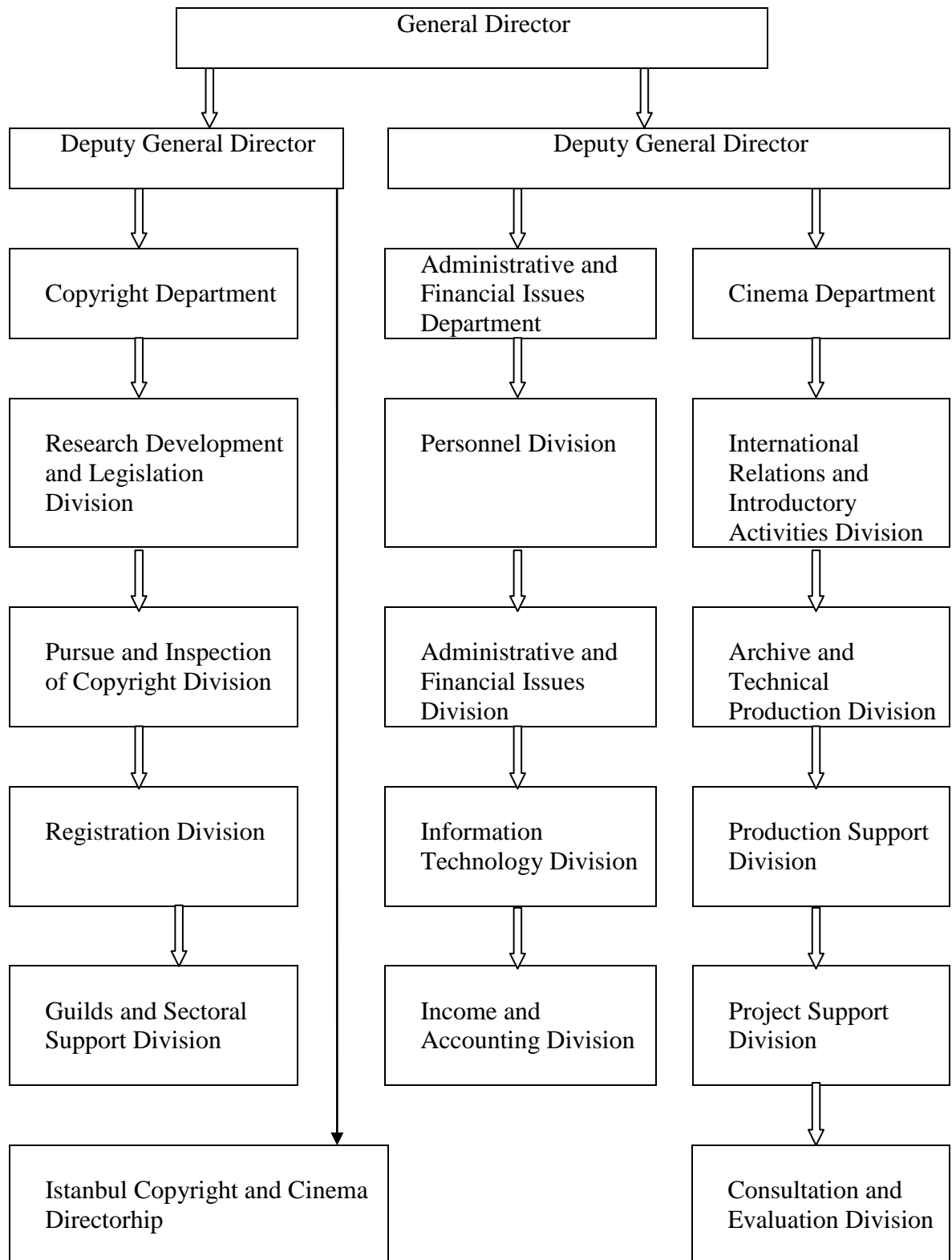
### **3.2.7. Membership of the Republic of Turkey to the International Agreements on Copyright**

There are a number of fundamental international conventions in the field of copyright and related rights. These are; the Berne Convention for the Protection of Literary and Artistic Works, the Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations, Trade Related Aspects of Intellectual Property Rights, the WIPO Performances and Phonograms Treaty and the WIPO Copyright Treaty. Turkey approved the 1971 Paris Revision of the Berne Convention, which was amended in 1979, the Rome Convention and the TRIPS in 1995. Furthermore, Law No: 5646 on the approval of the ratification of the WIPO Performances and Phonograms Treaty and the Law No: 5647 on the approval of the ratification of the WIPO Copyright Treaty were both enacted on 2 May 2007 and came into force on 8 May 2007 (OJ: 08/05/2007 - 26516).

### **3.4. THE GENERAL DIRECTORATE OF COPYRIGHT AND CINEMA**

The General Directorate of Copyright and Cinema, which is instituted under the Ministry of Culture and Tourism, is authorised to deal with copyright and related rights. According to the regulation, application procedures and proposals of legislations to Parliament regarding copyright and related rights in terms of administrative structure are carried out by the General Directorate of Copyright and Cinema. To contextualise the administrative structure and the related division of labour, the organisational chart of the General Directorate of Copyright and Cinema are depicted in Chart 1.

**Chart 3.1: Organisation Chart of the General Directorate of Copyright and Cinema**



Source: (TELIFHAKLARI, 2009 )

### **3.5. DEVELOPMENT OF INDUSTRIAL PROPERTY RIGHTS**

In Turkey, regulations on industrial property can be traced back to the 1870s during the Ottoman Era. In 1871, the regulation of the trademark protection ‘*Eşya-i Ticariyeye Mahsus Alamet-i Farikalara Dair Nizamname*’ or the Regulation on Trademarks of Commercial Products was introduced as the first trademark law (*Annual 2005 Report, 2006; Annual 2006 Report, 2007; Annual 2007 Report, 2008; Pinar, 2005; Soyak, 2005*). The Regulation on Trademarks of Commercial Products was first amended on 6 July 1872 and the second amendment was made on 11 May 1888 (*Annual 2006 Report, 2007; Kala and Ince, 2006*). In 1879, inventions were taken into consideration to protect patents and ‘*İhtira Beratı Kanunu*’ or the Invention Patent Right Law was adopted (*Annual 2005 Report, 2006; Annual 2006 Report, 2007; Annual 2007 Report, 2008; Pinar, 2005*).

It should be noted that the Ottoman Empire was one of the first countries to legislate on the protection of industrial property rights (*Annual 2005 Report, 2006; Annual 2006 Report, 2007; Annual 2007 Report, 2008*). Unlike copyright legislations, patent and trademark legislations only underwent a few amendments in Turkey until 1995.

#### **3.5.1. Developments in the Ottoman Empire from 1871 to the foundation of the Republic of Turkey in 1923**

Advancements in the field of industrial property rights in the Ottoman Empire from 1871 to the foundation of the Republic of Turkey in 1923 in chronological order were as follows (*Annual 2007 Report, 2008, p. 7; Annual Report 2008, 2009, p. 10*).

1871- The Regulation on Trademarks of Commercial Products became effective;

1872- First amendment of The Regulation on Trademarks of Commercial Products was regulated;

1879- The Invention Patent Right Law was adopted;

1888- Second amendment of The Regulation on Trademarks of Commercial Products was legislated.

The protection of industrial property rights has continued since the foundation of the Republic of Turkey in 1923 in accordance with the developments taking place in other parts of the world. In order to protect industrial property rights, Turkey became a party to the Paris Convention on Establishing an International Union in 1925. In 1955, Turkey became a party to the International Patent Institute founded in 1947, which became the European Patent Organisation in 1972. Trademark Decree No: 551 was adopted in 1965 and Turkey became a party to the Convention Establishing the World Intellectual Property Organisation in 1976 (TPI, 2006). Finally, Decree Law No: 556 on Trademark Protection was amended by Law No: 5833 the Law on the Amendment of the Trademark Decree in January 2009 (OJ: 28/01/2009 - 27124).

### **3.5.2. Developments in Turkey from 1923 to 1994**

With regard to the developments in the field of industrial property in Turkey from 1923 to 1994, the chronological developments were as follows (*Annual 2007 Report*, 2008, pp. 7-8; *Annual Report 2008*, 2009, p. 10):

1925- Membership of the Paris Convention for the Protection of Industrial Property;

1931- Publication of the first Industrial Property Journal;

1934- Establishment of Industrial Property Directorate under the Ministry of Economics;

1955- Participation in the International Patent Institute and examination structure in trademarks implemented;

1956- Novelty inspection started in the patent applications before granting patent;

1965- The Regulation on Trademarks of Commercial Products was changed by Trademarks Law No: 551;

1976- Membership to WIPO by signing the Convention Establishing the World Intellectual Property Organisation. In addition, the Industrial Property Directorate was reconstituted at the Ministry of Industry and Technology as the Industrial Property Department;

1977- The International Patent Institute was abolished and replaced by the European Patent Convention. The European Patent Office commenced the novelty search to the patent applications made by Turkish citizens.

The Industrial Property Department was the authorised body on the protection of industrial property rights until 1994. The Industrial Property Department under the Ministry of Industry and Trade was abolished and the Turkish Patent Institute (TPI), an economic and organisational autonomy, was established by Decree Law No: 544 in 1994 (*Screening Meeting by TPI, 2006; TPI Strategic Plan*). The establishment of TPI is a milestone in industrial property rights protection. Consequently on 6 November 2003 the Decree Law was changed to law number 5000 as the Law on Establishment and Tasks of Turkish Patent Institute in order to comply with the developments in the world (The Law on Establishment and Tasks of TPI, 2003) (OJ: 19/11/2003 - 25294).

1995 and 1996 were very significant years for the Turkish industrial property system. Important developments were achieved to fulfil the requirements under the Agreement Establishing the World Trade Organisation and also the alignment of related regulations under the Customs Union with the European Union (Keyder, 1996; *TPI Strategic Plan*). The Decree Laws on trademark, patent, geographical indications and industrial designs were adopted in 1995. Since 1994 the TPI has signed 11 international agreements to form an effective industrial property system in Turkey (*Annual 2006 Report, 2007*).

The TRIPS agreement does not have an obligatory rule to form separate specialised IP courts; however Turkey has founded specialised IP courts in line with the membership negotiations with the EU. Specialised courts were constituted to provide an efficient and swift judiciary system after the amendments by Law No: 4630 (OJ: 03/03/2001 – 24335). The first specialised civil IP court was founded in Istanbul in 2001. The second civil IP court was established in Istanbul and a new

civil court in the capital city, Ankara, in 2003 (*Screening Meeting by the MoJ*, 2006). Five civil and five criminal courts have been founded in Istanbul, Ankara and Izmir (*Screening Report Turkey*, 2006).

### **3.5.3. Developments in Turkey from 1994 to 2009**

Regarding the developments in the field of industrial property rights after the establishment of the TPI, the developments were listed as follows (*Annual 2007 Report*, 2008, pp. 8-9; *Annual Report 2008*, 2009, pp. 10-11):

1994- Turkish Patent Institute was established;

1995- Membership of the World Trade Organisation and Annex 1C of the Agreement Establishing the World Trade Organisation, entitled Agreement on Trade-Related Aspects Intellectual Property Rights (TRIPS) became effective in Turkey;

1995- Decree-Law No: 551 on Protection of Patents (OJ: 27/06/1995 - 22326); Decree-Law No: 554 on Protection of Industrial Designs (OJ: 27/06/1995 - 22326); Decree-Law No: 555 on Protection of Geographical Indications (OJ: 27/06/1995 - 22326); Decree-Law No: 556 on Protection of Trademarks (OJ: 27/06/1995 - 22326) were introduced;

1996- Turkey became a party to the Patent Cooperation Treaty (PCT), which allows patentees to apply for protection in more than one country with a single application. Furthermore, Turkey became a party to the Strasbourg, Nice and Vienna agreements on international trademarks and patent categorisation;

1998- The Locarno Agreement Establishing an International Classification for Industrial Designs and also Budapest Agreement of the International Registration of the Deposit of Microorganisms entered into force in Turkey;

1999- Participation in the Protocol Relating to Madrid Agreement;

2000- Turkey participated in the European Patent Convention (OJ: 29/01/2000 – 23948)

2003- The Decree Law became Law No: 5000 as the Law on Establishment and Tasks of Turkish Patent Institute (OJ: 19/11/2003 – 25294);

2004- Law No: 5147 on the Protection of Integrated Circuits Topography came into force (OJ: 30/04/2004 – 25448);

2005- Participation in the Geneva Text of the Hague Agreement Concerning International Designs and Trademark Law Treaty (TLT). Additionally, examination and searching procedures of patents began to be fulfilled in the Turkish Patent Institute. Furthermore, the usage of European Patent Office Query System (EPOQUE) was initiated;

2006- Turkey signed the Singapore Treaty on Trademark Laws;

2007- Law No: 5598 regarding Participation in the Amended Text of European Patent Convention (EPC 2000) was legislated (OJ: 17/03/ 2007 – 26464).

In addition, Law No: 5042 on the Protection of the Plant Breeder's Rights (OJ: 15/01/2004 – 25347) was adopted in 2004 and the Trademark Decree Law No: 556 on Trademark Protection was amended by Law No: 5833 the Law on the Amendment of the Trademark Decree Law (OJ: 28/01/2009 - 5833) in 2009.

#### **3.5.4. Associations related to Industrial Property Rights**

There are four associations which deal with industrial property rights. These are: the Registered Trademarks Association, the United Brands Association, the Trademark Protection Group, and the Patent and Trademark Attorneys Association. Unlike copyright related guilds, the legal nature of these associations is not described by law.

### **3.6. THE TURKISH PATENT INSTITUTE**

The Industrial Property Department under the Ministry of Industry and Trade was the authorised body for the protection of industrial property rights until 1994. In 1994 the Industrial Property Department was abolished and the Turkish Patent Institute (TPI), an economic and organizational autonomy, was established (*Screening Meeting by TPI, 2006; TPI Strategic Plan*).

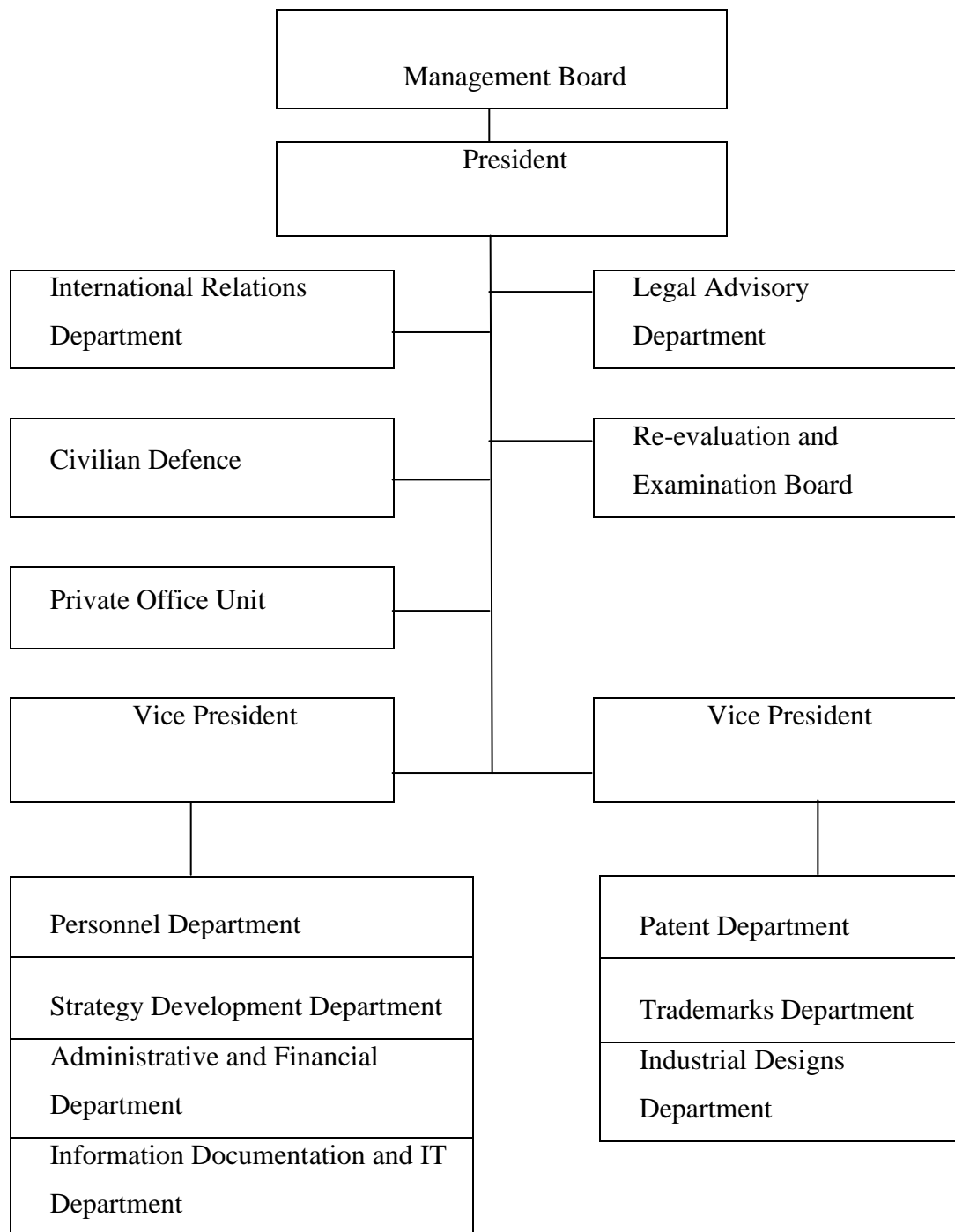


As of 3 March 2006, there are 747 patent and 1081 trademark attorneys in Turkey and 72% applications are filed through them. There are 36 managers, 58 patent and trademark examiners, 114 support staff and 180 contractor staff working at the TPI, and there have been 23 Information and Documentation Centres in various provinces throughout the country (*Screening Meeting by TPI, 2006*).

The Management Board is the top decision-making and administration body of the TPI. There are seven members of the board who are representatives from the Ministry of Justice and the Ministry of Finance, three representatives who are assigned by the Ministry of Industry and Trade and the president and deputy president of the TPI. The president of the TPI is also the head of the management board (*Annual 2005 Report, 2006; Annual 2006 Report, 2007; Annual 2007 Report, 2008*).

The TPI is the authorised institution for carrying out issues regarding industrial property rights in Turkey. Chart 2 depicts the organisational structure of the TPI (*Annual 2007 Report, 2008*):

**Chart 3.2: Organisation of the Turkish Patent Institute**



Source: (Annual 2007 Report, 2008, p. 10)

It should be noted that the TPI has a vision and a mission to conduct efficient and productive services in a dynamic manner which enables it to develop to respond to the continuous changes which are taking place in the field. The vision of the TPI is identified as follows: “The Turkish Patent Institute provides effective protection and widespread usage of industrial property rights ensuring that Turkish industry

and technology play a leading role in global competition. It strives to be a leading institution in the world of industrial property” (*Annual 2006 Report*, 2007, p. 7).

In addition, the mission of the TPI is identified as follows (*Annual 2006 Report*, 2007, p. 7):

- To contribute to the development of Turkish economy and technology by encouraging creativity and innovation,
- To provide effective protection of patents, trademarks, industrial designs and other industrial property rights,
- To disseminate the awareness and knowledge of industrial property throughout the country and to cooperate with the related sectors,
- To provide customer oriented, timely and high quality service to constitute an effective industrial property system by strengthening legal, technical and human infrastructure,
- To represent Turkey on international platforms and strengthen cooperation for the protection of the interests and development of the Turkish and European economy.

### **3.7. SUMMARY**

In this chapter, the history of IPR in the Ottoman Empire and Turkey has been presented. In doing so, the introduction of the printing press to the Ottoman Empire and administrative and legislative aspects of IPR developments have been explained. The advancements that have been made to bring IPR laws into line with international and EU laws have been explored. In addition, the administrative organisations dealing with IPR issues have also been introduced.

In the next chapter, the current IPR enforcement policy is discussed. In addition, enforcement institutions in Turkey and in the UK are presented in order to determine the differences and similarities between the UK and Turkey.

## **Chapter 4**

# **CURRENT IPR ENFORCEMENT SYSTEM IN TURKEY**

### **4.1. INTRODUCTION**

IPR protection is regulated by international, regional, multi-lateral or bilateral conventions. In particular with globalisation, the interdependence of the economies of each country has become a reality. Therefore, various agreements and treaties have been developed and ratified in order to run the international economy as efficiently as possible. IPR is one such area which is subject to international regulation due to the increased international flow of IPR related material. However, this is not a new phenomenon as the quest for IPR goes back a couple of centuries. The international protection of IPR by conventions or treaties can be traced back to the 1880s, when international agreements were introduced to protect and lead the IPR within member states.

Currently, protection of IPR is important in the setting up of international business and investment. Therefore, there are national and international institutions and organisations which deal with IPR issues. The enforcement model of a country may vary; however, requirements stemming from the international conventions have to be applied in order to protect IPR at a satisfactory level. In fact, countries should establish a proper legal and regulative framework for the prevention of piracy and counterfeiting.

Turkey has signed a number of international agreements and conventions in terms of protection of IPR. The Ministry of Culture and Tourism, and the Turkish Patent Institute are the main institutions dealing with application procedures for copyright, patent and trademark. In addition, law enforcement institutions work to pursue, seize and investigate counterfeit and pirated materials and infringers, whereas prosecutors and judges carry out judicial procedures.

The Ministry of Culture and Tourism deals with copyright and the Turkish Patent Institute is authorised to deal with industrial property rights. Furthermore, the

Ministry of Justice and Judiciary, the Ministry of Internal Affairs-General Directorate of Turkish National Police, the Undersecretariat of Customs, and the Local Authorities-Municipality Police are the authorised governmental enforcement bodies charged with the implementation of IP regulations. In addition, there are quite a number of guilds and patent-trademark attorneys which have been set up as non-governmental organisations in order to protect their members against IP infringements.

It should be noted that the protection of IPR has a significant meaning for Turkey, which has been conducting accession negotiations with the EU to become a full member of the EU. Therefore, Turkey has been working towards harmonising its laws and regulations with EU requirements. As part of the legal harmonisation, IP Law constitutes a separate topic which has to be properly adopted and implemented by Turkey. Thus, it could be said that administrative institutions and comprehensive work description, legislation in line with the international standards and establishment of enforcement entities such as specialised enforcers and judiciary are crucial issues in effective IP protection.

Various bodies and officials are authorised for the protection of IPR in Turkey. The enforcement bodies are: specialised criminal or civil courts for IPR, public prosecutors, criminal court of peace (where there is no specialised IP court), governorships either in the provinces or districts, enforcement bodies (the police and the gendarmerie), anti-piracy commissions, the Undersecretariat of Customs (border gates, seaports and airports), municipalities (trading officers or municipality police) and guilds or patent-trademark attorneys.

This chapter, hence, aims to survey the IPR enforcement system with the relevant institutions, legal and regulative framework, and the actors involved. This is expected to shed light on our understanding of the IPR enforcement structure in Turkey, and also to identify the diverging and converging points with EU countries and international practice.

## **4.2. INTELLECTUAL PROPERTY ENFORCEMENT INSTITUTIONS IN TURKEY**

There are three essential governmental bodies in Turkey which are authorised by the Intellectual and Artistic Works Law (Law No: 5846) to develop a system of IP enforcement in the country: the Ministry of Justice and Judiciary, the Ministry of Interior, and the Undersecretariat of Customs (Intellectual and Artistic Works Law, 1951).

### **4.2.1. The Ministry of Justice**

The Ministry of Justice, courts and public prosecutors are the authorised bodies of judicial infrastructure in terms of enforcement of IPR. The Ministry of Justice is in charge of the establishment of IP courts, ensuring efficient functioning of these courts and training of public prosecutors, judges and other officials functioning in these courts (*Screening Meeting by the MoJ, 2006*). However, the principle of separation of power is applied in Turkey. Therefore, public prosecutors and judges use their power independently without any influence from anyone according to the constitution (Constitution of the Republic of Turkey, 1982). The structure of the judicial system is explained in the following section.

#### **4.2.1.1. The court of cassation**

According to article 154 of the Constitution of the Republic of Turkey, the Court of Cassation is authorised to review the decisions and judgments of first instance courts. It can either be first instance or last instance court in specific cases which are identified by law (Constitution of the Republic of Turkey, 1982). There are twenty-one civil and eleven criminal divisions in the Court of Cassation (YARGITAY, 2011; *Turkish Judicial System*). The Eleventh Civil Division of the Court of Cassation is authorised to examine the appealed decisions of civil cases relating to IP law whereas the Seventh Criminal Division is entitled to examine the appealed decisions of criminal cases related to IP law (YARGITAY, 2011; *Screening Meeting by the MoJ, 2006*).

#### **4.2.1.2. The regional courts of appeal**

In the current judicial system trials are carried out by the First Instance Courts and by the Court of Cassation. However, a new legislation Law No: 5235 namely the Foundation of Courts of First Instance and Regional Appeal Courts Law was enacted by the Parliament on 26 September 2004 (Foundation of Courts of First Instance and Regional Appeal Courts Law, 2004). Although the Regional Courts of Appeal were expected to be established by 1 June 2007, this project had been postponed to 2010 due to physical and technical impediments and a shortage of appointing public prosecutors and judges (Activity Report of the MoJ, 2008). The chief prosecutors of those courts were assigned in spring 2011 and the courts were expected to become active in 2011. Accordingly, each Regional Court of Appeal has to have at least three civil and two criminal divisions (Foundation of Courts of First Instance and Regional Appeal Courts Law, 2004; *Screening Meeting by the MoJ, 2006; Turkish Judicial System*).

After the establishment of the Regional Courts of Appeal, the trial system will be held by the First Instance Courts, the Regional Courts of Appeal and the Court of Cassation. The Regional Courts of Appeal will examine applications against the decisions of the first instance courts. They will either approve the verdicts of the first instance courts or reverse them. The Board of Chairs of each Regional Court of Appeal will decide which civil or criminal division should carry out the IP related cases (*Screening Meeting by the MoJ, 2006; Turkish Judicial System*). It is believed that the establishment of the Regional Courts of Appeal will have an important function in the judicial system as well as IPR protection and will provide swift judgments.

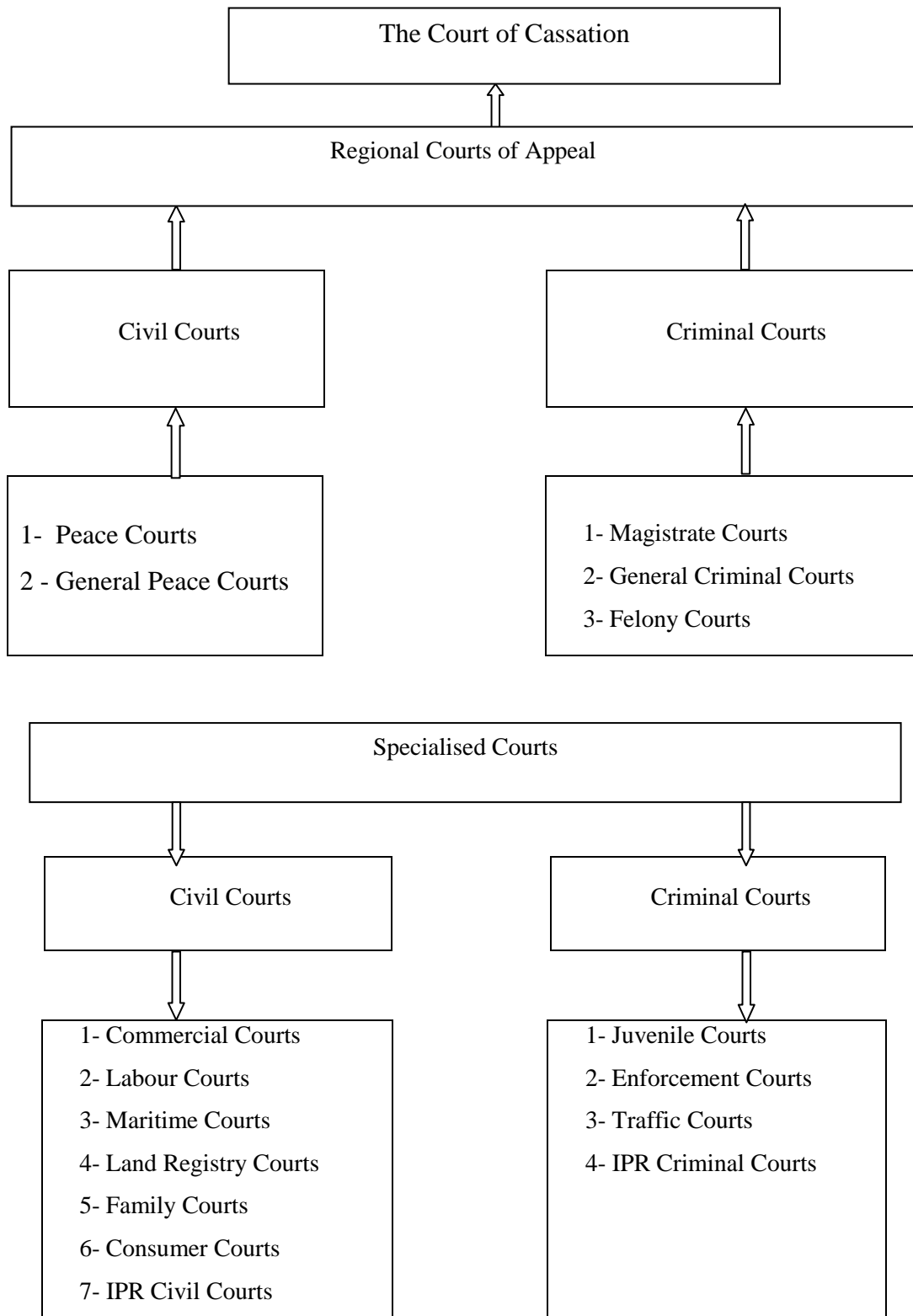
#### **4.2.1.3. Specialised IP courts**

Although, TRIPS does not have an obligation for its member states to establish specialised IP courts, Turkey commenced the foundation of specialised IP courts in line with the EU accession process. The first specialised IP court was established in Istanbul in 2001 (*Screening Meeting by the MoJ, 2006*). In total twenty-three IP courts (eleven criminal and twelve civil) were established in Turkey (*Activity Report of the MoJ, 2009*). There are fourteen IP courts in Istanbul (seven civil and

seven criminal), six IP courts in Ankara (four civil and two criminal) and three IP courts in Izmir (one civil and two criminal) (Special 301 Report, 2009). In other cities, where there is no specialised IP court, general civil or criminal courts are authorised to deal with IP-related cases (*Screening Meeting by the MoJ*, 2006). The structure of the judicial system in Turkey is depicted in Chart 4.1.



**Chart 4.1: Judicial System of Turkey**



Source: (Screening Meeting by the MoJ, 2006)

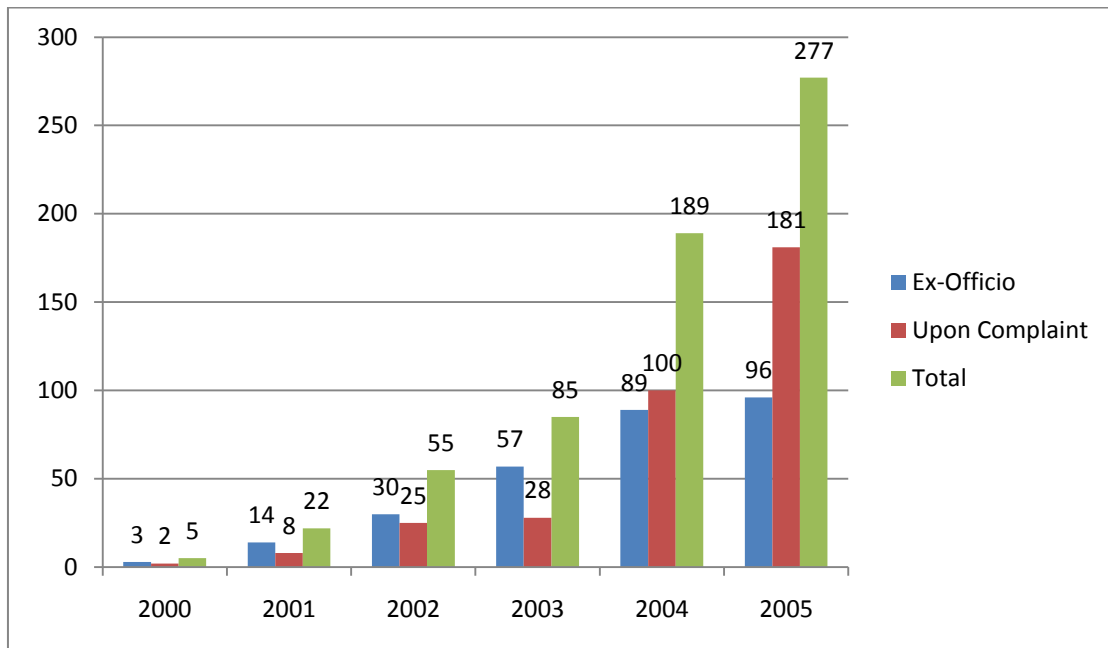
#### **4.2.2. The Undersecretariat of Customs**

The Undersecretariat of Customs is subordinate to the Prime Ministry, whose tasks and responsibilities are laid down in the Customs Law (Law No: 4458). In relation to IPR infringement, customs officers can seize counterfeit and pirated products at customs on an either ex-officio or upon-application basis. Customs officials are authorised: to evaluate the applications of the right holders with regards to the infringement of IPR, to check whether products are counterfeit or not, to stop the process of suspicious products and notify the right holders regarding doubtful goods, to suspend the release of such suspicious products until the verdict of the court, and to fulfil the decisions of courts in terms of releasing or destroying counterfeit goods (Customs Law, 1999).

The Undersecretariat of Customs takes measures in terms of preventing counterfeiting and proposes acts and regulations in order to harmonise the Customs legislation in line with the international norms and EU standards. Furthermore, a software programme BILGE is used across the customs offices in order to carry out 99.5% of their tasks in a computerised environment (*Screening Meeting by the UoC, 2006*).

As can be seen in Figure 4.1, the number of seized materials both ex-officio and upon complaint has been increasing gradually. The numbers of the seizure operations by customs officials at the borders is depicted in Figure 4.1.

**Figure 4.1: Number of Confiscated Materials by the Undersecretariat of Customs**



Source: (Screening Meeting by the UoC, 2006)

#### 4.2.3. The Ministry of Interior

The police are authorised to carry out security services in urban areas while the gendarmerie are charged with the security of rural areas. However, in general, types of crime and criminal profiles may vary in rural and urban areas in terms of economic, social and cultural lifestyles. It should be noted that the areas of responsibility of the gendarmerie forces are outside the police zones. In other words, those gendarmerie zones are outside the municipal territories of provinces or districts without police departments. The gendarmerie is a division of armed forces which is authorised to fulfil security tasks in order to provide public safety and public order (Gendarmerie Organisation, Task and Authorities Law, 1983).

In Turkey, provinces are ruled by governors who are appointed by the government and the police and the gendarmerie is under the supervision of the governors. However, the gendarmerie is only under the supervision of governors in terms of sustaining public order and safety. The remaining tasks related to armed forces issues are subordinate to the Turkish General Staff (Gendarmerie Organisation, Task and Authorities Law, 1983).

It should be noted that the governing system has a centralised structure in Turkey, and therefore governors are assigned through the signs of the Members of the Council of Ministers and the Prime Minister and approval by the President (Provincial Administration Law, 1949 Art. 6). Governors are under the supervision of the Ministry of Interior; however, they represent and carry out the administrative tasks of all of the ministries separately. Therefore, they are responsible to each of the ministers in terms of ruling provinces. Ministers may give ex-officio orders and instructions to the governors to fulfil their tasks and duties (Provincial Administration Law, 1949 Art.9). In addition, governors are responsible for safety and public order in the provinces as well as other duties. According to the Provincial Administration Law, the governor of a province within the borders is the supervisor of all law enforcement forces. Governors can take precautionary measures to prevent crime and ensure public order and security. Therefore, either public or private security forces are obliged to fulfil the duties and tasks ordered by the governors (Provincial Administration Law, 1949 Art.11).

According to the Intellectual and Artistic Law, the Ministry of Culture and Tourism and governors are authorised to implement legal procedures and processes to prevent IP fraud. Thus, they are expected to supervise whether or not banderols are adhered to works and publications which are required to bear banderols. If necessary, governors can constitute anti-piracy commissions to carry out operations against IPR infringements either by themselves or by the command of the Ministry of Culture and Tourism. In addition, the Ministry of Culture and Tourism, and representatives of guilds may join these commissions (Intellectual and Artistic Works Law, 1951).

The Law on Intellectual and Artistic Works authorises the security forces to fight against IP crimes. In the case of an infringement, security forces conduct operations and confiscate counterfeit and pirated works, publications, devices and other evidences which are used in reproduction and sent to the public prosecutors. In addition, the provincial police chief constables are under the supervision of the Governors and the General Directorate of Police. Therefore, the main bodies in the fight against piracy and counterfeiting are the General Directorate of Police and the

provincial police constabularies. Thus, the following section looks at the related police departments:

#### **4.2.3.1. The State Security Department of the General Directorate of Police**

The State Security Department is based at the General Directorate of Police in Ankara. There are eight divisions namely; ‘public security’, ‘riot police’, ‘criminal record investigation’, ‘personnel’, ‘intellectual property rights and media’, ‘sport security’, ‘education’, and ‘strategy development and support’ divisions (TNP, 2011).

The IPR and media division is responsible for dealing with IP issues. The responsibilities and tasks of the State Security Department are explained in the by-law of the State Security Department Establishment, Task and Works, amended on 23 February 2007, as proposing laws, producing projects, developing strategies and objectives, evaluating itself and its provincial divisions, preparing circulars, finding out training requirements on issues necessitating expertise, preparing training schemes and programs, guiding and coordinating the divisions about their tasks, participating and coordinating training courses or seminars either in Turkey or overseas and preparing statistics in relation to its tasks (State Security Department Bye-law, 2006).

The Intellectual and Artistic Works Office, as the main IPR enforcement office, was located at the General Directorate of Turkish Police-State Security Department-Press and Media division on 29 October 2003 in order to improve cooperation within the related governmental and non-governmental bodies, ensure effective enforcement, organise training courses, pursue new developments in the IPR field and keep statistics on IPR crimes (IPR Twinning Project, 2008).

The tasks of the IPR office were split into two as the copyright office and the industrial property right office in 2006. Additionally, due to the increase in IPR works and the policy to emphasise this issue and fight against piracy and counterfeiting, the name of the Media and Press division became the Intellectual Property Rights and Media division in 2006 (State Security Department Bye-law, 2006). In order to prevent IPR crimes the administrative structure of the Turkish Police was strengthened. As a result, with reference to the high level of IPR

violations six provincial dedicated IPR offices were established under the state security divisions in Adana, Ankara, Bursa, Diyarbakir, Istanbul and Izmir in January 2008 (GUVENLIK, 2011).

It should be noted that carrying out IPR related works by a single office such as fulfilling same procedures in the IPR enforcement issues have ensured effective enforcement procedures between the police and the judiciary. The officials in IPR offices participated in training courses through the IPR twinning project and obtained knowledge about IPR issues (IPR Twinning Project, 2008). Therefore, this system facilitated accurate investigation and judgement.

The tasks and the duties of the bodies which are entitled to fight against IPR infringements are explored in the following section.

#### ***4.2.3.1.1. Intellectual property rights and media division***

The ‘intellectual property rights and media division’, which is based at the General Directorate of Police, is authorised to deal with IPR crimes, and media and press issues, and includes an ‘administration office’, ‘press and publication office,’ ‘copyright office’, and ‘industrial property rights office’. There are around ten members of staff in the division; however, the number varies due to the needs of the division and work load. The tasks of the offices of the ‘IPR and media division’ with regard to IPR issues are as follows (State Security Department Bye-law, 2006):

- To ensure coordination with provincial state security divisions while ensuring legal process on IPR legislation,
- To coordinate the procedures envisaged by the IPR legislation within the related entities, institutions and units,
- To carry out the tasks in relation to cinema, video and musical works in coordination with the provincial state security divisions,
- To keep statistics on its tasks.

#### ***4.2.3.1.2. Provincial state security divisions and district state security offices***

There are 81 provinces in Turkey and there is a state security division in each province as well as state security offices in various districts. The provincial state security divisions and district state security offices are authorised to fulfil the tasks

and works which are set out in the bye-law of the State Security Department Establishment, Task and Works. Therefore, those divisions and offices carry out operations in their area of responsibilities against IP crimes and criminals in addition to their relevant tasks and duties (State Security Department Bye-law, 2006). In addition, other patrol teams, subordinate to provincial state security divisions, also deal with IP infringements when required.

#### **4.2.3.2. Anti-smuggling and organised crime department of the general directorate of police**

The Anti-Smuggling and Organised Crime Department of the General Directorate of Police and the provincial anti-smuggling and organised crime divisions are responsible for carrying out operations against organised crime. They also conduct operations against IPR crimes when criminal gangs infringe IPR (IPR Twinning Project, 2008).

The Anti-Smuggling and Organised Crime Department is the most important police department in the struggle against drug trafficking, money laundering, economic crimes and organised crime. Its aims and objectives are to coordinate tasks and operations effectively and efficiently within the provincial anti-smuggling and organised crime divisions which require planning, controlling, training and supervising. Approximately 6,500 staff work across the country in the Anti-Smuggling and Organised Crime Department and its provincial divisions (KOM, 2011).

As a result, the work load in the fight against IPR fraud is split between the Anti-Smuggling and Organised Crime Department and the State Security Department. If an IP crime is committed by organised criminals, the Anti-Smuggling and Organised Crime Department or its provincial units deal with the crime, otherwise it is dealt with by the State Security Department and its provincial divisions.

Smuggling of counterfeit alcohol and cigarettes is mostly committed by organised crime groups and preventing these crimes is very important in terms of health issues. Therefore, in order to prevent serious health problems and distribute work within the police units, crime relating to alcohol and cigarettes is dealt with by the Anti-

Smuggling and Organised Crime Department or its provincial units regardless of whether it is organised crime or not.

#### **4.2.3.3. Criminal police laboratory department of the general directorate of police**

The Criminal Police Laboratory Department is authorised to evaluate the evidence throughout administrative and judicial enquiries using scientific techniques, and to issue expert reports regarding the cases with which they deal (KPL, 2011; IPR Twinning Project, 2008). Therefore, in order to determine the offender of an infringement and find out whether the seized products are counterfeit or pirated this department plays a significant role in the combat against IPR crimes.

#### **4.2.3.4. The municipalities**

Municipalities have their municipal police/trading standard officers who are also authorised by IPR-related law to combat IP infringements. In Turkey, even if a work is legally reproduced and bears a banderol, it is against the law to sell it in open places like roads, public squares, bazaars, pavements, seaports, bridges and so on (Intellectual and Artistic Works Law, 1951). In addition, the infringers are fined according to the Delinquency Law (Law No: 5326). According to article 38 of the Delinquency Law, anyone who occupies open places, public squares, streets, roads or pavements or sells products in these places is fined 50 liras by the municipal police officers (Delinquency Law, 2005).

