STUDY ON THE ECONOMIC CONTRIBUTION OF COPYRIGHT INDUSTRIES IN TURKEY (2015-2018)

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EXECUTIVE SUMMARY

Copyright industries are defined as a whole of the industries that enable works, events and products that are created as a result of creative and cultural effort and are generally protected by intellectual property rights, to meet with consumers. Although different international organizations and countries use different definitions and concepts such as "copyright industries", "cultural industries", "creative industries" or "arts and cultural industries", in essence this term refers to all activities that are based on culture and creativity. Today copyright industries are considered together with creative and cultural industries, while they are assessed by taking into account the complementary and supportive nature of sectors. These industries are deemed as important sectors that are the driving force of economic growth in several countries. Therefore, the economic aspect of these sectors grabs the attention of policy-makers and economics researchers. Since copyright industries create a distinct economy, many countries have taken an interest in measuring the size of this economy and have found that copyright industries made a significant contribution to their national economies.

Public authorities and researchers in Turkey have also been interested in the size of the copyright industries in Turkey and the contribution of these industries to the Turkish economy. As a result, the Turkish Ministry of Culture and Tourism initiated the first study measuring the economic contribution of copyright-based industries in Turkey in 2013-2014 on the basis of data from 2009-2011 with the support of and in collaboration with the World Intellectual Property Organization (WIPO). With a view to exploring the developments that have taken place since 2011, which corresponds to the last year of the first study, the Turkish Ministry of Culture and Tourism initiated the second study in May 2019. In this second study, data from 2015-2018 was used. The main objectives of the study can be expressed as follows:

- To analyze the national policy and legal and institutional framework of copyright in Turkey,
- To accurately reflect the data regarding the size of copyright industries, which are one of the growth axes in Turkey in the 21st century, within the national economy,
- To determine the potential of cultural industries by measuring the contribution of copyright industries to the national economy,
- To compare the economic size and contribution of copyright industries with those of other sectors within the national economy,
- To compare the economic size and contribution of Turkey's copyright industries with those of other selected countries,
- To identify trends in the economic indicators (turnover, value added, employment, labour force productivity, foreign trade) of copyright industries,
- To identify factors affecting the economic size and developments of copyrights industries in Turkey and analyze recent developments in selected copyright industries,
- To formulate policies and strategies to promote the growth and improvement of the economic contribution of copyright industries in Turkey based on the analyses.

This study follows the methodological guidelines set out in WIPO's Guide on Surveying the Economic Contribution of Copyright Industries (2015). A project team comprised of academics who conducted the study, experts from different entities (the Ministry of Culture and Tourism, the Ministry of Trade, the Ministry of the Treasury and Finance of the Republic of Turkey, Strategy and Budget Office of the Presidency, TURKSTAT), all specialized in their respective disciplines, was set up and the study was carried out by this project team.

WIPO's Guide defines an industry as "a cluster of activities which can be identified and are statistically measurable" and groups the copyright industries in four categories based on the industry's level of dependence on copyrighted work. This study is based on the categories proposed by WIPO.

The results of the analyses conducted can be summarized as follows:

First, the contribution of total added value created by copyright industries to the GDP in Turkey was analyzed:

Considering the results obtained from the previous study; the share of copyright industries in GDP in Turkey appears to be stable since 2009. The share of total added value created by copyright industries in GDP varied from 2.61% to 2.88% in the period including 2009-2011 that was covered by the previous study. This indicates that the economic contribution of copyright industries is above 2.5%, which is much higher than the share of certain sectors in Turkey such as healthcare and social services. The same stability was observed in the share of core copyright industries, which create the highest added value among other copyright industries, in GDP in the same period. The share of the added value created by core copyright industries in GDP varied from 1.09% to 1.33% in the period including 2009-2011 which was covered by the previous study.

This was followed by the analysis of the share of employment created by copyright industries in total employment in Turkey:

The share of employment created by copyright industries in total employment in Turkey has been stable too. This percentage remained in the range of 4.29% and 5.59:%, to ensure the increase in labour force productivity as also in the previous study.

Turnover generated by copyright industries is another element analyzed in this study:

The turnover of all copyright industries rose from 197.235.775.754 TRY in 2011 which was the last year of the previous study to 556.612.561.983 TRY in 2018. This accounts for an increase of 182%. The inflation rate (consumer prices index) increased by 96% in the same period. This indicates that there was a significant real increase in the turnover of copyright industries.

In 2011 which was the last year of the previous study, 30.13% of turnover was posted by core industries, 22.62% by interdependent industries, 36.91% by partial industries and 10.34% by non-dedicated support industries. In 2018, 27.13% of the total turnover was posted by core industries,

21.38% by interdependent industries, 32.68% by partial industries and 18.81% by non-dedicated support industries. The most important difference between the previous study and the current one was observed in the increase in the share of turnover of non-dedicated support. This increase was contributed by the developments in the wholesale and retailing sectors.