#### **4.2.3.5. Anti-piracy commissions**

According to the Intellectual and Artistic Works Law, governors are authorised to take precautions to prevent IP infringements. When required, governors may establish anti-piracy commissions either ex-officio or by the order of the Ministry of Culture and Tourism. Furthermore, when necessary, representatives from the Ministry of Culture and Tourism and members of related guilds may attend these enforcement commissions (Intellectual and Artistic Works Law, 1951). Anti-piracy commissions work in provinces in order to prevent IP-related frauds in cooperation with the security forces. In other words, these commissions are composed of



representatives from police, municipal police, provincial department of culture and tourism and someone from other related entities such as guilds.

#### **4.2.3.6. Circulars to prevent intellectual property infringements**

The Ministry of Interior has issued five circulars to combat IP crimes in order to carry out efficient and effective enforcement. Three of those circulars were issued by the Directorate General of Turkish National Police and two of them by the Directorate General for Local Authorities. These circulars guide law enforcement officers in the fight against IPR fraud to prevent infringements and increase the awareness of the officers and also the public. The first circular, circular no: 61, was issued by the Directorate General of Turkish National Police of the Ministry of Interior on 31 March 2004; circular no: 104 was issued on 5 October 2005, and circular no: 11 on 3 February 2006 in order to prevent IPR infringement. Furthermore, two additional circulars, circular no: 99 was issued on 8 June 2004 and circular no: 72 on 7 July 2005 with regard to IPR issues by the Directorate General for Local Authorities of the Ministry of Interior. Another circular (circular no: 2008/7) was issued by the Prime Ministry on 21 May 2008 regarding the establishment of the IPR Coordination Board in order to create short, medium and long term strategies on IPR and enhance cooperation and collaboration among the relevant IPR bodies (*IPR Circular*, 2008).

The main provisions and reminders of Circular no: 61 are described as follows (*IPR Circular*, 2004):

- State security divisions will form the fundamental body which carries out tasks and duties in case of violations as stated in article 81 of the Intellectual and Artistic Works Law
- Not only the state security divisions but also other police units, such as police stations and public order units, will combat IPR frauds. They will seize pirated products and carry out other relevant procedures such as arresting criminals, obtaining search warrants from judiciary and acquiring criminals' medical reports from doctors; however these cases will be taken to court through the state security divisions
- There will be cooperation between the state security divisions and anti-smuggling and organised crime divisions (financial divisions or offices) in the

case of infringement and work distribution consistent with the character of the violation or denunciation

- Particularly in metropolitan provinces and other places where required, a unit or team will be authorised to fight fraud and be supported by the supplies and if possible they will not be given any other tasks apart from combating IP violations
- Some officers from the state security divisions will take part in the anti-piracy enforcement commissions
- The number of operations, seized materials, number of the infringers and verdicts of the judiciary will be sent promptly to the State Security Department.

Major provisions of the Circular no: 104 are presented as follows (*IPR Circular, 2005*):

- In particular officials will consider the places where school books and foreign language books are sold and conduct intensive operations against IPR fraud in cooperation with the provincial anti-piracy enforcement commissions,
- While carrying out inspections in relation to IPR infringements the police will pay attention to the amendments of the bye-law in relation to Banderol Application Procedures and Principles,
- Police constables who are deployed, whether pedestrian or mobilised teams, to places like bazaars, streets, roads, parks, minibuses and bus stations, and entrances of metros will be very vigilant with regards to IPR infringements,
- All officials will be notified of the provisions indicated in the circular both at the General Directorate of Police and Provincial Police Constabularies.

Main provisions of the circular no: 11 are set out as follows (*IPR Circular, 2006*):

- All officials will be reminded of the provisions of the previous circulars no: 61 and 104 in order to increase their level of awareness with regards to IPR,
- Statistics forms and information notes prepared by the provincial state security divisions will be sent to the State Security Department promptly after the operations,
- Other police sections such as district police constabularies, police stations and public order teams will conduct operations against infringers or places in their areas of responsibilities and carry out administrative and judicial procedures,

- The number of inspections and operations will be increased in places where intensive IPR infringements occur and the public's awareness of IPR should be improved through broadcasting the footage of those operations,
- Closed circuit television (CCTV) cameras will be used effectively in the process of determining IP infringers and other criminals,
- The awareness of municipal police officials should be increased in order to prevent piracy and seized materials should be delivered to the security forces,
- Municipal authorities will not allow possession of roads, public squares, bazaars, sidewalks, seaports, bridges and other open area places for the purpose of selling materials either bearing banderol or not.

In the next section, statistics regarding piracy and counterfeiting in Turkey are depicted with the objective of contextualising the nature of the problem in Turkey.

#### **4.3. COOPERATION WITH THE NATIONAL IPR RELATED BODIES**

A protocol of training was signed by the Ministry of Interior and the Ministry of Culture and Tourism on 31 October 2004; it was amended on 25 September 2006 and finally a new protocol was signed on 25 February 2010 (GUVENLIK, 2011). The protocol regulates the training activities of police officials with regard to IPR legislation and enforcement strategies. Training courses on IPR infringements were organised in collaboration with the Ministry of Culture and Tourism, and the General Directorate of Police in March 2005 in Antalya. The police chiefs of the State Security Divisions of the 81 provinces attended this seminar (IPR Twinning Project, 2008; GUVENLIK, 2011).

A training seminar about the violations of IPR was organised jointly by the Ministry of Justice and the Ministry of Interior in June 2005 in Ankara. IPR-specialised judges and public prosecutors from Ankara, Istanbul and Izmir gave presentations regarding the fight against IPR crimes. Additionally, the police participated in training activities held by other related institutions. The police attended an IP seminar which was organised by the Istanbul Bar in September 2005 in Istanbul (IPR Twinning Project, 2008; GUVENLIK, 2011).

Moreover, a seminar from 5-7 May in Istanbul and two seminars on 25 June 2010 and 29 September 2010 in Ankara were held with participants from anti-piracy commissions and provincial police departments (GUVENLIK, 2011).

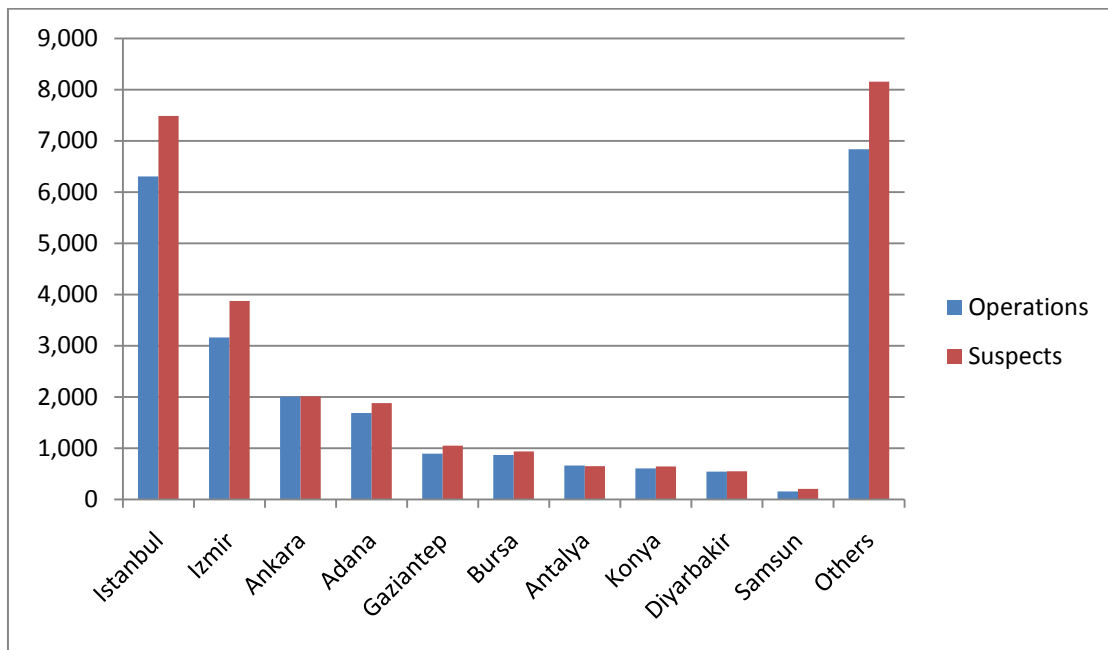
It should also be mentioned that the police also receives excellent cooperation from the Turkish Patent Institute. The State Security Police Department participated in the “International Symposium, Implementations on the Industrial Property Right Frauds in Turkey and Neighbouring Countries” which was organised by the Turkish Patent Institute in November 2005 in Ankara (IPR Twinning Project, 2008). Furthermore, a seminar on the fight against IPR infringements organised jointly by the police, the Ministry of Culture and Tourism and the Turkish Patent Institute was held in November 2006 in Ankara. Police chiefs attended this seminar and other attendees were from the Ministries of Justice, and Culture and Tourism, the State Planning Organisation, the Undersecretariat of Customs, the Secretariat General for EU Affairs, trademark and patent lawyers and representatives from various guilds (GUVENLIK, 2011; TPI, 2011).

#### **4.4. STATISTICS REGARDING THE FIGHT AGAINST IPR CRIMES**

The Turkish National Police has adopted effective policies to fight against IPR infringements. In terms of copyright, between 1 January 2004 and 9 June 2010 22,805 operations against IPR crimes were conducted while 26,378 suspects were prosecuted, and 232,512,550 pirated materials were seized in Turkey. Regarding copyright infringement, 225,758,069 pirated materials were seized in those ten cities where the IPR questionnaire for the primary data for this study was distributed; and 6,754,481 pirated products were confiscated in the rest of the cities (IPR Statistics, 2010).

Regarding copyright, 15,972 operations were conducted in provinces where the research questionnaire was distributed and 6,833 raids were carried out in other provinces. In addition, 18,223 suspects were prosecuted in those ten cities and 8,155 suspects were prosecuted in the rest of the cities (IPR Statistics, 2010). The number of operations and suspects are depicted in Figure 4.2.

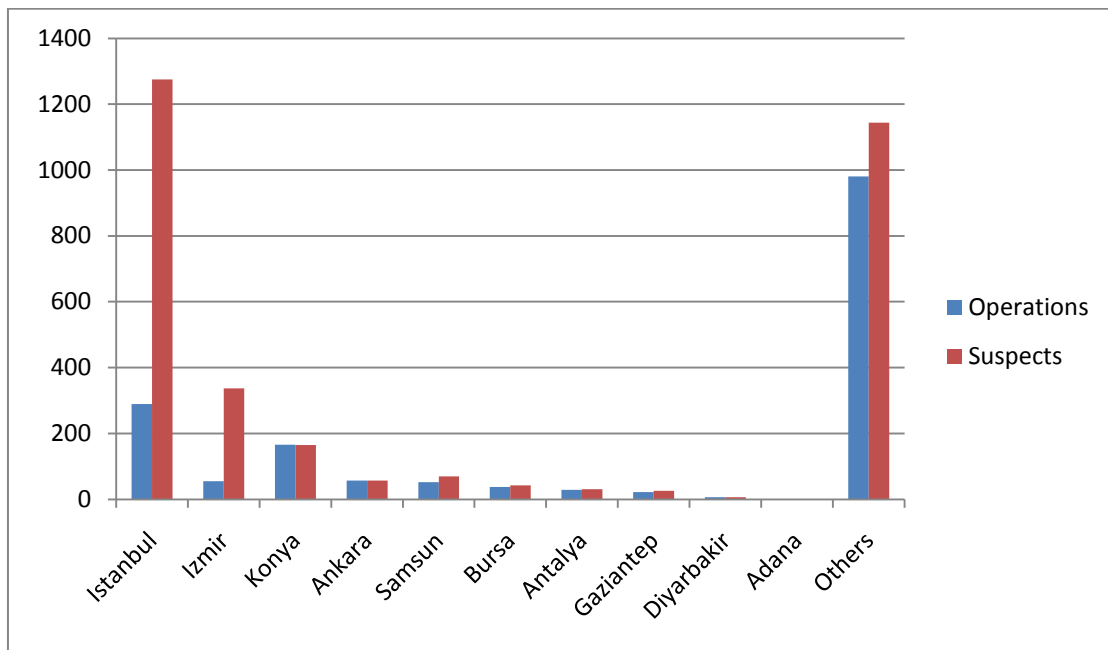
**Figure 4.2: Statistics on Copyright Infringements**



Source: IPR Statistics, Turkish National Police \*As of 9 June 2010

In terms of industrial property rights, between 1 January 2006 and 9 June 2010, 1,695 raids were carried out whilst 3,153 suspects were put on trial and 8,002,329 counterfeit products were confiscated across the country. As a result, 714 operations were carried out and 2,009 suspects were prosecuted in terms of industrial property rights in the cities where the questionnaire was distributed; however, there is no data from Adana. On the other hand, 981 operations were conducted and 1,144 offenders were put on trial in other cities where the questionnaire was not distributed. In addition, in terms of industrial property rights, 6,461,108 counterfeit products were seized in those cities where the questionnaire was administered and 1,541,221 materials were confiscated in the remaining cities (IPR Statistics, 2010). These are depicted in Table 4.3.

**Figure 4.3: Statistics on Industrial Property Infringements**



Source: IPR Statistics, Turkish National Police \*As of 9 June 2010

#### **4.5. THE EUROPEAN UNION IPR TWINNING PROJECT “SUPPORT TO THE TURKISH POLICE IN ENFORCEMENT OF INTELLECTUAL AND INDUSTRIAL PROPERTY RIGHTS”**

Turkey has been endeavouring to become a full member of the European Union for over fifty years now; however, the accession negotiations have been cancelled a number of times. Finally, Turkey was accepted as a candidate country for membership to the EU by the Helsinki European Council Presidency Conclusions in December 1999 (EC Presidency Conclusions, 1999). Therefore, Turkey has to fulfil the requirements and harmonise its legislation in line with the European Union requirements. There are thirty-five chapters which have to be aligned with EU requirements which also include IP Law. In this sense, IP law has to be adopted and implemented in the EU accession process. Therefore, the institutions which deal with IPR have been working in order to harmonise related legislations.

Before membership of the Customs Union (which came into effect in January 1996), Turkey approximated the majority of IPR legislation; thus, being a member of the Customs Union has helped to prepare the ground for future developments. Turkey had to complete harmonisation of IPR legislation by 1999 due to “Decision No1/95

of the EC-Turkey Association Council of 22 December 1995 on implementing the final phase of the Customs Union (96/ 142 / EC)”. Article 31 of the Decision 1/95 lays down the provisions which have to be carried out by the signatories in order to protect IPR efficiently as follows (Decision No 1/95, 1995):

- The Parties confirm the importance they attach to ensuring adequate and effective protection and enforcement of intellectual, industrial and commercial property rights,
- The Parties recognize that the Customs Union can function properly only if equivalent levels of effective protection of intellectual property rights are provided in both constituent parts of the Customs Union. Accordingly, they undertake to meet the obligations set out in Annex 8.

In order to prevent piracy and counterfeiting Turkey has been working efficiently particularly since 1995. Governmental organisations have conducted successful projects with the EU institutions. The Ministry of Justice, the Ministry of Culture and Tourism, and the Ministry of Interior have all concluded twinning projects related to IPR issues.

Regarding police involvement in those projects only three activities were planned for the police in the twinning project “Support to Turkey’s efforts in the full alignment and enforcement in the field of intellectual property rights with a focus on fight against piracy” of the Ministry of Culture and Tourism. However, the activities were not adequate to sustain the requirements of the police in terms of technical and enforcement capability. There was no activity in the twinning project of the Ministry of Justice. It is a fact that effective enforcement is crucial in the fight against IPR crimes. Most infringements take place in the area of responsibility of police forces. Therefore, to have efficient and swift enforcement the administrative and technical capacity of the police had to be strengthened and cooperation and collaboration should be at an improved level within the other relevant bodies. In addition, the police have to ensure an enhanced administrative and technical capacity in terms of fighting IPR violations and the awareness of police officers in the provinces should be improved.

The Turkish Police have clearly recognised the importance of IPR and prepared an EU twinning project in order to wage an effective and deterrent struggle against

piracy and counterfeiting and to approximate its enforcement according to the requirements and practices of the EU. The process of preparing this project took approximately two years. The negotiations between the related national bodies and the EU authorities played an important role during its preparation. It was selected from among other projects which were created by the other IPR related institutions. In conclusion, the project was approved by the EU with a budget of €1,510,000. The overall objective of the project was to strengthen the administrative and technical capability of the Turkish Police and develop the cooperation and coordination amongst the relevant governmental and non-governmental institutions (IPR Twinning Project, 2008). The project's activities started on 27 March 2008 with the kick-off meeting and the closing reception was on 27 February 2009. Finally, the project concluded on 2 March 2009.

The main beneficiary of the project was the State Security Department although the Anti-Smuggling and Organised Crime Department and the Criminal Police Laboratory Department were side beneficiaries. In addition, the Ministry of Justice, the Ministry of Culture and Tourism, the General Command of Gendarmerie, the Undersecretariat of Customs, the Turkish Patent Institute, Municipality Police and guilds were side beneficiaries from the other relevant bodies. Furthermore, the Danish Patent and Trademark Institute, and the Hungarian National Police Consortium were the European Union partners for the project (IPR Twinning Project, 2008; GUVENLIK, 2011).

Thirteen activities were carried out in order to meet the objectives of the project. The activities were: reviewing the structure of the Turkish National Police in regard to the enforcement of IPR, evaluating the existing implementations of the Turkish Police against IPR fraud, detailing and outlining an official progress policy and operational methods with an enforcement plan for the IPR office at the General Directorate of Police and provincial IPR offices, publishing a handbook for the security forces containing the procedures regarding how to handle IPR infringements, internship training for five IPR specialised police officers in the EU member states in order to improve their professionalism by exploring successful practices and working procedures, strengthening the capacity of the police in the provinces by organising IPR training courses, specialisation training for the enforcement bodies, study visits



to EU countries to explore the enforcement procedures in those countries, seminar to improve cooperation amongst the related institutions and technical supply in terms of strengthening the infrastructure of IPR related offices (IPR Twinning Project, 2008).

In addition, the Turkish National Police participated in the European Union project “Support to Turkey’s efforts in the full alignment and enforcement in the field of intellectual property rights with a focus on fight against piracy” carried out by the Ministry of Culture and Tourism. The police was the secondary beneficiary of this project and a study visit was organised within this project in order to explore the enforcement strategies and procedures of the relevant bodies in the UK (GUVENLIK, 2011).

#### **4.6. COOPERATION AND TRAINING ACTIVITIES WITH THE RELEVANT INTERNATIONAL BODIES AND COUNTERPARTS FROM THE EUROPEAN UNION MEMBER STATES**

The Turkish Police has developed its own structure and strategies to improve cooperation with international organisations and the police departments of various countries. Particularly, after the establishment of the IPR office at the General Directorate of Police the cooperation among the relevant international institutions has gradually developed. Two police chiefs attended the Technical Assistance and Information Exchange (TAIEX) training seminar in Athens, Greece from 14-18 March 2005 regarding the fight against IPR infringements which was jointly organized by Europol, France and Greece (IPR Twinning Project, 2008). Furthermore, one of the attendees from the Turkish Police gave a brief presentation about the fight against IPR infringements in Turkey. In addition, the police attended another seminar on IPR infringement via TAIEX which was organised by Europol in cooperation with France and Greece, and with the support of Romania and the Southeast European Cooperative Initiative (SECI) held in Romania-Bucharest in April 2007 (GUVENLIK, 2011). TAIEX is an instrument to help the partner states of the EU which aims to provide further political and financial co-operation during the enlargement process, mainly concerning the application, implementation and alignment of the EU laws (EUROPA, 2011).

The Turkish Police attended another international seminar on the enforcement of IPR held in Almaty, Kazakhstan hosted by Kazakhstan's Ministry of Justice from 5-7 July 2005. This seminar was organised by the United Nations Economic Commission for Europe IP Advisory Group in cooperation with the World Intellectual Property Organization and World Customs Organization (IPR Twinning Project, 2008; GUVENLIK, 2011). Furthermore, a representative of the Turkish Police gave a presentation regarding the enforcement policy of police on the struggle against IPR infringements in Turkey. Current IPR legislation in Turkey, its background, membership to the International Conventions and Treaties and also what has been done in the process to European Union membership was detailed. Furthermore, the techniques and tactics of the infringers violating frauds were presented (Surmeli and Tekin, 2005). The seminar aimed to give useful information concerning enforcement strategies and experiences of various companies' representatives via case studies and workshops, which also highlighted the significance of regional cooperation among those countries. The attendees were from Kazakhstan, Turkmenistan, Uzbekistan, Kyrgyzstan, Tajikistan and the Russian Federation (*Duty Report*, 2005; IPR Twinning Project, 2008).

Furthermore, the Turkish police attended the struggle against IPR crimes workshops organised by EUROPOL from 16-17 October 2008, 27-28 October 2009 and on 7 October 2010 in The Hague. They also took part in seminars on IPR which were organised by Interpol from 19-24 October 2008 and 15-21 November 2009 in Rome, Italy. The Turkish police also attended regional seminars which were organised by the WIPO from 27-28 October 2008 in Sofia, Bulgaria and 5-6 October 2009 in Skopje, Macedonia. They also attended TAIEX seminars in June 2009 in Greece and in April 2010 in Croatia and also other international training activities in various countries such as Belgium, Tunisia, Albania, Czech Republic and Singapore (GUVENLIK, 2011).

As a result, since IPR crimes are committed across the world, observing and sharing enforcement tactics and techniques makes an important contribution to the fight against IPR infringements. Therefore, the Turkish Police attended these training activities in order to improve international cooperation and coordination in the fight against IPR crimes.

#### **4.6.1. Study Visits to the United Kingdom**

Turkey has been supported by the EU in bringing its legislation and enforcement capacity up to EU standards via TAIEX, twinning and other kinds of project. Thus, a number of study visits have been carried out aimed at exploring the enforcement system and related IPR bodies in the UK.

As part of this, a study visit was conducted to explore the UK Intellectual Property Office, International Federation of the Phonographic Industry (IFPI) and Mechanical Copyright Protection Society and Performing Right Society (MCPS-PRS) from 18-20 September 2006 via MEDA programme which is the major financial mechanism between the European and Mediterranean countries partnership. In this study visit, the staff of the UK Intellectual Property Office gave presentations on patent, trademarks, geographical indications, copyright and enforcement procedures and methods. In addition, a trading standards officer presented their tasks and enforcement system. The staff of the IFPI also gave a number of presentations on how they determine and pursue infringers and the punishments given to criminals in the IFPI member states. In addition, the Optical Discs Analyses Centre was explored to obtain information on distinguishing between original and pirated discs and the production methods of pirated discs. Finally, MCPS-PRS was visited and its structure, tasks and duties were explained by the staff. The registration and licensing procedures for music products were discussed. Moreover, methods of determining sellers of pirate products via the internet such as e-bay were presented (*Study Visit Report, 2006*).

#### **4.6.2. Study Visits to the United Kingdom within the scope of the European Union Twinning Projects**

As mentioned previously, Turkey has been working to harmonise its legislation and implementations with EU directives and enforcements. Exploring and visiting relevant institutions gave a significant aspect on IPR; therefore, another study visit was carried out within the scope of the EU twinning project “Support to Turkey’s efforts in the full alignment and enforcement in the field of intellectual property rights with a focus on fight against piracy” of the Ministry of Culture and Tourism from 14-18 May 2007 in London. Four police chiefs, the resident twinning advisor of

this project and his interpreter attended this study visit. The police chiefs were from the State Security Department of Directorate General of Police, Ankara and Izmir constabularies. The aim of the study visit was to see the UK's enforcement system. The United Kingdom Intellectual Property Office (UK-IPO), International Federation of Phonogram Industry (IFPI), the Federation against Copyright Theft (FACT) and Copyright Licensing Agency (CLA) were visited (*Study Visit Report, 2007*).

In this study visit, the tasks, duties, structures and policies of those institutions were explored. The staff gave a briefing on the structure of the CLA which is a guild which deals with copyright licensing issues for publishers, authors and artists. In this sense, it is a guild for and carries out licensing procedures. In addition, FACT fights against IPR violations in the UK. Officials of FACT are former police officers, computer and internet experts, and administrative officers. Moreover, a police unit was established at the London Metropolitan Police in 2006 in order to fight against IPR infringements (*Study Visit Report, 2007*).

Another study visit to the UK was carried out by eight police chiefs from the State Security Department, the Criminal Police Laboratory, Istanbul, Izmir and Bursa constabularies to the UK from 09-13 February 2009. The study visit was organised as part of the European Union Twinning Project "Support to the Turkish Police in Enforcement of Intellectual and Industrial Property Rights". This study visit was the most comprehensive one in terms of bodies visited and obtaining comprehensive information from the relevant staff. The Crown Prosecution Unit, British Phonographic Industry's Anti-Piracy Unit, Metropolitan Police Vehicle Unit, Metropolitan Police Film Piracy Unit, Federation against Copyright Theft and Optical Discs Analyzes Centre of International Federation of the Phonographic Industry were visited. The first visit was conducted to the Crown Prosecution Unit and the participants met one of its prosecutors in order to explore the UK enforcement system from the view of a prosecutor (*Study Visit Report, 2009*).

SOCA struggles against severe crimes which are conducted by organised criminals, such as drug trafficking, use of guns, financial crimes, money laundering, piracy, counterfeiting and so on. In addition, SOCA cooperates with Interpol and Europol (SOCA, 2011). Trading standards officers are also authorised to fight piracy and

counterfeiting. They carry out a significant and efficient task in terms of preventing IP violations and enforcement (*Study Visit Report*, 2009).

FACT, which was founded in order to fight against IP crimes in 1983, works in cooperation with Police and Trading Standards Officers. Its aim is to increase public awareness of IP violations. There is a line 0800 555111 on which to report suspicious issues regarding IP fraud. FACT makes annual strategic analysis to determine weaknesses and problems. Additionally, in order to prevent the advertising of pirate products on web sites, network suppliers and companies are notified. They are reminded that their assets and properties may be confiscated if they are involved in piracy or counterfeiting. Finally, the last visit was carried out to IFPI which is a non-profit organisation representing the recording industry throughout the world (IFPI, 2011; *Study Visit Report*, 2009). MU-YAP (Turkish Phonographic Industry Society) is a member of IFPI (MUYAP, 2011).

In general, these study visits are likely to improve close cooperation and collaboration between the relevant bodies in Turkey and the UK. Hence, the counterparts know each other and their IPR enforcement systems against fraud.

#### **4.7. RELEVANT BODIES IN THE UNITED KINGDOM IN RELATION TO IPR**

The UK is one of the most experienced and hence, significant countries in the world in terms of development of IPR. Therefore, developing an understanding of the UK experience in terms of the IPR enforcement institutions is considered important in this chapter, and the following sections are allocated for this.

##### **4.7.1. The United Kingdom Intellectual Property Office**

The United Kingdom Intellectual Property Office (UK-IPO) is the certified government institution authorised to grant IPR in the UK. It is responsible for the protection of IPR including copyright, trademark, designs, and patent and supports innovation. It is an Executive Agency of the Department of Trade and Industry within the Office for Science and Innovation. Although the UK Patent Office was established in 1852 to grant patents, it became the UK-IPO in April 2007. In addition, the Designs Registry was founded in 1839 for the protection of industrial designs but

later, in 1875, its duties were transferred to the Patent Office. Furthermore, the registration process of trademarks became the responsibility of the Patent Office in 1876 (UK-IPO, 2011).

#### **4.7.2. International Federation of the Phonographic Industry**

The International Federation of the Phonographic Industry (IFPI) is an international body which represents the recording business in 66 countries with around 1400 members and partner association guilds in 45 states. The International Secretariat of IFPI is in London and it has regional bureaus in Hong Kong, Brussels, Moscow and Miami. IFPI encourages the value of recorded music, protects the rights of recording producers and broadens the trading of recorded music. Thus, any person or company producing music videos or sound recordings can become a member of the IFPI. The IFPI London office coordinates international policies in the main topics such as enforcement against piracy, lobbying activities, proceedings, public relations and cooperation with international bodies. In addition, IFPI gathers data from the recording industry and has a comprehensive collection of worldwide recording statistics. The regional offices of IFPI are responsible for ensuring its enforcement policies at regional level, organising the efforts of national groups and arranging lobbying activities to the governments in their regions. The IFPI office in Brussels represents the recording industry to the European Union and works with the European Union bodies. In summary, IFPI represents its members at regional and international levels. The office in London works at international level and regional IFPI offices are responsible at regional levels. In addition, members of IFPI in countries work at national levels and cooperate closely with the IFPI London office and regional offices. In 1997 an IFPI Worldwide Enforcement Structure was founded to prevent the reproduction of pirate CDs. The struggle against CD piracy is organised by the London Secretariat of IFPI in cooperation with the national enforcement offices. IFPI is associated with the Recording Industry Association of America (RIAA) which is the world's leading music market (IFPI, 2011).

In addition, an optical disc analysis centre was founded in 2000. It has a CD/DVD archive of 1040 factories worldwide. CDs and DVDs are examined and analysed at this centre. Three experts work there and 18.400 CD/DVDs were examined up to February 2009. It should be noted that those examined CDs and DVDs are not ones

reproduced by computers but reproduced in factories. For instance, an operation against a film company was conducted in 2006 in Turkey, as it was suspected that confiscated pirate CDs were being reproduced in a company's plant which was actually authorised to copy legal materials. Therefore, in order to find the producer of pirate CDs the IFPI was asked to determine the producer of the pirate CDs. After the examination of the CDs by IFPI it was clarified that the pirate CDs were reproduced in that plant and the owner of the plant was sentenced to jail (*Study Visit Report, 2009*).

#### **4.7.3. The Federation against Copyright Theft**

The Federation against Copyright Theft (FACT) was established in 1983 in order to protect the UK's film and broadcasting industry against piracy, counterfeiting and trademark violations. FACT uses various methods and enforcement procedures in the fight against piracy: firstly, online piracy which focuses on the distribution of pirate films and television programs; secondly, prevention of the networks of organised offenders either in the UK or worldwide, and thirdly, stopping illegitimate recordings in cinemas (FACT-UK, 2011).

FACT is not a statutory governmental body but acts as a private organisation in line with the related UK legislation, thus it works in connection with the enforcement authorities. Former police officers and trading standards officers work for FACT (FACT Guide, 2006). Scott (2002) states that FACT's activities are similar to private enforcement of copyright laws. Vagg and Harris (2000), hence, argue that FACT is one of the key organisations in the fight against counterfeiting involved in prosecutions either in cooperation with enforcement bodies, such as local police units and trading standards officers, or privately and results in essential outcomes with regards to the confiscation of goods and conviction.

#### **4.7.4. The Copyright Licensing Agency**

The Copyright Licensing Agency (CLA) was established in 1983 by the Authors' Licensing and Collecting Society Ltd. and the Publishers' Licensing Society Ltd. to grant licensing on behalf of them and to ensure an efficient system for the collection of copying fees for the works of copyright owners. In addition, the CLA has an agreement with the Design and Artists Copyright Society Ltd. that permits it to

license copying of artistic creations on behalf of them. In this way the CLA protects the copyright of authors, visual producers and publishers, and then distributes the collected money to them when their works are copied (Copyright and the Creative Industries; CLA, 2011). The CLA has collected more than £600 million licence fees which have been distributed to related copyright owners since 1983 (*CLA Annual Review*, 2010).

The CLA is a licensing body that grants collective licences for the copying of works not only from the UK but also thirty other countries on behalf of the copyright owners. Therefore, it provides a broad cover with an annual fee which allows copying within certain limits without seeking individual permission from the copyright holders each time (About the CLA).

In addition, the CLA licenses institutions to scan and photocopy articles and parts of books, periodicals, journals and reproducing or emailing of digital publications. CLA licences allow people to scan, copy and email those publications without the consent of the copyright holder on every occasion. Therefore, the CLA licenses official access to many books, journal and other kinds of publication (About the CLA; Copyright and the Creative Industries; CLA, 2011).

#### **4.7.5. Mechanical Copyright Protection Society and Performing Right Society**

The Mechanical Copyright Protection Society used to deal with mechanical or recording right whereas the Performing Right Society used to handle the performing and broadcasting rights of music publishers or composers (Towse, 1997, 1999). However, The Mechanical Copyright Protection Society and Performing Right Society (MCPS-PRS) became an alliance in 1997 and is a non-profit body that collects and pays royalties to music publishers, songwriters and composers when their music is used either live or in recorded performance on television, radio or other kinds of transmission. As a non-profit organisation, it takes only a small commission fee to cover operating expenses and distributes the remaining money to its members. The MCPS-PRS Alliance became PRS for Music in January 2009 (PRS, 2011).



The following section explores the Enforcement Directive of the EU and some of the EU countries' enforcement systems.

#### **4.8. DIRECTIVE 2004/48/EC ON THE ENFORCEMENT OF IPR**

The enforcement of IPR in the EU member states is regulated by “Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights” (30/04/2004 Official Journal L 157). This directive is also known as the IPR Enforcement Directive. It was regulated under the internal market provisions of the Treaty of Rome and regulates the procedures, treatments and solutions which are available in civil law, but not criminal law (Temmink, 2006). All EU member states had to transpose the Directive by 29 April 2006. According to article 3 of the directive, all member states have to apply deterrent, efficient and balanced remedies and punishments against the infringers in piracy and counterfeiting (IPR Enforcement Directive, 2004). The directive, hence, aims to standardize the enforcement of IPR in the EU member states.

The provisions of the enforcement directive 2004/48/EC are (IPR Enforcement Directive, 2004):

subject-matter, scope, general obligation, persons entitled to apply for the application of the measures, procedures and remedies, presumption of authorship or ownership, evidence, measures for preserving evidence, right of information, provisional and precautionary measures, corrective measures, injunctions, alternative measures, damages, legal costs, publication of judicial decisions, sanctions by Member States, codes of conduct, assessment, exchange of information and correspondents, implementation, entry into force and addressees.

The second directive, which contains criminal sanctions against industrial property crimes, was proposed on 12 July 2005 by the Commission of European Communities to supplement the Directive 2004/48/EC on the enforcement of IPR (Temmink, 2006).

As mentioned before, as a candidate country Turkey has been bringing its legislations into line with the EU directives. The EU publishes an annual progress report in which it evaluates the developments of candidate countries in the period of that report. Advancements are evaluated and recommendations are given to carry

out accession negotiations. Therefore, EU Progress Reports are explored in the next section.

#### **4.9. EUROPEAN UNION PROGRESS REPORTS**

The EU authorities annually release progress reports for candidate countries. The developments conducted by the candidate country in the last year and what requirements have to be met by the candidate state are declared in these reports. Since the IP law, as one of the chapters that needs to be harmonised, is also in the agenda of the EU-Turkey relationship it was evaluated within the process of the EU membership process.

Turkey prepared three ‘National Programmes for the Adoption of the Acquis’ (NPAA) in 2001, 2003 and 2008, which were designed for the approximation issues in the EU accession progress. In the NPAA of 2001, restructuring of the General Directorate of the Directorate General for Copyright and Cinema was envisaged. In addition, the establishment of twelve IP courts was decided to be concluded by 2005 with the EU fund (NPAA, 2001). As a result, twenty-three IP courts (eleven criminal and twelve civil) were established in Turkey (*Activity Report of the MoJ*, 2009). However, the Directorate General for Copyright and Cinema has not been restructured yet.

Furthermore, in the NPAA of 2003, the foundation of a computer network within the Ministry of Culture and Tourism, the Undersecretariat of Customs, and the relevant Courts was indicated. Moreover, establishment of an IT network among the divisions at the Ministry of Culture and Tourism and the provincial divisions of the Ministry of Culture and Tourism was acknowledged in order to access the registered products in a virtual atmosphere. Additionally, in terms of organising medium-term priorities, training seminars and conferences were agreed in order to increase public awareness. It was also suggested that the police, customs officers, municipal police and staff from the Ministry of Finance should take part in the training courses in order to become specialised in IPR issues. In addition, it was expected that the draft law amending the Decree Law regarding the establishment and the tasks of the Turkish Patent Institute, which was in the process of enactment in the Turkish Parliament, would soon be enacted (NPAA, 2003). Consequently, on

6 November 2003, the Decree Law became Law No: 5000, the Law on Establishment and Tasks of Turkish Patent Institute (The Law on Establishment and Tasks of TPI, 2003) (OJ: 19/11/2003 - 25294).

Additionally, in the NPAA of 2008, strengthening of the coordination and cooperation between the related IPR enforcement bodies was planned. Moreover, a database was set up to monitor IPR issues and organise training courses for the relevant staff from all of the provinces, and producing spot films with regard to the fight against piracy was scheduled. Improving the level of public awareness about industrial property rights as well as increasing the capacity of the Turkish Patent Institute was planned. A number of seminars and workshops were conducted in order to strengthen the capacity of the police, and a number of one-day training sessions for police officers from public order units for the purpose of increasing their level of IPR awareness were scheduled. Regarding the judicial system, the foundation of an electronic data network among the specialised IPR courts and other related bodies was planned. Concerning customs issues, the establishment of central and regional risk analysis departments as well as a centralised electronic database for the use of local customs units in the protection of IPR was scheduled (NPAA, 2008). Consequently, training sessions for the police officers have been conducted and a network within custom authorities has been established.

In the following section EU progress reports are explored in terms of IPR issues.

#### **4.9.1. 2004 Regular Report on Turkey's Progress towards Accession**

The 2004 Regular Report indicated that IP law is one of the topics which have to be aligned to EU standards. Therefore, Turkey has conducted essential developments in order to approximate IPR legislation with the related EU legislations; however, the struggle against piracy and counterfeiting has been insufficient. Therefore, further legislative and enforcement measures have to be taken in order to cope with IPR infringements (*Regular Report, 2004*).

#### **4.9.2. Turkey 2005 Progress Report**

The 2005 report stated that a number of developments have been achieved in terms of copyright and industrial property right in line with EU legislation; however, full

harmonisation of the enforcement directive is necessary. In particular, it was stated that the fight against IPR infringements should be carried out efficiently when it is linked to organised crime. In addition, the coordination and collaboration within the related organisations such as the police, the judiciary, municipalities, the Undersecretariat of Customs and the Ministry of Finance need to be strengthened. The shortcomings with regard to judiciary such as long duration of court process and the application of precautionary and provincial measures are still inadequate (*Progress Report, 2005*).

#### **4.9.3. Turkey 2006 Progress Report**

In the 2006 progress report it was stated that enforceability and predictability of the IP legislation was reduced due to the frequent amendments. The legislation in regard to guilds and the surveillance over them were evaluated as inadequate. In addition, there is no consensus between the guilds, thus, conflict within the guilds in terms of representing right holders remains a matter of concern. On the other hand, Turkey has noticeably harmonised its copyright and neighbouring rights legislation. However, weak administrative capability, conflicts between the guilds and many amendments of IP law still remain problematic topics (*Progress Report, 2006*).

It was stated that a slight development was seen regarding industrial property rights. TPI, thus, continued its training seminars for public, right owners and small and medium sized entrepreneurs. In addition, the administrative capacity, online structure and information technology of the TPI had progressed. In this regard, databases of the patents, trademarks and industrial designs were opened to the people for initial search of former rights and to see the current situation of the rights. This process shortened the application procedures and saved money for the applicants. It should also be mentioned that in terms of enforcement; anti-piracy commissions do not work efficiently. The third specialised IPR civil court was founded; however the number of specialised courts and their infrastructures are inadequate. Moreover, it is very difficult to get search and confiscation permits from the unspecialised courts which are authorised to deal with IP fraud. Therefore, more training should be given to judges concerning IP law (*Progress Report, 2006*).

The Turkish Police conducted operations in order to protect IPR and carried out training sessions for police officers to develop their awareness and understanding. However, counterfeiting and piracy are not considered as organised crime and the capability of the enforcement bodies remained insufficient. Consequently, a considerable share of the book and music market is controlled by the pirate dealers. In conclusion, the level of harmonisation of IP law is already significantly advanced. However, the administrative capability and enforcement of IP law is insufficient. Therefore, in order to fight against IP infringements cooperation and coordination within the enforcement bodies should be improved (*Progress Report, 2006*).

#### **4.9.4. Turkey 2007 Progress Report**

In general, IP legislations for copyright and neighbouring rights are mostly approximated; however, the enforcement and the administrative capability remain inadequate. Therefore, Turkey is one of the countries where protection of IPR is problematic due to insufficient enforcement. In addition, it should be noted that enforcement of IPR is a significant issue during the membership negotiations in the IP law chapter (*Progress Report, 2007*).

The progress regarding copyright and neighbouring rights was inadequate. The collaboration and coordination between the various right holders in copyright and neighbouring rights have been strengthened. Regarding the guilds, a number of developments have taken place and further developments are in progress. Nevertheless, policing regarding piracy of books, CDs and DVDs remains inadequate and enforcement is getting worse. Turkey ratified the WIPO Copyright and Phonograms Treaties regarding copyrights and related rights (*Progress Report, 2007*).

In the field of industrial property rights, some improvements have been made in terms of legislative structure. The “Law Amending the Treaty on Granting European Patent” which legalises the process of European Patent within EU member states of the European Patent Organisation was enacted. Turkey ratified and published the law to the “Protection of New Varieties of Plants Convention” and the TPI developed its IT capacity and founded an online trademark application structure (*Progress Report, 2007*).

In terms of enforcement, the Law on Intellectual and Artistic Works was amended in order to encourage enforcers by giving them money. However, anti-piracy commissions are not working efficiently. Giving money to public servant members of the anti-piracy commissions in the provinces who work to prevent piracy has been enacted. In addition, criminal enforcement of piracy and counterfeiting is delegated to the police and IPR criminal courts. Moreover, the number of operations, suspects, confiscated materials and the market value of the seized products were also stated in the report (*Progress Report, 2007*).

#### **4.9.5. Turkey 2008 Progress Report**

The 2008 EU Progress Report stated that overall IPR legislation in Turkey is compatible with EU requirements; however, the enforcement of IP law still remains insufficient as was similarly indicated in the 2007 Progress Report. Some of Turkey's commitments regarding "technical barriers to trade, import licences, State aid and enforcement of intellectual property rights" have not been carried out. On the other hand, in general the IP laws on copyright and industrial property rights are mostly compatible with EU requirements; however, the administration capability is not sufficient to carry out effective enforcement which is compulsory by the Customs Union. Therefore, efficient enforcement against IPR frauds is one of the main concerns in the EU accession process (*Progress Report, 2008*).

In relation to copyright and related rights, Turkey has significantly developed collaboration and coordination among the right holders. A coordination committee was established in 2007 as part of a twinning project funded by the EU. The Committee assembled in January 2008 in order to prepare an action plan to strengthen protection of copyright. Another EU-funded twinning project was carried out by the police in order to strengthen the enforcement of IPR in Turkey. Hence, a number of training activities were fulfilled in order to increase the awareness of the enforcement of IPR. There were also developments in regard to guilds. Two new guilds were founded; thus, the number of guilds has increased to 24 (*Progress Report, 2008*).

Some progress was made in regard to the legislation of industrial property rights. An amendment of the bye-law implementing the European Patent Agreement

became effective. The IT system of the TPI was enhanced in regard to online facilities, community affairs and search portals. In addition, some TPI officials participated in training activities in order to increase their understanding and awareness in IP law (*Progress Report, 2008*).

In relation the enforcement of IPR, as indicated an Intellectual and Industrial Property Coordination Board was founded. The objective of the Board is to promote cooperation between the related bodies to enhance the fight against IPR fraud and it is co-chaired by the Ministry of Culture and Tourism and the Ministry of Industry and Trade. The meetings of the Board take place every six months and representatives from governmental organisations and the private sector may be invited for those meetings. Some amendments were made to the criminal provisions of the Intellectual and Artistic Works Law to make them compatible with the Turkish Criminal Code and Turkish Criminal Procedure Code; however, these amendments arguably reduced the enforcement capacity of the police officers whilst conducting ex-officio seizures of the pirate products (*Progress Report, 2008*).

In terms of the judiciary, nine additional new IPR courts were established in Ankara, Izmir and Istanbul which were selected according to their trading capacity. However, the duration of the appeal court process is very long and right holders encounter difficulties while acquiring search warrants. In addition, training activities were conducted for the Police, the Undersecretariat of Customs, Municipal Police units, attorneys and the relevant officers from the law enforcement organisations. Customs officials conducted 45 ex-officio confiscations for counterfeit products in 2006 compared to 160 seizures in 2007 (*Progress Report, 2008*).

In conclusion, the harmonisation of the EU acquisition has advanced considerably. In addition, coordination and collaboration within the relevant governmental IPR organisations and their level of IPR awareness have increased considerably. Nevertheless, there are still some serious problems, particularly regarding the enforcement of industrial property rights (*Progress Report, 2008*).

#### **4.9.6. Turkey 2009 Progress Report**

The Customs Union has made a significant contribution to the bilateral trade within the EU countries and Turkey, which was more than €100 billion in 2008. Thus, Turkey became the seventh biggest commercial partner of the EU which means that almost half of Turkey's trade was with EU countries. However, Turkey has not completed its commitments regarding the restrictions on the free movements of goods in terms of removing technical obstacles to trade such as "import licences, restrictions on import of goods from third countries in free circulation in the EU, State aid, enforcement of intellectual property rights and the use of safeguard measures" (*Progress Report, 2009*).

Regarding copyright and related rights very little development has been fulfilled. Nevertheless, coordination and collaboration between the relevant IPR organisations has been further enhanced. Piracy of books, CDs, DVDs and other copyright and neighbouring rights fraud regarding intangible products are common; thus, enforcement against IPR infringement is unsatisfactory. On the other hand, some developments have taken place regarding the legislation of industrial property rights. The TPI amended some of the legislations concerning "patents, geographical indications and industrial designs" in order to make them compatible with the studies of the Prime Ministry by decreasing the formalities (*Progress Report, 2009*).

With regard to the enforcement of IPR, the Intellectual and Industrial Property Coordination Board held two meetings in November 2008 and in February 2009. The objective of the meetings was to encourage cooperation within the related organisations in order to develop a high level of protection of IPR. However, the rightholders were not suitably represented at those meetings.

Regarding the Police, the Turkish Police has carried out significant operations against piracy; however, counterfeiting and piracy are still problematic. In addition, the enforcers are not authorised to fulfil ex-officio operations against counterfeiting in the field of industrial property rights. In other words, the investigations against counterfeiting are commenced only upon complaint which is arguably a failing in terms of the fight against IPR infringements. The controls, particularly in relation to ex-officio confiscations are weak at the borders. Therefore, the Government should



cooperate with the relevant IPR institutions in order to intensify attempts to deal with IPR. Additionally, the Commission proposed to set up an IPR dialogue; however, Turkey is reluctant to establish an IPR dialogue, which is required since it is one of the criteria for closing the IPR chapter of the EU accession process (*Progress Report*, 2009).

In general, the harmonisation of the legislation with the EU acquisition is highly developed. In addition, coordination and collaboration within the relevant governmental IPR institutions and their specialisation have been enhanced; however, the enforcement, particularly enforcement of industrial property rights is seriously poor. Therefore, Turkey should handle these issues in close collaboration with the right holders. In addition, establishment of an IPR dialogue is vital as proposed by the EU Commission (*Progress Report*, 2009).

#### **4.9.7. Turkey 2010 Progress Report**

The harmonisation of the legislation between Turkey and the EU has been fairly successful; however, enforcement of IPR in Turkey remains a problem. The establishment of an IPR working group to carry out dialogue between the EU and Turkey was agreed by the Intellectual and Industrial Property Coordination Board which could be a major instrument in the accession process in terms of IP. The IT system of the Undersecretariat of Customs has been completely functioning and only a complaint is enough to start investigation in order to seize counterfeit and pirated products at all customs borders; however, the enforcement is not at a satisfactory level and no precise data is available regarding confiscations and checks (*Progress Report*, 2010).

While the Turkish Police has continued to conduct successful operations in the fight against IPR crimes, the struggle against piracy and counterfeiting are still problematic due to a lack of technical pursuing of those offenders and instruments when related to organised crime groups. Furthermore, accessibility of IPR decisions of the courts is very random and restricted. Moreover, the judicial procedures take time and a final verdict is given in approximately three to four years. Some of the courts require reports from expert witnesses although their knowledge and experience are good enough to solve the disagreement. Therefore, judgment takes

time and becomes costly. Thus, a new law should be adopted in accordance with the related EU directive and the coordination between the governmental and private sector should be improved regarding the enforcement of IPR crimes. Consequently, public awareness should be improved regarding the risks of counterfeit and pirated products which destroy customers' health and safety (*Progress Report*, 2010).

After identifying the important issues from the Progress Reports, the following section explores the level of the accession negotiation.

#### **4.9.8. Accession Negotiations between the European Union and the Republic of Turkey**

A summit was held at the European Council in Brussels from 16-17 December 2004 and the Council agreed to open accession negotiations on 3 October 2005 in the framework for negotiations of the presidency conclusions of the Council of the EU (Karluk, 2005; MFA, 2011; ABGS, 2011).

The screening process was held between 20 October 2005 and 13 October 2006 in order to reveal compatibility of the current Turkish legislations with EU directives. The explanatory screening meeting on IP law was held from 6-7 February 2006 in Brussels. The experts from the EU provided information about the related IP EU directives to the representatives from Turkey. The main topics were "Copyright and Neighbouring Rights" and "Industrial Property Rights" and "Enforcement". In addition, subheadings such as "Copyright in the information society", "Legal protection of databases", "Management of copyright and related rights", "Term of protection", "Rental and public lending rights", "Broadcasting via satellite and retransmission by cable", "Artist's resale right", "Computer programs", "Semiconductors", "Trademarks", "Biotechnological inventions", "Patents, including Community patents", "Supplementary protection certificates", "Compulsory licensing", "Designs directive and Designs Regulation", and "Enforcement of IPR" were explored (ABGS, 2011). Furthermore, the candidate state's screening process session was held from 2-3 March 2006 in Brussels. In this second round, the representatives from Turkey provided a report to the EU experts on its progress in relation to IPR legislation and the enforcement of IPR in Turkey (ABGS, 2011).

In conclusion, so far thirteen negotiations have been opened on “Free movement of capital”, “Company law”, “Intellectual property law”, “Information society and media”, “Taxation”, “Statistics”, “Enterprise and industrial policy”, “Trans-European networks”, “Environment”, “Consumer and health protection”, “Financial control”, and “Food safety, veterinary and phytosanitary policy” and also the “Science and research” chapter was opened and provisionally closed (ABGS, 2011; *Progress Report*, 2010). As a result, in general, either one or two chapters are expected to be opened every six months; however, the accession negotiation process has been running quite slowly since there are some political arguments between Turkey and the EU with regard to the issues mainly over Cyprus.

#### **4.10. SUMMARY**

In this chapter, the current IPR enforcement policy in Turkey and some of the IPR-related organisations in the UK were explored. In doing so, firstly the organisations which are authorised to deal with IPR in Turkey and also the IPR related bodies in the UK were surveyed. In addition, the enforcement directive of the EU and the EU progress reports were reviewed. In contextualising the study in the case of Turkey, the statistics on piracy and counterfeiting in Turkey were also explored.

After presenting the foundation chapters, the next chapter discusses the methodology and the research process, and explores the questionnaire with the objective of obtaining the perceptions of the police officers with regard to IPR issues.

## **Chapter 5**

### **RESEARCH METHODOLOGY**

#### **5.1. INTRODUCTION**

In previous chapters the literature related to IPR has been comprehensively reviewed and synthesised. Firstly, the developments of IPR in the world, secondly, the advancements of IPR in Turkey and in the Ottoman Empire and thirdly, the current legislation and enforcement system in Turkey were explored. In this chapter, the research methods utilised in this research are discussed, and the appropriate statistical methods are presented for analysis.

As identified in Chapter One, the foremost aims of this study are: to provide an overview of the elements and precautions that may help to facilitate the IPR enforcement system; to gain an insight into the understanding of Turkish police officers regarding the IPR system either in Turkey or in the EU; and to determine the obstacles encountered and to establish recommendations for the future policy in order to establish an efficient and effective IPR system in Turkey, particularly with regard to potential EU membership. For this purpose, the following research methodological issues are considered.

#### **5.2. RESEARCH METHODOLOGY**

Research methodology is the adoption of methods, techniques and procedures in a research which are used to address research questions by collecting and analysing data. Corbin and Strauss (2008, p. 3) define methodology as “a way of thinking about and studying social phenomena”. In a more systematic manner, Crotty (1998, p. 3) defines methodology as “the strategy, plan of action, process, or design lying behind the choice and use of particular methods and linking the choice and use of methods to the desired outcomes”. Silverman (2001, p. 4) on the other hand, provides a workable definition by stating that “A methodology refers to the choices we make about cases to study, methods of data gathering, forms of data analysis etc. in planning and executing a research study”. In sum, therefore, it can be stated that

research methodology is a framework or instruction for a researcher that enables him to examine and interpret the outcomes of a study.

There are two kinds of research methodologies: qualitative and quantitative. Bryman (1992, p. 46) argues that qualitative research is an approach in social sciences which attempts to define and examine the 'culture and behaviour' of people and those people's viewpoint that are being explored. Creswell defines qualitative research as follows:

Qualitative research is an inquiry process of understanding based on distinct methodological traditions of inquiry that explore a social or human problem. The researcher builds a complex, holistic picture, analyzes words, reports detailed view of informants, and conducts the study in a natural setting (Creswell, 1998, p. 15).

In qualitative methodology the views and perceptions of the people who are being studied are very important. In addition, the researcher's observations play an essential role in qualitative studies. Hakim (1987, p. 26) states that qualitative research deals with the 'attitudes, motivations and behaviour' of people.

Qualitative research is usually located in interpretive tradition. Asutay (2008) points out that interpretive/constructive social scientists assume that social reality is socially created and the purpose of interpretive social scientists is to identify what meanings are given to that reality by people, not to find out how reality works despite those interpretations.

The aim of qualitative research is to explore social relations and define the reality of respondents (Bryman, 2004). In qualitative research methodology, the research is generally an analysis of perception and the motivation is explorative. Therefore, Bryman states that qualitative research can be interpreted as a research strategy that generally gives emphasis to the words rather than statistical data that:

predominantly emphasizes an inductive approach to the relationship between theory and research, in which the emphasis is placed on the generation of theories; has rejected the practices and norms of the natural scientific model and of positivism in particular in preference for an emphasis on the ways in which individuals interpret their social world; and embodies a view of social reality as a constantly shifting emergent property of individuals' creation (Bryman, 2004, pp. 19-20).

On the other hand, positivist philosophy leads quantitative research which is based on principles of methodology. In quantitative methodology, it is believed that there is an objective reality which is separate from the perceptions of the people who have observed that reality. Therefore, the aim of quantitative research is to have a better understanding of the reality (Asutay, 2008). In addition, quantitative research is deductive and has an objective conception of social reality.

Bryman states that quantitative research can be described as a research strategy that highlights quantification in the gathering and analysis of data that:

entails a deductive approach to the relationship between theory and research, in which the accent is placed on the testing of theories; has incorporated the practices and norms of the natural scientific model and of positivism in particular; and embodies a view of social reality as an external, objective reality (Bryman, 2004, p. 19).

Asutay (2008, p. 2) points out that “qualitative or quantitative researches are not merely different way of doing research, but different ways of thinking”.

On reflecting on the methodological dimension of this study, since the focus of this research is Turkish Police officers who deal with IPR crimes, the research explores the perceptions and opinions as well as the attitudes of Turkish Police officers who work to prevent IPR frauds and their motivation for having an efficient enforcement system. Therefore, this study is constructed within a qualitative research framework.

### **5.3. RESEARCH DESIGN**

It should be noted that the construction of a particular design in a social research is essential before starting to collect and analyse data. This section of the research presents the methods which are used in the research, case study approach, ethical issues and confidentiality.

De Vaus (1990) states that research design is a logical issue carried out to make sure that the evidence gathered allows us to find the answers of questions or to test theories. Therefore, it is important to determine in the research design what sort of evidence is necessary to answer the research questions in a convincing manner. In addition, Bryman (2004) states that research design is the structure of a research that generates appropriate evidence for the researcher in their subject of study and it

enables a framework to collect and analyse data. De Vaus classifies research into two types: descriptive and explanatory. Descriptive research seeks ‘What is going on’ whereas explanatory research tries to find out ‘Why it is going on’ (De Vaus, 1990, p. 1).

Babbie argues that social research has several uses, although, three types are mainly used depending on their approach: exploratory, descriptive, and explanatory research. Exploratory research is carried out when a researcher studies a new subject of his/her interest or the topic is examined from a completely new starting point that was not previously known. In addition, this type of research is mainly useful when there is inadequate information about a phenomenon. The purpose of explorative research is to collect preliminary information that will identify problems and create hypotheses (Babbie, 2004). Therefore, an exploratory research may help to reveal the full picture of the phenomenon studied.

On the other hand, descriptive research is carried out in order to describe circumstances and incidents. In descriptive research, the researcher observes what exists and afterwards describes his observations. Furthermore, descriptive research finds answers for ‘what, where, when and how’ questions, whereas explanatory research tries to clarify the question of ‘why’ (Babbie, 2004). Schutt (1996) defines four types of social research question: ‘descriptive, exploratory, explanatory and evaluation research’. In descriptive research the researcher basically wants to identify their studies and define the social fact of interest, however, in evaluation research particular interest is given to specific strategies and programs which help to ease the problem (Schutt, 1996).

In social sciences the case study approach is quite common. In general, case studies are related to interpretive understanding within qualitative research. The case study method is chosen when a researcher aims to collect rich and detailed information. Therefore, it is an appropriate method for finding ideas and indications for further studies (Simon, 1969, p. 277). In addition, Creswell (1998, p. 123) states that a case study covers the widest data collection forms for a researcher in order to create a comprehensive depiction of the case. Hakim (1987, p. 61) asserts that “Case studies take as their subject one or more selected examples of a social entity - such as communities, social groups, organisations, events, life histories, families, work

teams, roles or relationships - that are studied using a variety of data collection techniques”. Babbie (2004, p. 293) defines the case study as “The in-depth examination of a single instance of some social phenomenon, such as a village, a family, or a juvenile gang”. Moreover, Aldridge and Levine (2001, p. 5) point out that “a case study involves an in-depth investigation into a particular example of a social phenomenon or institution”. Another description of the case study was given by Bryman (2004, p. 49), who defined it as follows:

The most common use of the term associates the case study with a location, such as a community or organization. The emphasis tends to be upon an intensive examination of the setting. There is a tendency to associate case studies with qualitative research, but such an identification is not appropriate. It is certainly true that exponents of the case study design often favour qualitative methods, such as participant observation and unstructured interviewing, because these methods are viewed as particularly helpful in the of an intensive, detailed examination of a case.

Consequently, this research was designed as an explorative study, as it aims to explore various dimensions from the perceptions of police officers in Turkey. Additionally, it is also an evaluative study which assesses the current IPR system in Turkey. Furthermore, the research aims to establish the shortcomings and problems and provide recommendations for the enforcement of IPR in Turkey. The research is not only confined to data collection, but it also analyses, links and interprets the related data and information on IPR in order to generate potential conclusions. Moreover, the research also has a descriptive nature because it defines the circumstances and events in the field of IPR in the literature review. Additionally, the study has an explanatory nature which tries to uncover the reasons why IPR crimes are committed.

This research also employs a case study. The case study helps to define the research questions and to explore the answers to the questions through the perceptions of the police officers. Therefore, this research involved a questionnaire. The questionnaire was distributed among Turkish police officers in various cities who fight IPR fraud.

The aim of the questionnaire was to discover Turkish police officers’ understanding and perceptions of IPR. The case study was carried out to explore and evaluate the suitability of the police for IPR implementation; to gauge their satisfaction or dissatisfaction with it and to test the effectiveness of the Turkish police’s involvement in IPR implementation. In addition, some of the relevant IPR



enforcement bodies in the UK were visited in order to understand the UK's IPR enforcement system.

#### **5.4. RESEARCH STRATEGY**

In quantitative research the emphasis is on collecting and analysing numerical data. In addition, quantitative research employs deductive reasoning to show the connection between theory and research by testing the theory. Furthermore, quantitative research represents a view of social reality as an objective reality. Asutay (2007) argues that the research strategy which is usually used in quantitative research is the deductive approach. Thus, the study commences with the general philosophy or theory and then it turns to observation in order to test the validity of the theory. Babbie (2004, p. 25) describes deductive research as follows:

...deductive reasoning or deduction moves from the general to the specific. It moves from (1) a pattern that might be logically or theoretically expected to (2) observations that test whether the expected pattern actually occurs. Notice that deduction begins with “why” and moves to “whether”, while induction moves in the opposite direction.

On the other hand, researchers employ the inductive approach in order to develop a relationship between the theory and data (Asutay, 2007). The inductive method is often used when the researcher first collects the data and later on introduces a theory that identifies patterns in that data. The research begins with specific concrete observations which try to describe general principles by using the data collected from these observations. Babbie (2004, p. 25) states that:

Inductive reasoning, or induction, moves from the particular to the general, from a set of specific observations to the discovery of a pattern that represents some degree of order among all the given events. Notice, incidentally, that your discovery doesn't necessarily tell you why the pattern exists-just that it does.

The inductive research strategy is usually used in qualitative studies. In inductive social research, the researcher structures a sample of a large population and collects data, and analyses that data in line with the created criteria and methods. Thus, the researcher assumes the characteristics and behaviour of the whole population from the sample studied. It should, therefore, be stated that this study is structured through the inductive approach, as it is not testing a theory but rather generating hypotheses, and it moves from particular to general in view of the fact that it begins

by exploring the field. As a result, the research strategy applied in this research is inductive reasoning because the research process commences from the field; hence it is a grounded research. It is also due to the fact that the aim of this study is to explore, which implies that the research field has to be examined in detail to identify the perceptions of the participants.

## **5.5. RESEARCH METHODS**

Corbin and Strauss (2008, p. 3) define method as “techniques and procedures for gathering and analyzing data”. Crotty (1998, p. 3) identifies method as “the techniques or procedures used to gather and analyse data related to some research question and hypothesis”. Silverman (2001, p. 4) states that methods are ‘specific research techniques’ which include observations, interviews and audio recording in addition to quantitative methods such as statistical correlations. According to Bryman (2004, p. 27), a research method is “simply a technique for collecting data. It can include instruments, such as questionnaire, or a structured interview, or participant observation in which a researcher listens and watches others”. Additionally, Babbie (2004, p. 243) states that “Survey research is probably the best method available to the social scientist interested in collecting original data for describing a population too large to observe directly”.

In social science, qualitative and quantitative methods are the two fundamental methodological research approaches. In this regard, quantitative research methods emphasise the quantification of collecting and analysing the data. Alternatively, words and texts are emphasised in qualitative research rather than statistical information.

A number of different methods were used in this research. In other words, in order to benefit from various research methods, triangulation was utilised as the main data collection method. This includes secondary data in the form of literature review, analysis of legislations, regulations and administrative documents, and official statistics. Since the nature of this research is also explorative, descriptive, explanatory and evaluative, in order to collect primary data to respond to the research questions the quantitative method was used in the form of a questionnaire survey. In addition, secondary data was used in order to carry out this research,

which consisted of books, articles, magazines, theses and relevant studies. In addition, both published and unpublished materials, such as the statistics regarding the numbers of IPR operations, suspects, and confiscated materials were obtained from the Directorate General of Police. Furthermore, organisational documents such as annual reports, press releases and strategic plans were explored. Administrative documents such as by-laws, circulars, statistics and fact sheets were also examined. These documents provided the researcher with first hand data to explore the current IPR enforcement system and regulations, and the precautions taken against the IPR infringements. In addition, these documents cover comprehensive data and information that has already been collected. Therefore, the researcher saved time by accessing these rich data and information.

In the next part of the study the data collection methods are explored.

### **5.5.1. Data Collection Methods: Questionnaire-related issues**

Using a selection of data collection methods and techniques makes a study more complete and balanced (Hakim, 1987, p. 61). In social sciences, there are various methods of collecting information such as: questionnaires, observations and interviews either face to face or via telephone or web based conversations. This research included questionnaires as a quantitative method. A self-administered questionnaire was carried out among Turkish Police officers who fight against IPR infringements. The questionnaire aims to reveal and explore the understanding, opinions, and perceptions of Turkish Police officers about IPR related issues.

#### **5.5.1.1. Questionnaire**

A questionnaire is a set of questions which the respondents respond to and return to the researcher. The purpose and the need for conducting the questionnaire should be explained with a covering letter, and replies should be treated anonymously (May, 2001). De Vaus (1990) states that the questionnaire is a carefully-constructed data collection technique which is used widely in surveys whereby it asks the same set of questions of the respondents. Babbie (2004) argues that the questionnaire is an instrument which contains questions specifically designed to obtain information and data for analysis and interpretation. Furthermore, researchers have two alternatives when asking questions in their questionnaires: open-ended or closed-ended

questions. With open-ended questions respondents are asked to present their own answers whereas with closed-ended questions they are asked to select an appropriate answer from a list given by the researcher (Bryman, 2004, p. 145).

In the quantitative method, questionnaires are efficient instruments for collecting data which is not available in the literature. For the most important empirical part of this research, the primary data were obtained to achieve the objectives of this study by conducting a questionnaire. Due to the large population of the research and the explorative nature of the research, a questionnaire survey method was applied in collecting primary data from police officers in various cities in Turkey. The reason for choosing the questionnaire method in this case was that it provides comprehensive information in a limited time. The respondents of this questionnaire were police officers in various cities in Turkey, who have very limited free time in which to complete the questionnaire. This questionnaire also aims to reveal their problems and explore recommendations derived from their answers. In addition, in terms of confidentiality the questionnaire is an efficient survey type in which identities are kept anonymous. The identities of the police officers who completed the questionnaire in this research were kept confidential otherwise they might have been reluctant to complete it.

In terms of preparing the questionnaire, at first, the questionnaire was prepared in English with an English native speaker. Then, the researcher requested assistance in the translation process of the questionnaire into Turkish from some colleagues and friends who are Turkish PhD students in the UK. In addition, the Turkish translation was sent to an IPR expert in Turkey in order to prevent misunderstandings of the questions.

#### **5.5.1.2. Questionnaire design**

The questionnaire was generated by the researcher from the knowledge developed from the literature review which was gathered from books, articles and Masters and PhD theses, but also through personal experience gained in working closely with the relevant bodies in Turkey in the past prior to commencing this Ph.D. Additionally, an initial study was conducted by reviewing related questionnaires about IPR.

In terms of the design of the questionnaire, at the beginning of the first page the purpose of the questionnaire is explained and the importance of the respondents' responses is underlined. Moreover, to ensure anonymity the questionnaire requested that no names should be written on the questionnaires. In addition, it was highlighted that the information obtained from the questionnaire would be treated with strict confidentiality.

The questionnaire was presented in six pages and composed of 44 questions but some of the questions also had sub-questions. The questions were designed as closed-ended questions rather than open-ended questions. Bryman (2004) argues that closed-ended questions are easy to answer because the respondents do not need to write their opinions and thoughts; they just tick or circle the appropriate answer. In addition, closed-ended questions improve the comparability of answers and make clear the meanings of questions for respondents. However, closed-ended questions also have disadvantages, such as: respondents are confined within the limits of the answers that are provided and it can be complicated if the fixed answers overlap (Bryman, 2004). In addition, it takes less time to complete closed-ended questions and it is quick and easy for respondents to complete the questionnaires, and they are also more easily processed and evaluated than open-ended questions (Babbie, 2004).

The five-point Likert-scale was used to obtain the preferences of respondents as to how strongly they agree, disagree, or are neutral to the statements of the questionnaire. The answers were labelled as 'Strongly Agree'(1), 'Agree'(2), 'Neutral'(3), 'Disagree'(4), and 'Strongly Disagree'(5) and the answers to the questions about satisfaction levels were labelled as 'Very Satisfied'(1), 'Satisfied'(2), 'Neither satisfied nor dissatisfied'(3), 'Dissatisfied'(4), and 'Very Dissatisfied'(5). The reason for these kinds of answers was not to take up too much of the respondents' time as they had limited free time. Various types of questions, which were mostly multiple choices, were asked in order to obtain relevant data and to test the research hypotheses in the questionnaire.

The questionnaire was split into five main clusters and each cluster was designed to collect information to test the particular hypotheses of this research. Each section covered a wide selection of subjects in relation to IPR. The first part of the questionnaire was about the demographic variables, professional backgrounds, education levels, training sessions, job satisfaction levels and problems regarding IPR issues. The second part of the questionnaire was about the police officers' perceptions of public awareness in relation to IPR. The questions in the third part were about their opinions regarding precautionary strategies to minimise and stop IPR crimes. The fourth part was about the EU process of Turkey in relation to IPR issues. The final section was about the general opinions of the respondents regarding IPR.

In terms of design, the first cluster of the questionnaire involved twenty-nine questions, in five sections. The first section of the first cluster covered the respondents' rank, age, gender, qualifications and the duration of the police officers' works both in the police service and in IPR-related units. The second section was about their job satisfaction levels, their opinions and considerations regarding current IPR legislation and the enforcement system and future recommendations for IPR policy. The third section dealt with respondents' training and their evaluation of IPR training sessions. The fourth section aimed to show the challenges regarding the enforcement of IPR in relation to the other bodies that are required to deal with the IPR protection either in the public or the private sector, and the common perpetration of IPR crimes. The fifth section covered the description of IPR-related criminals and whether or not is there a relation between organised crime and terrorist groups, and the channelling of the money gained from IPR infringement.

The second cluster which consisted of four questions was about public awareness of IPR issues. One of the questions that had sub-questions aimed to discover the reasons why people purchase pirated or counterfeit products through the perceptions of the respondents. The other questions were about the improvement of public awareness, particularly in terms of education.

The third cluster covered two questions and sub-questions about the precautionary strategies to prevent IPR crimes. Therefore, this cluster involved recommendations for the prevention of IPR infringements and future IPR policy for the related governmental bodies.

The fourth cluster dealt with EU relations and developments on IPR conducted through the EU membership process. In particular, it was about the awareness of respondents regarding IPR enforcement in EU countries and the EU Twinning project that was carried out by the Police with EU funding in order to strengthen the enforcement of IPR in Turkey.

The final cluster was about the opinions of the respondents regarding the protection of IPR in terms of their understanding of what IPR is. It also covered the relation between the protection of IPR and the development level of the country, and its direct foreign investment. In addition, it dealt with the connection between research and development activities and expenditure, and IPR.

#### **5.5.1.3. Questionnaire population**

This questionnaire targeted police officers who are authorised to deal with IPR issues in ten cities which have crucial roles in the fight against IPR crimes. The questionnaire was distributed among police officers who work at the State Security Divisions in the ten cities. The purposive sampling method was utilised as IPR related duties are dealt with by specialised units rather than by general police forces. However, the findings of the questionnaire were generalised to the entire population.

Bryman (2004, p. 333) states that purposive sampling is “essentially strategic and entails an attempt to establish a good correspondence between research questions and sampling”. Additionally, purposive sample is defined as follows, “The principle of selection in purposive sampling is the researcher’s judgement as to typicality or interest. A sample is built up which enables the researcher to satisfy her specific needs in a project” (Robson, 2002, p. 265). In this research, the people who could provide the required specific information and data are the respondents from the State Security Divisions in selected cities, which therefore imply that this study utilised the purposive sampling method.

Before distributing the questionnaire to the selected population a pilot questionnaire was conducted with 20 purposive samples from the target population in order to prevent misunderstanding and increase the validity of the study. A total of 250 questionnaires were distributed to the State Security Divisions in ten cities. In the end, 227 questionnaires were returned; however, 26 of the questionnaires were incomplete and therefore not taken into consideration when analysing the data.

The distribution of the questionnaires was as follows:

**Table 5.1: Distribution of the Questionnaires**

	Number of Distributed Questionnaires	Number of Returned Questionnaires	Number of Analysed Questionnaires
Istanbul	90	80	66
Ankara	50	42	35
Izmir	30	25	23
Adana	15	15	15
Bursa	15	15	15
Diyarbakir	10	10	10
Konya	10	10	10
Gaziantep	10	10	10
Antalya	10	10	8
Samsun	10	10	9
Total	250	227	201

#### ***5.5.1.3.2. Sampling strategy and sampling size***

In a social research to find out the opinion of a large population or group, whose characteristics are likely to be similar, a small group of sample respondents may be chosen from that population to gauge the thoughts of the larger group or population. Sampling is selected from the population of the study. In many cases it is unlikely that the whole population will be studied. A sample is a small selection of the entire population that allows the researcher to generalise the findings. Therefore, sampling is a significant feature of a study. Robson (2002) argues that it is not usual to study the entire population in a survey, thus sampling is applied. Bryman (2004, p. 87) defines the sample as “the segment of the population that is selected for investigation. It is a subset of the population”.



There are 81 cities in Turkey and the police have to prevent or investigate IPR infringements across the country according to current IP legislations. As it was not viable to collect detailed and comprehensive information from each city a form of selection and sampling was required. The next section of the research argues the reasons for selecting ten cities, sample size of the study and the distribution of the sample.

The size of the sample should be reasonable in terms of representing the population studied. Additionally, the sampling and sampling size should provide data and information regarding the research questions. Bryman (2004) argues that the sample size of a study depends on several considerations and there is not an ultimate answer. Besides, sample size decisions are usually affected by time and cost considerations.

The Turkish Police has a centralised structure and the provincial divisions are subordinate to the relevant departments of the General Directorate of Police. Police Departments are required to organise training sessions, coordinate the related provincial divisions, and carry out other tasks given by the regulations. In this study, it should be taken into consideration that the State Security Divisions not only deal with IPR crimes but also other tasks. IPR infringements are only a small part of their tasks. Therefore, the staff at these divisions required to deal with IPR issues are small in number. According to the relevant IPR legislation the State Security Department and its provincial divisions are required to prevent IPR infringements; thus, they were selected to conduct the questionnaire. In addition, the statistics regarding IPR crimes were evaluated and these ten cities were found to be the cities where the majority of IPR-related infringements take place, and therefore the questionnaire was conducted in these cities (see Tables 5.3 and 5.4).

The questionnaire was distributed among police officers who work at the State Security Department and its divisions in ten cities namely; Istanbul, Ankara, Izmir, Bursa, Adana, Diyarbakir, Antalya, Gaziantep, Konya, and Samsun. These ten are major cities in Turkey, and the numbers of operations and seized materials in these cities are significant when compared to other cities, which is clearly shown in Tables 5.3 and 5.4. In addition, six out of the ten, namely Istanbul, Ankara, Izmir, Bursa, Adana and Diyarbakir, each have a dedicated IPR office to prevent IPR

crimes and conduct operations against IPR violations. The remaining four out of the ten, Antalya, Gaziantep, Konya, and Samsun do not have a dedicated IPR office; however, IPR-related tasks are conducted by the State Security Divisions as well as other relevant duties.

These ten cities are dispersed in different geological regions and represent the foremost cities of their regions. Geographically, Turkey is divided into regions and those ten cities are the main cities in the respective regions in terms of population, industry, finance, health, education and so on. In this sense, Istanbul and Bursa are in the Marmara region, Ankara and Konya are in the Central Anatolia region, Izmir is in the Aegean region, Antalya and Adana are in the Mediterranean region, Gaziantep and Diyarbakir are in the Southeast Anatolia region and Samsun is in the Black Sea region.

**Table 5.2: Distribution of the Number of Operations and Suspects in Copyright Infringements between 2004 and 2009**

Province	Number of Operations	Percent	Number of Suspects	Percent
Istanbul	914	7.00	5981	27.24
Ankara	1763	13.50	1637	7.46
Izmir	829	6.35	3377	15.38
Adana	1403	10.75	1561	7.11
Bursa	713	5.46	761	3.47
Diyarbakir	504	3.86	512	2.33
Konya	543	4.16	565	2.57
Antalya	563	4.31	539	2.46
Gaziantep	824	6.31	977	4.45
Samsun	129	0.99	180	0.82
Total of 10	8185	62.69	16090	73.29
Other Provinces	4872	37.31	5865	26.71
Total of all	13057	100	21955	100

Source: Turkish National Police, 2009

**Table 5.3: Distribution of the Number of Operations and Suspects in Industrial Property Rights Infringements between 2006 and 2009**

Province	Number of Operations	Percent	Number of Suspects	Percent
Istanbul	488	41.81	510	31.86
Ankara	1	0.09	1	0.06
Izmir	87	7.45	95	5.93
Adana	1	0.09	-	-
Bursa	-	-	-	-
Diyarbakir	2	0.17	3	0.19
Konya	133	11.40	156	9.74
Antalya	-	-	-	-
Gaziantep	7	0.60	7	0.44
Samsun	39	3.34	68	4.25
Total of 10	758	64.95	840	52.47
Other Provinces	409	35.05	761	47.53
Total of all	1167	100	1601	100

Source: Turkish National Police, 2009

#### **5.5.1.4. Study visits to IPR-related bodies in the UK**

The UK has played a very considerable role in the development of IP not only in Europe but also in the world. In addition, the UK is a member of the EU and Turkey is a candidate country for membership of the EU. In this regard, comparing the British experience could be an eye-opening exercise for Turkey. Therefore, the decision was made to gather information from the relevant British bodies. This analysis helped to compare what kind of similarities and differences exist in terms of IPR enforcement between Turkey and the UK.

Bearing in mind that one of the objectives of this study is to establish an effective and deterrent IP enforcement system for Turkey, the UK's IPR enforcement system was explored. A number of important IPR-related bodies who deal with the enforcement of IPR in the UK, such as: the United Kingdom Intellectual Property Office (UK-IPO), the International Federation of the Phonographic Industry (IFPI), the Federation Against Copyright Theft (FACT), the Copyright Licensing Agency (CLA) and the Mechanical Copyright Protection Society and Performing Right Society (MCPS-PRS) were visited to gain a better understanding of those

institutions. In these study visits, their structures, working principles, and enforcement methods were explored. The visits were very beneficial in terms of obtaining information and evaluating the obtained information in order to adopt their successful implementation and make recommendations for the future IP policy in Turkey.

### **5.5.2. Hypotheses**

As identified in Chapter One, this research aims to explore the enforcement of IPR-related legislation and regulation through various dimensions, as perceived by the police officers from state security divisions in ten cities of Turkey. Thus, the research mainly focuses on the enforcement of IPR in terms of police-related issues and aim to explore the IPR enforcement system. In addition, this study pays particular attention to the perceived impact of the EU accession process.

Thus, in order to find out what kind of IPR enforcement method would be the most appropriate in the fight against IP crimes, the study developed certain hypotheses as follows:

**Hypothesis 1:** There is no significant difference in the mean perception score among the cities in relation to whether the fight against IP crimes should be carried out by the police.

**Hypothesis 2:** There is no significant difference in the mean perception score among the cities in relation to whether the fight against IP crimes should be carried out by the specialised IP police units.

**Hypothesis 3:** There is no significant difference among the respondents coming from the sampled cities in their perception that anti-piracy commissions do not work properly.

**Hypothesis 4:** Duration of IPR experience and rank do not have an impact on the perception of the foundation of a single IP organisation.

**Hypothesis 5:** There is no significant difference in the mean perception values between the respondents from cities with dedicated IPR offices and those from cities without dedicated IPR offices that the use of IPR should be free.

**Hypothesis 6:** There is no significant difference in the mean scores between police chiefs and police constables regarding their job satisfaction levels.

**Hypothesis 7:** There is no significant difference in the mean scores between respondents with 0-5 years of IPR experience and those with more than 5 years of IPR experience regarding their evaluation of IPR challenges.

**Hypothesis 8:** There is no significant difference in the mean scores between the respondents with 0-5 years of IPR experience and those with more than 5 years of IPR experience regarding the evaluation of the IPR precautions.

**Hypothesis 9:** As perceived by the respondents, there is no connection between IPR crimes and organised crime.

**Hypothesis 10:** As perceived by the participants IPR criminals do not differ in terms of progressing into more serious organised crime.

**Hypothesis 11:** As perceived by the participants IPR infringers do not differ in terms of having connections with terrorist groups.

**Hypothesis 12:** As perceived by the participants IPR criminals do not differ in terms of channelling money into organised crime groups, which has been unlawfully gained by infringing IP.

**Hypothesis 13:** IPR training does not have an impact on attendees' understanding of EU enforcement systems.

**Hypothesis 14:** There is no significant difference between police chiefs and police constables in terms of evaluating the effect of the EU Twinning Project which was held by the State Security Department in the fight against IP crimes.

**Hypothesis 15:** There is no significant difference between the respondents' duration of IPR experience in relation to their perceptions regarding the importance of IPR for the development of a country.

**Hypothesis 16:** There is no significant difference between the respondents' duration of IPR experience in relation to their perceptions regarding research and development activities in order to produce IP.

### **5.5.3. Primary Data Analysis**

Data analysis is one of the most important parts of a research. Therefore, a number of different techniques were used in order to achieve the objective of this research by computing statistical descriptive and inferential analysis. It is always difficult to decide which statistical tests should be employed in a study. Therefore, it is important to determine which techniques should be utilised in accordance with the structure of the data. In this research, descriptive statistics and inferential statistics such as independent-samples t-tests, factor analysis, one-way ANOVA, two-way ANOVA and MANOVA tests were used. The terms and techniques related to this study are explained as follows:

**Descriptive Statistics:** Descriptive statistics describe the major features of a data in terms of summarising measures of central tendency using mean, median and mode (Fink, 1995). Mean score is the arithmetic average of the responses (Howell, 1995). Additionally, mean score is a 'hypothetical' value which is used to summarise data (Field, 2005, p. 4). In this study mean values are taken into consideration while analysing the data.

**Parametric Techniques:** There are a number of general assumptions that apply to parametric approaches (in this study e.g. independent-samples t-test, ANOVA and MANOVA) with additional assumptions related to specific methods. In this sense, a parametric test is based on normal distribution, since the data is assumed normally distributed and measured at the interval level or ratio level (Field, 2005; Pallant, 2007).

Additionally, in parametric techniques it is assumed that the data is collected by random sampling from the population; however, in most cases in practise this is not the case. Besides, samples with more than thirty respondents do not produce any important problems in terms of violating normal distribution (Pallant, 2007).

**Non-parametric Techniques:** Another technique which is utilised in order to analyse data is the non-parametric technique. Non-parametric tests are used when the assumptions of the parametric tests are not met since the data collected is extraordinarily distributed and/or has a lack of homogeneity of variances (Black, 1999). Furthermore, non-parametric techniques are less powerful than parametric techniques without having such strict assumptions. Additionally, non-parametric techniques in general are more suitable for a small number of samples or the data obtained is measured merely at the ordinal (ranked) level (Pallant, 2007).

**T-tests and Assumptions:** There are a number of t-tests in SPSS such as one-sample t-test, paired-samples t-test and independent-samples t-test which are mainly used to compare the mean scores of variables. However, only independent-samples t-test is discussed here since it was used in this study. Additionally, in terms of checking assumptions in independent-samples t-tests Levene's Test for Equality of Variances is used while testing whether the variances for the two groups are the same. The output of an independent-samples t-test, which is provided by the SPSS, indicates which of the significance values should be used. If the significance value of the Levene's Test for Equality of Variances is higher than 0.05 the first value which is depicted in the first line of the output of the independent-samples t-test under the Equality of Means should be used which refers to equal variances assumed and there is no violation of assumption. On the other hand, if the significant value is equal to or lower than 0.05 the significance value of the independent-samples t-test for Equality of Means in the second line should be taken into account that the data violates the assumption of equal variance assumed and refers to equal variances not assumed (Field, 2005; Pallant, 2007).

**Independent-samples t-test:** Pallant (2007) states that the independent-samples t-test is computed to make a comparison between two different people, groups or circumstances and one categorical (independent) variable and one continuous (dependent) variable are needed. In addition, the independent samples t-test reveals whether there is a statistically significant difference in the mean values for the two groups (Bryman and Cramer, 2001; Field, 2005). Furthermore, the independent-samples t-test is a parametric test which is based on normal distribution; thus, the data is assumed normally distributed and measured at the interval level or ratio

level and uses a continuous scale rather than discrete categories (Field, 2005; Pallant, 2007). As a result, after applying the relevant assumptions it is seen that the data is normally distributed and there is no violation of assumptions; thus, independent-samples t-tests are used in this research to compare the mean differences between two different groups such as police chiefs and police constables, or respondents from cities with dedicated IPR offices and those from cities without dedicated IPR offices.

**Analysis of Variance (ANOVA):** ANOVA is very similar to t-test; however, it is used to compare the mean values of more than two conditions or groups (Fink, 1995). Pallant (2007) argues that one-way ANOVA which entails one categorical independent variable and one continuous dependent variable is used to find out whether there are any significant differences whereas post-hoc test can afterwards be employed to reveal where those differences lie. In addition, two-way ANOVA is used when there are two independent variables (Pallant, 2007).

T-tests and analysis of variances are used to test the hypotheses. However, Pallant (2007) argues that there is always a likelihood of obtaining inaccurate results while making two different errors (Type 1 and Type 2 errors). In this regard, if the null hypothesis is true but it is rejected it is a Type 1 error; whereas a null hypothesis is accepted when it is false and is a Type 2 error (Kinnear and Gray, 2008; Pallant, 2007; Tabachnick and Fidell, 2007).

**Multivariate Analysis of Variance (MANOVA):** MANOVA is an extension of ANOVA which is used when there is more than one dependent variable and the variables are related to some extent. MANOVA reveals whether there are any statistically significant differences between the groups on the compound dependent variable as well as presenting the univariate outputs for each of the dependent variables individually while reducing the risk of Type 1 error (Pallant, 2007).

**Factor Analysis:** Factor analysis is the most suitable method for refining and reducing a number of related variables to a more manageable number before computing analyses such as multivariate analysis of variance (MANOVA) or multiple regression (Field, 2005; Pallant, 2007; Tabachnick and Fidell, 2007). There are two kinds of factor analysis such as exploratory and confirmatory factor



analysis. Exploratory factor analysis is the most widely used technique in social sciences (Costello and Osborne, 2005). Exploratory factor analysis is generally utilised in the early parts of a study to obtain information or investigate the interrelations amongst a set of variables whereas confirmatory factor analysis is used later in a study to understand the underlying structure about theories or to test the hypotheses (Pallant, 2007). In this study, exploratory factor analysis is employed.

**P-value:** The probability value or significance of a test is generally symbolized by p or p-value. (Field, 2005) If the p-value is lower than the significance level that means the value of the test is in the critical region (Kinnear and Gray, 2008). In this study, the significance level is set at 0.05.

**Effect Size:** Kinnear and Gray (2008) define the effect size as “a difference between two means for significance”. It is also known as eta squared. Pallant (2007) states that an effect size statistic gives a sign of the degree of the differences between the groups.

**Validity:** A study is considered valid if it measures what it claims to measure and the conclusions derived from the data should be rational corresponding to real life (Bryman and Cramer, 2001; Pallant, 2007). The validity of the questionnaire in this study was considered acceptable after conducting the pilot study.

**Reliability:** Bryman and Cramer argue that the reliability of a measure checks its consistency and has two aspects as external and internal reliability, thus, “external reliability is the more common of the two meaning and refers to the degree of consistency of a measure over time” whereas internal reliability “raises the question of whether each scale is measuring a single idea and hence whether the items that make up the scale are consistent” (Bryman and Cramer, 2001, pp. 62-63). Additionally, Forcese and Richer (1973, p. 71) state that reliability implies that “the same measure can be used again and again by the same or different researchers and the same results will be obtained”. Cronbach’s alpha is a coefficient which is commonly used in social sciences as a measure of internal consistency to determine the reliability of data (Pallant, 2007).

**Table 5.4: Reliability Statistics**

Reliability Statistics	
Cronbach's Alpha	N of Items
.707	35

Cronbach's Alpha coefficient should preferably be higher than 0.70 in terms of internal consistency of the scale (DeVellis, 2003 as cited in Pallant, 2007, p. 95). Since the value of Cronbach's Alpha in this research is above 0.70, this confirms that the reliability of the contents of the questionnaire is satisfactory.

**The choice of variables in terms of data analysis:** A comprehensive data analysis on the opinions and perceptions of the respondents through several control variables (i.e. rank, existence or nonexistence of dedicated IPR office, city, policing education, and duration of IPR experience) regarding IPR protection and its enforcement has been conducted. The choice of control variables has been explained in Table 5.5.

**Table 5.5: The Choice of Variables**

Variables	Explanation
Rank	In order to determine whether there are any statistically significant differences between the perceptions and opinions of police chiefs and police constables regarding IPR issues, 'rank' is considered an important control variable.
Existence or Nonexistence of Dedicated IPR Office	This variable was chosen in order to compare the perceptions and opinions of the respondents with regard to IPR from places with dedicated IPR offices and those without dedicated IPR offices, as it is considered that their existence or nonexistence might have an impact on the observed perceptions and opinions of the respondents.
City	'City' is considered another important control variable, as the size of the city, the economic activity in that city and the magnitude of IPR crimes there might have a direct impact on the observed behaviour and perceptions of the participants. Therefore, the research aimed to show any statistically significant differences between the revealed perceptions and opinions of the participants from various cities where the questionnaire was distributed.
Policing Education	'Policing education' as a control variable was chosen to explore whether there are any statistically significant differences between respondents from Police Schools, Police Vocational High Schools (PMYO), Police Vocational Education Centres (POMEM) and the Police Academy regarding their perceptions and opinions regarding IPR issues, as it is considered that different level of education might have an impact on the opinions and perceptions of the participants regarding IPR issues.
Duration of IPR Experience	Seniority in IP related work is also considered an important control variable and therefore it was chosen to investigate whether there are any statistically-significant differences between experienced and less experienced police officers in IPR related work regarding their perceptions and opinions on IPR related issues.

## **5.6. RESEARCH ACTIVITIES**

In order to benefit from the experience of various stakeholders and share the developing knowledge on the subject matter with others, the researcher attended a number of academic activities including international seminars organised by the WIPO, the WCO and the UN. The researcher gave a presentation on Turkey's IPR enforcement system in Kazakhstan which was co-organised by the WIPO, the WTO, the UN and Kazakhstan. In addition, the researcher also attended a TAIEX training session in Greece in Athens organised by the EU regarding the IPR system in the EU.

## **5.7. ETHICAL ISSUES AND CONFIDENTIALITY**

This research obeys the rules of standard ethics practices in line with the university's ethical guidelines. Before conducting the survey, a form was completed and submitted to the Department's Ethics and Data Protection Committee and approval was obtained from the Committee that it met the acceptable ethical standards. After receiving the approval a petition was sent by the researcher to the General Directorate of Turkish Police in order to obtain permission to distribute the questionnaire to police officers who deal with IPR issues. The reason for doing this was that permission is required to carry out a questionnaire among the police officers. Otherwise, respondents might have been reluctant to co-operate and would not have completed the questionnaire.

In addition, the purpose of the questionnaire, the reason for conducting the questionnaire and the use of the data collected through the questionnaire were explained. Furthermore, it was made clear in the explanation part of the questionnaire that respondents should not write their names on the questionnaires in order to keep their identities anonymous with the objective of fulfilling the ethical considerations. Moreover, it was stated that the responses would be treated with utmost confidentiality.

## **5.8. ROLE OF THE RESEARCHER**

The General Directorate of Police has a funding system to send police officers overseas for post-graduate studies to specialise in areas which are important concerns for the police departments. Every year a number of police officers are selected through an examination process for post-graduate studies. The researcher of this thesis is a member of the Police and was granted a scholarship for post-graduate study in the UK. Therefore, it should be noted that the researcher of this thesis comes from a practitioner background in conducting this academic research. However, being part of the Police does not imply that influence can be exercised over individual officers to complete the questionnaire. The questionnaire process was entirely left to its own progression. It should however be noted that the General Directorate of Police has a general rule to encourage all the Police units to support the studies and research of members studying abroad. The position of the General Directorate is understandable, as research conducted by individuals such as this researcher directly contributes to the work of police units; therefore, police officers voluntarily contribute to the success of such studies by, for instance, completing the received questionnaires. This has also been useful in the data collection process for this research.

## **5.9. LIMITATIONS AND DIFFICULTIES**

It is not possible or rational to distribute questionnaires across the entire country; therefore only ten cities were selected in order to reduce the cost and time. Otherwise, it would have taken a very long time to conduct the survey. This research also aimed to conduct interviews with people from related governmental IPR enforcement bodies such as the Police, the Judiciary and Customs; however, those interviews were not conducted due to lack of time and not obtaining permission from those authorities of the Police, the Judiciary and Customs.

## **Chapter 6**

# **LOCATING THE GENERAL PROFILE OF THE RESPONDENTS AND THEIR PERCEPTIONS: DESCRIPTIVE EMPIRICAL FINDINGS**

### **6.1. INTRODUCTION**

The preceding chapters provided a discussion on the historical background and developments regarding IP related issues both in the world and in Turkey and the current IP system and legislation in Turkey, while Chapter Five focused on the research framework by discussing the research process. This chapter is the initial empirical analysis chapter, which aims to present a descriptive analysis of the primary data collected for this research through a questionnaire schedule. This chapter, hence, provides a descriptive statistical analysis by presenting a comprehensive description to the reader in terms of assessing the nature and characteristics of the respondents and also of their perceptions.

The descriptive analysis in this chapter is divided into seven parts. The first part explores demographic profile of the sample regarding gender, age, education level, rank, duration of their experiences both in the police service and in IP offices, their satisfaction levels in their work, their opinions about the enforcement system and legislation in Turkey, and IP training sessions. The second part is about the challenges which are faced by the respondents regarding enforcement of IPR and the description of scenes in general where IP crimes are committed. The third part deals with the profiles of IPR criminals in terms of individuality, organised crime and terrorist groups, whereas the fourth part deals with public awareness, and IP education in schools. The fifth part discusses the precautionary measures which aim to minimise IP crimes. In the sixth part, the perceptions of the participants in relation to the EU process regarding IP related issues are studied. The final part presents the general personal opinions of the participants regarding IPR protection in terms of its effect in the development process of a country, foreign direct investment, and the relationship between research and development activities.

## 6.2: DEMOGRAPHIC PROFILE

This part of the study is about the demographic profile of the respondents in terms of their gender, age, education levels, rank, length of experience, both in the police service and in IP offices, their satisfaction levels in their work, their opinions about the enforcement system and legislation in Turkey and IP training sessions.

**Table 6.1: Distribution of the Respondents According to Gender**

		Frequency	Valid Percent
Valid	Male	185	92.5
	Female	15	7.5
	Total	200	100.0
Missing System		1	
Total		201	

As seen in Table 6.1, the majority of the respondents (92.5%) are male and only 7.5% are female. This is also a reflection of the nature of Turkish police force, which is male-dominated despite the fact that a change is taking place.

**Table 6.2: Age Distribution of the Respondents**

		Frequency	Valid Percent
Valid	18-30	32	15.9
	31-40	97	48.3
	41-50	67	33.3
	51-61	5	2.5
	Total	201	100.0
Mean		2.22	

As Table 6.2 depicts, the majority of the respondents come from the 31-40 age group with 48.3% and the 41-50 age group with 33.3. This implies that about 81.6% of the respondents come from the senior groups. This is evident from the mean value (2.22), which indicates the 31-40 age group as the mean age group.

**Table 6.3: Distribution of the Respondents in terms of their City Base**

		Frequency	Valid Percent	Cumulative Percent
Valid	Istanbul	66	32.8	32.8
	Ankara	35	17.4	50.2
	Izmir	23	11.4	61.7
	Adana	15	7.5	69.2
	Bursa	15	7.5	76.6
	Diyarbakir	10	5.0	81.6
	Konya	10	5.0	86.6
	Gaziantep	10	5.0	91.5
	Antalya	8	4.0	95.5
	Samsun	9	4.5	100.0
Total		201	100.0	
Mean		3.54		

The questionnaire includes a question to locate the provinces where the respondents work in the police service in ten cities both with dedicated IPR offices and without dedicated offices from various geographical regions. As seen in Table 6.3, the majority of the respondents (32.8%) work in Istanbul, Ankara (17.4%) and Izmir (11.4%). Therefore, in total the majority of the respondents (61.7%) work in these three major cities with dedicated IPR offices.

**Table 6.4: Distribution of the Respondents According to their Policing Education**

		Frequency	Valid Percent	Cumulative Percent
Valid	Police School	130	65.3	65.3
	PMYO	40	20.1	85.4
	POMEM	18	9.0	94.5
	Police Academy	11	5.5	100.0
	Total	199	100.0	
Missing System		2		
Total		201		
Mean		1.55		

Education levels of the respondents are explored in this section. As can be seen in Table 6.4, the majority of the respondents (65.3%) graduated from Police Schools and Police Vocational High Schools (PMYO) (20.1%). Therefore 85.4% of the respondents graduated with either six-month degrees from Police Schools or two-

year degrees from PMYOs. In addition, 9% of the respondents graduated from Police Vocational Education Centres (POMEM) and 5.5% of the respondents are Police Academy graduates. Students of POMEMs are selected by examination from candidates who have four-year bachelor degrees and then they are educated for six months on policing issues. The students who attain degrees from Police Schools, PMYO's and POMEMs graduate as police constables.

On the other hand, students of the Police Academy (there is only one Police Academy in Ankara, Turkey) are selected by examination from graduates of secondary schools and after four years at the Police Academy are awarded a four-year bachelor degree. The students who attain the Police Academy degree are deployed as deputy chief inspectors and they earn regular promotions after fulfilling the requirements in the Police service. In addition, there are two Police Colleges, similar to grammar schools in Britain, and the graduates of those two Police Colleges are transferred to the Police Academy if they pass the related special examination. The students of the Police Colleges are selected by special examinations after primary school.

**Table 6.5: Distribution of the Respondents in terms of having an Additional Degree Apart from Policing Degree**

		Frequency	Percent
Valid	2 years University Degree	104	51.7
	4 years University Degree	60	29.9
	Master's Degree	5	2.5
	PhD	2	1.0
	Total	171	85.1
Missing System		30	14.9
Total		201	100.0
Mean		1.44	

The results in Table 6.5, explore respondents' additional degrees apart from their policing degrees. As seen in Table 6.5, the majority of the respondents (51.7%) have additional 2-year University Degrees or 4-year University Degrees (29.9%). In addition, 2.5% have master's degrees and 1% PhD degrees. This implies that 85.1% of the respondents have additional degrees to their policing degrees. Consequently, only 14.9% of the respondents do not have an additional degree.



**Table 6.6: Distribution of the Ranks of the Respondents**

		Frequency	Valid Percent
Valid	Police Constable	184	91.5
	Deputy Inspector	4	2.0
	Inspector	5	2.5
	Chief Inspector	2	1.0
	Superintendent or higher	6	3.0
	Total	201	100.0
Mean		1.22	

The results in Table 6.6 depict that the majority of the respondents (91.5%) are police constables. This is derived from the mean value (1.22), which indicates Police Constable as the mean rank group.

**Table 6.7: Seniority (Duration of Service) in Police Service**

		Frequency	Valid Percent
Valid	Less than 2 years	3	1.5
	2-5 years	25	12.4
	6-10 years	23	11.4
	More than 10 years	150	74.6
	Total	201	100.0
Mean		3.59	

As indicated in Table 6.7, the majority of the respondents (74.6%) have been working in the police service for more than 10 years. This suggests that almost 75% of the respondents are highly experienced in terms of policing. Only 1.5% of the sample has been working in police units for less than two years. In other words, 98.5% of the respondents have been working in the police service for more than two years.

**Table 6.8: The Duration of Working in IPR Offices**

		Frequency	Valid Percent
Valid	Less than 2 years	48	24.5
	2-5 years	80	40.8
	6-10 years	50	25.5
	More than 10 years	18	9.2
	Total	196	100.0
Missing System		5	
Total		201	
Mean		2.19	

The study also aims to locate the experience of the participating police officers with the IPR related works in IPR offices. As demonstrated in Table 6.8, the majority of

the respondents (40.8%) have been working in IPR offices for 2-5 years and 25.5% of them for 6-10 years. This demonstrates that 66.3% of the respondents are located in the 2-5 years and 6-10 years of working groups in IPR offices. This is evidenced from the mean value (2.19), which indicates 2-5 years IP experience as the mean duration.

**Table 6.9: Satisfaction Level of the Respondents**

		Frequency	Valid Percent	Cumulative Percent
Valid	Very Satisfied	45	22.6	22.6
	Satisfied	133	66.8	89.4
	Neither Satisfied nor dissatisfied	13	6.5	96.0
	Dissatisfied	8	4.0	100.0
	Total	199	100.0	
Missing System		2		
Total		201		
Mean		1.92		

This question aims to reveal satisfaction levels of the participants regarding their work. As can be seen in Table 6.9, the majority of the respondents, 66.8%, are satisfied and 22.6% of them very satisfied in relation to their work. This implies that 89.4% of the respondents are pleased with their work regarding IPR issues. This is derived from the mean value (1.92), which indicates that satisfied respondents are the mean satisfaction group.

As a result, the profiling of the respondents is presented, and in the following sections real aspects of the study, such as investigating the challenges with regard to IPR enforcement, profiles of IPR criminals, public awareness in relation to IPR, precautionary measures and the European Union process in regard to IPR are explored.

**Table 6.10: Distribution of the Opinions of the Respondents in terms of Police Involvement in IP Crimes**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	34	17.0	17.0
	Agree	89	44.5	61.5
	Neutral	4	2.0	63.5
	Disagree	56	28.0	91.5
	Strongly Disagree	17	8.5	100.0
	Total	200	100.0	
Missing System		1		
Total		201		
Mean		2.67		

This question was asked to determine the views of the respondents in terms of their involvement in IPR protection. We can see from Table 6.10 that the majority of the respondents (61.5%) either strongly agree or agree that IPR crimes should be dealt with by the police force. In other words, 44.5% of the respondents agree and 17% strongly agree with this statement. However, 28% of the respondents disagree and 8.5% strongly disagree implying that 36.5% of the respondents believe that the fight against IPR crimes should not be conducted by the police force.

**Table 6.11: Priority of IPR by the Police**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	19	9.5	9.5
	Agree	68	33.8	43.3
	Neutral	2	1.0	44.3
	Disagree	88	43.8	88.1
	Strongly Disagree	24	11.9	100.0
	Total	201	100.0	
Mean		3.15		

In order to determine the understanding of the respondents, they were asked whether or not the fight against IPR crimes should be a priority for the police alongside other serious crimes. As can be seen in Table 6.11, 43.3% of the respondents strongly agree or agree that the fight against IPR crimes should be carried out by the police. However, 55.7% of the respondents are against IPR crimes being a priority of the police units (Table 6.11).

**Table 6.12: Distribution of the Opinions of the Respondents in terms of whether Guilds or Patent-Trademark Attorneys Should Deal with IP Crimes Rather Than the Police**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	52	26.0	26.0
	Agree	68	34.0	60.0
	Neutral	17	8.5	68.5
	Disagree	55	27.5	96.0
	Strongly Disagree	8	4.0	100.0
	Total	200	100.0	
Missing System		1		
Total		201		
Mean		2.50		

It is also important to identify the most efficient method and institutionalisation in fighting against IP infringements. Therefore the respondents were asked if they believed that related guilds and patent-trademark attorneys should be authorised to become involved more actively with the duty of dealing with the IPR infringements. The results in Table 6.12 demonstrate that 26% the respondents strongly agree and 34% agree with the opinion that ‘guilds or patent-trademark attorneys should deal with the IP Crimes rather than the police’. This indicates that 60% of the respondents believe that IPR violations should be handled by guilds or patent-trademark attorneys. However, 31.5% of the respondents disagree or strongly disagree with this statement.

**Table 6.13: Civil or Criminal Proceedings**

		Frequency	Valid Percent
Valid	Criminal Proceedings	143	73.0
	Civil Proceedings	53	27.0
	Total	196	100.0
Missing System		5	
Total		201	
Mean		1.27	

The respondents were also questioned about their opinions in relation to the nature and type of proceedings they consider better fit in terms of IPR protection. The results in Table 6.13 depict that the majority of the respondents (73%) are of the opinion that criminal proceedings should be carried out in the fight against IPR crimes. However, 27% are in favour of civil proceedings. This implies that almost

three quarters of the respondents, as evidenced from the mean value (1.27), support criminal proceedings against IP crimes.

**Table 6.14: Sufficiency of the Current IPR Legislation**

		Frequency	Valid Percent
Valid	Sufficient	23	11.5
	Insufficient	177	88.5
	Total	200	100.0
Missing System		1	
Total		201	
Mean		1.89	

In regard to the sufficiency of the current IPR legislation, the survey results in Table 6.14 show that 88.5% of the sample believes that the current IPR legislation is insufficient. This shows that almost 9 out of 10 respondents do not consider the present regulations regarding IPR to be sufficient in terms of combating against IPR violations.

**Table 6.15: Adequacy of the Police against IP Crimes**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	47	23.4	23.4
	Agree	92	45.8	69.2
	Neutral	9	4.5	73.6
	Disagree	47	23.4	97.0
	Strongly Disagree	6	3.0	100.0
	Total	201	100.0	
Mean		2.37		

In terms of the adequacy of the Police against IPR crimes, the results in Table 6.15 demonstrate that 23.4% of the sample strongly agrees and 45.8% of the respondents agree that the struggle against IP crimes, which is conducted by the Police, is adequate. This shows that 69.2% of the respondents are satisfied with the adequacy of the fight against IP crimes by the Police.

**Table 6.16: Success of the Police against Intellectual Property Crimes**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	73	36.3	36.3
	Agree	105	52.2	88.6
	Neutral	7	3.5	92.0
	Disagree	15	7.5	99.5
	Strongly Disagree	1	.5	100.0
Total		201	100.0	
Mean		1.84		

The participants were also questioned about the success of the police regarding IP crimes. Table 6.16 demonstrates that the majority of the sample (36.3%) strongly agrees and 52.2% of the respondents agree that the combat conducted by the police against IP infringements is successful. This implies that 88.6% of the respondents believe that the fight carried out by the police in order to protect IPR has been successful up to now.

**Table 6.17: Opinions on the need for Specialised IPR Police**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	89	44.3	44.3
	Agree	89	44.3	88.6
	Disagree	15	7.5	96.0
	Strongly Disagree	8	4.0	100.0
	Total	201	100.0	
Mean		1.83		

The results in Table 6.17 demonstrate that 44.3% of the sample strongly agrees and 44.3% of the respondents agree with the statement that ‘specialised IPR police is necessary in order to achieve more effective outcomes in terms of fighting against IP infringements’. This means that 88.6% of the respondents believe that in order to have an effective enforcement system against IP frauds, specialised IPR officers would be more beneficial.

**Table 6.18: Perceptions on the Knowledge and Experience Level of Other Police Units Concerning the Fight against Intellectual Property Crimes**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	59	29.5	29.5
	Agree	106	53.0	82.5
	Neutral	8	4.0	86.5
	Disagree	23	11.5	98.0
	Strongly Disagree	4	2.0	100.0
	Total	200	100.0	
Missing System		1		
Total		201		
Mean		2.04		

The respondents were questioned about their opinions on the knowledge and experience of other police units regarding IPR related issues. Responses to this question show that 82.5% of the respondents either strongly agree or agree with the opinion that ‘other police units do not have adequate information regarding the struggle against IP crimes’. This implies, hence, that other police units should be given the necessary background in IP related issues in order to enhance the IPR enforcement system.

**Table 6.19: Distribution of Attendance on IPR Training Courses**

		Frequency	Valid Percent
Valid	Yes	92	46.0
	No	108	54.0
	Total	200	100.0
Missing System		1	
Total		201	
Mean		1.54	

A question was also included to measure the in-job training of the respondents in terms of whether they have attended any training courses on IPR issues. Table 6.19 demonstrates that 54% of the sample has not attended a course yet. However, 46% of the sample has attended at least one training session in regard to IPR.

**Table 6.20: Distribution of the Number of Training Sessions**

		Frequency	Percent
Valid	1	46	22.9
	2	25	12.4
	3	6	3.0
	4+	13	6.5
	Total	90	44.8
Missing System		111	55.2
Total		201	100.0
Mean		1.84	

It can be seen in Table 6.20 that 22.9% the respondents have attended only one training session, while 12.4% of the participants have attended two training sessions, 3% have attended three training sessions and 6.5% of the respondents have attended more than four training sessions concerning IP related issues.

**Table 6.21: Satisfaction Rate regarding IPR Training Courses**

		Frequency	Valid Percent	Cumulative Percent
Valid	Very Satisfied	14	16.9	16.9
	Satisfied	56	67.5	84.3
	Neither Satisfied nor dissatisfied	4	4.8	89.2
	Dissatisfied	7	8.4	97.6
	Very Dissatisfied	2	2.4	100.0
	Total	83	100.0	
Missing System		118		
Total		201		
Mean		2.12		

The respondents were questioned about their satisfaction level concerning IP training courses, which hence was answered only by the respondents who have attended training sessions. Table 6.21 demonstrates that 16.9% of the sample is very satisfied and 67.5% of the respondents are satisfied with the IPR training courses. In other words, 84.3% of the respondents consider the training courses to be satisfactory. This is also evidenced from the mean value (2.12), which shows that training sessions held by the police are acknowledged to be satisfactory by the attendees. Only 10.6% of the respondents are either dissatisfied or strongly dissatisfied with the IPR training sessions.



**Table 6.22: Reasons for Dissatisfaction**

		Frequency	Percent
Valid	Training sessions appear to be held simply to fulfil requirements	7	3.5
Missing System		194	96.5
Total		201	100.0
		Frequency	Percent
Valid	In general the content is not adequate	4	2.0
Missing System		197	98.0
Total		201	100.0
		Frequency	Percent
Valid	Obstacles regarding enforcement are not sufficiently explored	9	4.5
Missing System		191	95.5
Total		201	100.0
		Frequency	Percent
Valid	Some of the trainers do not have satisfactory skills and knowledge	4	2.0
Missing System		197	98.0
Total		201	100.0
		Frequency	Percent
Valid	Equipment for training sessions is insufficient	4	2.0
Missing System		197	98.0
Total		201	100.0

The reasons for dissatisfaction with the training courses were also probed. The respondents were told to mark more than one box in order to demonstrate the grounds of their dissatisfaction. It should be noted that this question was answered by only nine respondents who were dissatisfied with IPR training sessions. As the results in Table 6.23 shows, 77.7% of the respondents are dissatisfied believing that ‘training sessions appear to be held simply to fulfil requirements’; 44.4% of the participants think that ‘in general the content is not adequate’; 100% of them stated that the ‘obstacles regarding enforcement are not sufficiently explored’ in the training courses; 44.4% believe ‘some of the trainers do not have satisfactory skills and knowledge’, and 44.4% of them indicate that the ‘equipment for training sessions is insufficient’.

### 6.3: EXPLORING THE CHALLENGES REGARDING IPR ENFORCEMENT

This section of the questionnaire aims to explore the perceptions of the participants regarding the challenges faced by enforcers in relation to the enforcement of IPR.

**Table 6.23: Insufficient Cooperation between the Police and the Right Holders**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	103	52.0	52.0
	Agree	74	37.4	89.4
	Neutral	7	3.5	92.9
	Disagree	11	5.6	98.5
	Strongly Disagree	3	1.5	100.0
	Total	198	100.0	
Missing System		3		
Total		201		
Mean		1.67		

The respondents were asked to reveal their opinions on the level of cooperation between the IP right holders and the police. As seen in Table 6.23., the majority of the sample, 52%, strongly agree and 37.4% of them agree that the cooperation between the police and the rightholders is insufficient. This demonstrates that 89.4% of the sample believes the cooperation is not sufficient. As the findings demonstrate, only 7.1% of the respondents either strongly agree or agree that the current cooperation is sufficient.

**Table 6.24: Anti-Piracy Commissions do not Work Efficiently**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	46	23.5	23.5
	Agree	67	34.2	57.7
	Neutral	31	15.8	73.5
	Disagree	46	23.5	96.9
	Strongly Disagree	6	3.1	100.0
	Total	196	100.0	
Missing System		5		
Total		201		
Mean		2.48		

The efficiency of anti-piracy commissions was also explored, as one of the major stakeholders in the process. As can be seen in Table 6.24, in total 57.7% of the respondents (23.5% strongly agree and 34.25% agree) state that anti-piracy

commissions do not work efficiently. In contrast, 26.6% of the sample (23.5% disagree and 3.1% strongly disagree) agree that anti-piracy commissions work efficiently. In addition, 15.8% of the sample does not have a particular opinion on this issue.

**Table 6.25: Difficulties in the Process of Storing and Destroying Seized Materials**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	97	48.5	48.5
	Agree	65	32.5	81.0
	Neutral	17	8.5	89.5
	Disagree	19	9.5	99.0
	Strongly Disagree	2	1.0	100.0
	Total	200	100.0	
Missing System		1		
Total		201		
Mean		1.82		

As shown in Table 6.25, the majority of the respondents (81%) acknowledge that they have difficulties in the process of storing and destroying confiscated materials. In this regard, 48.5% of the sample strongly agrees and 32.5% of the respondents agree with the statement that they have ‘difficulties in storing and destroying the seized materials’.

**Table 6.26: Inadequate Reward and the Lack of Motivation**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	105	52.8	52.8
	Agree	62	31.2	83.9
	Neutral	14	7.0	91.0
	Disagree	17	8.5	99.5
	Strongly Disagree	1	.5	100.0
	Total	199	100.0	
Missing System		2		
Total		201		
Mean		1.73		

The respondents were also probed for their views on rewards given to IPR-related police officers and the impact of this on their motivation, as part of the problems and shortcomings which are encountered in terms of protection of IPR. In this question, 52.8% of the sample strongly agrees and 31.2% of the respondents agree

with the statement that ‘inadequate reward results in lack of motivation’. Only 9% of the respondents are satisfied with the current rewarding system. Thus, almost 84% of the respondents acknowledge that the current reward system affects their motivation negatively.

**Table 6.27: Shortcomings in the Judicial Process**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	80	40.2	40.2
	Agree	79	39.7	79.9
	Neutral	17	8.5	88.4
	Disagree	23	11.6	100.0
	Total	199	100.0	
Missing System		2		
Total		201		
Mean		1.91		

In terms of the impact of institutionalisation in Turkey in dealing with IPR related crimes, the opinions of the respondents were explored in relation to the shortcomings in the judicial system in terms of effectiveness in dealing with IPR related crimes. The majority of the sample (79.9%) accepts that there are shortcomings in the judicial process; while 11.6% of the respondents disagree.

**Table 6.28: Directors/Chiefs in the Police Force do not Prioritise IP Crimes**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	35	17.7	17.7
	Agree	38	19.2	36.9
	Neutral	18	9.1	46.0
	Disagree	92	46.5	92.4
	Strongly Disagree	15	7.6	100.0
	Total	198	100.0	
Missing System		3		
Total		201		
Mean		3.07		

In search of further meanings on the effectiveness of the fight against IPR crimes, the behaviour of the directors and chiefs was also questioned. The results in Table 6.28 demonstrate that 19.2% of the sample agrees and 17.7% of the respondents strongly agree with the opinion that ‘directors/chiefs in the police force do not prioritise IP crimes’. In other words, this implies that around 54% of the

respondents believe that IPR protection is prioritised by the police authorities. Consequently, the results show that according to the perceptions of the participants, police chiefs and directors give priority to IPR crimes in their works.

**Table 6.29: Police Administration does not Allocate Sufficient Equipment and Personnel**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	54	27.1	27.1
	Agree	89	44.7	71.9
	Neutral	18	9.0	80.9
	Disagree	35	17.6	98.5
	Strongly Disagree	3	1.5	100.0
	Total	199	100.0	
Missing	System	2		
Total		201		
Mean		2.22		

In further questioning the institutional effectiveness, the participants were questioned about their views on the statement as to whether the administration provides the necessary staff and equipment. As depicted in Table 6.29, the majority of the sample (71.9%) believes that the numbers of personnel and equipment are not adequate in the fight against IPR crimes. On the other hand, 19.1% of the respondents think that the numbers of officials and equipment in IPR units are sufficient.

**Table 6.30: Lack of Legislation**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	80	42.6	42.6
	Agree	64	34.0	76.6
	Neutral	20	10.6	87.2
	Disagree	23	12.2	99.5
	Strongly Disagree	1	.5	100.0
	Total	188	100.0	
Missing System		13		
Total		201		
Mean		1.94		

Another issue asked in the questionnaire was about the opinions of the police officers in terms of the effectiveness of the related legislation. As can be seen in Table 6.31, 76.6% of the respondents either strongly agree or agree that the current

IP legislation is insufficient. Only, 12.7% of the sample believes that the existing IP legislation is sufficient.

**Table 6.31: Other Governmental IP Related Bodies do not Support and Cooperate with the Police Sufficiently**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	87	43.5	43.5
	Agree	79	39.5	83.0
	Neutral	16	8.0	91.0
	Disagree	15	7.5	98.5
	Strongly Disagree	3	1.5	100.0
	Total	200	100.0	
Missing System		1		
Total		201		
Mean		1.84		

In searching for institutional and administrative efficiency, the opinions of the participants on cooperation between other governmental IP related bodies were also explored. As can be seen in Table 6.31, 83% of the sample thinks other governmental bodies do not cooperate and support the police sufficiently, while 9% of the respondents believe that the support of related governmental bodies and their cooperation is adequate. Therefore, the results imply that the cooperation and the support among the police and the governmental organisations in relation to IPR should be improved.

#### **6.4: PROFILES OF IPR CRIMINALS**

The following section discusses in detail the profiles of IPR criminals, with the objective of developing a better understanding of IPR-related crimes through the perceptions of the participants. Thus, initially the nature of IP criminals in terms of being individual or organised in committing the crimes was researched. In addition, their progression into more serious organised crime groups and connection with terrorist groups were explored. In addition, IPR infringers' financial connection between IP criminals and organised groups were studied. This section is important in determining whether IPR crimes in Turkey are conducted by organised crime groups or by individual infringers aiming for economic benefits. The answers to these questions will provide the necessary information as how to organise the response to IPR-related crimes.

**Table 6.32: Distribution of IPR Crime Scenes**

		Frequency	Valid Percent	Cumulative Percent
Valid	Open Places	88	44.7	44.7
	Shops	87	44.2	88.8
	Internet	22	11.2	100.0
	Total	197	100.0	
Missing System		4		
Total		201		
Mean		1.66		

The respondents were also asked to reveal their perceptions on where IPR crimes are committed in terms of crime scenes. As seen in Table 6.32, most of the respondents think that IPR crimes are committed either in open places (44.7%) or shops (44.2%). Only, 11.2% of the respondents believe that the internet is more common in terms of infringement of IPR. The results show that around 88.8% of the sample acknowledges that open places and shops are more popular concerning IPR crimes.

**Table 6.33: Distribution of the Profiles of IPR Criminals**

		Frequency	Valid Percent	Cumulative Percent
Valid	Individual infringers	16	8.0	8.0
	Organised infringers	65	32.7	40.7
	Initially individual infringers who later become part of organised infringer groups	105	52.8	93.5
	Corporate infringers	13	6.5	100.0
	Total	199	100.0	
Missing System		2		
Total		201		
Mean		2.58		

The participants were asked to give their opinions on the profile of IPR-related criminals. The results in Table 6.33 indicate that the majority of the sample (85.5%) agrees that IPR crimes are committed either by ‘organised infringers’ or ‘initially individual infringers who later become part of organised infringer groups’. The findings also indicate that 52.8% of the sample thinks that IPR criminals who initially start committing crimes individually later become part of an organised group. In addition, 32.7% of the respondents believe that IPR crimes are violated by organised infringers. Furthermore, 8% of the sample thinks that IPR infringements

are committed by individual infringers, and 6.5% of the respondents believe that IP crimes are violated by corporate infringers.

**Table 6.34: Progression of IPR Criminals into more Serious Organised Crime**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	27	13.5	13.5
	Agree	87	43.5	57.0
	Neutral	36	18.0	75.0
	Disagree	47	23.5	98.5
	Strongly Disagree	3	1.5	100.0
	Total	200	100.0	
Missing System		1		
Total		201		
Mean		2.56		

The likelihood of IPR criminals progressing to more serious organised crime after committing IPR crimes can be considered as an important area of inquiry and therefore, the participants were asked to reveal their opinions on this issue. As can be seen in Table 6.34, 57% of the respondents either strongly agree or agree that there is progression from being an IP criminal to being a more serious organised crime criminal, such as becoming a drug dealer. While 25% of the sample does not consider that IPR criminals move into more serious organised crime; 18% of the respondents remain neutral to the statement. The results show that 57% of respondents believe that criminals from IPR crimes progress to more serious organised crime.

**Table 6.35: IPR Criminals Stop Committing Crimes When They Become Wealthy**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	13	6.5	6.5
	Agree	20	10.0	16.4
	Neutral	8	4.0	20.4
	Disagree	97	48.3	68.7
	Strongly Disagree	63	31.3	100.0
	Total	201	100.0	
Mean		3.88		

According to Table 6.35, most of the respondents (79.6%) think that the infringers of IP frauds do not stop committing crimes when they reach an expected level of money and wealth. Only 16.4% of the sample believes those criminals do not carry



on infringing IPR when they become wealthy. The results demonstrate that even if the criminals become rich it is most likely that they may infringe IPR.

**Table 6.36: Relation between Individual Infringer and Criminal Circles**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	26	12.9	12.9
	Agree	93	46.3	59.2
	Neutral	30	14.9	74.1
	Disagree	47	23.4	97.5
	Strongly Disagree	5	2.5	100.0
	Total	201	100.0	
Mean		2.56		

The participants were also asked about their opinion on the possibility of an individual infringer gaining a high position in criminal circles or being a leader of an organised crime gang in the future. According to the answers displayed in Table 6.37, 59.2% of the sample thinks that an individual infringer has the potential to obtain a high position in criminal circles or to become the leader of an organised crime gang. However, 25.9% of the respondents disagree with this statement and they believe that it is unlikely for those IPR criminals to get high positions in the future in organised crime gangs. The results, hence, demonstrate that it is likely for an individual IP criminal to become part of organised crime gangs.

**Table 6.37: Connection between Infringers of IP Crimes and Terrorist Groups**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	29	14.4	14.4
	Agree	75	37.3	51.7
	Neutral	56	27.9	79.6
	Disagree	37	18.4	98.0
	Strongly Disagree	4	2.0	100.0
	Total	201	100.0	
Mean		2.56		

The respondents were also asked to answer whether there is a connection between infringers of IP crimes and terrorist groups. The results demonstrate that 51.7% of the sample thinks that IPR infringers and terrorist groups are connected. However, 20.4% of the sample does not consider there to be a connection between IP infringers and terrorist groups. In addition, 27.9% of the respondents do not have a particular opinion on this issue.

**Table 6.38: Money Gained from IPR Infringements Channelled into Organised Crimes**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	31	15.4	15.4
	Agree	78	38.8	54.2
	Neutral	57	28.4	82.6
	Disagree	33	16.4	99.0
	Strongly Disagree	2	1.0	100.0
	Total	201	100.0	
Mean		2.49		

In exploring IPR-related crimes, participants' opinions were asked in relation to whether there is money channelling between IP infringers and organised criminals. According to the results in Table 6.38, 54.2% of the respondents acknowledge that the money which is gained by infringing IP is channelled into organised crime groups. However, 28.4% of the sample does not have an opinion on this issue, and 16.4% of the respondents disagree with the opinion that money is channelled between IP criminals and organised groups.

## 6.5: PUBLIC AWARENESS

This part of the study aims to explore, through the opinions of the participants, why people purchase pirated or counterfeit products, and public awareness of IPR issues. The results in this section can help to develop strategies to overcome IPR-related crimes by locating the sources of the problem. In other words, it will help to develop precautionary policies in regard to preventing IP infringements including education as an option.

**Table 6.39: Low Level of Personal Disposable Income**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	106	52.7	52.7
	Agree	83	41.3	94.0
	Neutral	2	1.0	95.0
	Disagree	9	4.5	99.5
	Strongly Disagree	1	.5	100.0
	Total	201	100.0	
Mean		1.59		

The initial question in this section aims to understand the reasons for the demand for pirated or counterfeit materials. As can be seen in Table 6.39, 94% of the respondents think that the general public having low level of personal disposable income is the main reason in terms of purchasing counterfeit and pirated products.

**Table 6.40: Pirated and Counterfeit Products are Cheaper than Originals**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	134	66.7	66.7
	Agree	64	31.8	98.5
	Neutral	1	.5	99.0
	Disagree	1	.5	99.5
	Strongly Disagree	1	.5	100.0
	Total	201	100.0	
Mean		1.36		

According to the results in Table 6.40, almost all of the respondents (98.5%) believe that pirated and counterfeit products are far cheaper than originals, therefore people purchase these products. This result also substantiates the previous result in locating the main source of the demand for such products.

**Table 6.41: Ease of Obtaining Pirated and Counterfeit Products**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	83	41.5	41.5
	Agree	78	39.0	80.5
	Neutral	2	1.0	81.5
	Disagree	35	17.5	99.0
	Strongly Disagree	2	1.0	100.0
	Total	200	100.0	
Missing System		1		
Total		201		
Mean		1.98		

Another reason for purchasing such material is the ease of acquiring those products. As can be seen in Table 6.41, the majority of the respondents (80.5%) believe that the public in Turkey has easy access to pirated and counterfeit products. However, 18.5% of the sample disagrees with this statement.

**Table 6.42: Unawareness of the Illegality of such Products**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	26	13.0	13.0
	Agree	48	24.0	37.0
	Neutral	6	3.0	40.0
	Disagree	102	51.0	91.0
	Strongly Disagree	18	9.0	100.0
	Total	200	100.0	
Missing System		1		
Total		201		
Mean		3.19		

Lack of awareness is also considered to be one of the reasons for the demand for material produced through infringing the IPR. In other words, being unaware of the illegality of pirated and counterfeit materials could also be a reason for the demand. The results in Table 6.42 suggest that 60% (51% disagree and 9% strongly disagree) of the respondents believe that people purchase pirated and counterfeit products intentionally. However, 37% (13% strongly agree and 24% agree) of the respondents think that people are unaware of the illegality of piracy and counterfeiting.

**Table 6.43: Lack of Public Awareness of the Seriousness of the Problem**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	51	25.5	25.5
	Agree	91	45.5	71.0
	Neutral	9	4.5	75.5
	Disagree	44	22.0	97.5
	Strongly Disagree	5	2.5	100.0
	Total	200	100.0	
Missing System		1		
Total		201		
Mean		2.31		

In further probing the sources of IPR-related crimes, participants were asked about their opinion on whether the observed demand is due to ‘the lack of public awareness of the seriousness of the problem is a reason of purchasing those products’. As seen in Table 6.43, the majority of the respondents (71%) think that people are unaware of the seriousness of the problem and therefore they buy pirated and counterfeit materials. However, 24.5% of the sample disagrees with this statement.

After establishing the potential sources of the observed demand for pirated and counterfeit products as the motivation of IPR related crimes, the following part is related to education in terms of increasing public awareness and preventing IPR infringements.

**Table 6.44: Usefulness of IPR Education**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	57	28.5	28.5
	Agree	110	55.0	83.5
	Neutral	9	4.5	88.0
	Disagree	21	10.5	98.5
	Strongly Disagree	3	1.5	100.0
	Total	200	100.0	
Missing System		1		
Total		201		
Mean		2.02		

The respondents were asked to explain the effect of education in terms of enhancing public awareness and eliminating IPR crimes. As can be seen in Table 6.45, 83.5% of the respondents believe that education regarding IPR is useful in increasing public awareness and eradicating IPR crimes. However, 12% of the sample thinks that education will not help to improve public awareness and eradicate IP crimes.

**Table 6.45: Introducing Education regarding IPR in Schools**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	56	34.1	34.1
	Agree	92	56.1	90.2
	Neutral	9	5.5	95.7
	Disagree	6	3.7	99.4
	Strongly Disagree	1	.6	100.0
	Total	164	100.0	
Missing System		37		
Total		201		
Mean		1.80		

Those respondents who have replied strongly agree or agree to the previous statement were also asked about their opinions on the usefulness of starting up IPR education in schools in terms of increasing public awareness and eradicating IP crimes. As can be seen in Table 6.45, 90.2% of the respondents who have replied this question think that to begin IP education in schools is essential and useful.

Only 4.3% of those respondents argue that it is not beneficial to commence IP education in schools.

**Table 6.46: Schooling Level in terms of IPR Education Appropriateness**

		Frequency	Valid Percent
Valid	Primary Schools	89	61.4
	Secondary Schools	49	33.8
	Higher Education	7	4.8
	Total	145	100.0
Missing System		56	
Total		201	
Mean		1.43	

The respondents who have replied strongly agree or agree to the question that is related to commencing education regarding IPR in schools, were further asked to express their opinions on schooling level in terms of IPR awareness. The majority of the respondents who replied to this question (61.4%) think that IPR education should be given in primary schools. The mean value (1.43) implies that primary school is the mean schooling level. In addition, 33.8% of the sample who replied this question supports secondary schools and only 4.8% suggests IP education should be given in higher education.

## **6.6: PRECAUTIONARY STRATEGIES**

This part of the research explores the opinions of the participants on precautionary strategies in minimising IP crimes or preventing IPR frauds, for which a number of such strategies are provided for the respondents. These strategies, which can be considered as precautionary policies, are related to policing-related issues, public awareness, and prices of IP-related products.

**Table 6.47: More Effective Policing**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	33	16.8	16.8
	Agree	90	45.9	62.8
	Neutral	7	3.6	66.3
	Disagree	55	28.1	94.4
	Strongly Disagree	11	5.6	100.0
	Total	196	100.0	
Missing System		5		
Total		201		
Mean		2.60		

As seen in Table 6.47, 62.8% of the respondents either strongly agree (16.8%) or agree (45.9%) that the ‘police should be more effective in order to prevent IP crimes’. However, 28.1% of the respondents disagree and 5.6% of the sample strongly disagrees with the more effective policing precautions in terms of eradicating IP infringements.

**Table 6.48: Deterrent Penalties**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	115	57.2	57.2
	Agree	76	37.8	95.0
	Neutral	2	1.0	96.0
	Disagree	5	2.5	98.5
	Strongly Disagree	3	1.5	100.0
	Total	201	100.0	
Mean		1.53		

The results in Table 6.48 demonstrate that most of the sample is either in the strongly agree group (57.2%) or the agree group (37.8%). This result indicates that 95% of the respondents suggest more deterrent penalties should be put into force.

**Table 6.49: Reducing the Prices of Original Products**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	154	76.6	76.6
	Agree	43	21.4	98.0
	Neutral	4	2.0	100.0
	Total	201	100.0	
Mean		1.25		

According to the results depicted in Table 6.49, no respondents disagree or strongly disagree with reducing the prices of original materials in order to minimise IP

crimes. As seen in Table 6.49, 76.6% of the respondents strongly agree and 21.4% of the sample agrees that ‘prices of the original products should be lowered in terms of fighting against IP infringements’. This implies that 98% of the respondents suggest that reducing the prices of original products would be an option in the fight against IPR crimes. Consequently, the mean value (1.25) demonstrates the strongly agree group as the mean group.

**Table 6.50: Increase of Public Awareness**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	103	52.0	52.0
	Agree	78	39.4	91.4
	Neutral	5	2.5	93.9
	Disagree	11	5.6	99.5
	Strongly Disagree	1	.5	100.0
	Total	198	100.0	
Missing System		3		
Total		201		
Mean		1.63		

As can be seen in Table 6.50, there is a substantial consensus among the respondents with 91.4% regarding the effectiveness of increasing the public awareness in preventing IP crimes. The results demonstrate that 52% of the respondents strongly agree and 39.4% of the sample agrees that the level of public awareness should be increased in the fight against IP violations.

**Table 6.51: Extension of the Reward System to other Police Officers**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	99	50.0	50.0
	Agree	80	40.4	90.4
	Neutral	10	5.1	95.5
	Disagree	8	4.0	99.5
	Strongly Disagree	1	.5	100.0
	Total	198	100.0	
Missing System		3		
Total		201		
Mean		1.65		

The results in Table 6.51 indicate that the majority of the sample (90.4%) supports the extension of the current rewarding system to other police units to motivate them to take part in IPR-related crime prevention. Thus, 50% of the sample strongly



agrees and 40.4% of the respondents agree that the reward system should be extended to other police officers in order to enhance the IPR enforcement system.

**Table 6.52: Improvement of Training of Police Officers**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	81	41.1	41.1
	Agree	83	42.1	83.2
	Neutral	8	4.1	87.3
	Disagree	19	9.6	97.0
	Strongly Disagree	6	3.0	100.0
	Total	197	100.0	
Missing System		4		
Total		201		
Mean		1.91		

The results in Table 6.52 demonstrate that 41.1% of the sample strongly agrees and 42.1% of the respondents agree with the improvement of the training of police officers in order to stop IP crimes. In other words, the majority of the sample (83.2%) suggests that training for police officers should be improved. Only, 12.6% of the respondents do not support the improvement of training for police officers.

**Table 6.53: Providing more Facilities for the Police**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	114	56.7	56.7
	Agree	71	35.3	92.0
	Neutral	6	3.0	95.0
	Disagree	9	4.5	99.5
	Strongly Disagree	1	.5	100.0
	Total	201	100.0	
Mean		1.57		

According to the results in Table 6.53, 56.7% of the respondents strongly agree that more facilities should be provided for the police. In addition, 35.3% of the sample agrees with providing more facilities for the police. This implies that there is a substantial consensus among the respondents with 92% supporting the statement that more facilities should be provided for the police in order to prevent IP crimes.

**Table 6.54: IP Should be Free**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	8	4.1	4.1
	Agree	7	3.6	7.6
	Neutral	9	4.6	12.2
	Disagree	48	24.4	36.5
	Strongly Disagree	125	63.5	100.0
	Total	197	100.0	
Missing System		4		
Total		201		
Mean		4.40		

The participants were also asked about their opinions on IPR itself. As can be seen in Table 6.55, 63.5% of the sample strongly disagrees and 24.4% of the respondents disagree with the statement that ‘nothing should be done and intellectual properties should be free’. This implies that 87.9% (strongly disagree 63.5% and disagree 24.4%) of the sample supports the protection of IPR against infringements. Only, 7.7% (strongly agree 4.1% and agree 3.6%) of the respondents think that nothing should be done and infringement of IP should be free. The results, thus, overwhelmingly acknowledge the recognition of IPR by participants.

**Table 6.55: Establishment of a Single IPR Institution in regard to IPR Issues**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	49	27.4	27.4
	Agree	85	47.5	74.9
	Neutral	11	6.1	81.0
	Disagree	22	12.3	93.3
	Strongly Disagree	12	6.7	100.0
	Total	179	100.0	
Missing System		22		
Total		201		
Mean		2.23		

This study also considered it important to ask the opinions of the participants as to whether or not a single institution which deals with both copyright and industrial property rights would be better than the current IP system. The results in Table 6.55 demonstrate that 47.5% of the respondents agree and 27.4% of the sample strongly agrees that copyright and industrial property right issues should be handled by a single institution in order to have a strong IP protection system. This implies that 74.9% of the sample supports the foundation of a single IP institution.

As a result, the mean values, in terms of priority given to each of the potential precautionary policies in the fight against IPR crimes, are depicted as follows:

Potential Strategies in the fight against IPR crimes	Mean Values
Prices of the original products should be lowered	1.25
Penalties should be more of a deterrent	1.53
More facilities for the police should be provided	1.57
Level of public awareness should be increased	1.63
Reward system should be extended to other police officers	1.65
Training of police officers should be improved	1.91
Establishment of a single IPR institution in regard to IPR issues	2.23
Police should be more effective	2.60
Nothing should be done and intellectual properties should be free	4.40

## 6.7: EUROPEAN UNION PROCESS

In this part of the study, the EU process regarding IP-related issues is explored with the objective of determining the understanding of the respondents about the IP enforcement system in the EU. Their experiences in terms of attending training or reading regarding IPR in the EU and their assessments of the IPR Twinning Project, which was funded by the EU, were researched as the EU accession process is an important motivator for the development of IPR-related legal and regulative environment.

**Table 6.56: Understanding of the IP Enforcement System in the EU**

		Frequency	Valid Percent
Valid	Yes	66	33.2
	No	133	66.8
	Total	199	100.0
Missing System		2	
Total		201	
Mean		1.67	

According to the results in Table 6.56, 66.8% of the respondents do not have an understanding of the IP enforcement system in any of the EU member states, while, 33.2% of the sample has information about IP systems in the EU member states.

**Table 6.57: Visiting EU Member States to Explore the IP Enforcement Systems**

		Frequency	Valid Percent
Valid	Yes	9	4.5
	No	192	95.5
	Total	201	100.0
Mean		1.96	

As can be seen in Table 6.57, most the respondents have not been to any of the EU member states to explore the IP enforcement systems. Only 4.5% of the sample has visited an EU member state in order to observe the IP enforcement methods and organisational structures.

**Table 6.58: Training Courses in Turkey by EU Experts**

		Frequency	Valid Percent
Valid	Yes	57	28.4
	No	144	71.6
	Total	201	100.0
Mean		1.72	

This question was asked to find out whether the respondents have ever attended any training sessions in Turkey at which EU experts provided instruction regarding the IP enforcement system in any of the EU member states. As depicted in Table 6.58, 71.6% of the sample has not attended such trainings; hence, only, 28.4% of the respondents have taken part in these training sessions.

**Table 6.59: Read any Materials about IPR Enforcement in the EU**

		Frequency	Valid Percent
Valid	Yes	49	24.4
	No	152	75.6
	Total	201	100.0
Mean		1.76	

The intellectual background of the respondents regarding the enforcement of IP systems in EU member states was also explored as part of increasing awareness. The results in Table 6.59 demonstrate that 75.6% of the sample has not read any materials (*e.g.* articles, books *etc.*) written about the IP enforcement systems in EU member states. The results demonstrate that only 24.4% of the respondents have read some books or articles regarding the enforcement systems of EU countries.

**Table 6.60: Effect of the EU Twinning Project by the State Security**

**Department**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	27	13.5	13.5
	Agree	84	42.0	55.5
	Neutral	61	30.5	86.0
	Disagree	24	12.0	98.0
	Strongly Disagree	4	2.0	100.0
	Total	200	100.0	
Missing System		1		
Total		201		
Mean		2.47		

Participants' opinions on the effect of the EU Twinning Project that was held by the State Security Department in order to support Turkish Police in the fight against IPR infringements was also explored. The results in Table 6.60 demonstrate that 55.5% of the respondents (13.5% strongly agrees and 42% agrees) acknowledge that the EU Twinning Project has had a significant effect on the fight against IP crimes, while 14% of the sample believes that the project has not had a considerable effect in relation to IP crimes. Nevertheless, there is a notable result in this question, which indicates that 30.5% of the respondents do not have a particular opinion on this question. This implies that most probably they are unaware of the project or they have not participated in the training sessions on the project.

**6.8: EXPLORING THE GENERAL OPINION OF THE PARTICIPATING OFFICERS ON IPR**

This section of the research deals with general personal opinions regarding the protection of IPR in terms of its effect on the process of the development of a country, attracting foreign direct investment, and relationship between research and development activities.

**Table 6.61: Personal Opinion regarding IPR**

		Frequency	Valid Percent
Valid	Intellectual Property should be protected in order to acknowledge and appreciate the intellectual input, labour and skills applied to the works and products by the authors or producers	182	91.9
	Intellectual Property should NOT be protected and should be free for the common good	9	4.5
	I do not have a particular opinion	7	3.5
	Total	198	100.0
Missing System		3	
Total		201	
Mean		1.12	

The results in Table 6.61 demonstrate that most of the respondents (91.9%) believe that IPR should be protected while appreciating the intellectual input, labour and skills applied to the works and products by the authors or producers. In contrast, 4.5% of the respondents are against the protection of IPR and think that IPR should be free for the common good. In addition, 3.5% of the sample does not have a particular opinion about this question.

**Table 6.62: Importance of IPR for the Development of a Country**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	69	34.5	34.5
	Agree	101	50.5	85.0
	Neutral	14	7.0	92.0
	Disagree	15	7.5	99.5
	Strongly Disagree	1	.5	100.0
	Total	200	100.0	
Missing System		1		
Total		201		
Mean		1.89		

According to the results depicted in Table 6.62, 50.5% of the respondents agree and 34.5% the sample strongly agrees that a high level of protection of IPR is important for the development of a country. This implies that 85% of the sample considers that high level IPR protection is required for the advancement of a state. This is substantiated from the mean value of 1.89, which shows the agree group as the mean group.

**Table 6.63: The Role of IPR in Attracting Foreign Direct Investment**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	34	16.9	16.9
	Agree	92	45.8	62.7
	Neutral	24	11.9	74.6
	Disagree	42	20.9	95.5
	Strongly Disagree	9	4.5	100.0
	Total	201	100.0	
Mean		2.50		

The results in Table 6.63 show that 45.8% of the respondents agree and 16.9% of the sample strongly agrees that a high level of IP crimes can be an obstacle in attracting foreign direct investment. In other words, 62.7% of the sample believes that IPR should be protected in order to obtain foreign direct investment.

**Table 6.64: Relationship between IPR, and Research and Development Activities**

		Frequency	Valid Percent	Cumulative Percent
Valid	Strongly Agree	17	8.5	8.5
	Agree	104	52.0	60.5
	Neutral	58	29.0	89.5
	Disagree	21	10.5	100.0
	Total	200	100.0	
Missing System		1		
Total		201		
Mean		2.42		

As can be seen in Table 6.64, 52% of the respondents agree and 8.5% strongly agree that there is a positive relationship between research and development activities and expenditure, and the production of Intellectual Property. This demonstrates that 60.5% of the sample believes that there is a positive relation between research and development studies and IP protection. In addition, 29% of the sample is neutral, which implies they do not have a certain idea on this issue.

## **6.9: SUMMARY**

This chapter have presented a descriptive analysis of the questionnaire through the use of SPSS software.

The results of the analysis in this section can be summarised as follows:

In terms of gender, male police constables are dominant in the IP units; most of the respondents are in the 31-40 age group and most of them work in three major cities, namely Istanbul, Ankara and Izmir; most of the respondents are police school graduates, and have an additional ‘2 years university degree’; they are quite experienced in the police service and in IP units, and satisfied with their work. Furthermore, 61.5% of the respondents believe that IP crimes should be dealt with by the police forces, however, 55.7% of the respondents think that IP crimes should not be one of the priorities of the Police. In addition, 60% of the respondents believe that IPR violations should be overseen by guilds or patent-trademark attorneys in terms of the types of IP crimes. On the other hand, in terms of proceedings, 73% are of the opinion that criminal proceedings should be conducted in the fight against IPR crimes; however, 27% are in favour of civil proceedings.

Regarding IP legislation, as the results show 88.5% of the sample believes that the current IP legislation is insufficient. In addition, 69.2% of the respondents find the level of the fight conducted by the police against IP crimes as adequate and 88.6% of the respondents believe that the fight carried out by the Police in order to protect IPR has been successful up until now. In this regard, 88.6% of the sample indicates specialised IPR police units would provide a more effective enforcement system against IP infringements. Furthermore, most of the respondents state that other police units do not have enough information about the struggle against IP crimes.

This chapter has also discussed the education issue. Almost half of the sample has attended at least one IP training session and most of them were pleased with the training sessions.

Another issue argued in the chapter is the challenges that enforcers encounter when they conduct tasks which are related to IP crimes. In this regard, 54% of the respondents believe that police authorities prioritise IPR protection; however, there



are a number of challenges in combating IP infringements. The challenges encountered by the majority of the respondents are: insufficient cooperation among the police as well as IP-related governmental bodies and the right holders, inefficiency of anti-piracy commissions, difficulties in the procedure of storing and destroying seized products, inadequate reward system, lack of legislation, shortcomings in the judicial process, and locating inadequate personnel and equipment. On the other hand, regarding the scenes of the IP crimes, most of the respondents think that IP infringements are predominantly committed either in open places or shops.

Profiles of the criminals were also studied in this chapter, and the results show that as perceived by the respondents most IP violations are committed by organised crime groups and there is progression by criminals from IP crimes to more serious organised crime. In addition, the majority of the sample thinks that it is likely that an individual infringer has the potential to acquire a high position in criminal circles or to become an organised crime gang leader. More than half of the respondents think that there is a connection between infringers of IP crimes and terrorist groups. Furthermore, the majority of the participants think that IP infringers do not stop committing crimes even if they reach an expected level of money and wealth, and the money which is generated by infringing IP is channelled into organised crime gangs.

The reasons for purchasing pirated and counterfeit products, public awareness regarding IPR and IP education have also been examined. Most of the respondents believe that low level of income prevailing in the country, pirated and counterfeit products being cheap, and easy access to pirated and counterfeit products are the main factors which motivate individuals to demand such goods.

With regard to public awareness, 60% of the respondents believe that people purchase pirated and counterfeit products intentionally and 71% of the sample thinks that people are unaware of the seriousness of the problem. In addition, most of the respondents believe that IPR education would be useful to increase public awareness and stop IP crimes. In terms of education; the majority of the respondents believe that IP education is useful and should be provided in primary schools.

Precautionary strategies regarding the protection of IPR have also been explored in this chapter. The results show that more effective policing, more deterrent penalties, reduction in prices of the original products, extension of the present reward system to other police officers, improvement in the training of police officers, providing more facilities for the police and foundation of a single organisation/institution to protect IP issues are considered as important strategies for the prevention of IP crimes. In addition, 87.9% of the sample personally supports the protection of IPR against infringements.

In terms of the EU process in regard to IPR issues, the majority of the respondents neither have an understanding of the IP enforcement systems nor have read materials written about the IP enforcement systems in EU member states. In addition, only 4.5% of the respondents have visited an EU member state in order to observe the IP enforcement techniques and organisational structures; however, 28.4% of the respondents have attended training sessions in Turkey at which EU experts provided instruction regarding the IP enforcement system in EU member states. Furthermore, more than half of the respondents think that the EU Twinning Project held by the State Security Department to support the Turkish Police has had a significant effect on the protection of IPR.

Lastly, general opinions of the participating police officers on IPR were also studied in this chapter. Most of the respondents (91.9%) state that IPR should be protected while appreciating the intellectual input, labour and skills applied to the works and products by authors or producers. In addition, most of the sample acknowledges that a high level of protection of IPR is important for the development of a country and to attract foreign direct investment. The majority of the respondents also think that there is a positive correlation between research and development facilities, and protection of IPR.

Having provided descriptive statistical analysis in this chapter, the following chapter extends the analysis by employing inferential statistics to examine further particularities of the data.

## **Chapter 7**

# **EXPLORING THE DETERMINANTS OF ATTITUDES TOWARDS IPR PROTECTION AND ENFORCEMENT: INFERENCE STATISTICAL ANALYSIS**

### **7.1. INTRODUCTION**

This second empirical chapter presents a comprehensive analysis on the opinions and perceptions of the respondents through several control variables (i.e. rank, existence of dedicated IPR office or not, policing education, city, and duration of IPR experience) regarding IPR protection and its enforcement. As indicated earlier in the methodology chapter, this inferential analysis chapter employs various statistical techniques for parametric data analysis such as: cross tabulation, independent-samples t-test, one way analysis of variance (ANOVA), two way analysis of variance (ANOVA), factor analysis, and multivariate analysis of variance (MANOVA).

In the first part of this chapter, the enforcement system which should be more effective in the fight against IPR crimes in terms of involvement of the police, specialised IPR police, anti-piracy commissions, establishment of a single organisation to carry out IPR issues, protection of IPR as well as satisfaction level of the respondents are extensively analysed. Secondly, the challenges in the fight against IPR crimes and thirdly precautionary strategies on the protection of IPR are explored. Additionally, profiles of IPR criminals, and the relationship between IPR crimes and organised crime are investigated. Furthermore, participants' perception in relation to the EU process relating to IPR, and also their opinions on research and development activities are explored and analysed. Finally, this chapter is summarised briefly in the summary.

### **7.2. EXPLORING PERCEPTIONS ON THE IPR ENFORCEMENT SYSTEM**

This part of the study aims to extensively analyse the IPR enforcement system in Turkey. Thus, the perceptions of the participating police officers regarding the

methods used in the fight against IPR crimes either by policing or civilian methods, and also their opinions on the nature of enforcement in terms of the nature of legal proceedings are measured.

### **7.2.1. Investigating the Enforcement Method in either Criminal or Civil Proceedings**

In an attempt to find the most preferred type of proceedings in terms of criminal justice in the fight against IPR crimes, participants' perceptions on whether criminal or civil proceedings should be the option and their ranks are cross tabulated. The results of the cross tabulation analysis, which are depicted in Table 7.1, show that 70.6% of police chiefs and 73.2% of police constables support criminal proceedings whereas 29.4% of police chiefs and 26.8% of police constables believe that civil proceedings should be carried out in the fight against IPR crimes. As a result, both police chiefs and constables are in favour of criminal proceedings in the fight against IPR crimes.

**Table 7.1: Cross Tabulating 'Criminal or Civil Proceedings' with 'Rank'**

Criminal or Civil Proceedings		Rank		Total
		Police Constables	Police Chiefs	
Criminal Proceedings	Count	131	12	143
	% within Rank	73.2%	70.6%	73.0%
Civil Proceedings	Count	48	5	53
	% within Rank	26.8%	29.4%	27.0%
Total	Count	179	17	196
	% within Rank	100.0%	100.0%	100.0%

### **7.2.2. Involvement of the Police in the fight against IPR Crimes**

After conducting the cross tabulation analysis above, it is worth exploring whether there are any significant differences in terms of respondents' perceptions regarding the IPR enforcement system between various sub-groups such as rank, existence of dedicated IPR office, city, policing education, and duration of IPR experience. As described in the previous chapter, 61.5% of the respondents believe that protection of IPR should be carried out by the police forces. However, 36.5% of the respondents think that the fight against IPR crimes should not be conducted by the police units. This section investigates further to see the differences between the sub-groups.

For this purpose, an independent-samples t-test was computed to compare the mean values of police constables and police chiefs to reveal whether there is a significant difference between them in relation to IPR enforcement method. As can be seen in Table 7.2., the results suggest that there is no statistically significant difference in terms of rank. This is evidenced from the  $p$ -value of 0.186, which is higher than the critical  $p$ -value of 0.05.

**Table 7.2: Involvement of the Police in the fight against IPR Crimes**

Variable	Sub Group	N	Mean Rank	Asymp. Sig.( $p$ )	Eta squared (effect size)	Post Hoc Test
<b>Question 9: Do you agree that the fight against Intellectual Property Crimes should be carried out by the police?</b>	<b>Rank</b>		<b>T-Test</b>			
	Police Constables	183	2.63	0.186	0.008	
	Police Chiefs	17	3.06			
	<b>IPR Office</b>		<b>T-Test</b>			
	Dedicated IPR Office	164	2.56	0.032	0.031	
	Without Dedicated IPR Office	36	3.14			
	<b>City</b> [ Scheffe <sup>a,b,c</sup> ]		<b>ANOVA</b>	<b>Sig.</b>	<b>(R)Partial Eta Squared</b>	<b>Subset for alpha=0.05</b>
	Ankara	35	Sum of Squares:  Between Groups: 27.964  Within Groups: 298.591  Total:326.555	0.044	0.86	<b>1</b>
	Diyarbakir	10				2.29
	Gaziantep	10				2.30
	Istanbul	66				2.50
	Bursa	15				2.50
	Adana	15				2.53
	Izmir	23				2.87
	Samsun	9				3.09
	Antalya	8				3.22
	Konya	9				3.25
						3.67
	<b>Policing Education</b> [Scheffe <sup>a,b</sup> ]		<b>ANOVA</b>			<b>Subset for alpha=0.05</b>
	Police School	129	Sum of Squares: Between Groups: 8.574 Within Groups: 315.754 Total: 324.328	0.157	0.026	<b>1</b>
	PMYO	40				2.52
	Police Academy	11				2.83
	POMEM	18				3.00
			3.11			
	<b>Duration in IP related Works</b> [Scheffe <sup>a,b</sup> ]		<b>ANOVA</b>			<b>Subset for alpha=0.05</b>
	More than 10 years	18	Sum of Squares: Between Groups: 1.624 Within Groups: 316.663 Total: 318.287	0.806	0.005	<b>1</b>
	Less than 2 years	47				2.44
6-10 years	50	2.64				
2- 5 years	80	2.68				
		2.76				

The results revealed from the independent-samples t-test show that there is a significant difference between the respondents from cities with dedicated IPR offices and those from cities without dedicated IPR Offices. As can be seen in Table 7.2, at 95% confidence level,  $p$ -value of 0.032 is smaller than the critical  $p$ -value of 0.05. The results indicate that the respondents from cities with dedicated IPR offices support police involvement in the fight against IP crimes more than the respondents from cities without dedicated IPR offices.

In addition, three separate one way ANOVA tests were carried out to explore whether there are differences between the cities, policing education and duration of IPR experience. According to the results, which are depicted in Table 7.2, there is no significant result for policing education and duration of IPR experience; however, there is a statistically significant mean difference at 95% confidence level between the cities. This is proved from the  $p$ -value of 0.044 which is lower than the critical  $p$ -value of 0.05.

Additionally, post hoc comparisons using the Scheffe test were conducted; the Scheffe test was selected since it is the most cautious technique for reducing the risk of Type 1 error (Howell, 1995; Pallant, 2007). In this regard, if the null hypothesis is true but it is rejected it is referred to as a Type 1 error; whereas a null hypothesis is accepted when it is false and is referred to as a Type 2 error (Kinnear and Gray, 2008; Pallant, 2007; Tabachnick and Fidell, 2007).

The results indicate that the mean values gradually increase from the cities with dedicated IPR offices to the cities without dedicated IPR offices. As a result, the respondents from cities with dedicated IPR offices support police participation in the fight against IPR infringements more than the others mainly because they face more IP infringements. However, the city of Gaziantep is an exception as it seems to be an outlier case, as there is no dedicated IPR office in Gaziantep; however, the results show that respondents from Gaziantep support police involvement in the protection of IPR which is evidenced from the mean value of 2.50.

### **7.2.3. Locating the Attitudes of the Specialised IPR Police**

After analysing the police involvement in the fight against IPR crimes, this section looks into whether or not specialised police units would be preferable in order to

achieve more effective outcomes. As stated in the previous chapter, 88.6% of the respondents think that specialised IPR police officers would provide a more effective enforcement system against IP crimes. For further analysis, two separate independent t-tests were conducted to compare the mean values of police constables and police chiefs, and respondents from places with dedicated IPR offices and those from places without dedicated IPR offices.

The results, which are depicted in Table 7.3, show that there is no significant difference in terms of rank; however, there is a significant difference between the respondents from cities with dedicated IPR offices and the police officers from cities without dedicated IPR offices since the  $p$ -value (0.006) is significantly lower than the critical  $p$ -value of 0.05. In this regard, police officers in cities with dedicated IPR offices believe that the fight against IP crimes should be carried out by specialised IPR police units in order to achieve more effective outcomes. The reason behind this is that the police officers in cities with dedicated IPR offices are more experienced than the respondents from cities without dedicated IPR offices in terms of encountering various IPR infringements. Additionally, the police officers in cities with dedicated IPR offices are more aware of the seriousness of the problem, and they think special units can cope with IP crimes better than ordinary units.

Beyond these analyses three separate one way ANOVA tests were carried out with the objective of locating the impact of the control variables on the answers given for this section. The results in Table 7.3 indicate that there is no statistically significant result at 95% confidence level since the  $p$ -values of policing education (0.787) and the duration of IPR related works (0.436) are higher than the critical  $p$ -value of 0.05. The results of the post hoc test regarding the impact of cities suggest that there is a significant difference since the  $p$ -value (0.012) is lower than the critical  $p$ -value of 0.05. As can be seen in Table 7.3, respondents from cities with dedicated IPR offices believe that specialised IP units would be more beneficial in the fight against IP crimes which is evidenced from the mean values of the first six cities with dedicated IPR offices ranging from 1.53 to 1.80. On the other hand, the mean values of the perceptions of the respondents from the cities without dedicated IPR offices ranging from 1.90 to 2.90 are higher than the mean values of cities with

dedicated IPR offices which indicate that their degree of support in terms of having specialised IPR units in the fight against IPR crimes is comparatively less than the respondents from cities with dedicated IPR offices.

**Table 7.3: Specialised IPR Police in order to achieve more Effective Outcomes**

Variable	Sub Group	N	Mean Rank	Asymp. Sig.(p)	Eta squared (effect size)	Post Hoc Test
<b>Question 16: Would you agree that the fight against Intellectual Property Crimes should be carried out by the Specialised Intellectual Property Rights Police in order to achieve more effective outcomes?</b>	<b>Rank</b>		<b>T-Test</b>			
	Police Constables	184	1.85	0.219	0.008	
	Police Chiefs	17	1.53			
	<b>IPR Office</b>		<b>T-Test</b>			
	Dedicated IPR Office	164	1.70	0.006	0.071	
	Without Dedicated IPR Office	37	2.41			
	<b>City [Scheffe<sup>a,b</sup>]</b>		<b>ANOVA</b>	<b>Sig.</b>	<b>(R)Partial Eta Squared</b>	<b>Subset for alpha=0.05</b>
	Bursa	15	<b>Sum of Squares:</b>  Between Groups: 22.150  Within Groups: 192.755  Total: 214.905	0.012	0.103	<b>1</b>
	Ankara	35				1.53
	Adana	15				1.60
	Izmir	23				1.60
	Istanbul	66				1.70
	Diyarbakir	10				1.79
	Gaziantep	10				1.80
	Antalya	8				1.90
	Samsun	9				2.25
	Konya	10				2.56
						2.90
	<b>Policing Education [Scheffe<sup>a,b</sup>]</b>		<b>ANOVA</b>			<b>Subset for alpha=0.05</b>
						<b>1</b>
	PMYO	40	<b>Sum of Squares:</b>  Between Groups: 1.132 Within Groups: 208.356 Total: 209.487	0.787	0.005	1.78
	Police School	130				1.80
	Police Academy	11				1.82
	POMEM	18				2.06
	<b>Duration in IP related Works [Scheffe<sup>a,b</sup>]</b>		<b>ANOVA</b>			<b>Subset for alpha=0.05</b>
						<b>1</b>
2- 5 years	80	<b>Sum of Squares:</b>  Between Groups: 2.941 Within Groups: 206.447 Total: 209.388	0.436	0.014	1.71	
6-10 years	50				1.78	
More than 10 years	18				1.83	
Less than 2 years	48				2.02	

#### 7.2.4. Searching for Perceptions on Efficiency of Anti-Piracy Commissions

After analysing the involvement of the police in the combat against IPR crimes and the specialised IPR police issue, anti-piracy commissions which are authorised to fight against IP frauds were researched. As indicated in Chapter Six, 57.7% of the



respondents state that anti-piracy commissions do not work efficiently; however, 26.6% of the sample thinks that anti-piracy commissions work efficiently.

Accordingly, further analysis was conducted to find out the differences between sub-groups. The results of the independent-samples t-test indicate that at 95% confidence level there is no significant difference between police constables and police chiefs in terms of their perception of the efficiency of anti-piracy commissions, since the  $p$ -value of 0.117 is quite higher than 0.05. This can be seen from the mean values of police constables (2.52) and police chiefs (2.06) which are depicted in Table 7.4.

Secondly, in terms of significance of the existence of dedicated IPR office, the results of the independent-samples t-test suggest that there is no statistically significant difference between the respondents from places with dedicated IPR offices (mean=2.55) and those from the places without dedicated IPR offices (mean=2.22). This can be seen from the  $p$ -value of 0.123, which is significantly higher than 0.05.

Thirdly, a one way ANOVA test was employed in order to see if there is any significant difference among the cities in terms of the respondents' perceptions in regard to the efficiency of anti-piracy commissions. Table 7.4 shows that, at 95% confidence level the  $p$ -value for city 0.000 is significantly lower than the critical  $p$ -value of 0.05, implying that city as the control variable is statistically significant in explaining the variations in the answers given. Respondents from Diyarbakir (mean=1.80) and Gaziantep (mean=1.80) are of the opinion that anti-piracy commissions do not work effectively, whereas, respondents from Bursa seems to be the most satisfied in terms of the efficiency of anti-piracy commissions with the mean value of 3.79. Furthermore, the post hoc test classifies the cities depending on their mean values. The remaining seven cities; Konya (mean= 2.10), Samsun (mean= 2.22), Izmir (mean= 2.33), Istanbul (mean= 2.38), Adana (mean= 2.64), Ankara (mean= 2.68) and Antalya (mean= 2.88) have very close mean values. As a result, according to the post hoc results, respondents from Diyarbakir and Gaziantep are not satisfied with the efficiency of the anti-piracy commissions. Bursa seems to be the most satisfied city regarding the efficiency of the anti-piracy commissions.

In addition, in terms of the duration of IPR experience or the seniority of the respondents, the result of the one way ANOVA test shows that there is a statistically significant difference regarding the duration of the IPR-related works. This is evidenced from the  $p$ -value of 0.002, which is significantly lower than the critical  $p$ -value of 0.05. Respondents from the less than two years group (mean=3.02) differ from respondents from the 6-10 years group (mean=2.16) and the more than 10 years group (mean=2.17). Additionally, respondents from the 2-5 years group do not differ from other groups. Consequently, the results of the post hoc test indicate that the point of view of police officers with more than five years experience regarding the efficiency of the anti-piracy commissions is more negative than that of those with less than two years experience. This difference can be explained by the fact that senior police officers have more information and experience related to IPR, as up to two years of working experience in IPR is not enough to make a comprehensive evaluation. Therefore, it could be argued that senior respondents with more experience can observe and evaluate the anti-piracy commissions properly compared to those respondents who do not have enough experience and knowledge regarding IPR crimes.

Additionally, there is no significant difference in terms of policing education since the  $p$ -value of 0.275 is higher than the critical  $p$ -value of 0.05. Nevertheless, according to the post hoc test results, it can be stated that police academy graduates (mean=1.82) are the least satisfied group with the efficiency of anti-piracy commissions; however, mean values of PMYO, Police School and POMEM are very close to each other with mean values of 2.27, 2.50 and 2.55 respectively.

**Table 7.4: Exploring the Efficiency of Anti-Piracy Commissions**

Variable	Sub Group	N	Mean Rank	Asymp. Sig.(p)	Eta squared (effect size)	Post Hoc Test	
<b>Question 22/2: Would you agree that anti-piracy commissions do not work efficiently?</b>	<b>Rank</b>		<b>T-Test</b>				
	Police Constables	180	2.52	0.117	0.012		
	Police Chiefs	16	2.06				
	<b>IPR Office</b>		<b>T-Test</b>				
	Dedicated IPR Office	159	2.55	0.123	0.012		
	Without Dedicated IPR Office	37	2.22				
	<b>City [Scheffe<sup>a,b,c</sup>]</b>		<b>ANOVA</b>	<b>Sig.</b>	<b>(R)Partial Eta Squared</b>	<b>Subset for alpha=0.05</b>	
	Diyarbakir	10	<b>Sum of Squares:</b> Between Groups: 39.214 Within Groups: 229.740 Total: 268.954	0.000	0.146	<b>1</b>	<b>2</b>
	Gaziantep	10				1.80	
	Konya	10				2.10	2.10
	Samsun	9				2.22	2.22
	Izmir	21				2.33	2.33
	Istanbul	66				2.38	2.38
	Adana	14				2.64	2.64
	Ankara	34				2.68	2.68
	Antalya	8				2.88	2.88
	Bursa	14					3.79
	<b>Policing Education [Scheffe<sup>a,b,c</sup>]</b>		<b>ANOVA</b>			<b>Subset for alpha=0.05</b>	
						<b>1</b>	
	Police Academy	11	<b>Sum of Squares:</b> Between Groups: 5.389 Within Groups: 263.329 Total: 268.718	0.275	0.020	1.82	
	PMYO	38				2.47	
	POMEM	18				2.50	
	Police School	128				2.55	
<b>Duration in IP related Works [Scheffe<sup>a,b,c</sup>]</b>		<b>ANOVA</b>			<b>Subset for alpha=0.05</b>		
					<b>1</b>	<b>2</b>	
6-10 years	49	<b>Sum of Squares:</b> Between Groups: 20.656 Within Groups: 245.030 Total: 265.686	0.002	0.078	2.16		
More than 10 years	18				2.17		
2- 5 years	77				2.43	2.43	
Less than 2 years	47					3.02	

A further analysis was carried out to reveal the respondents' points of view regarding the enforcement method of the IPR system. In this regard, 'guilds or patent-trademark attorneys should deal with the IP crimes rather than the police' was cross-tabulated with the statement that 'anti-piracy commissions do not work efficiently'. The results show that the majority of the respondents are not satisfied with the anti-piracy commissions and they are in favour of the more active involvement of guilds or patent-trademark attorneys in the protection of IP crimes rather than the police. As the results in Table 7.5 depict, the 59.6% (28.8% + 30.8%)

of participants who strongly agree with non-police involvement are also of the view that anti-piracy commissions are not efficient. In addition, the 58.5% (23.1% + 35.4%) who agree that guilds or patent-trademark attorneys should deal with the IP crimes are also of the opinion that anti-piracy commissions do not work efficiently. It is also interesting to see that those who are in favour of police involvement are also of the opinion that anti-piracy commissions do not work efficiently and strongly agree or agree. Thus, the results indicate a particular pattern, regardless of whether they support police involvement or not, and hence participants are of the view that anti-piracy commissions do not work efficiently.

**Table 7.5: Cross Tabulating ‘Not Police but Guilds’ with ‘the Efficiency of Anti-piracy Commissions’**

			Anti-piracy commissions do not work efficiently					Total
			Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	
<b>Guilds or Patent-Trademark attorneys should deal with the IP Crimes rather than the Police</b>	Strongly Agree	Count	15	16	5	13	3	52
		% within Row	28.8%	30.8%	9.6%	25.0%	5.8%	100.0%
		% within Column	32.6%	24.2%	16.1%	28.3%	50.0%	26.7%
	Agree	Count	15	23	10	16	1	65
		% within Row	23.1%	35.4%	15.4%	24.6%	1.5%	100.0%
		% within Column	32.6%	34.8%	32.3%	34.8%	16.7%	33.3%
	Neutral	Count	4	2	7	3	1	17
		% within Row	23.5%	11.8%	41.2%	17.6%	5.9%	100.0%
		% within Column	8.7%	3.0%	22.6%	6.5%	16.7%	8.7%
	Disagree	Count	8	23	7	14	1	53
		% within Row	15.1%	43.4%	13.2%	26.4%	1.9%	100.0%
		% within Column	17.4%	34.8%	22.6%	30.4%	16.7%	27.2%
	Strongly Disagree	Count	4	2	2	0	0	8
		% within Row	50.0%	25.0%	25.0%	.0%	.0%	100.0%
		% within Column	8.7%	3.0%	6.5%	.0%	.0%	4.1%
Total		Count	46	66	31	46	6	195
		% within Row	23.6%	33.8%	15.9%	23.6%	3.1%	100.0%
		% within Column	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

### 7.2.5. Searching for Perceptions in regard to Establishment of a Single Organisation in order to have a strong IPR System

In the current IPR system, copyright issues are considered within the jurisdiction of the Ministry of Culture and Tourism whereas industrial property rights are dealt with by the Turkish Patent Institute, which is a public sector body. Therefore, a two way ANOVA between groups was carried out in order to investigate the impact of IPR experience and rank on the establishment of a single organisation in the fight against IPR crimes. The IPR experience group is split into two sub-groups according to their experience as 0-5 years and more than 5 years. The results, which are presented in Table 7.6, show that the effect of duration of IPR experience or seniority in IPR, interaction effect of IPR experience and rank are not statistically significant.

**Table 7.6: Tests of Between-Subjects Effects**

Dependent Variable: Single Organisation/Institution for IPR system						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	2.281 <sup>a</sup>	3	.760	.544	.653	.009
Intercept	194.480	1	194.480	139.081	.000	.449
Duration of IPR Experience	.666	1	.666	.476	.491	.003
Rank	1.184	1	1.184	.847	.359	.005
Duration of IPR Experience * Rank	.080	1	.080	.057	.812	.000
Error	239.113	171	1.398			
Total	1115.000	175				
Corrected Total	241.394	174				

a. R Squared = .009

As can be seen in Table 7.7, the mean values demonstrate that support from police chiefs is more than from police constables regarding the establishment of a single organisation since the mean values of police chiefs (2.08 and 1.75) are lower than the mean values of police constables (2.32 and 2.16) in 0-5 years sub-group and more than 5 years sub-groups respectively.

**Table 7.7: Descriptive Statistics on the Perceptions on Opting for Single Organisation/Institution for IPR System**

Dependent Variable: Single Organisation/institution for IPR system				
Duration in IPR Experience	Rank	Mean	Std. Deviation	N
0-5 years	Police Constables	2.32	1.140	101
	Police Chiefs	2.08	1.038	13
	Total	2.29	1.127	114
More than 5 years	Police Constables	2.16	1.306	57
	Police Chiefs	1.75	.500	4
	Total	2.13	1.271	61
Total	Police Constables	2.26	1.201	158
	Police Chiefs	2.00	.935	17
	Total	2.23	1.178	175

### 7.2.6. Gauging the Attendance of IPR Trainings

This part of the chapter investigates whether or not the respondents have ever attended IPR in-service training sessions. In order to explore the proportion of police chiefs and police constables ‘attendance of IPR in-service training’ and ‘rank’ are cross tabulated. As can be seen in Table 7.8, 76.5% of police chiefs and 43.2% of police constables have attended in-service training in relation to IPR.

**Table 7.8: Cross Tabulating ‘Rank’ with ‘Attendance of IPR In-service Training’**

Rank		Yes	No	Total
Police Constables	Count	79	104	183
	% within Row	43.2%	56.8%	100.0%
	% within Column	85.9%	96.3%	91.5%
Police Chiefs	Count	13	4	17
	% within Row	76.5%	23.5%	100.0%
	% within Column	14.1%	3.7%	8.5%
Total	Count	92	108	200
	% within Row	46.0%	54.0%	100.0%
	% within Column	100.0%	100.0%	100.0%

### 7.2.7. Aspects of the Perceptions on IPR being Free

This study also attempts to disclose the perception of the respondents on the protection of IPR. In this sense, an independent-sample t-test was employed to explore whether there is a significant difference between the respondents from cities with dedicated IPR offices and those from cities without dedicated IPR offices considering IPR being free for the common good. The results, which are

presented in Table 7.9, indicate that there is a statistically-significant difference between the respondents from cities with dedicated IPR offices and those from cities without dedicated IPR offices in the evaluation of the protection of IPR which is evidenced from the sig. value of  $0.03 < 0.05$ . In addition, the mean value of respondents from the cities with dedicated IPR offices (4.47) is higher than the mean value of the respondents from the cities without IPR offices (4.06) who believe that nothing should be done and IPR should be free. As a result, the respondents from cities with dedicated IPR offices are more in favour of the protection of IPR as their mean value is higher than the respondents from cities without dedicated IPR offices.

**Table 7.9: Independent-Samples T-Test on IPR being Free**

Group Statistics										
	IPR Office	N	Mean	Std. Deviation	Std. Error Mean					
Nothing should be done and intellectual properties should be free	Dedicated IPR Offices	162	4.47	.947	.074					
	Without Dedicated IPR Offices	35	4.06	1.259	.213					
Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Nothing should be done and intellectual properties should be free	Equal variances assumed	2.771	.098	2.192	195	.030	.412	.188	.041	.783
	Equal variances not assumed			1.828	42.684	.075	.412	.225	-.043	.867

### 7.2.8. Satisfaction Level of Respondents with their IPR Enforcement Role

Results for satisfaction level were given in Chapter Six as 89.4% of the respondents are satisfied with their work. A further analysis was conducted to determine whether there are any significant differences between sub-groups. For this purpose, independent-samples t-tests and one way ANOVA tests were computed. The results show that there is a statistically significant difference in rank sub-group, however in other sub-groups the results suggest otherwise.

The result obtained from the independent-samples t-test demonstrates that there is a statistically significant difference between police constables and police chiefs in terms of their satisfaction levels. According to the results which are depicted in Table 7.10, at 95% confidence level,  $p$ -value for satisfaction level (0.015) is considerably lower than the critical  $p$ -value of 0.05. Consequently, interpreting the mean values suggests that police constables are more satisfied than police chiefs with their work as IPR enforcers.

Furthermore, differences between the respondents from cities with dedicated IPR offices and those from cities without dedicated IPR offices regarding the level of satisfaction are investigated. The result of the independent-samples t-test in Table 7.10 reveals that there is no significant difference between the respondents from cities with dedicated IPR offices and those from cities without dedicated IPR offices in terms of their satisfaction level with their work. This is evidenced from the  $p$ -value of 0.995 which is higher than the critical level of 0.05.

A further analysis was employed to test whether the city where the respondents are based is a significant factor in explaining the variation. For this purpose, a one way ANOVA test was carried out; however, the results indicate that there is no statistically-significant difference between the perceptions of the respondents from those cities. This is evidenced from the  $p$ -value of 0.073 which is higher than the critical  $p$ -value of 0.05. Nevertheless, according to the post hoc results the most and the least satisfied respondents are from cities without dedicated IPR office category. Gaziantep is the most satisfied city and Konya is the least satisfied with the mean values of 1.50 and 2.50 respectively.

Furthermore, a one way ANOVA test was carried out to establish whether there is any significant difference between policing education levels. The results suggest that there is no significant difference in terms of policing education on the satisfaction level of the respondents with their work.

In addition, although the  $p$ -value regarding the experience of dealing with IPR issues is not significant, post-hoc results indicate that police officers who have been working in IPR-related offices for less than six years are less satisfied than the respondents who have been working in IPR-related offices for more than six years.



This can be explained by the fact that junior police officers seek more attractive units such as intelligence, organised crime and other more active departments, and they are not quite familiar enough with their work and units. However, more experienced respondents think that it is good to work in state security divisions since they also know other units from experience.

**Table 7.10: Exploring the Satisfaction Level of Respondents with Their Work**

Variable	Sub Group	N	Mean Rank	Asymp. Sig.(p)	Eta Squared (effect size)	Post Hoc Test			
<b>Question 8: Overall, how satisfied are you with your current work?</b>	<b>Rank</b>		<b>T-Test</b>						
	Police Constables	182	1.88	0.015	0.03				
	Police Chiefs	17	2.29						
	<b>IPR Office</b>		<b>T-Test</b>						
	Dedicated IPR Office	162	1.92	0.995	2.48				
	Without Dedicated IPR Office	37	1.92						
	<b>City</b> [Scheffe <sup>a,b</sup> ]		<b>ANOVA</b>	<b>Sig.</b>	<b>(R) Partial Eta Squared</b>	<b>Subset for alpha=0.05</b>			
	Gaziantep	10	<b>Sum of Squares:</b>  Between Groups: 6.964  Within Groups: 81.750  Total: 88.714	0.073	0.78	<b>1</b>			
	Samsun	9				1.50			
	Bursa	15				1.78			
	Ankara	35				1.80			
	Istanbul	64				1.86			
	Antalya	8				1.88			
	Izmir	23				2.00			
	Diyarbakir	10				2.10			
	Adana	15				2.13			
	Konya	10				2.50			
	<b>Policing Education</b> [Scheffe <sup>a,b</sup> ]					<b>ANOVA</b>			<b>Subset for alpha=0.05</b>
	PMYO	40				<b>Sum of Squares:</b>  Between Groups: 1.828 Within Groups: 87.411 Total: 88.701	0.418	0.015	<b>1</b>
	POMEM	18	1.83						
	Police School	128	1.83						
	Police Academy	11	1.94						
			2.18						
	<b>Duration in IP related Works</b> [Scheffe <sup>a,b</sup> ]		<b>ANOVA</b>			<b>Subset for alpha=0.05</b>			
	More than 10 years	18	<b>Sum of Squares:</b>  Between Groups: 0.801 Within Groups: 85.332 Total:86.133	0.617	0.009	<b>1</b>			
	6-10 years	50				1.83			
	Less than 2 years	48				1.86			
	2- 5 years	79				1.94			
					2.00				

### **7.3. MEASURING THE PERCEPTIONS OF THE RESPONDENTS REGARDING THE CHALLENGES IN THE IPR ENFORCEMENT SYSTEM**

In this part of the study, the challenges which are faced while combating IPR crimes are studied. There are several challenges that may influence the IPR enforcement system. The fundamental challenges are discussed through the perceptions on the given statements related to the challenges faced. Factor analysis testing was used in order to reduce the variables to a number of more manageable factors. After taking into consideration the purposes of this study nine variables, which were derived from the literature, were specified.

As discussed in the methodology chapter, factor analysis is the most suitable method for refining and reducing several connected variables to a more manageable number before conducting analyses for instance multivariate analysis of variance (MANOVA) or multiple regression (Field, 2005; Pallant, 2007; Tabachnick and Fidell, 2007).

There are two statistical tests namely Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's Test of Sphericity in the SPSS which can be used in order to test the factorability of the data. Pallant (2007) argues that for the KMO test the minimum suggested value must be at least 0.6 (ranging from 0 to 1) while the Bartlett's Test of Sphericity value should be lower than 0.05 for the factor analysis to be measured accurately.

In order to verify whether the data set is suitable for factor analysis, Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's Test of Sphericity tests are conducted and the results are depicted in Table 7.11. The results show that the KMO value of 0.829 is higher than the recommended value of 0.6, and Bartlett's Test of Sphericity is significant ( $0.000 < 0.05$ ). These two tests are guidelines that should be met before a factor analysis is carried out. The results of these two tests show that factor analysis is appropriate for this example.

**Table 7.11: KMO and Bartlett's Test Results for Nine Variables**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.829
Bartlett's Test of Sphericity	Approx. Chi-Square	361.336
	Df	36
	Sig.	.000

Additionally, principal component analysis (PCA) method is employed to extract the number of fundamental factors as it is one of the most commonly used extraction technique. Pallant (2007) states that Kaiser's criterion, scree test, and parallel analysis (in general parallel analysis is used in education and psychological studies) methods can be used while deciding which factors should be retained. In this study, Kaiser's criterion and scree test are used. Kaiser's criterion which is also known as eigenvalue rule is a commonly used method. Factors which have eigenvalue of 1.0 or higher are kept for additional research. The eigenvalue of a factor embodies the total variance illustrated by that factor. As an additional technique to select which factors to retain, Catell's scree test which has the eigenvalue of each factor in a plotted graph can be used (Pallant, 2007). Catell (1966 cited in Pallant, 2007:182) suggests "retaining all factors above the elbow, or break in the plot, as these factors contribute the most to the explanation of the variance in the data".

After determining the factors, the next step in facilitating the interpretation selection of rotation method is important. Orthogonal (uncorrelated) and oblique (correlated) approaches are the two main techniques of rotation (Pallant, 2007). Results of the orthogonal rotation are easier to interpret, describe and report. Nevertheless, it is assumed that the underlying processes are nearly independent; in other words not correlated. On the other hand, the oblique approach allows the researcher to assume that the factors are correlated; however, the results are more difficult to interpret, describe and report (Costello and Osborne, 2005; Tabachnick and Fidell, 2007)

There are various rotational approaches in SPSS within both orthogonal and oblique categories. Varimax, Quartimax, and Equamax are typically orthogonal approaches of rotation whereas Direct Oblimin, Quartimin, and Promax are oblique methods. Varimax is the most commonly used orthogonal technique to reduce the number of variables whereas Direct Oblimin Technique is generally used for the oblique

method. In this research, Varimax rotation technique is used and the results are presented in Table 7.12.

In order to determine the number of factors, Kaiser’s criterion and scree plot methods are used in this study. The output of Kaiser’s criterion is presented in Table 7.11. In addition, in order to see how many factors meet this criterion it is necessary to investigate the table of Total Variances Explained. The results, which are depicted in Table 7.12, indicate that only two components’ eigenvalues are above 1(3.375 and 1.221). These two components, as can be seen, explain a total of 51% of the variance, as the first component explains 30.81% while the second component explains 20.26% of the variation.

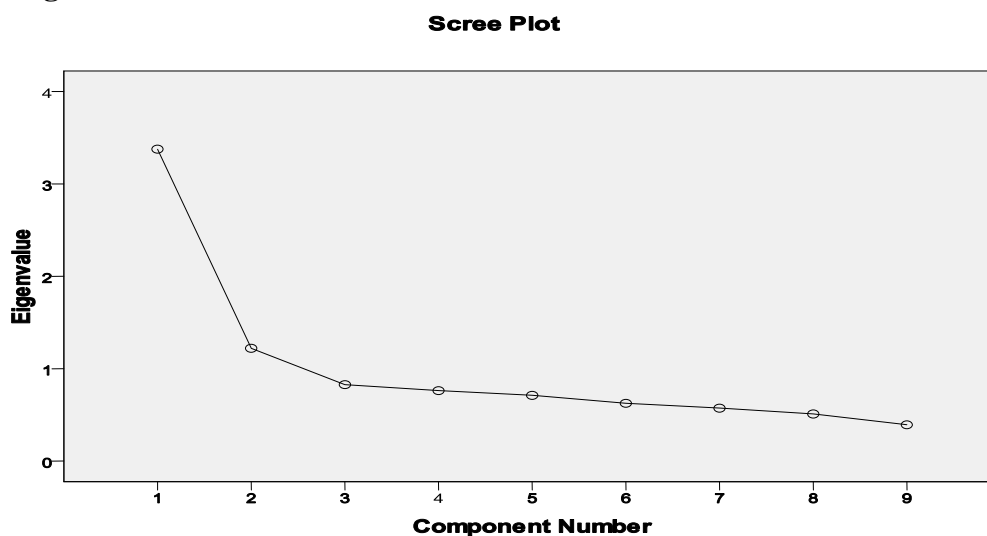
**Table 7.12: Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.375	37.505	37.505	3.375	37.505	37.505	2.773	30.810	30.810
2	1.221	13.565	51.070	1.221	13.565	51.070	1.823	20.260	51.070
3	.827	9.194	60.264						
4	.763	8.475	68.739						
5	.711	7.905	76.644						
6	.625	6.948	83.592						
7	.573	6.369	89.961						
8	.510	5.670	95.631						
9	.393	4.369	100.000						

Extraction Method: Principal Component Analysis.

Additionally, it can also be seen in the scree plot in Figure 7.1 that there is a break between the second and third factors, and the plot moves gradually to a horizontal line from component two onwards. Consequently, two factors are retained based on the outcomes of the Kaiser’s criterion and scree plot methods.

**Figure 7.1: Scree Plot**



The two components which are retained were rotated by employing orthogonal Varimax technique and the results of the Varimax technique are presented in Table 7.13.

**Table 7.13: Rotated Component Matrix<sup>a</sup> on Factors Challenging IPR Enforcement**

Variables	Communalities	Rotated Component Matrix <sup>a</sup>	
		Component 1 Legislative and non-policing challenges	Component 2 Policing related challenges
Right holders of intellectual property do not cooperate sufficiently with the police	.521	<b>.718</b>	-.080
Shortcomings in the judicial process	.589	<b>.716</b>	.276
Other governmental Intellectual Property related bodies do not support and cooperate with the police sufficiently	.437	<b>.627</b>	.209
Anti-piracy commissions do not work efficiently	.380	<b>.615</b>	-.042
Lack of legislation	.491	<b>.615</b>	.335
Inadequate reward results in lack of motivation	.468	<b>.565</b>	.386
Directors/Chiefs in the police force do not prioritise Intellectual Property Crimes	.657	-.139	<b>.799</b>
Police administration does not allocate sufficient equipment and personnel	.632	.265	<b>.750</b>
Difficulties in the process of storing and destroying seized materials	.421	.433	<b>.484</b>
<b>% of variance explained (51.07%)</b>		30.81%	20.26%

Extraction Method: Principal Component Analysis.  
 Rotation Method: Varimax with Kaiser Normalization.  
 a. Rotation converged in 3 iterations.

The outcomes, which are presented in Table 7.13, show that all nine variables successfully loaded into two factors through selecting the highest loading of each variable for each factor. Tabachnick and Fidell (2007) point out that the minimum

level of loading value should be higher than 0.32. The final outcomes which are presented in Table 7.13 demonstrate that all nine variables separately have an acceptable loading value of 0.48 and above, which is higher than the minimum benchmark of 0.32. Additionally, the outcomes show that all nine components fit into two factors or components properly.

According to the results which are depicted in Table 7.13, the first component which is composed of five variables has the loading values ranging from 0.565 to 0.718. The variables are ranked according to their loading values from the highest to the lowest. The variables that fit into the first factor are: 'Right holders of intellectual property do not cooperate sufficiently with the police', 'Shortcomings in the judicial process', 'Other governmental Intellectual Property related bodies do not support and cooperate with the police sufficiently', 'Anti-piracy commissions do not work efficiently', 'Lack of legislation' and 'Inadequate reward results in lack of motivation'. These variables are associated with legislation and the challenges not only related to the police itself but also other relevant bodies which are also parts of the enforcement system. Therefore, the first component-related factors are grouped and re-named 'Legislative and non-policing challenges'. The second component which consists of three variables has loading values ranging from 0.484 to 0.799. These are: 'Directors/chiefs in the police force do not prioritise Intellectual Property crimes', 'Police administration does not allocate sufficient equipment and personnel', and 'Difficulties in the process of storing and destroying seized materials'. These variables are directly related to police tasks, thus this component is named 'Policing related challenges'.

After conducting factor analysis a one way between groups MANOVA test was computed in order to investigate whether there is any significant difference between factor 1 and factor 2 (dependent variables) in terms of respondents' duration or seniority in IPR experience (independent variable). MANOVA is selected in terms of reducing the risk of Type 1 error, which is an extension of ANOVA and it should be used when there is more than one dependent variable and somehow these dependent variables are associated with each other. Although, it is much more complex than ANOVA, MANOVA 'controls' and adjusts the risk of increased Type 1 error (Pallant, 2007, p. 275).

The outputs of the relevant tests are presented in terms of data conforming to the assumptions before the main MANOVA analysis. In this sense, the significant value of the Box's Test of Equality of Covariance Matrices should not be lower than 0.001 in terms of not violating the assumption (Pallant, 2007; Tabachnick and Fidell, 2007). In this example, the output of the Box's Test shows that there is no violation of assumption of homogeneity of variance-covariance matrices since the significance value of 0.716 is higher than the critical value of 0.001.

**Table 7.14: Box's Test of Equality of Covariance Matrices**

<b>Box's Test of Equality of Covariance Matrices<sup>a</sup></b>	
Box's M	1.375
F	.452
df1	3
df2	396841.521
Sig.	.716

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept + Duration of IPR experience

Additionally, the output of the Levene's Test of Equality of Error Variances is explored. The results in Table 7.15 show that sig. values of 'Legislative and non-policing challenges' (0.836) and 'Policing related challenges' (0.277) are higher than 0.05. Thus, there is no violation of the assumption of equality of variances for these two factors, which is essential for the continuation of the MANOVA test.

**Table 7.15: Levene's Test of Equality of Error Variances**

<b>Levene's Test of Equality of Error Variances<sup>a</sup></b>				
	F	df1	df2	Sig.
Legislative and non-policing challenges	.043	1	171	.836
Policing related challenges	1.191	1	171	.277

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Duration of IPR experience

After performing the Box's Test of Equality of Covariance Matrices and Levene's test, the set of multivariate test was employed. Pallant (2007) states that multivariate tests of significance determines whether there are any significant differences among the groups and the significance value should be lower than 0.05 in order to find a statistically significant result. There are several statistics which are also used in the SPSS such as Pillai's Trace, Wilks' Lambda, Hotelling's Trace, and Roy's Largest Root. In this research Wilks' Lambda result is taken into account

since it is one of the most commonly used statistics (Tabachnick and Fidell, 2007). The results of the Wilks' Lambda in Table 7.16 show that there is a statistically significant difference between the respondents who have up to five years experience and who have more than five years experience in the IPR-related offices, since the sig. value of 0.008 is significantly lower than the critical level of 0.05.

**Table 7.16: Multivariate Test**

Multivariate Tests <sup>b</sup>							
Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Duration of IPR experience	Wilks' Lambda	.945	4.930 <sup>a</sup>	2.000	170.000	.008	.055

a. Exact statistic

b. Design: Intercept + Duration of IPR experience

Since the multivariate test in Table 7.16 suggests that there is a statistically-significant difference, a further investigation was conducted. Thus, in order to examine whether there is a difference in terms of duration of IPR experience in both 'Legislative and non-policing challenges' and 'Policing related challenges', tests of Between Subjects Effects were utilised. Bonferroni adjustment, which is one of the most commonly employed methods, gives this information when the alpha level of 0.05 is divided by the number of dependent variables (Pallant, 2007). In this example, since there are two dependent variables 0.05 is divided by two and the new alpha level is established as 0.025. As can be seen in the Tests of Between-Subjects Effects, the results indicate that both dependent variables; 'Legislative and non-policing challenges' and 'Policing related challenges' have significance values of 0.018 and 0.005 respectively, which are lower than the critical value of 0.025 for this example. As a result, there is a significant difference between the 0-5 years of IPR experience group and the more than 5 years of IPR experience group in 'Legislative and non-policing challenges' and 'Policing related challenges'.

Furthermore, in order to find the effect size, Tests of Between-Subjects Effects was run, and the results are depicted in Table 7.17. Partial Eta Squared is used to determine the impact of independent variable on dependent variables, and it signifies the percentage of the variance in the dependent variable which is explained by the independent variable (Pallant, 2007). In this example, the effect of 'Legislative and non-policing challenges' and 'Policing related challenges'



(dependent variables) on duration of IPR experience (independent variable) can be evaluated by the Partial Eta Squared as shown in Table 7.17. The importance of the impact of duration of IPR experience on ‘Legislative and non-policing challenges’ and ‘Policing related challenges’ are explored using the effect size values. Cohen (1988) categorises the effect size of 0.01 as a small effect, 0.06 as a medium effect and 0.14 as a large effect. The effect size values for this case are 0.032 and 0.044, which are therefore deemed to be small effect sizes. These results signify 3.2% and 4.4% of the variances in ‘Legislative and non-policing challenges’ and ‘Policing related challenges’ and the scores are explained respectively by duration of IPR experience.

**Table 7.17: Tests of Between-Subjects Effects**

Tests of Between-Subjects Effects							
Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Legislative and non-policing challenges	2.547 <sup>a</sup>	1	2.547	5.720	.018	.032
	Policing related challenges	5.433 <sup>b</sup>	1	5.433	7.957	.005	.044
Intercept	Legislative and non-policing challenges	557.489	1	557.489	1252.002	.000	.880
	Policing related challenges	823.313	1	823.313	1205.897	.000	.876
Duration of IPR experience	Legislative and non-policing challenges	2.547	1	2.547	5.720	.018	.032
	Policing related challenges	5.433	1	5.433	7.957	.005	.044
Error	Legislative and non-policing challenges	76.143	171	.445			
	Policing related challenges	116.748	171	.683			
Total	Legislative and non-policing challenges	719.667	173				
	Policing related challenges	1076.556	173				
Corrected Total	Legislative and non-policing challenges	78.690	172				
	Policing related challenges	122.181	172				

These results indicate that duration of IPR experience differs in terms of ‘Legislative and non-policing challenges’ and ‘Policing related challenges’. However, contributions of the duration of IPR experience, for which the mean values are compared in Table 7.18 through descriptive statistics, are not known. For ‘Legislative and non-policing challenges’ in terms of duration of IPR experience; the mean value for the 0-5 years group is 2.01 and the more than 5 years group is 1.76. In addition, for ‘Policing related challenges’ in terms of IPR experience; the

mean values are 2.48 and 2.11 for the 0-5 years and the more than 5 years groups respectively.

**Table 7.18: Descriptive Statistics**

	Duration in IPR Office	Mean	Std. Deviation	N
Legislative and non-policing challenges	0-5 years	2.01	.687	113
	More than 5 years	1.76	.629	60
	Total	1.92	.676	173
Policing related challenges	0-5 years	2.48	.813	113
	More than 5 years	2.11	.851	60
	Total	2.35	.843	173

#### **7.4. ANALYSING THE PERCEPTIONS ON PRECAUTIONARY STRATEGIES IN REGARD TO IPR**

After conducting factor analysis regarding the challenges in the fight against IP crimes, the precautionary strategies are researched in this part of the study in order to find the main factors in the prevention of IP crimes. There are many factors that may be useful for IPR protection, and therefore the respondents were asked to express their opinions on a number of statements related to precautionary strategies. Factor analysis testing is employed for the purpose of refining the variables to a manageable number of factors. Therefore, in accordance with the purpose of this study seven variables were selected and tested in order to contribute to the objectives of this research. These seven variables are as follows: ‘Police should be more effective’, ‘Penalties should be more deterrent’, ‘Prices of the original products should be lowered’, ‘Level of public awareness should be increased’, ‘Reward system should be extended to other police officers’, ‘Training of police officers should be improved’ and ‘More facilities for the police should be provided’.

As in the previous factor analysis, Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's Test of Sphericity tests were employed in order to verify the factorability of the related data set. According to the results which are presented in Table 7.19; KMO value is 0.789 which is above the recommended value of 0.6 (ranging from 0 to 1). In addition, the outcome of the Bartlett’ Test of Sphericity is significant ( $0.000 < 0.05$ ). These two tests are guidelines which should

be passed before factor analysis is carried out. The results of these two tests, which are depicted in Table 7.19, show that factor analysis is appropriate for this example.

**Table 7.19: KMO and Bartlett's Test Results for Seven Variables**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.789
Bartlett's Test of Sphericity	Approx. Chi-Square	256.569
	df	21
	Sig.	.000

In addition to Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's Test of Sphericity tests Kaiser's criterion and scree plot results were also taken into account to decide which factors should be retained. According to Kaiser's criterion the factors with eigenvalue of more than 1.0 are retained. Therefore, in accordance with the results of the Kaiser's criterion which are presented in Table 7.20, two components will be retained since their eigenvalues are 2.767 and 1.165 respectively.

**Table 7.20: Total Variance Explained**

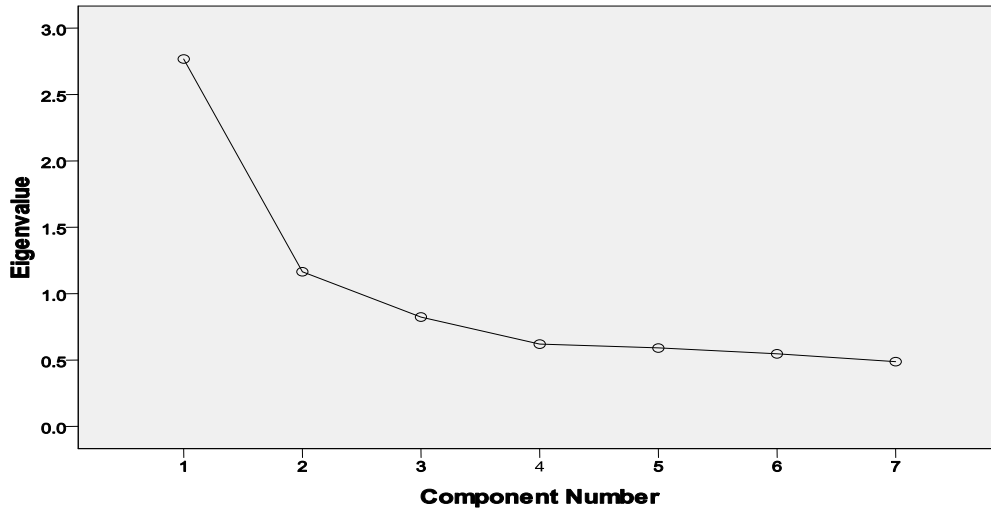
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.767	39.535	39.535	2.767	39.535	39.535	2.316	33.081	33.081
2	1.165	16.637	56.172	1.165	16.637	56.172	1.616	23.091	56.172
3	.824	11.764	67.936						
4	.620	8.857	76.793						
5	.591	8.439	85.233						
6	.546	7.806	93.039						
7	.487	6.961	100.000						

Extraction Method: Principal Component Analysis.

Additionally, scree plot results are also used to decide which factors should be retained. As seen in Figure 7.2, the plot slopes sharply downwards from the first to the second factor, and then it moves almost horizontally from the second factor onwards.

**Figure 7.2: Scree Plot**

**Scree Plot**



Consequently, referring back to Table 7.20, based on the results, two factors are retained. In other words, nine variables are reduced to two factors after extraction by PCA. These two components explain 56.17% of the variance in total. Component 1 explains 33.08% whereas component 2 explains 23.09% of the variation. The two retained factors were rotated employing orthogonal Varimax technique and Varimax results and are presented in Table 7.21.

**Table 7.21: Rotated Component Matrix<sup>a</sup> on Precautionary factors in terms of IPR**

Variables	Communalities	Rotated Component Matrix <sup>a</sup>	
		Component 1 Economic and legislative precautions	Component 2 Policing related precautions
Prices of the original products should be lowered	.642	<b>.775</b>	
Reward system should be extended to other police officers	.493	<b>.677</b>	
More facilities for the police should be provided	.582	<b>.627</b>	.435
Penalties should be more deterrent	.396	<b>.617</b>	
Level of public awareness should be increased	.476	<b>.589</b>	.361
Police should be more effective	.742		<b>.859</b>
Training of police officers should be improved	.600	.364	<b>.684</b>
<b>% of variance explained (56.17%)</b>		33.08%	23.09%

Extraction Method: Principal Component Analysis.  
 Rotation Method: Varimax with Kaiser Normalization.  
 a. Rotation converged in 3 iterations.

As can be seen in Table 7.21, the results demonstrate that all the variables successfully loaded into two factors and they fit properly into two factors. The first component consists of five variables with the loading values from 0.589 to 0.775. In addition, these five variables are classified according to their loading values from the highest to the lowest. These are: ‘Prices of the original products should be lowered’, ‘Reward system should be extended to other police officers’, ‘More facilities for the police should be provided’, ‘Penalties should be more deterrent’ and ‘Level of public awareness should be increased’. All five of these relate to economic and legislative precautions, therefore, the first factor has been called ‘Economic and legislative precautions’. The second component is composed of two variables with the loading values 0.859 and 0.684: ‘Police should be more effective’ and ‘Training of police officers should be improved’. Since the second factor or component is associated with the policing precautions; it has been called ‘Policing related precautions’.

After employing factor analysis a one way between groups MANOVA analysis was carried out in order to investigate whether there are any significant differences between component 1 and component 2 (dependent variables) in terms of respondents’ duration of IPR experience (independent variable). The results of the related tests are depicted in terms of data compliance to the assumptions before presenting the main MANOVA analysis. The result of the Box's Test of Equality of Covariance Matrices in Table 7.22 indicates that there is no assumption of homogeneity of variances of variance-covariance matrices since the *p*-value of 0.423 is higher than the critical value of 0.001.

**Table 7.22: Box's Test of Equality of Covariance Matrices**

<b>Box's Test of Equality of Covariance Matrices<sup>a</sup></b>	
Box's M	2.839
F	.934
df1	3
df2	416588.020
Sig.	.423

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept + Duration of IPR experience

In addition, the result of the Levene's Test of Equality of Error Variances in Table 7.23 demonstrates that significance levels of 'Economic and legislative precautions' (0.782) and 'Policing related precautions' (0.209) are both above the critical level of 0.05; thus, there is no violation of assumption of equality of variances for these two factors.

**Table 7.23: Levene's Test of Equality of Error Variances**

Levene's Test of Equality of Error Variances <sup>a</sup>				
	F	df1	df2	Sig.
Economic and legislative precautions	.076	1	187	.782
Policing related precautions	1.588	1	187	.209

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Duration of IPR experience

After conducting the Box's Test of Equality of Covariance Matrices and Levene's test, the set of multivariate test was carried out. The results of the Wilks' Lambda in Table 7.24 indicate that there is no statistically significant difference between the 0-5 years of IPR experience group and the more than 5 years of IPR experience group since the *p*-value of 0.798 is significantly higher than the critical level of 0.05.

**Table 7.24: Multivariate Test**

Multivariate Tests <sup>b</sup>							
Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Duration of IPR experience	Wilks' Lambda	.998	.226 <sup>a</sup>	2.000	186.000	.798	.002

a. Exact statistic

b. Design: Intercept + Duration of IPR experience

Accordingly, since there are two dependent variables, the critical significance level of 0.05 is divided by two and the new alpha level is established as 0.025 in compliance with the Bonferroni adjustment method. The results of the Tests of Between-Subjects Effects in Table 7.25 demonstrate that neither 'Economic and legislative precautions' (mean= 0.733) nor 'Policing related precautions' (mean=0.690) have significant values since their mean values are higher than the new alpha level of 0.025. Therefore, there is no significant difference in terms of duration of IPR experience on 'Economic and legislative precautions' and 'Policing related precautions'.

**Table 7.25: Tests of Between-Subjects Effects**

Tests of Between-Subjects Effects							
Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Economic and legislative precautions	.030 <sup>a</sup>	1	.030	.117	.733	.001
	Policing related precautions	.139 <sup>b</sup>	1	.139	.159	.690	.001
Intercept	Economic and legislative precautions	389.309	1	389.309	1528.790	.000	.891
	Policing related precautions	859.144	1	859.144	987.671	.000	.841
Duration of IPR experience	Economic and legislative precautions	.030	1	.030	.117	.733	.001
	Policing related precautions	.139	1	.139	.159	.690	.001
Error	Economic and legislative precautions	47.620	187	.255			
	Policing related precautions	162.666	187	.870			
Total	Economic and legislative precautions	484.680	189				
	Policing related precautions	1114.000	189				
Corrected Total	Economic and legislative precautions	47.650	188				
	Policing related precautions	162.804	188				

## **7.5. EXAMINING THE PERCEPTIONS ON THE RELATIONSHIP BETWEEN IPR CRIMES AND ORGANISED CRIME**

This part of the chapter focuses on the perceptions of the participants on the profiles of IPR criminals by firstly investigating the nature of IPR criminals and then investigating whether there is a relationship between IPR criminals and organised criminals and also terrorist groups. For this purpose, cross-tabulation analysis was conducted to reveal the relationship between the respondents from cities with dedicated IPR offices and those from cities without dedicated IPR offices regarding the nature of IPR criminals. According to the results which are depicted in Table 7.26 respondents from cities with dedicated IPR offices believe that IPR criminals are ‘Initially individual infringers who later become part of the organised infringer groups’ (53.4%) and ‘Organised infringers’ (34.2%). As a result, these two groups which total 87.6%, to some extent consider IPR crimes to be related to organised crime. Besides, 48.6% and 27% of the respondents from cities without dedicated IPR offices believe that IPR criminals are ‘Initially individual infringers who later become part of organised infringer groups’ and ‘Organised infringers’ respectively. Consequently, in total 75.6% of the sample from cities without dedicated IPR

offices assume that IPR criminals are associated with organised crime groups. The results suggest that there is a significant relationship between the respondents from cities with dedicated IPR offices and the respondents from cities without dedicated IPR offices, which is evidenced from the  $p$ -value of  $0.00 < 0.05$ . Consequently, the vast majority of the respondents consider IPR criminals to be associated with organised crime.

**Table 7.26: Exploring IPR Criminals' Profiles**

Cross Tabulation: IPR Criminals' Profiles * Existence of IPR Offices				
Criminals' Profiles		IPR Office		Total
		Cities with dedicated IPR offices	Cities without dedicated IPR offices	
Individual infringers	Count	16	0	16
	% within Row	100.0%	.0%	100.0%
	% Column	9.9%	.0%	8.1%
Organised infringers	Count	55	10	65
	% Row	84.6%	15.4%	100.0%
	% Column	34.2%	27.0%	32.8%
Initially individual infringers who later become part of organised infringer groups	Count	86	18	104
	% Row	82.7%	17.3%	100.0%
	% Column	53.4%	48.6%	52.5%
Corporate infringers	Count	4	9	13
	% Row	30.8%	69.2%	100.0%
	% Column	2.5%	24.3%	6.6%
Total	Count	161	37	198
	% Row	81.3%	18.7%	100.0%
	% Column	100.0%	100.0%	100.0%

In addition, a one way between groups MANOVA is employed to explore if there are any significant differences between the three dependent and one independent variable. The dependent variables are; 'Criminals' progression into more serious organised crimes', 'Connection between infringers of IP crimes and terrorist groups' and 'The money gained by infringing IPR channelled into organised crimes'; the independent variable is 'Profiles of IPR criminals'.

The results of the related tests are depicted in terms of the compliancy related to the assumptions as a pre-requisite for MANOVA analysis. The output of the Box's Test of Equality of Covariance Matrices, as depicted in Table 7.27, confirm that there is no violation of assumption of homogeneity of variances of variance-covariance



matrices since the significance value of 0.096 is higher than the critical value of 0.001.

**Table 7.27: Box's Test of Equality of Covariance Matrices**

Box's Test of Equality of Covariance Matrices <sup>a</sup>	
Box's M	27.958
F	1.454
df1	18
df2	7342.524
Sig.	.096

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept + Criminals' Profiles

The result of the Levene's Test of Equality of Error Variances is depicted in Table 7.28. The outputs in the significance column demonstrate that *p*-values of 'Criminals' progression into more serious organised crime' (0.215), 'Connection between infringers of IP crimes and terrorist groups' (0.543), and 'The money gained by infringing IPR channelled into organised crime' (0.770) are higher than 0.05. Therefore, there is no violation of the assumption of equality of variances for these three dependent variables.

**Table 7.28: Levene's Test of Equality of Error Variances**

Levene's Test of Equality of Error Variances <sup>a</sup>				
	F	df1	df2	Sig.
Criminals' progression into more serious organised crime such as drug dealing	1.504	3	194	.215
Is there a connection between infringers of IP crimes and terrorist groups?	.718	3	194	.543
Is the money gained by infringing IPR channelled into Organised Crimes?	.377	3	194	.770

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Criminals' Profiles

After employing the Box's Test of Equality of Covariance Matrices and Levene's test, the set of multivariate test was carried out. The result of the Wilks' Lambda depicted in Table 7.29 demonstrates that there is a statistically significant difference between the respondents since the significance value of 0.005 is relatively lower than the critical level of 0.05.

**Table 7.29: Multivariate Test on the Profiles of Criminals**

Multivariate Tests <sup>c</sup>							
Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Criminals' Profiles	Wilks' Lambda	.886	2.646	9.000	467.428	.005	.040

a. Exact statistic

b. The statistic is an upper bound on F that yields a lower bound on the significance level.

c. Design: Intercept + Criminals' Profiles

A further analysis Tests of Between-Subjects Effects was employed to examine whether there is a difference in terms of the criminals' profiles in three of the dependent variables. In accordance with the Bonferroni adjustment method, the alpha level of 0.05 is divided by three since there are three dependent variables in this example. Thus, the new alpha level is established as 0.017. The results of the Tests of Between-Subjects Effects in Table 7.30 indicate that dependent variables; 'Criminals' progression into more serious organised crime' and 'Connection between infringers of IP crimes and terrorist groups' have significance values of 0.002 and 0.009 respectively which are lower than the critical value of 0.017 for this case. However, the outputs demonstrate that there is no significant difference for 'The money gained by infringing IPR channelled into organised crimes' since the *p*-value of 0.106 is considerably higher than the new alpha level of 0.017. As a result, there are significant differences between criminals' profiles in 'Criminals' progression into more serious organised crime' and 'Connection between infringers of IP crimes and terrorist groups'. However, there is no significant difference between criminals' profiles in 'The money gained by infringing IPR channelled into organised crimes'.

Additionally, the importance of the impact of criminals' profiles on 'Criminals' progression into more serious organised crime' and 'Connection between infringers of IP crimes and terrorist groups' is evaluated using the effect size values (Partial Eta Squared). The effect size values for this example are 0.074 and 0.058 respectively and are considered medium and small effect sizes according to Cohen's criteria. Consequently, these results indicate that 7.4% and 5.8% of the variances in 'Criminals' progression into more serious organised crime' and 'Connection between infringers of IP crimes and terrorist groups' are explained respectively by the criminals' profiles.

**Table 7.30: Tests of Between-Subjects Effects**

Tests of Between-Subjects Effects							
Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Criminals' progression into more serious organised crime such as drug dealing	15.652 <sup>a</sup>	3	5.217	5.132	.002	.074
	Is there a connection between infringers of IP crimes and terrorist groups?	11.590 <sup>b</sup>	3	3.863	4.001	.009	.058
	Is the money gained by infringing IPR channelled into Organised Crime?	5.805 <sup>c</sup>	3	1.935	2.067	.106	.031
Intercept	Criminals' progression into more serious organised crime such as drug dealing	746.494	1	746.494	734.244	.000	.791
	Is there a connection between infringers of IP crimes and terrorist groups?	751.036	1	751.036	777.906	.000	.800
	Is the money gained by infringing IPR channelled into Organised Crime?	669.422	1	669.422	715.074	.000	.787
Criminals' Profiles	Criminals' progression into more serious organised crimes such as drug dealing	15.652	3	5.217	5.132	.002	.074
	Is there a connection between infringers of IP crimes and terrorist groups?	11.590	3	3.863	4.001	.009	.058
	Is the money gained by infringing IPR channelled into Organised Crime?	5.805	3	1.935	2.067	.106	.031
Error	Criminals' progression into more serious organised crime such as drug dealing	197.237	194	1.017			
	Is there a connection between infringers of IP crimes and terrorist groups?	187.299	194	.965			
	Is the money gained by infringing IPR channelled into Organised Crime?	181.614	194	.936			
Total	Criminals' progression into more serious organised crime such as drug dealing	1506.000	198				
	Is there a connection between infringers of IP crimes and terrorist groups?	1492.000	198				
	Is the money gained by infringing IPR channelled into Organised Crime?	1405.000	198				
Corrected Total	Criminals' progression into more serious organised crime such as drug dealing	212.889	197				
	Is there a connection between infringers of IP crimes and terrorist groups?	198.889	197				
	Is the money gained by infringing IPR channelled into Organised Crime?	187.419	197				

Although according to the perceptions of the respondents it is revealed that the profiles of the criminals differ in terms of ‘Criminals’ progression into more serious organised crime’ and ‘Connection between infringers of IP crimes and terrorist groups’, it is not known which group of the criminals’ profiles has lower or higher scores. In order to find this, mean values of the perceptions of the participants for ‘Criminals’ progression into more serious organised crimes’ are compared as shown in Table 7.31: ‘Individual infringers’ (2.50), ‘Organised infringers’ (2.49), ‘Initially individual infringers who later become part of organised infringer groups’

(2.27) and ‘Corporate infringers’ (3.62). The mean values for ‘Connection between infringers of IP crimes and terrorist groups’ are; ‘Individual infringers’ (2.81), ‘Organised infringers’ (2.42), ‘Initially individual infringers who later become part of organised infringer groups’ (2.50) and ‘Corporate infringers’ (3.38).

**Table 7.31: Descriptive Statistics**

	Criminals Profiles	Mean	Std. Deviation	N
Criminals' progression into more serious organised crime such as drug dealing	Individual infringers	2.50	.816	16
	Organised infringers	2.49	1.091	65
	Initially individual infringers who later become part of organised infringer groups	2.47	.995	104
	Corporate infringers	3.62	.870	13
	Total	2.56	1.040	198
Is there a connection between infringers of IP crimes and terrorist groups?	Individual infringers	2.81	.911	16
	Organised infringers	2.42	1.029	65
	Initially individual infringers who later become part of organised infringer groups	2.50	.985	104
	Corporate infringers	3.38	.768	13
	Total	2.56	1.005	198
Is the money gained by infringing IPR channelled into Organised Crime?	Individual infringers	2.69	.873	16
	Organised infringers	2.32	1.062	65
	Initially individual infringers who later become part of organised infringer groups	2.48	.924	104
	Corporate infringers	3.00	.913	13
	Total	2.48	.975	198

To extend the analysis with the objective of identifying where the significant differences lie, two separate one-way ANOVA tests were conducted on the dependent variables.

Firstly, a one-way ANOVA test was employed to investigate the impact of criminals’ profiles on ‘criminals’ progression into more serious organised crimes’. There is a statistically significant result since the  $p$ -value is  $0.002 < 0.05$ .

**Table 7.32: ANOVA Test Results**

ANOVA					
Criminals' progression into more serious organised crime					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	15.652	3	5.217	5.132	.002
Within Groups	197.237	194	1.017		
Total	212.889	197			

Post-hoc comparisons using the Scheffe test demonstrated differences among the groups. In multiple comparisons in Table 7.33, values with asterisk show that the compared groups are significantly different from one another at the alpha level of 0.05. In this case, ‘Corporate infringers’ are significantly different from the other three infringer groups. Thus, the ‘Corporate infringers’ differ from ‘Individual infringers’, ‘Organised infringers’ and ‘Initially individual infringers who later become part of organised infringer groups’ in terms of their perception in relation to ‘Criminals’ progression into more serious organised crime’.

**Table 7.33: Multiple Comparisons**

Multiple Comparisons						
Criminals' progression into more serious organised crime Scheffe						
(I) Criminals Profiles	(J) Criminals Profiles	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Individual infringers	Organised infringers	.008	.281	1.000	-.79	.80
	Initially individual infringers who later become part of organised infringer groups	.029	.271	1.000	-.73	.79
	Corporate infringers	-1.115*	.376	.035	-2.18	-.05
Organised infringers	Individual infringers	-.008	.281	1.000	-.80	.79
	Initially individual infringers who later become part of organised infringer groups	.021	.159	.999	-.43	.47
	Corporate infringers	-1.123*	.306	.005	-1.99	-.26
Initially individual infringers who later become part of organised infringer groups	Individual infringers	-.029	.271	1.000	-.79	.73
	Organised infringers	-.021	.159	.999	-.47	.43
	Corporate infringers	-1.144*	.297	.002	-1.98	-.31
Corporate infringers	Individual infringers	1.115*	.376	.035	.05	2.18
	Organised infringers	1.123*	.306	.005	.26	1.99
	Initially individual infringers who later become part of organised infringer groups	1.144*	.297	.002	.31	1.98

\*. The mean difference is significant at the 0.05 level.

In addition, the post-hoc results in Table 7.34 categorise the criminals’ profiles into two groups in terms of ‘Criminals’ progression into more serious organised crime’ according to their mean values. The results, which are presented below, indicate that the mean values of ‘Initially individual infringers who later become part of organised infringer groups’ (mean=2.47), ‘Organised infringer groups’ (mean=2.49)

and ‘Individual infringers’ (mean=2.50) are very close to each other and do not differ from each other. On the other hand, the mean value for ‘Corporate infringers’ (mean=3.62) is different from the other three groups.

**Table 7.34: Post Hoc Test Results**

<b>Criminals' progression into more serious organised crime</b>			
Scheffe <sup>a,b</sup>			
Criminals Profiles	N	Subset for alpha = 0.05	
		1	2
Initially individual infringers who later become part of organised infringer groups	104	2.47	
Organised infringers	65	2.49	
Individual infringers	16	2.50	
Corporate infringers	13		3.62
Sig.		1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 24.327.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

As a result, the respondents who believe that IPR criminals are ‘Corporate infringers’ think that IPR criminals do not progress into more serious organised crime. As can be seen in cross tabulation Table 7.35, 61.5% of the respondents who think IPR criminals are ‘Corporate infringers’ believe that IPR criminals do not move into more serious crimes.

**Table 7.35: Cross Tabulating ‘Criminals’ Profiles’ with ‘Criminals’ Progression into more Serious Organised Crime’**

<b>Criminals' Profiles * Criminals' progression into more serious organised crime</b>								
			Criminals' progression into more serious organised crime					Total
			Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	
Criminals' Profiles	Individual infringers	Count	1	8	5	2	0	16
		% within Row	6.3%	50.0%	31.3%	12.5%	.0%	100.0%
	Organised infringers	Count	11	28	11	13	2	65
		% within Row	16.9%	43.1%	16.9%	20.0%	3.1%	100.0%
	Initially individual infringers who later become part of organised infringer groups	Count	15	48	18	23	0	104
		% within Row	14.4%	46.2%	17.3%	22.1%	.0%	100.0%
	Corporate infringers	Count	0	2	2	8	1	13
		% within Row	.0%	15.4%	15.4%	61.5%	7.7%	100.0%
Total		Count	27	86	36	46	3	198
		% within Row	13.6%	43.4%	18.2%	23.2%	1.5%	100.0%

Secondly, a one-way ANOVA test was employed to investigate the perceptions of the participants on the impact of criminals' profile on 'Connection between infringers of IP crimes and terrorist groups'. The results of the ANOVA test in Table 7.36 suggest a statistically significant result since the  $p$ -value is  $0.008 < 0.05$ .

**Table 7.36: ANOVA Test Results**

ANOVA					
Is there a connection between infringers of IP crimes and terrorist groups?					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11.649	3	3.883	4.037	.008
Within Groups	187.547	195	.962		
Total	199.196	198			

Furthermore, Post-hoc results employing the Scheffe test indicate the presence of significant differences among the groups. The results, which are presented in the multiple comparisons in Table 7.37, in which values with an asterisk, demonstrate that 'Corporate infringers' differ from 'Organised infringers' and 'Initially individual infringers who later become part of organised infringer groups' in terms of their perception in relation to 'Connection between infringers of IP crimes and terrorist groups'.

**Table 7.37: Multiple Comparisons**

Multiple Comparisons						
Is there a connection between infringers of IP crimes and terrorist groups?						
Scheffe						
(I) Criminals Profiles	(J) Criminals Profiles	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Individual infringers	Organised infringers	.397	.274	.552	-.37	1.17
	Initially individual infringers who later become part of organised infringer groups	.317	.263	.694	-.42	1.06
	Corporate infringers	-.572	.366	.488	-1.60	.46
Organised infringers	Individual infringers	-.397	.274	.552	-1.17	.37
	Initially individual infringers who later become part of organised infringer groups	-.080	.155	.966	-.52	.36
	Corporate infringers	-.969*	.298	.016	-1.81	-.13
Initially individual infringers who later become part of organised infringer groups	Individual infringers	-.317	.263	.694	-1.06	.42
	Organised infringers	.080	.155	.966	-.36	.52
	Corporate infringers	-.889*	.288	.025	-1.70	-.08
Corporate infringers	Individual infringers	.572	.366	.488	-.46	1.60
	Organised infringers	.969*	.298	.016	.13	1.81
	Initially individual infringers who later become part of organised infringer groups	.889*	.288	.025	.08	1.70

\*. The mean difference is significant at the 0.05 level.

Furthermore, the post-hoc results classified the criminals' profiles into two groups in terms of 'Connection between infringers of IP crimes and terrorist groups' according to their mean values. The results, which are depicted in Table 7.38, demonstrate that the ranking of mean values in terms of the perceived orientation of the infringers is: 'Organised infringers' (2.42), 'Initially individual infringers who later become part of organised infringer groups' (2.50), 'Individual infringers' (2.81) and 'Corporate infringers' (3.38). Consequently, these results show that organised infringers and initially individual infringers who later become part of organised infringer groups differ from corporate infringers in terms of exploring the connection between IP criminals and terrorist groups. Thus, the respondents who stated that IP crimes are committed by organised infringers and initially individual infringers who later become part of organised infringer groups are of the opinion that there is a connection between IP criminals and terrorist groups. On the other



hand, the respondents who think that IPR crimes are committed by corporate infringers are of the opinion that there is not a connection between IPR criminals and terrorist groups.

**Table 7.38: Post Hoc Test Results**

Connection between infringers of IP crimes and terrorist groups			
Scheffe <sup>a, b</sup>			
Criminals Profiles	N	Subset for alpha = 0.05	
		1	2
Organised infringers	65	2.42	
Initially individual infringers who later become part of organised infringer groups	105	2.50	
Individual infringers	16	2.81	2.81
Corporate infringers	13		3.38
Sig.		.574	.250

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 24.341.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

In conclusion, the majority of respondents who think that IPR criminals are corporate infringers believe that there is no connection between IPR infringers and terrorist groups. This can also be seen from the cross-tabulation Table 7.39. The results indicate that 53.8% of the respondents who stated that IPR criminals are corporate infringers are also of the opinion that there is no connection between IPR infringers and terrorist groups.

**Table 7.39: Cross Tabulating ‘Criminals’ Profiles’ with ‘Connection between infringers of IP crimes and terrorist groups’**

<b>Criminals' Profiles * Connection between infringers of IP crimes and terrorist groups</b>									
			Is there a connection between infringers of IP crimes and terrorist groups?					Total	
			Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		
Criminals' Profiles	Individual infringers	Count	1	5	6	4	0	16	
		% within Row	6.3%	31.3%	37.5%	25.0%	.0%	100.0%	
	Organised infringers	Count	10	31	14	7	3	65	
		% within Row	15.4%	47.7%	21.5%	10.8%	4.6%	100.0%	
	Initially individual infringers who later become part of organised infringer groups	Count	18	36	32	19	0	105	
		% within Row	17.1%	34.3%	30.5%	18.1%	.0%	100.0%	
	Corporate infringers	Count	0	2	4	7	0	13	
		% within Criminals' Profiles	.0%	15.4%	30.8%	53.8%	.0%	100.0%	
	Total		Count	29	74	56	37	3	199
			% within Row	14.6%	37.2%	28.1%	18.6%	1.5%	100.0%

## **7.6. EXPLORING THE EUROPEAN UNION PROCESS RELATING TO IPR**

Turkey is a candidate country for EU membership and has to harmonise its legislation in accordance with the EU legislation, which includes bringing IP law into line with EU legislation. The enforcement of IP law has played significant role in this process. Therefore, this part of the chapter investigates understanding and knowledge of the respondents regarding the EU’s IPR enforcement systems.

In exploring this, a cross tabulation was conducted with rank and awareness of IP enforcement systems in any of the EU member states in order to gauge the knowledge of police officers regarding IP enforcement methods in EU member states. The results, which are depicted in Table 7.40, indicate that in total 33.2% of the respondents (70.6% of police chiefs and 29.7% of police constables) have some understandings of IP enforcement systems in the EU member states. Hence, the majority of police chiefs are aware of the enforcement systems in EU countries.

**Table 7.40: Cross Tabulating ‘IP enforcement systems in any of the EU member states’ with ‘Rank’**

			Rank		Total
			Police Constables	Police Chiefs	
Do you have an understanding of IP enforcement systems in any of the EU member states?	Yes	Count	54	12	66
		% within Rank	29.7%	70.6%	33.2%
	No	Count	128	5	133
		% within Rank	70.3%	29.4%	66.8%
Total		Count	182	17	199
		% within Rank	100.0%	100.0%	100.0%

Furthermore, respondents’ attendances at IPR training sessions in Turkey which are held by EU experts were explored. The rank of the participants was cross tabulated with attendance at training sessions held by EU experts. The results, which are presented in Table 7.41, demonstrate that in total 28.4% of the police officers (64.7% of police chiefs and 25% of police constables) have attended those training sessions. Therefore, the majority of police chiefs have participated in these training courses.

**Table 7.41: Cross Tabulating ‘Attendance at IPR training sessions instructed by the EU experts’ with ‘Rank’**

			Rank		Total
			Police Constables	Police Chiefs	
Have you ever attended a training session in Turkey held by EU experts?	Yes	Count	46	11	57
		% within Rank	25.0%	64.7%	28.4%
	No	Count	138	6	144
		% within Rank	75.0%	35.3%	71.6%
Total		Count	184	17	201
		% within Rank	100.0%	100.0%	100.0%

In addition, cross tabulation was conducted with attendance at an IPR training course and understanding of EU enforcement systems. The results, which are depicted in Table 7.42, indicate that 60% of the respondents who have attended an IPR training course have an understanding of an IP enforcement system in any of the EU member states; however, 40% of the attendees do not have such an understanding. In addition, 10.2% of the respondents who have not attended an IPR training session have information about an IP enforcement system in an EU member state. As a result, in total, only 32.8% of the respondents have an opinion about the IP enforcement system in an EU country.

**Table 7.42: Cross tabulating ‘Attendance at an IPR Training Course’ with ‘Understanding of EU Enforcement Systems’**

			Do you have an understanding of IP enforcement system in any of the EU member states?		Total
			No	Yes	
Have you ever attended a training course on IPR?	Yes	Count	36	54	90
		% within Row	40.0%	60.0%	100.0%
		% within Column	27.1%	83.1%	45.5%
	No	Count	97	11	108
		% within Row	89.8%	10.2%	100.0%
		% within Column	72.9%	16.9%	54.5%
Total		Count	133	65	198
		% within Row	67.2%	32.8%	100.0%
		% within Column	100.0%	100.0%	100.0%

Additionally, policing education was cross tabulated with reading any materials about the enforcement systems in EU countries in order to reveal the respondents’ levels of interest regarding IPR enforcement systems in EU member states. The results, which are depicted in Table 7.43, indicate that police academy graduates have the highest interest in terms of reading about IPR enforcement methods in the EU member states at 63.6%. In addition, Police school, PMYO and POMEM graduates have very close distribution with 21.5%, 25% and 22.2% respectively.

**Table 7.43: Cross Tabulating ‘Reading materials about IP enforcement systems in EU member states’ with ‘Policing Education’**

			What is your most recent Policing Education?				Total	
			Police School	PMYO	POMEM	Police Academy		
Have you ever read any materials on IP enforcement systems in any of the EU member states?	Yes	Count	28	10	4	7	49	
		% within Column	21.5%	25.0%	22.2%	63.6%	24.6%	
	No	Count	102	30	14	4	150	
		% within Column	78.5%	75.0%	77.8%	36.4%	75.4%	
	Total		Count	130	40	18	11	199
			% within Column	100.0%	100.0%	100.0%	100.0%	100.0%

In further responding to EU related issues, the effect of the IPR twinning project was examined. For this purpose, an independent-samples t-test was employed to find whether there is a significant difference between police chiefs and police

constables in terms of understanding the effect of EU twinning project which was held by the State Security Department in cooperation with the EU authorities in order to strengthen the police in the fight against IPR crimes. The results show that at 95% confidence level there is a significant mean difference between police chiefs and police constables with regard to their evaluation of the effect of the EU twinning project in the fight against IPR crimes, since  $p$ -value of 0.031 is smaller than the critical value of 0.05. As a result, police chiefs' evaluation regarding the contribution of the EU twinning project in the fight against IPR crimes is more positive than police constables' evaluation which is evidenced from the mean values of 2.00 and 2.51 for police chiefs and police constables respectively.

**Table 7.44: Examining the Effect of the EU Twinning Project on IPR**

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Effect of EU Twinning Project held by the State Security Department	Equal variances assumed	2.451	.119	2.175	198	.031	.514	.236	.048	.979
	Equal variances not assumed			2.323	19.647	.031	.514	.221	.052	.976

A further cross tabulation analysis was conducted in order to substantiate this information. The results in Table 7.45 demonstrate that the majority of police chiefs at 76.5% (29.4% strongly agree and 47.1% agree) believe that the EU twinning project regarding the protection of IPR has had a significant effect in terms of preventing IP crimes. On the other hand, only 53.5% of police constables (12% strongly agree and 41.5% agree) think that the EU twinning project has had an important effect in the fight against IP infringements.

**Table 7.45: Cross Tabulating ‘Effect of the EU Twinning Project of IPR’ with ‘Rank’**

			Rank		Total
			Police Constables	Police Chiefs	
Effect of EU Twinning Project held by the State Security Department	Strongly Agree	Count	22	5	27
		% within Rank	12.0%	29.4%	13.5%
	Agree	Count	76	8	84
		% within Rank	41.5%	47.1%	42.0%
	Neutral	Count	58	3	61
		% within Rank	31.7%	17.6%	30.5%
	Disagree	Count	23	1	24
		% within Rank	12.6%	5.9%	12.0%
	Strongly Disagree	Count	4	0	4
		% within Rank	2.2%	.0%	2.0%
Total		Count	183	17	200
		% within Rank	100.0%	100.0%	100.0%

A further analysis was employed to reveal the distribution of respondents’ rank in relation to their participation in study visits to EU member states in order to explore the IP enforcement systems in those countries. For this purpose, exploring the IP enforcement system of the EU member states and participants’ rank were cross tabulated. As the results in Table 7.46 demonstrate, 35.3% of police chiefs and 1.6% of police constables have attended those training sessions. The proportion of police chiefs is considerably higher than police constables; however, this is normal since the number of police chiefs is very low when compared with police constables. In addition, the results of cross-tabulation presented in Table 7.46 show that not only police chiefs but also police constables have participated in those training sessions.

**Table 7.46: Cross Tabulating ‘Exploring the IP enforcement system of the EU member states’ with ‘Rank’**

			Rank		Total	
			Police Constables	Police Chiefs		
Have you ever been to any of the EU member states to explore the IP enforcement system?	Yes	Count	3	6	9	
		% within Rank	1.6%	35.3%	4.5%	
	No	Count	181	11	192	
		% within Rank	98.4%	64.7%	95.5%	
	Total		Count	184	17	201
			% within	100.0%	100.0%	100.0%

## 7.7. RESEARCH AND DEVELOPMENT ACTIVITIES

This section investigates the impact of certain control variables on participants' perceptions on the importance of IPR for the development of a country as well as research and development activities in terms of producing IP. For this purpose, a one way MANOVA is employed. The independent variable (control variable) is the duration of IPR experience and the dependent variables are: 'importance of a high level of protection of IPR to the development of a country', and 'relationship between R&D activities and expenditure and the production of IP'.

The outputs of the related tests are depicted in terms of data conforming to the assumptions before presenting the results of the main MANOVA analysis. The output of the Box's Test of Equality of Covariance Matrices in Table 7.47 indicate no violation of assumption of homogeneity of variances of variance-covariance matrices since the  $p$ -value of 0.214 is higher than the critical value of 0.001.

**Table 7.47: Box's Test of Equality of Covariance Matrices**

Box's Test of Equality of Covariance Matrices <sup>a</sup>	
Box's M	12.305
F	1.331
df1	9
df2	34881.366
Sig.	.214

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept + Duration of IPR experience

In addition, the result of the Levene's Test of Equality of Error Variances is investigated. The results in Table 7.48 show that the significance values of importance of a high level of protection of IPR to the development of a country (0.467) and relationship between research and development activities and expenditure, and the production of IP (0.230) are both higher than 0.05. Thus, there is no violation of the assumption of equality of variances for these variables.

**Table 7.48: Levene's Test of Equality of Error Variances**

Levene's Test of Equality of Error Variances <sup>a</sup>				
	F	df1	df2	Sig.
Is IPR important for the development of a country?	.852	3	191	.467
Is there a positive relation between Research and Development activities, and IPR?	1.450	3	191	.230

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Duration of IPR experience

The result of Wilks' Lambda in Table 7.49 demonstrates that there is a statistically significant difference between the respondents in terms of their duration of IPR experience, since the  $p$ -value of  $0.005 < 0.05$ .

**Table 7.49: Multivariate Test**

Multivariate Tests <sup>c</sup>								
Effect			Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Duration of IPR experience	Wilks' Lambda	.908	3.143 <sup>a</sup>	6.000	380.000	.005	.047	

a. Exact statistic

b. The statistic is an upper bound on F that yields a lower bound on the significance level.

c. Design: Intercept + Duration of IPR experience

Since the multivariate test indicates a significant difference, further analysis was conducted in order to reveal if there is a significant difference in terms of 'duration of IPR experience' on the 'importance of a high level protection of IPR for the development of a country', and the 'relationship between research and development activities and expenditure, and the production of IP'. As there are two dependent variables, the alpha level of 0.05 is divided by two in order to comply with the Bonferroni adjustment method. Thus, the new alpha level becomes 0.025. The results of the Tests of Between-Subjects Effects in Table 7.50 show that both of the dependent variables, namely 'importance of high level protection of IPR for the development of a country', and 'relationship between research and development activities and expenditure, and the production of IP' have significant values of 0.019 and 0.004 respectively which are lower than the new alpha level of 0.025.

Consequently, the results suggest a significant difference in terms of respondents' duration of IPR experience on both dependent variables. In addition, the effect size value for importance of a high level of protection of IPR for the development of a country at 0.051 is deemed small effect size and 0.066 for the relationship between R&D activities and expenditure and the production of IP is deemed medium effect



size using Cohen’s criteria. In other words, the results indicate that 5.1% and 6.6% of the observed variances in importance of high level of protection of IPR for the development of a country, and relationship between R&D activities and expenditure, and the production of IP scores are explained by duration of IPR experience.

**Table 7.50: Tests of Between-Subjects Effects**

Tests of Between-Subjects Effects							
Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Is IPR important for the development of a country?	7.316 <sup>a</sup>	3	2.439	3.413	.019	.051
	Is there a positive relation between Research and Development activities, and IPR?	8.167 <sup>b</sup>	3	2.722	4.528	.004	.066
Intercept	Is IPR important for the development of a country?	495.117	1	495.117	692.910	.000	.784
	Is there a positive relation between Research and Development activities, and IPR?	846.088	1	846.088	1407.349	.000	.881
Duration of IPR experience	Is IPR important for the development of a country?	7.316	3	2.439	3.413	.019	.051
	Is there a positive relation between Research and Development activities, and IPR?	8.167	3	2.722	4.528	.004	.066
Error	Is IPR important for the development of a country?	136.479	191	.715			
	Is there a positive relation between Research and Development activities, and IPR?	114.828	191	.601			
Total	Is IPR important for the development of a country?	827.000	195				
	Is there a positive relation between Research and Development activities, and IPR?	1251.000	195				
Corrected Total	Is IPR important for the development of a country?	143.795	194				
	Is there a positive relation between Research and Development activities, and IPR?	122.995	194				

The results show that ‘duration of IPR experience’ differs in terms of perceptions of the respondents regarding the ‘importance of a high level of protection of IPR for the development of a country’, and ‘relationship between research and development activities and expenditure and the production of IP’. However, the level of difference is not revealed, thus the mean values are taken into consideration. According to the mean values, which are depicted in the post hoc test in Table 7.51, the respondents from the more than 10 years of experience group have the lowest mean value at 1.56. Therefore, they have the highest support that IPR plays an

important role for the development of a country when compared with others. On the other hand, the less than 2 years of experience group have the highest mean value with 2.19, thus, their opinion regarding the importance of IPR for the development of a country has the lowest support when compared with other groups. The 2-5 years group with the mean value of 1.78 and the 6-10 years group with the mean value of 1.82 do not differ significantly from either the more than 10 years or the less than 2 years of IPR experience groups.

**Table 7.51: Post Hoc Test Results**

<b>Post Hoc Test Results</b>			
<b>Is IPR important for the development of a country?</b>			
Scheffe <sup>a,b</sup>			
Duration of working in IPR office	N	Subset for alpha = 0.05	
		1	2
More than 10 years	18	1.56	
2-5 years	79	1.78	1.78
6-10 years	50	1.82	1.82
Less than 2 years	48		2.19

In furthering the analysis, cross tabulation was employed in order to explore further the results regarding the relation between duration of IPR experience and importance of IPR for the development of a country. In this sense, the results of the cross tabulation in Table 7.52 show that all of the respondents from the more than 10 years group (44.4% strongly agree and 55.6% agree) believe that IPR plays a significant role in the development of a country. On the other hand, 72.9% of the participants from the less than 2 years group (20.8% strongly agree and 52.1% agree) think that IPR is important for the development of a country. However, 14.6% of respondents from the less than 2 years group do not have a particular opinion on this issue and 12.5% do not believe that IPR plays an important role in the development of a country.

**Table 7.52: Cross Tabulating ‘Importance of IPR for the Development of a Country’ with ‘Duration of IPR Experience’**

			Duration of working in IPR office				Total	
			Less than 2 years	2-5 years	6-10 years	More than 10 years		
Is IPR important for the development of a country?	Strongly Agree	Count	10	30	21	8	69	
		% within Column	20.8%	38.0%	42.0%	44.4%	35.4%	
	Agree	Count	25	41	22	10	98	
		% within Column	52.1%	51.9%	44.0%	55.6%	50.3%	
	Neutral	Count	7	4	2	0	13	
		% within Column	14.6%	5.1%	4.0%	.0%	6.7%	
	Disagree	Count	6	3	5	0	14	
		% within Column	12.5%	3.8%	10.0%	.0%	7.2%	
	Strongly Disagree	Count	0	1	0	0	1	
		% within Column	.0%	1.3%	.0%	.0%	.5%	
	Total		Count	48	79	50	18	195
			% within Column	100.0%	100.0%	100.0%	100.0%	100.0%

After investigating the mean values of the importance of IPR in the development process of a country the mean values of relationship between research and development activities and IPR was explored. The results, which are presented in the post hoc test in Table 7.53, demonstrate that the participants from the more than 10 years of IPR experience group have the lowest mean value with 2.22 and the respondents from the less than 2 years of IPR experience group have the highest mean value with 2.75. The results are very similar to the importance of IPR for the development of a country since the more than 10 years of IPR experience group shows the most support for the opinion that there is a positive relation between research and development activities and IPR. On the other hand, the less than 2 years of IPR experience group, with the mean value of 2.75, do not have a particular opinion on this issue. In addition, the 2-5 years group with the mean value of 2.25 and the 6-10 years group with the mean value of 2.38 do not differ significantly from either the more than 10 years or the less than 2 years of IPR experience groups.

This can also be seen in the cross tabulation analysis in Table 7.54. The results indicate that 33.3% of the less than 2 years group do not have a particular opinion on the relationship between IPR and research and development activities whereas 22.9% of them think that there is no relation between IPR and research and development activities. In addition, the more than 10 years group with 72.2% (11.1%

strongly agree and 61.1% agree) believe that there is a relation between IPR and research and development activities.

**Table 7.53: Post Hoc Test Results**

Post Hoc Test Results			
Is there a positive relation between Research and Development activities, and IPR?			
Scheffe <sup>a, b</sup>			
Duration of working in IPR office	N	Subset for alpha = 0.05	
		1	2
More than 10 years	18	2.22	
2-5 years	79	2.25	2.25
6-10 years	50	2.38	2.38
Less than 2 years	48		2.75

**Table 7.54: Cross Tabulating ‘Relationship between Research and Development activities, and IPR’ with ‘Duration of IPR Experience’**

			Duration of working in IPR office				Total
			Less than 2 years	2-5 years	6-10 years	More than 10 years	
Is there a positive relation between Research and Development activities with IPR?	Strongly Agree	Count	2	10	3	2	17
		% within Column	4.2%	12.7%	6.0%	11.1%	8.7%
	Agree	Count	19	43	30	11	103
		% within Column	39.6%	54.4%	60.0%	61.1%	52.8%
	Neutral	Count	16	22	12	4	54
		% within Column	33.3%	27.8%	24.0%	22.2%	27.7%
	Disagree	Count	11	4	5	1	21
		% within Column	22.9%	5.1%	10.0%	5.6%	10.8%
Total		Count	48	79	50	18	195
		% within Column	100.0%	100.0%	100.0%	100.0%	100.0%

## 7.8. SUMMARY

IPR protection is considered to be an important aspect of intellectual and economic life, in which enforcement of IPR plays an exclusive role. Thus, the aim of this chapter has been to gauge the level of knowledge, perceptions and opinions of the respondents regarding the protection of IPR in Turkey, and thus covers the main arguments in relation to the protection of IPR.

Therefore, the results explored in the first part of the study suggest that the police should be involved in the fight against IP crimes. In addition, guilds and patent/trademark lawyers should be involved proactively in the process. According to the results, respondents believe that anti-piracy commissions do not work effectively and the establishment of a single organisation is supported to deal with copyright and industrial property rights together. Furthermore, the satisfaction level of the respondents with their work is very high; however, the results suggest that police constables are more satisfied than police chiefs.

Additionally, the challenges encountered in the fight against IPR crimes have been investigated. A factor analysis with nine variables was conducted. After the factor analysis those nine variables were reduced to two factors: 'Legislative and non-policing challenges' and 'Policing related challenges'. Furthermore, another factor analysis consisting of seven variables regarding precautions in terms of preventing IPR crimes have been explored. Factor analysis suggested two factors: 'Economic and legislative precautions', and 'Policing related precautions'.

The research was further extended in terms of investigating by firstly classifying the profiles of IP criminals and then establishing whether there is a relation between IPR crimes and organised crime as well as terrorist groups. For this purpose, cross tabulations were employed in terms of criminals' profiles in order to determine whether a criminals progress from IPR criminals into more serious organised crime, and if there is a connection between infringers of IP crimes and terrorists. The results indicate that the respondents who think IPR crimes are committed by corporate infringers differ from other groups.

In addition, in accordance with possible membership of the EU, the respondents' understandings on enforcement of IPR systems in EU member states, effect of the EU twinning project, and respondents' attendance at IPR trainings were researched. The results indicate that the majority of police chiefs have information about the enforcement systems in some EU countries. Furthermore, the results show that the distribution of police chiefs is higher than police constables in terms of supporting the effectiveness of the EU twinning project regarding the protection of IPR. Additionally, the majority of police chiefs have attended IPR training sessions in Turkey held by EU experts.

Finally, the importance of IPR in the development of a country as well as the relation between research and development activities and IPR were studied. The results demonstrate that the more than 10 years of IPR experience group shows the highest level of support for the opinion that there is a positive relation between R&D activities and IPR and the importance of IPR in the development of a country. On the other hand, the less than 2 years of IPR experience group shows the lowest level of support.

## **Chapter 8**

### **INTERPRETATIVE DISCUSSION: CONTEXTUALISING THE FINDINGS**

#### **8.1. INTRODUCTION**

The main aim of this study is to investigate the enforcement of the IPR system in Turkey in terms of enforcement methods, precautions, challenges, the EU process relating to IP, effect of research and development (R&D) programs on IP, and types of IP crimes/criminals.

Due to technological developments, the importance of IP has been widely acknowledged in recent years, not only in copyright but also in industrial property rights. In terms of copyright, development of technology has facilitated the reproduction of hard copies and mostly since the advancement of the internet it has become far easier to share soft copies across the world. In addition, companies have invested a great deal of money in their R&D programs in order to introduce new developments. Therefore, protection of IPR has been broadly accepted throughout the world in order to encourage people who deal with these kinds of IP issues.

There are international, regional and national laws in relation to the protection of IPR; thus, the signatory states are obliged to fulfil the requirements of those agreements and conventions. Therefore, the enforcement of IPR plays an important role in terms of IPR protection. Protection methods and techniques may vary from country to country, but ultimately IP crimes should be prevented in terms of complying with IP agreements. In this regard, police constabularies play a crucial role in the fight against IP infringements in Turkey which is explored in the fourth chapter.

As a result, this chapter aims to combine some of the main outcomes of the empirical findings in order to carry out an integrated discussion of the hypotheses which will contribute to this research. This chapter deals with six main issues. The first topic consists of hypotheses relating to the enforcement of IPR system and methods. The second issue discussed is the challenges faced by the IPR

enforcement system, the third topic is about the precautionary strategies of IPR. Then, the relationship between IPR crimes and organised crime, and the EU process relating to IPR are explored. Finally, R&D activities in relation to IPR are investigated.

## **8.2. IPR ENFORCEMENT SYSTEM**

As indicated earlier in this study, the police force is one of the bodies authorised in the protection of IPR in Turkey. Sometimes it conducts operations on its own or together with other relevant institutions and organisations. Thus, in order to find out what kind of IPR enforcement method would be the most appropriate in the fight against IP crimes, the study developed certain hypotheses as follows:

### **8.2.1. Involvement of the Police in the Fight against IPR Crimes and Specialised IPR Police Units**

#### **Hypothesis 1**

*Ho: There is no significant difference in the mean perception score among the cities in relation to whether the fight against IP crimes should be carried out by the police.*

The results, which are depicted in Table 6.10, show that 61.5% of the respondents believe that the police should take part in the fight against IP infringements. However, based on the inferential analysis results, which are presented in Table 7.2 in Chapter Seven, as an output of one way ANOVA test, the null hypothesis is rejected since the  $p$ -value of 0.044 is lower than the critical  $p$ -value of 0.05. Thus, the alternative hypothesis, which implies that there is a significant difference among the respondents from various cities in terms of their perceptions regarding the police involvement in the fight against IP crimes, is accepted.

As seen in the post-hoc result in Table 7.2, the findings indicate that the mean values gradually increase from the cities with dedicated IPR offices to the cities without dedicated IPR offices. The respondents from cities with dedicated IPR offices support police participation in the prevention of IPR infringements more than the participants from cities without dedicated IPR offices. This can be



explained by the fact that they face more IP frauds, apart from Gaziantep which seems to be the outlier case. There is no dedicated IPR office in Gaziantep; however, the results show that respondents from Gaziantep support police involvement in the protection of IPR which is evidenced from the mean value of 2.50. This can be explained by the nature of the formal and informal economy of the city. Gaziantep is an industrialised city and has a land border with Syria; hence being at the international cross-roads also makes it susceptible to IPR crimes. Therefore, police officers in Gaziantep encounter IPR crimes relatively more than other cities without dedicated IPR offices.

Additionally, the result of the independent-samples t-test presented in Table 7.2 indicates that there is a statistically significant difference between the respondents from cities with dedicated IPR offices and those from cities without dedicated IPR offices since the  $p$ -value of  $0.032 < 0.05$ . Consequently, these two results are consistent with each other and show that samples from cities with dedicated IPR offices support police participation in the fight against IP crimes more than the respondents from cities without dedicated IPR offices. It was expected that the respondents from cities with dedicated IPR offices would consider prevention of IP crimes as an important task. Besides, they know the importance of the protection of IP and the seriousness of the problem better than the respondents from cities without dedicated IPR offices. As a result, we reject the null hypothesis.

## **Hypothesis 2**

***Ho: There is no significant difference in the mean perception score among the cities in relation to whether the fight against IP crimes should be carried out by the specialised IP police units.***

The role of specialised IP police units was also investigated in relation to the enforcement of IPR methods. Based on the output of the one way ANOVA test which is depicted in Table 7.3 there is a significant difference among the respondents from those cities where the questionnaires were distributed as the  $p$ -value of 0.012 is relatively lower than the critical level of 0.05.

In addition, the result of the independent-sample t-test which is presented in Table 7.3 demonstrates that there is a statistically significant difference between the respondents from places with dedicated IPR offices and those from places without dedicated IPR offices since the  $p$ -value 0.006 is considerably lower than the critical level of 0.05.

Consequently, the results presented in Table 6.17 demonstrate that 88.6% of the respondents believe that specialised IPR officers would be more favourable for an effective enforcement system against IP crimes. Additionally, the results of the independent-samples t-test and one way ANOVA show that respondents from cities with dedicated IPR offices believe that specialised IP units would be more effective in achieving more successful outcomes in the struggle against IP crimes since the mean values of the first six cities in Table 7.3 with dedicated IPR offices are between 1.53 and 1.80. On the other hand, the mean values of the cities without dedicated IPR offices range from 1.90 to 2.90, and therefore, they have higher mean values than the places with dedicated IPR offices. This is an indication that their level of support for specialised IPR units in the protection of IPR is less than the respondents from places with dedicated IPR offices. As a result, we reject the null hypothesis.

### **8.2.2. Anti-Piracy Commissions**

As discussed in the initial chapters, anti-piracy commissions have an important role in the protection of IPR which consists of various governmental and non-governmental members. Thus, it is worth studying the perception of the respondents about the anti-piracy commissions in order to evaluate the effectiveness of anti-piracy commissions in the fight against IPR crimes.

#### **Hypothesis 3**

*Ho: There is no significant difference among the respondents coming from the sampled cities in their perception that anti-piracy commissions do not work properly.*

As indicated in Chapter Six, 57.7% of the respondents state that anti-piracy commissions do not work efficiently. Additionally, based on the results of the

ANOVA test depicted in Table 7.4, there is a significant difference among the cities. Thus, respondents from Diyarbakir and Gaziantep are not satisfied with the efficiency of the anti-piracy commissions. Therefore, it could be said that the dissatisfaction might arise from the members of anti-piracy commissions in those cities. Sometimes members of anti-piracy commissions, who are not police officers, want to conduct operations only when they are available. However, the operations can be done any time as required depending on the case when. In addition, the money used for conducting operations is provided by the Ministry of Culture and Tourism. However, the people in charge of the anti-piracy commissions in the provinces are from the police units; therefore, sometimes it causes disagreements or problems which may result in dissatisfaction. On the other hand, respondents from Bursa are the most satisfied in terms of the efficiency of the anti-piracy commissions. As a result, police officers, particularly in Diyarbakir and Gaziantep, should increase their cooperation and collaboration with the antipiracy commissions and compel the members of anti-piracy commissions to cooperate in order to protect IPR.

Additionally, the result of cross tabulation (see Table 7.5) shows that those respondents who are in favour of police involvement are also of the opinion that anti-piracy commissions do not work efficiently. Hence, the results specify a particular pattern; regardless of whether they support police involvement or not, participants are of the view that anti-piracy commissions do not work efficiently. This result also indicates an interesting result in connection with Hypothesis 1. Thus, according to current IP legislation security forces are authorised to protect IPR and conduct operations against IP criminals in order to prevent and seize pirate or counterfeit materials. In this regard, the majority of the respondents support the police involvement in the IPR protection, since the police have to fight against IP infringements according to the current law. However, the results shown in Table 7.5 imply that the current IP law should be amended and guilds or patent-trademark attorneys should take a more active part in the protection of IP rather than the police. Consequently, we reject the null hypothesis.

### **8.2.3. Single Organisation in order to have a Strong Intellectual Property Protection System**

According to current legislation in Turkey, the Ministry of Culture and Tourism is charged with copyright-related IPR issues, whereas the Turkish Patent Institute is the authorised body in terms of industrial property rights. However, in the UK a single authority, the Intellectual Property Organisation, is in charge of issues regarding both copyright and industrial property rights. The British example might be considered a better structure for dealing with IPR. Therefore, it is important to reveal the opinions of the respondents on having a strong IPR enforcement system.

#### **Hypothesis 4**

*Ho: Duration of IPR experience and rank do not have an impact on the perception of the foundation of a single IP organisation.*

According to Table 6.55, 74.9% of the respondents support the foundation of a single institution in order to have a strong IP protection system that deals with the copyright and industrial property right issues together. Additionally, the results of the two way ANOVA test between groups (see Table 7.6) demonstrate that the effect of duration of IPR experience, rank, and interaction effect of IPR experience and rank, is not statistically significant. Therefore, there is no statistically-significant difference between the respondents with 0-5 years of IP experience in dealing with IPR crimes and those with more than 5 years of IP experience, or between the police chiefs and police constables in terms of their opinion on the establishment of a single organisation in the fight against IPR crimes. As a result, the foundation of a single IP organisation is highly supported by the respondents. However, neither the duration of IPR experience nor the rank have an impact on the establishment of a single organisation. Thus, we fail to reject the null hypothesis.

#### **8.2.4. Should IPR be Free?**

This research also attempts to reveal the perception of the respondents on the protection of IPR with the following question: ‘Do the respondents believe that IPR should be protected due the nature of IPR or do they fight against IPR infringements just because they are professionals and conducting their tasks in

order to comply with the IP legislation?’ In addition, the differences between the respondents are also explored with the following question: ‘Is there a difference between the respondents from cities with dedicated IPR units and those from cities without dedicated IPR units in terms of evaluating the IPR itself?’

### **Hypothesis 5**

*Ho: There is no significant difference in the mean perception values between the respondents from cities with dedicated IPR offices and those from cities without dedicated IPR offices that the use of IPR should be free.*

According to the results of Table 6.54, 87.9% of the respondents believe that IPR should be protected. Additionally, based on the result of the independent-samples t-test which is presented in Table 7.9, there is a significant difference between the respondents from cities with dedicated IPR offices and those from cities without dedicated IPR offices in terms of believing that the use of IPR should be free, which is evidenced from the significance value of  $0.03 < 0.05$ . In addition, the mean score of the respondents from places with dedicated IPR offices (4.47) is higher than the mean score of those from places without dedicated IPR offices (4.06). Therefore, the results show that the respondents from places with dedicated IPR offices are more in favour of protection of IPR. Thus, the respondents from places with dedicated IPR offices encounter various IPR crimes and have more experience than the respondents from places without dedicated IPR offices due to dealing with IPR infringements which results in emphasising their jobs and obtaining a comprehensive understanding on the protection of IPR. Consequently, we reject the null hypothesis.

### **8.2.5. Satisfaction Level of the Respondents**

Satisfaction level of the respondents is also studied in this research in order to find out how satisfied they are with their work. If the respondents are satisfied with their work, it is expected that they will be more effective and successful in their work. In addition, whether there is a significant difference between the police chiefs and police constables in terms of their satisfaction level is also researched in order to gauge their point of view regarding the tasks in relation to IPR.

## Hypothesis 6

*Ho: There is no significant difference in the mean scores between police chiefs and police constables regarding their job satisfaction levels.*

Table 6.9 indicates that 89.4% of the respondents are satisfied with their work. In addition, the result of the independent-samples t-test presented in Table 7.7 demonstrates that there is a statistically significant difference between police constables and police chiefs in terms of their satisfaction levels. Consequently, according to the results,  $p$ -value for the satisfaction level 0.015 is relatively lower than the critical  $p$ -value of 0.05.

Additionally, mean scores are taken into consideration. Therefore, interpreting the mean scores, we see that the police constables are more satisfied than the police chiefs with their work. This can be explained by the fact that police chiefs think that State Security Divisions are not as attractive as some other units such as Intelligence, Organised Crime or Anti-terrorism. In the police service it is thought that having worked in Intelligence, Organised Crime, Anti-terrorism or Public Order units could be an asset in the future for police chiefs, helping them to obtain a high position in the police service. As the tasks of these units are considered more important compared to other units in the police service, a police chief who works in one of these units has a strong background and experience and will most probably attain a good position in the future. Furthermore, police officers in Intelligence, Organised Crime, and Anti-terrorism units are considered to be specialised experts in their work and they are expected to be deployed in those units for many years. However, police officers at state security divisions are not seen as experts and they are likely to be redeployed to other divisions. In particular, it is important for police chiefs to be experts in a particular field, and it will be an asset to them in the future when applying for important positions in the Police Service. Moreover, police officers in Intelligence, Organised Crime, Anti-terrorism, and Public Order divisions are relatively better rewarded than those in other units which is an advantage for them in terms of promotion. In addition, police chiefs are not only responsible for preventing IPR crimes but also other related tasks which are laid down in the relevant legislations. Therefore, police chiefs have a heavy workload.

However, in general police officers deal with only IPR issues which increase their level of satisfaction. Consequently, we reject the null hypothesis.

### **8.3. CHALLENGES IN THE ENFORCEMENT OF IPR**

As discussed in the previous chapter, several challenges may manipulate the IPR enforcement system. Therefore, the variables in relation to the challenges of the IPR enforcement system are studied in this part of the research.

#### **Hypothesis 7**

*Ho: There is no significant difference in the mean scores between respondents with 0-5 years of IPR experience and those with more than 5 years of IPR experience regarding their evaluation of IPR challenges.*

Initially, for the purpose of this research a factor analysis test was computed in order to reduce the existing nine variables related to the challenges in the enforcement of IPR to a more manageable number of factors. In this regard, after conducting a factor analysis all those nine variables fit into two factors. The results, which are depicted in Table 7.13 with the extraction method, indicate that 51.7% of the total variance was explained by these two factors with the contribution of the first factor and the second one being 30.81% and 20.26% respectively.

Then, a one-way between groups multivariate analysis of variance (MANOVA) was employed to examine whether there is a significant difference in the mean values between the respondents with 0-5 years of IPR experience and those with more than five years of IPR experience concerning the evaluation of the IPR challenges. The data normally distributed, outputs of the Box's Test of Equality of Covariance Matrices, and the Levene's Test of Equality of Error Variances indicated that there is no violation of assumptions. The independent variable included is duration of IPR experience which was split into two groups, 0-5 years of IPR experience and those with more than five years IPR experience. The dependent variables which were gathered after the factor analysis were 'Legislative and non-policing challenges' and 'Policing related challenges'.

The results depict that there is a statistically-significant difference between the respondents with 0-5 years of IPR experience and those with 5 years plus of IPR experience, as the  $p$ -value is 0.008, Wilks' Lambda is 0.95 and partial eta squared is 0.55. The outputs of the dependent variables were taken into consideration separately and Bonferroni adjusted significance value of 0.025 (0.05/2) was used in order to determine the significant differences. The results indicate that there are statistically significant differences for both dependent variables. The  $p$ -value for 'Legislative and non-policing challenges' is 0.018 and partial eta squared is 0.032, and the  $p$ -value for 'Policing related challenges' is 0.005 and partial eta squared is 0.044.

Consequently, the mean values demonstrate that the respondents with more than 5 years of IPR experience have slightly lower mean values than the less experienced respondents with 0-5 years. Thus, based upon the length of IPR experience, more experienced respondents encounter more variation of crimes and know the seriousness of the problem better than the 0-5 years of IPR experience group. As a result, the more experienced group attaches more importance to these challenges than the less experienced group. Thus, we reject the null hypothesis.

#### **8.4. PRECAUTIONARY STRATEGIES ON IPR**

There are a number of precautions which should be taken into account in order to prevent IPR crimes. Those precautions are researched in this study in order to find out the main factors in the prevention of IP crimes, which are examined through the following hypothesis:

##### **Hypothesis 8**

*Ho: There is no significant difference in the mean scores between the respondents with 0-5 years of IPR experience and those with more than 5 years of IPR experience regarding the evaluation of the IPR precautions.*

Firstly, as discussed in Chapter Seven, in accordance with the purpose of this study seven variables in relation to the challenges of IPR enforcement system are selected and a factor analysis was computed with those variables. As can be seen in Table 7.21, the results show that all the variables successfully loaded into two factors and



fit properly into two factors. The first factor consisting of five variables was 'Economic and legislative precautions' and the second factor with two variables was 'Policing related precautions' in accordance with the content of the variables.

After the factor analysis a one way between groups MANOVA analysis was employed to research whether there are any significant differences between the first and second factors in terms of respondents' length of IPR experience. The results of the relevant tests were presented in the previous chapter in terms of data compliance to the assumptions before presenting the main MANOVA analysis.

As a result, after the factor analysis a one-way between groups multivariate analysis of variance (MANOVA) was employed to research whether there are any significant differences between the first and second factors in terms of respondents' length of IPR experience related to precautions for protection against IPR crimes. The independent variable was length of IPR experience which was split into two groups as 0-5 years of IPR experience and 5 years plus of IPR experience. The dependent variables generated after the factor analysis were 'Economic and legislative precautions' and 'Policing related precautions'. It should be noted that the data normally distributed and the results of the Box's Test of Equality of Covariance Matrices, and the Levene's Test of Equality of Error Variances signified no violation of assumptions. According to the results presented in the previous chapter, hence, there is no statistically-significant difference between the respondents with 0-5 years of IPR experience and those with 5 years plus of IPR experience in the dependent variables since the  $p$ -value is 0.798 and the Wilks' Lambda is 0.998. The results of the dependent variables were taken into account separately in order to find out if there is any significant difference, and also a new alpha level of 0.025 was used after applying the Bonferroni adjustment method. However, the outputs show that there is no significant difference in terms of length of IPR experience on dependent variables 'Economic and legislative precautions' and 'Policing related precautions'. Consequently, we fail to reject the null hypothesis.

## **8.5. SEARCHING FOR THE CONNECTION BETWEEN IPR CRIMES AND ORGANISED CRIMES**

The connection between organised crime and IPR crimes has been a controversial issue in recent years due to its economic growth and exploitation across the world. Blakeney argues that economic loss due to piracy and counterfeiting was around US\$450 billion per year in 2003 and that money was channelled into organised crime groups and used to finance terrorist groups (Blakeney, 2005, p. 11). Therefore, the inferential statistical analysis of this research regarding the relationship between organised crime and terrorist groups is presented in this part of the study.

### **Hypothesis 9**

*Ho: As perceived by the respondents, there is no connection between IPR crimes and organised crime.*

The results in Table 6.33 indicate that the majority of the sample (85.5%) agrees that IPR crimes are committed either by ‘organised infringers’ or ‘initially individual infringers who later become part of organised infringer groups’. In addition, according to the result of the cross tabulation, which is depicted in Table 7.26, 53.4% of the respondents from cities with dedicated IPR offices think that IPR criminals are ‘Initially individual infringers who later become part of organised infringer groups’ while 34.2% believe that they are ‘Organised infringers’ (a total of 87.6%). In addition, 48.6% of the respondents from cities without dedicated IPR offices assume that IPR criminals are ‘Initially individual infringers who later become part of organised infringer groups’ whereas 27% believe they are ‘Organised infringers’ (a total of 75.6%) which indicates a connection between organised crime groups and IPR criminals. As a result, according to the perceptions of the participants, there is a connection between IPR crimes and organised crime. However, there is no significant difference between the participants from cities with dedicated IPR offices and cities without dedicated IPR offices. Consequently, we reject the null hypothesis.

### **Hypothesis 10**

*Ho: As perceived by the participants IPR criminals do not differ in terms of progressing into more serious organised crime.*

### **Hypothesis 11**

*Ho: As perceived by the participants IPR infringers do not differ in terms of having connections with terrorist groups.*

### **Hypothesis 12**

*Ho: As perceived by the participants IPR criminals do not differ in terms of channelling money into organised crime groups, which has been unlawfully gained by infringing IP.*

In order to see the differences among the profiles of the criminals a number of relevant issues such as 'Progression from being an IPR criminal to an organised crime criminal', 'Connection between organised crime and terrorist groups', and 'The money gained by infringing IPR channelled into organised crime' are investigated. The profiles of IPR criminals (i.e. individual infringers, organised infringers, initially individual infringers who later become part of organised infringer groups, and corporate infringers) as identified in the questionnaire, were utilised as the independent variable whereas variables such as 'Criminals' progression into more serious organised crime', 'Connection between infringers of IP crimes and terrorist groups' and 'The money gained by infringing IPR channelled into organised crime' were used as dependent variables in the MANOVA test (see Table 7.30). The results of the Box's Test of Equality of Covariance Matrices, and the Levene's Test of Equality of Error Variances signified no violation of assumptions. As part of the statistical test, the Wilks' Lambda shows that there is a statistically significant difference between the respondents since the significance value of 0.005 is considerably lower than the critical level of 0.05.

Accordingly, the results of that MANOVA test, which are presented in detail in Chapter Seven, indicate that 'Criminals' progression into more serious organised

crimes', and 'Connection between infringers of IP crimes and terrorist groups' both have significant values of 0.002 and 0.009 respectively which are lower than the alpha level of 0.017 (0.05/3) which was adjusted using the Bonferroni adjustment method for this case. However, the outcomes demonstrate that there is no significant difference for 'The money gained by infringing IPR channelled into organised crime' since the *p*-value of 0.106 is relatively higher than the adjusted alpha level of 0.017.

As a result, as perceived by the respondents there are significant differences among the criminals' profiles in 'Criminals' progression into more serious organised crime', and 'Connection between infringers of IP crimes and terrorist groups'. On the other hand, there is no significant difference among criminals' profiles in 'The money gained by infringing IPR channelled into organised crime'. Additionally, two separate ANOVA tests were computed on the dependent variables ('Criminals' progression into more serious organised crime' and 'Connection between infringers of IP crimes and terrorist groups') in order to reveal the differences among the perceptions of the respondents regarding the profiles of IP criminals on these dependent variables since their mean scores are significant in the MANOVA test.

In further substantiating the results, as discussed in the descriptive analysis chapter 57% of the respondents believe there is progression from being an IP offender to becoming a more serious organised criminal, such as a drug dealer; however, 25% think that there is no progression. Based on the MANOVA results, which are depicted in Chapter Seven, corporate infringers differ from the other three infringer groups. Consequently, based on the mean values presented in Table 7.34, as perceived by the participants on the criminals' progression into more serious crimes, the corporate infringers (3.62) differ from individual infringers (2.50), organised infringers (2.49) and initially individual infringers who later become part of organised infringer groups (2.47).

As a result, the respondents who believe that IPR crimes are committed by corporate infringers think that IPR criminals do not progress into more serious crimes. Additionally, the result of the cross tabulation (see Table 7.35) between 'Profiles of IPR criminals' and 'Progression of the criminals into more serious organised crimes' indicate that 61.5% of the respondents who think IPR crimes are

committed by corporate infringers also think that IPR criminals do not progress into more serious crimes. Thus, as perceived by the respondents, corporate infringers differ from other IP criminals in terms of 'Progression of the criminals into more serious organised crimes'. In general, the respondents who are in the opinion of IP crimes are committed by corporate infringers believe that as legal entities companies aim to fulfil their objective function within their own production or service realm in relation to IPR issues; and therefore by definition it is not meaningful for them to have connections with organised crime groups.

Secondly, regarding the connection between infringers of IP crimes and terrorist groups, the post hoc test result of the ANOVA test (see Table 7.38) classified the profiles of the IP criminals into two separate groups according to their mean values; the first group consists of organised infringers (2.42) and initially individual infringers who later become part of organised infringer groups (2.50), while the second group consists of corporate infringers (3.38). However, depending on the mean scores the individual infringers group (2.81) is placed in both groups, thus, the corporate infringers differ from organised infringers and initially individual infringers who later become part of organised infringer groups.

In addition, according to the result of cross tabulation (see Table 7.39) between the profiles of criminals and the connection between infringers of IP crimes and terrorist groups, 53.8% of the respondents who assume IPR criminals are corporate criminals believe that there is no connection between IP criminals and terrorists. This result shows that, as perceived by the respondents, corporate infringers differ in terms of connection between IP infringers and terrorist groups.

As a result, we reject null hypotheses 10-11; however, we fail to reject null hypothesis 12.

## **8.6. EUROPEAN UNION PROCESS RELATING TO IPR**

As discussed in the previous chapters, Turkey is a candidate country for EU membership. As a result, IP law has to be brought into line with EU legislation. This study, therefore, investigated the perceptions of the participants' understanding of the EU process regarding the IP related issues.

### **Hypothesis 13**

*Ho: IPR training does not have an impact on attendees' understanding of EU enforcement systems.*

Based on the cross tabulation result which is presented in Table 7.44, 60% of the attendees have an understanding of IP enforcement systems in one or more of the EU member states. Furthermore, 10.2% of the respondents who have not attended an IPR training session have information about an IP enforcement system in an EU member state. As a result, 32.8% of the respondents have an opinion about the IP enforcement system in an EU country.

The results, thus, demonstrate that attendees of IPR training courses acquire information about IPR enforcement systems in EU member states. However, 40% of the attendees do not have an opinion regarding IP enforcement systems in EU countries despite the fact that they have attended the training. Therefore, in order to increase the level of attendees' awareness concerning EU member states' IPR enforcement systems, the training curriculums should be supported by adding more information regarding enforcement systems in EU member states in accordance with Turkey's potential EU membership process. Consequently, we reject the null hypothesis.

### **Hypothesis 14**

*Ho: There is no significant difference between police chiefs and police constables in terms of evaluating the effect of the EU Twinning Project which was held by the State Security Department in the fight against IP crimes.*

The result of the independent-samples t-test, which is depicted in Table 7.44, indicate that there is a significant difference between police chiefs and police constables since the  $p$ -value of 0.031 is lower than the critical level of 0.05 in terms of evaluating the effect of EU twinning project. As discussed in the previous chapters, the EU project was held by the State Security Department and the EU, in

order to reinforce the police in terms of legislation, experience and supply in the fight against IPR crimes. Consequently, evaluations of police chiefs concerning the effect of the EU twinning project in the fight against IPR infringements is more positive than police constables as the mean scores are 2.00 and 2.51 for police chiefs and police constables, respectively.

This result shows that the awareness of the police chiefs is greater than the police constables regarding the effect of the EU twinning project. This was an expected result since police chiefs have to be well-informed as they are in charge. Additionally, a cross tabulation was computed between rank and effect of the EU twinning project. In this regard, according to the cross tabulation result, which is presented in Table 7.45, 76.5% of police chiefs and 53.5% of police constables think that this EU twinning project has had a significant effect in the protection of IP. As a result, we reject the null hypothesis.

## **8.8. RESEARCH AND DEVELOPMENT ACTIVITIES**

Research and development programs in every society play a crucial role in inventions and innovations. Therefore, it could be said that the main aim of R&D activities involves the creation of new materials in various forms related to IP. Thus, this research also investigated the perceptions of the participants on R&D-related issues with the objective of revealing their understanding regarding R&D activities, which could have consequences for their opinions on IP issues.

### **Hypothesis 15**

*Ho: There is no significant difference between the respondents' duration of IPR experience in relation to their perceptions regarding the importance of IPR for the development of a country.*

### **Hypothesis 16**

*Ho: There is no significant difference between the respondents' duration of IPR experience in relation to their perceptions regarding research and development activities in order to produce IP.*

In searching for answers of these hypotheses, a one way MANOVA test (see Chapter Seven) was computed in order to find out if there are any differences between the respondents in terms of evaluating the importance of IPR for the development of a country, and of research and development activities in terms of producing IP. In this sense, duration of IPR experience was the independent variable while importance of protection of IPR for the development of a country and relationship between research and development activities in terms of IP production were the dependent variables. In addition, the procedure for the robust running of the test was carried out in terms of holding the assumptions of the test and it was seen that there was no violation of assumptions. Moreover, Wilks' Lambda test produced a significant value of 0.005 and partial eta squared was found to be 0.047.

Based on the results of the MANOVA test, which is presented thoroughly in Chapter Seven, Table 7.50, there are significant differences between the respondents for each of these statements. In this sense, according to the results of Tests of Between-Subjects Effects (see Table 7.50), the respondents differ in terms of their perceptions regarding the importance of protection of IPR for the development of a country and the relationship between research and development activities in production of IP since their  $p$ -values (0.019 and 0.004) are lower than the adjusted alpha level of 0.025 (0.05/2) which was acquired using the Bonferroni adjustment method. Consequently, the results suggest a significant difference in terms of respondents' duration of IPR experience in both dependent variables. However, it is not revealed where the differences lie; therefore, further analyses were conducted in order to make a comparison of the mean scores.

In this regard, the result of the post hoc test (see Table 7.51) depicts that the respondents with more than ten years of IPR experience have the lowest mean score (1.56) and those with less than two years of IPR experience have the highest mean score (2.19), as they are classified in different cells. Therefore, this result implies that respondents with more than ten years of IPR experience show the highest support whereas those with less than two years of IPR experience show the lowest support in terms of importance given to importance of IPR in the development of a country. On the other hand, respondents with 2-5 years of IPR experience (1.78)



and also those with 6-10 years of IPR experience (1.82) do not differ significantly from the more than those with ten years and less than two years of IPR experience.

Additionally, the results of the cross tabulation (see Table 7.52) between duration of IPR experience and importance of IPR for the development of a country indicate that 100% of the respondents with more than ten years of IPR experience think that IPR plays an important role in the development of a country. On the other hand, the proportion of the respondents with less than two years of IPR experience, who believe IPR is important for the advancement of a country, is 72.9%.

In addition, in terms of relation between IPR and R&D activities, the result of the post hoc test (see Table 7.53) depicts that the respondents with more than ten years of IPR experience show the highest support (mean=2.22) whereas those with less than two years of IPR experience show the lowest support (mean=2.75) in terms of accepting a positive relation between IP and R&D among the groups. In addition, respondents with 2-5 years of IPR experience with the mean value of 2.25 and also those with 6-10 years of IPR experience with the mean value of 2.38 do not differ significantly from the more than ten years and less than two years of IPR experience groups.

Furthermore, the result of the cross tabulation between the duration of IPR experience, and the relation between IPR and R&D activities indicates that 72.2% of the respondents with more than ten years of IPR experience assume that there is a relation between IPR and R&D activities. On the other hand, 33% of the participants with less than two years of IPR experience do not have any information on this issue while 22.9% of them do not believe that there is a connection between IPR and R&D activities.

In conclusion, based on the results, length of IPR experience has a significant effect on perceptions of both importance of protection of IPR for the development of a country, and relationship between research and development activities in terms of IP production. Therefore, when new police officers are deployed in the IPR-related units they should be given comprehensive IPR information and be encouraged to attend the IPR training sessions. Consequently, we reject null hypotheses 15 and 16.

## **8.9. SUMMARY**

The results of the inferential statistics were explored in this part of the study. In addition, an interpretative attempt has been made to give further meaning to the results through ‘meaning-making’. Overall sixteen hypotheses were constructed to be tested according to the findings of the study, which were grouped under six topics: ‘IPR enforcement system’, ‘Challenges in the enforcement of IPR’, ‘Precautionary strategies on IPR’, ‘Connection between IPR crimes and organised crime’, ‘EU process relating to IPR’ and ‘R&D activities regarding IPR issues’.

As a result, in order to present the findings in a more systematic manner, the outcomes of sixteen hypotheses have been provided all together in Table 9.1, which depicts that thirteen alternative hypotheses are accepted in addition to three null hypotheses.

**Table 8.1: Summary of the Findings**

No	Hypothesis	Decision
1	Ho: There is no significant difference in the mean perception score among the cities in relation to whether the fight against IP crimes should be carried out by the police.	Accept H <sub>1</sub>
2	Ho: There is no significant difference in the mean perception score among the cities in relation to whether the fight against IP crimes should be carried out by the specialised IP police units.	Accept H <sub>1</sub>
3	Ho: There is no significant difference among the respondents coming from the sampled cities in their perception that anti-piracy commissions do not work properly.	Accept H <sub>1</sub>
4	Ho: Duration of IPR experience and rank do not have an impact on the perception of the foundation of a single IP organisation.	Accept H <sub>0</sub>
5	Ho: There is no significant difference in the mean perception values between the respondents from places with dedicated IPR offices and those from places without dedicated IPR offices that IPR should be free.	Accept H <sub>1</sub>
6	Ho: There is no significant difference in the mean scores between police chiefs and police constables regarding their job satisfaction levels.	Accept H <sub>1</sub>
7	Ho: There is no significant difference in the mean scores between the respondents with 0-5 years of IPR experience and more than 5 years of IPR experience regarding their evaluation of the IPR challenges.	Accept H <sub>1</sub>
8	Ho: There is no significant difference in the mean scores between the respondents with 0-5 years of IPR experience and those with more than 5 years of IPR experience regarding the evaluation of the IPR precautions.	Accept H <sub>0</sub>
9	Ho: As perceived by the respondents, there is no connection between IPR crimes and organised crime.	Accept H <sub>1</sub>
10	Ho: As perceived by the participants IPR criminals do not differ in terms of progressing into more serious organised crime.	Accept H <sub>1</sub>
11	Ho: As perceived by the participants IPR infringers do not differ in terms of having connections with terrorist groups.	Accept H <sub>1</sub>
12	Ho: As perceived by the participants IPR criminals do not differ in terms of channelling money into organised crime groups, which has been unlawfully gained by infringing IP.	Accept H <sub>0</sub>
13	Ho: IPR training does not have an impact on attendees' understanding of EU enforcement systems.	Accept H <sub>1</sub>
14	Ho: There is no significant difference between police chiefs and police constables in terms of evaluating the effect of the EU Twinning Project which was held by the State Security Department in the fight against IP crimes.	Accept H <sub>1</sub>
15	Ho: There is no significant difference between the respondents' duration of IPR experience in relation to their perceptions regarding the importance of IPR for the development of a country.	Accept H <sub>1</sub>
16	Ho: There is no significant difference between the respondents' duration of IPR experience in relation to their perceptions regarding research and development activities in order to produce IP.	Accept H <sub>1</sub>

The purpose of the interpretative attempt together with systematic hypotheses testing in this chapter was to fulfil the aims of the research, which indicates that while there have been certain developments in IP related issues in Turkey, there is a need for further development, which is reflected in terms of policy recommendation in the following chapter.

## **Chapter 9**

### **CONCLUSION**

#### **9.1. INTRODUCTION**

Technological changes have put the issue of IPR on the agenda more than ever before, due to the increased and fast dissemination methods of any media and written material. This development is also due to changes in the perceptions of individuals and societies in terms of appreciating and valuing IP.

Indeed, individuals in various capacities put a great deal of effort and time into producing IP for the use of the public, such as the unceasing innovations in everyday life, which are becoming indispensable in our lives. It is a fact that innovation and invention activities cost significant amounts of money in the form of R&D. Additionally, authors or other rightowners spend their time and use their intellect as well as their skills in order to create intellectual works. Therefore, producers or rightholders of IPR are privileged by related laws in terms of protecting their rights, as IPR is one of the most frequently-breached rights in everyday life. However, there are some exceptions in that IP is not treated the same as a tangible property since there are some differences, which were discussed in the second chapter.

Due to the easy and fast movement of IP material globally, there are several international and national IP agreements with the objective of protecting IPR and preventing IPR crimes. This research, thus, focuses on the enforcement of IPR in the case of Turkey, with a view to filling a gap in IP studies.

#### **9.2. REFLECTING ON IPR ENFORCEMENT IN TURKEY**

As discussed earlier in this study, Turkey is a party to several international and regional agreements on IPR and has put a great deal of effort into IPR-related issues, particularly since 1995 as a result of becoming a member of the Customs Union with the EU. IPR legislations in Turkey have been amended in line with the relevant EU directives, as Turkey is also a candidate country for full EU membership. In terms of Turkey's membership in the EU, legislations related to

IPR have been amended several times in order to comply with EU requirements. In addition, regarding the administrative structure in terms of enhancing the efforts in protecting IPR and dealing with the IPR infringements, a number of initiatives have been developed by the police, such as the establishment of dedicated IPR offices and a twinning project with the EU. Furthermore, legislative amendments have also been put into force regarding the enforcement of IPR.

As a result of legislative and administrative developments, the fight against IPR crimes has been given more intense consideration. In addition, after the establishment of the IPR office at the General Directorate of Police, international and national cooperation reached a high level. Some of the enforcers have attended international meetings, study visits and training courses organised by the UN and the EU in order to strengthen international cooperation and increase their knowledge of IPR issues. In addition, in-service IPR training courses have been organised for the police officers from provincial IPR-related offices. As a result, enforcers' knowledge and understanding have been broadened regarding IPR issues.

### **9.3. REFLECTING ON EMPIRICAL FINDINGS**

As has already been discussed in detail, this research aimed to explore the perceptions of police officers fighting against IPR crimes, and the role of the EU in enhancing the IPR regulation and enforcement in Turkey. For this purpose, detailed empirical analysis was presented in the earlier chapters. This section aims to reflect on the empirical findings of the study.

The findings in the preceding chapters demonstrate that in terms of enforcement of IPR, the majority of respondents believe that IPR crimes should be dealt with by the police. This opinion is mainly supported by the respondents from departments with dedicated IPR offices. It is a fact that those respondents from places with dedicated IPR offices encounter various IPR infringements; thus, they are more knowledgeable about such crimes than the respondents from places without dedicated IPR offices. It should be noted that according to the statistics most of the IPR crimes have been committed in those big cities where the departments with dedicated IPR offices are established.

Furthermore, the vast majority of respondents think that specialised IPR police are necessary in order to achieve an effective outcome. The findings also show that this opinion is supported by the respondents from the cities with dedicated IPR offices more than those respondents from cities without dedicated IPR offices. The secondary data and personal observation is also in support of this result as, most of the materials have been confiscated in major cities and also pirate and counterfeit products are distributed from big cities to small cities. Therefore, the respondents from cities with dedicated IPR offices have a higher awareness of this issue and the seriousness of the problem compared with the respondents from cities without dedicated IPR offices.

The role of anti-piracy commissions is also important in terms of evaluating the IPR enforcement system. Police forces conduct operations against IPR crimes either independently or together with members of anti-piracy commissions. However, as the results indicate, the majority of respondents are not satisfied with the work of anti-piracy commissions. Additionally, there is a significant difference among the cities in terms of evaluating the efficiency of the anti-piracy commissions. It is strongly recommended that the cooperation between the police and anti-piracy commissions should be enhanced and the anti-piracy commissions should be more active in order to achieve more effective outcomes in the fight against IPR crimes.

Police units are obliged to enforce the law. Therefore, according to the current legislation, the police is authorised to fight against IP crimes. However, the results indicate that the majority of respondents believe that IPR crimes should in fact be dealt with by guilds and patent-trademark attorneys rather than the police. As discussed in Chapter Four the guilds or patent-trademark attorneys in the UK are more active in the fight against IP crimes. In order to cope with crimes effectively, prioritising crimes is important for the police. In this regard, some enforcers argue that IP crimes are a kind of economic crime which violates personal rights while harming the income of the rightholders. On the other hand, there are other crimes which violate public security such as terrorism, riots, public order, money laundering, drugs, murder, human trafficking and so on. Therefore, in order to have a strong IPR enforcement system and facilitate the workload of the police, related guilds and patent-trademark attorneys should take a more active part in IPR

protection. In addition, the results of the questionnaire demonstrate that the majority of respondents believe that police chiefs/directors prioritise the fight against IPR crimes.

In the current IP system in Turkey, copyright issues are dealt with by the Ministry of Culture and Tourism, and industrial property right issues by the Turkish Patent Institute. However, in the UK for instance, a country which has played an important role in the development of IPR, a single organisation, the United Kingdom Intellectual Property Office, is responsible for dealing with both copyright and industrial property rights issues. According to the results of the questionnaire, the respondents believe that copyright and industrial property rights issues should be carried out by a single organisation in order to have a strong IP protection system. Based on the results, regardless of rank and IPR experience, the majority of the respondents are in favour of establishment of a single organisation that deals with both copyright and industrial property rights. This result implies that there is no significant difference among the respondents who believe that both copyright and industrial property rights should be dealt with a single institution.

In terms of evaluating the respondents' opinions regarding the protection of IPR, the results indicate that the vast majority of the sample believes that IP-related material should not be used freely without the consent of the rightowners. This result is important in the fight against IPR crimes, since it shows that the vast majority of respondents believe IPR should be protected. If the enforcers support the protection of IPR they can work more effectively, otherwise they might be reluctant. Additionally, according to the results the support of the respondents from the places with dedicated IPR offices is more than the officers from the places without dedicated IPR offices in terms of the opinion that 'IPR should not be free'. In addition, another result substantiates IPR protection since the vast majority of enforcers believe that IPR should be protected in order to acknowledge and appreciate the intellectual input, labour and skills applied to the works and products by the authors or producers. Nevertheless, a small number of the respondents are against the protection of IPR and think that IPR should be free for the common good.

Accordingly, the satisfaction level of the respondents or the enforcers is also important for the protection of IPR. It is expected that greater satisfaction brings more success in a work. Therefore, if the respondents are satisfied with their jobs it is likely that they will be more successful in the fight against IPR crimes. The results demonstrate that the vast majority of respondents are pleased with their work. However, the satisfaction level among the respondents varies in terms of rank. The satisfaction level of the police chiefs is less than that of the police constables due to their career expectations. In the police service it is widely accepted that police chiefs who have been working in Intelligence, Anti-terrorism, Organised Crime and Anti-smuggling, and Public Order units are more likely to have a good position in the future. Therefore, in line with the research findings the state security units should be made more attractive, in particular for police chiefs. In addition, police chiefs in those offices are not only responsible for preventing IPR crimes but also for other related tasks which are laid down in the relevant legislation. Therefore, there is a workload issue for police chiefs beyond IPR-related issues. However, in general police officers deal only with IPR issues, thus their satisfaction level is higher than that of police chiefs. Therefore, it is recommended that the number of police chiefs should be increased in those units in order to decrease their workload.

In addition, in terms of challenges and precautionary strategies in the enforcement of IPR, the findings of Chapter Seven suggest that cooperation between the police and other relevant governmental bodies and rightholders should be improved. Increasing cooperation between the relevant bodies is important since they can meet each other and discuss their problems and opinions. In this way they would be more likely to find solutions to the problems. As a result, training courses, seminars or conferences could be organised in order to increase the knowledge of the related bodies.

Furthermore, the problem of the process of storing and destroying confiscated materials, and the shortcomings in the judicial process also require urgent attention. In general, there are not enough storage spaces at the constabularies or it is not adequate to save the confiscated materials. This problem should be solved either by legislative or administrative measures. Furthermore, in general, in relation to the



judicial system, the proceedings of a case take rather a long time; therefore, in order to expedite the proceedings, training courses on IPR issues should be organised for prosecutors and judges, and the number of specialised IPR courts should be increased.

According to current legislation only those police officers who are member of anti-piracy commissions can earn rewards; however, all police officers are authorised to fight IPR crimes. Therefore, in order to prevent the reluctance of police officers who are not members of anti-piracy commissions, the current reward system should be extended to other police officers. Furthermore, the majority of the respondents think that IP legislation is insufficient for the prevention of IPR crimes. Therefore, as perceived by the respondents, the present IP legislation should be amended and penalties should be more deterrent. Additionally, an adequate number of personnel and equipment should be allocated in order to facilitate the workload of the police officers. Also, training of the police officers should be improved in order to increase the awareness and knowledge of the police officers.

Public awareness is considered to be one of the most important topics in this field. The majority of the respondents believe that people purchase pirate or counterfeit products intentionally; therefore, public awareness should be increased in terms of preventing IPR crimes. The vast majority of the respondents also believe that low income and the cheapness and ease of obtaining fake products results in the purchase of pirate or counterfeit products. Therefore, as the findings also suggest, the prices of the original products should be lowered in order to prevent IPR infringements.

In addition, it is also recommended that education regarding IPR issues would be useful to increase public awareness and eradicate IPR crimes. In this sense, it is perceived by the respondents that IPR education should be given in schools, particularly primary schools.

Furthermore, in terms of EU issues regarding IPR, it should be recommended that the training curriculums should be extended by providing more information regarding the enforcement systems in EU member states in accordance with Turkey's EU membership process. In this way the awareness of the enforcers

regarding EU member states' IPR enforcement systems would be improved. In addition, when new police officers are deployed to IPR-related units they should be given wide-ranging IPR knowledge and information, and should participate in IPR training courses.

In terms of R&D activities, the vast majority of respondents believe that protection of IPR plays an important role in the development of a country, and a high level of IP crimes could be an obstacle to attracting foreign direct investment. In addition, the majority of respondents think that there is a positive relation between research and development studies and IP protection. These results indicate that the majority of respondents acknowledge the importance of IPR, and enforcers are aware of their tasks and duties in terms of protection of IPR.

Additionally, in terms of organised crime, the majority of respondents believe that IPR crimes are committed either by 'organised infringers' or 'initially individual infringers who later become part of organised infringer groups'. Therefore, most of the respondents think that IPR criminals are a member of organised crime groups which are established in order to commit these kinds of IPR infringements. Additionally, regarding the number of confiscated materials and suspects, the major, industrialised metropolises seem to be the centre of piracy and counterfeiting where those materials are produced, sold or distributed to other provinces.

Lastly, the majority of respondents believe that there is a progression of criminals from IPR crimes to more serious organised crime. In addition, IPR infringers do not stop committing crimes even if they reach an expected level of money and wealth. It is also generally accepted by the respondents that an individual infringer has the potential to obtain a high position in criminal circles or to become the leader of an organised crime gang. Furthermore, more than half of the respondents believe that IPR infringers and terrorist groups are connected and the money which is gained by infringing is channelled into organised crime gangs.

In conclusion, as the discussion indicates, the research findings render a valuable insight into IPR-related issues through the perceptions of police officers involved in preventing IPR crimes.

#### **9.4. POLICY RECOMMENDATIONS**

The findings of this research could be a guide for future IPR enforcement policy which would provide a strong IPR enforcement system in Turkey. The following recommendations are therefore developed from the findings of the study:

Based on the results of this study, most of the respondents believe that the establishment of a single organisation would be better in terms of IPR protection. Therefore, in line with the research results and considering the current structure of both the Turkish Patent Institute and the General Directorate of Copyright and Cinema, it is recommended that the responsibilities of the General Directorate of Copyright and Cinema in regard to the copyright issues should be moved under the Turkish Patent Institute in order to have a strong IPR system.

Furthermore, it is also recommended that the involvement of the guilds and patent-trademark attorneys in the fight against IPR infringements should be enhanced. In other words, they should take a more active part in the IPR protection system and improve cooperation and collaboration with the official enforcement bodies.

Additionally, it is recommended that the fight against IPR crimes should be carried out by the anti-smuggling and organised crime units, since the majority of the respondents believe that IPR crimes are a kind of organised crime and the money gained by infringing IP is channelled into organised crime groups. Furthermore, the majority of the respondents think that an individual infringer has potential to obtain a high position in criminal circles or to become the leader of an organised crime gang. In addition, IPR crimes generally infringe the income of the rightholders, therefore IPR crimes fall into the realm of economic crime. Currently, the infringements of commodities such as tobacco and alcoholic drink are dealt with by the Anti-smuggling Organised Crime Department regardless of whether they are committed by an individual or by an organised crime group. Considering the various aspects of IPR crimes, if a single department deals with IPR crimes it would be more efficient in preventing the infringement of IPR in Turkey with an integrated understanding. Thus, it would be preferable and is recommended that the fight against IPR crimes should be carried out by the Anti-smuggling and Organised Crime Department rather than the State Security Department.

## **9.5. LIMITATIONS OF THE STUDY**

This research was important to the enforcement of IPR issues in the case of Turkey. However, some challenges and limitations restricted the research. For instance, it only covered police officers who fight IPR crimes in the related State Security Divisions. Therefore, it did not attempt to ascertain the perceptions and the opinions of other police officers regarding IPR issues. Since the views of other police officers are crucial in ensuring an efficient enforcement system, it would have added value to this research. However, due to the nature of the bureaucratic system this was not possible.

In addition, it is not possible to carry out interviews and questionnaires without the consent of the authorities. At the beginning of the study it was decided to conduct interviews with staff from the relevant bodies such as the judiciary, customs and the police. However, written consent is required from the related authorities for those interviews, which takes a long time. Furthermore, it should be noted that as the target interviewees are from governmental bodies nobody wants to be involved in the interviews without consent. Therefore, the planned interviews could not be conducted due to time and regulatory restrictions. Conducting interviews with high-ranking and administrative-oriented police officers and also with participants from the judiciary and customs would have provided valuable information to corroborate some of the findings this study reached through the perceptions of the involved police officers. In addition, such elite interviews could have provided highly valuable primary data which could have further enhanced the argument of this research by providing the ‘official view’ as opposed to perceptions of the police officers from the field. However, due to the constraints and bureaucratic obstacles, this was not possible despite the fact that it was envisaged at the beginning of the research.

It should also be noted that this study considered conducting interviews with the relevant guilds, and patent-trademark attorneys in Turkey which would have provided a non-official view on the subject matter. However, due to time limitations and costs involved, this was not possible. It is also important to note that this study is limited to the perceptions of the police officers involved in the fight against IPR crimes who work at the State Security Divisions.

## **9.6. RECOMMENDATIONS FOR FURTHER STUDIES**

The main objective of this research has been to explore the enforcement of the IPR system in Turkey in terms of enforcement methods, precautions, challenges, the EU process relating to IP, effect of R&D programs on IP, and types of IP crime/criminal. However, this research is limited to the protection of copyright, patents and trademarks. As a result of this study, some issues have arisen which suggest the need for further studies such as the following:

This study only covers State Security divisions that are authorised to protect IPR. However, there are other governmental and non-governmental organisations which play different roles in the IPR system. Therefore, further studies of governmental or non-governmental enforcement bodies such as judiciary, customs, guilds and patent-trademark attorneys should be carried out in order to enhance the IPR protection system.

Furthermore, since the results show that the respondents from State Security units believe that IPR crimes are organised crimes, a further study could be conducted with police officers from Anti-Smuggling and Organised Crime units to gauge their opinions and perceptions regarding IPR protection.

Lastly, the prices of the original products are much higher than the counterfeits; therefore, it is likely that people sometimes buy pirated or counterfeit products due to low level of income or depending on the ease with which these products can be obtained. It is strongly recommended that publishers, companies and retailers should always consider the average income level of the society in determining the prices of their products in order to prevent piracy and counterfeiting. Thus, social concern should also be considered in such matters. In other words, there should always be a balance in a society between the income of the people and the prices of original products. This is crucial in terms of alcoholic products and medicine, as the counterfeits of such products can cause health problems or even deaths. As a result, a research could be conducted on this issue.

## **9.7. EPILOGUE**

This research aimed to explore and analyse the perceptions and opinions of police officers from IPR-related units in Turkey. As this research comes to its end, it is hoped that all the research questions have been answered and the objectives of this research has been fulfilled.

As the results presented in the preceding chapters demonstrate, the research was successful in terms of obtaining significant outcomes regarding the enforcement of IPR. As a result, the foundational and empirical chapters indicate that the research has fulfilled the aims and the objectives of the study. Therefore, it is expected that the findings of the research will be applied in future policies regarding IPR-related issues in Turkey.

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## Appendix

### QUESTIONNAIRE INTELLECTUAL PROPERTY RIGHTS (IPRS) IN TURKEY: ENFORCEMENT, EFFECTIVENESS AND EU-COMPATIBILITY

Dear Respondent,

This questionnaire is part of a Ph.D. research project aiming at exploring the Intellectual Property Crimes and its aspects in Turkey, which is titled as ‘Intellectual property rights (IPRs) in Turkey: enforcement, effectiveness and EU-compatibility’.

It should be noted that Intellectual Property Rights cover both Copyrights and Industrial Property Rights. Therefore, in this research Intellectual Property Crimes context relates only to ‘Counterfeit Products (Patent and Trademark) and Copyright Infringements’.

The data will be analysed through various statistical techniques, and the outcomes will be evaluated to establish an understanding related to the various aspects of Intellectual Property and related crimes in Turkey.

This questionnaire has a significant role in terms of learning the process of the fight against Intellectual Property Crimes and the perceptions of the main actors in this with the objective of determining the shortcomings and embodying recommendations.

Please note that this questionnaire is anonymous and your response will be treated with high confidentiality. Therefore please do not write your names on the questionnaire.

If you have any questions please do not hesitate to contact me through the email below.

Thank you for taking the time to complete the questionnaire. The information you provide will improve the enforcement capacity against Intellectual Property Crimes by helping to develop a better understanding.

This survey will take approximately 15 minutes to complete.

Gungor Surmeli  
School of Government and International Affairs  
Durham University  
gungorsurmeli@yahoo.com

#### General Questions

(Please tick the appropriate answer only)

1) What is your gender?

Male  Female

2) What is your age?

18-30  31-40  41-50  51-61

3) Of the following institutions, which is the most recent one you have attended?

- Police School  
 Police Vocational High School (PMYO)  
 Police Vocational Education Centre (POMEM)  
 Police Academy

4) If you have a civil university degree, which is the most recent:

- University degree (2 years)  
 University degree (4 years)  
 Master's Degree  
 PhD

- 5) What is your rank in the police service?  
 Police Constable  Deputy Inspector  Inspector  Chief Inspector  Superintendent or higher
- 6) How long have you been working in the police force?  
 Less than 2 years  2- 5 years  6-10 years  More than 10 years
- 7) How long have you been working at the Unit for Intellectual Property Crimes?  
 Less than 2 years  2- 5 years  6-10 years  More than 10 years
- 8) Overall, how satisfied are you with your current work?  
 Very Satisfied  Satisfied  Neither satisfied nor dissatisfied  Dissatisfied  Very Dissatisfied
- 9) Do you agree/disagree that the fight against Intellectual Property Crimes should be carried out by the police?  
 Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree
- 10) Do you agree/disagree that the fight against Intellectual Property Crimes should be one of the priorities of the police?  
 Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree
- 11) Would you agree/disagree that the fight against Intellectual Property Crimes should be carried out by the Guilds or Patent-Trademark attorneys rather than the police?  
 Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree
- 12) In your opinion, which of the following proceedings should be carried out in the fight against Intellectual Property Crimes?  
 Criminal Proceedings  Civil Proceedings
- 13) Do you agree/disagree that the current legislation on Intellectual Property Rights is sufficient to fight against Intellectual Property Crimes?  
 Sufficient  
 Insufficient
- 14) Do you agree/disagree that the level of the fight conducted by the Police against Intellectual Property Crimes is adequate?  
 Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree
- 15) Do you agree/disagree that the fight conducted by the Police against Intellectual Property Crimes so far has been successful?  
 Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree
- 16) Would you agree/disagree that the fight against Intellectual Property Crimes should be carried out by the Specialised Intellectual Property Rights Police in order to achieve more effective outcomes?  
 Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree
- 17) Do you agree/disagree that the Police who work at other units do not have adequate information concerning the fight against Intellectual Property Crimes?  
 Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

18) Have you ever attended a training course on the fight against Intellectual Property Crimes?

Yes  No

*If you have replied yes to Question 18, please answer Questions 19 and 20, otherwise proceed to Question 22.*

19) How many training sessions have you attended so far?

1  2  3  4 +

20) Based upon your overall training experience(s), please rate your satisfaction with the training?

Very Satisfied  Satisfied  Neither satisfied nor dissatisfied  Dissatisfied  Very Dissatisfied

If you have marked the option 'Very Satisfied' or 'Satisfied' please proceed to Question 22; otherwise, please answer Question 21 below.

21) If you have found the training session(s) dissatisfactory, please state your reason(s) from the following (you may choose more than one box):

- Training sessions appear to be held simply to fulfil requirements
- In general the content is not adequate
- Obstacles regarding enforcement are not sufficiently explored
- Some of the trainers do not have satisfactory skills and knowledge
- Equipment for training sessions is insufficient



22) Please rate the challenges you face regarding enforcement of Intellectual Property Rights:

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Right holders of intellectual property do not cooperate sufficiently with the police					
Anti-piracy commissions do not work efficiently					
Difficulties in the process of storing and destroying seized materials					
Inadequate reward results in lack of motivation					
Shortcomings in the judicial process					
Directors/Chiefs in the police force do not prioritise Intellectual Property Crimes					
Police administration does not allocate sufficient equipment and personnel					
Lack of legislation					
Other governmental Intellectual Property related bodies do not support and cooperate with the police sufficiently					

23) Which of the following is more common in terms of the perpetration of Intellectual Property crimes?

Open Places (Streets, bazaars, squares, bridges and etc.)     Shops     Internet

24) Which of the following best describes the kind of Intellectual Property-related criminals that you encounter?

- Individual infringers  
 Organised infringers  
 Initially individual infringers who later become part of organised infringer groups  
 Corporate infringers

25) Do you agree/disagree that those infringers of Intellectual Property Crimes have progression and therefore later on tend to move into more serious organised crimes such as drug dealing?

Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

26) Do you agree/disagree that those infringers of Intellectual Property Crimes stop committing crimes when they reach an expected level of money and wealth?

Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

27) Do you think is it likely that an individual infringer will gain a high position in criminal circles or be a leader of an organised crime gang in the future?

Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

28) Do you think that there is a connection between infringers of Intellectual Property Crimes and terrorist groups?

Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

29) Do you agree/disagree that the money which is gained by infringing Intellectual Property is channelled into organised crimes?

Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

**Public Awareness**

30) In your opinion, why do people purchase pirated or counterfeit products?

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Low level of personal disposable income					
Pirated and counterfeit products are far more cheaper than originals					
It is easy to get pirated and counterfeit products					
Unawareness of the illegality of such products					
Lack of public awareness of the seriousness of the problem					

31) Do you agree/disagree that in order to increase public awareness and eradicate Intellectual Property crimes, education regarding Intellectual Property Rights is useful?

Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

*If you have replied 'Strongly Agree' or 'Agree' to Question 31, please answer Question 32, otherwise proceed to Question 34.*

32) Is it good to begin education regarding Intellectual Property Rights in schools?  
 Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

*If you have replied 'Strongly Agree' or 'Agree' to Question 32, please answer Question 33, otherwise proceed to Question 34.*

33) What level of schooling is the most appropriate for providing education on Intellectual Property Rights?  
 Primary Schools  Secondary Schools  Higher Education

**Precautionary Strategies**

34) What should be done in order to minimise Intellectual Property Crimes?

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Police should be more effective					
Penalties should be more deterrent					
Prices of the original products should be lowered					
Level of public awareness should be increased					
Reward system should be extended to other police officers					
Training of police officers should be improved					
More facilities for the police should be provided					
Nothing should be done and intellectual properties should be free					

35) Would you agree/disagree that Copyright and Industrial Property Right issues should be handled by a single organisation/institution in order to have a strong Intellectual Property protection system?  
 Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

**European Union Process**

36) Do you have an understanding of the Intellectual Property enforcement system in any of the European Union (EU) member states?  
 Yes  No

37) Have you ever been to any of the EU member states to explore the Intellectual Property enforcement system?

Yes  No

38) Have you ever attended any training session in Turkey at which EU experts have provided instruction regarding the Intellectual Property enforcement system in any of the EU member states?

Yes  No

39) Have you ever read any material (e.g. articles, books etc.) written about the Intellectual Property enforcement system in any of the EU member states?

Yes  No

40) Do you agree/disagree that the EU Twinning Project held by the State Security Department has had a significant effect on the fight against Intellectual Property crimes?

Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

### **General Opinion on IPR**

41) Which of the following best identifies your personal opinion regarding Intellectual Property Rights?

Intellectual Property should be protected in order to acknowledge and appreciate the intellectual input, labour and skills applied to the works and products by the authors or producers

Intellectual Property should NOT be protected and should be free for the common good

I do not have a particular opinion

42) Do you agree/disagree that a high level of protection of Intellectual Property Rights is important for the development of a country?

Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

43) Do you agree/disagree that a high level of Intellectual Property Crimes can be an obstacle in attracting foreign direct investment?

Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

44) Do you think that there is a positive relationship between research and development activities and expenditure, and the production of Intellectual Property?

Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

Thank you for your time.