A significant change was observed in the share of turnover posted by core copyright industries compared to that in 2011. The highest turnover among the core copyright industries was posted by press and literature in 2011, while it was the software, computer games and database sector that posted the highest turnover among the core copyright industries in 2018. This sector is followed by advertising services in 2011. While the press and literature ranked the first in terms of the share of its turnover in 2011, it ranked the third in 2018. Software, computer games and databases rose to a very important position among the core copyright industries.

The turnover of computer and peripheral equipment such as television sets, radio, smart phones etc. and paper, respectively, had the highest percentage among the total turnover of interdependent industries. The total turnover of the abovementioned three sectors accounted for 96.10% of the total turnover of interdependent industries in 2018. The ranking also changed here compared to 2011. While computer and peripheral equipment ranked the first in terms of turnover share in 2011, it fell to the second place; whereas the TV sets, radio, smart phones etc. that ranked the second in 2011 rose to the first place. The most important reason for this was that smart TV sets compatible with pay TV services hit the marketplace and there was an increase n the demand for smart phones in this sector. Today, many copyright-based products (watching television and video; reading newspapers, journals and books; listening to music etc.) are consumed via smart phones. This resulted in the substitution of desktops and laptops by smart phones.

As for the share of turnover of partial copyright industries, apparel, textiles and footwear sector has a very substantial weight. The same sector also has an important place in the economy of Turkey. Among the partial industries; apparel, textiles and footwear was followed by furniture in terms of turnover share. The turnover of both sectors combined accounted for 89.87% of the total turnover of partial industries in 2018. This was followed by architecture and engineering. The ranking of these industries did not change compared to 2011.

The total added value created by copyright industries was compared with the growth rates in GDP and the following result was obtained:

The added value created by all copyright industries (at current prices) rose from 35.463.814.234 TRY in 2011 which was the last year of the previous study to 107.123.159.191 TRY in 2018. This corresponds to an increase of 202%. GDP (at current prices) increased by 167% in the same period. This shows that the share of added value created by copyright industries in GDP increased from 2.73% to 2.88%.

In 2011 which was the last year of the previous study, 45.52% of the total added value came from core industries, 14.28% from interdependent industries, 32.97% from partial industries and 7.23% from non-dedicated support industries. In 2018, however, 38.87% of the total added value was generated by core industries, 17.79% by interdependent industries, 34.63% by partial industries and 7.81% by non-dedicated support industries. From added-value perspective, the highest contribution to GDP was made by core copyright industries. While partial industries had the highest share of turnover among all copyright industries, core industries had the highest share of added value among all copyright industries. The share of core industries in turnover is 27.13% whereas its share in added value is 38.87%. This demonstrates that the products in core industries

have a high added value. This also clearly reveals how core copyright industries are important for an economy.

A significant variation was also observed in the added value share of each core copyright industry in the total added value of core copyright industries. In 2011 which was the last year of the previous study, radio and television had the highest share in the added value generated by core copyright industries, whereas software, computer games and databases had the highest share in 2018 as is the case for turnover. Software, computer games and databases ranked the third in 2011 as regards the share in the total added value generated by core copyright industries. In 2018, more than half (around 57%) of the added value created by core copyright industries (at current prices) came from software, computer games and databases. This was followed by press and literature as regards the share in added value in 2018. They were followed by advertising services. With the highest share in the added value generated by core copyright industries in 2011, radio and television ranked the fourth. This was associated with the low growth rate in advertising revenues and increasing costs in the radio and television sector. Low growth rate in advertising revenues and increasing costs posed a considerable pressure on profit that is the most important element of added value.

As for the share of added value (at current prices) created by television, radio, smart phones etc.; computer and peripheral equipment and paper; they had the highest shares, respectively, in the total added value generated by interdependent industries. The added value created by these three sectors accounted for 96.24% of the total added value created by interdependent industries in 2018. This ranking is the same as the one made according to shares in turnover. Compared to 2011, television, radio and smart phones rose to the first place in this ranking, while computer and peripheral equipment ranked the third. Paper ranked the second in 2018 whereas it ranked the third in 2011. In this period, the capacity of the paper sector increased substantially by 40%. This increased capacity led to increased amortization, which is one of the most important elements of added value and shows the use of fixed capital. In conclusion, this created a substantial increase in the added value created by paper sector.

The share of apparel, textiles and footwear in the total added value created by partial industries is by far the highest. This is followed by furniture. These two sectors created 89.59% of the total added value generated by partial industries in 2018. This was followed by architecture and engineering and wall coverings and carpets. The ranking did not change compared to 2011.

In this study, employment created by copyright industries and its share in the total employment created in Turkey were analyzed and compared with labour productivity, and the results of this analysis are presented below:

All copyright industries employed 1.301.527 people in 2011, which was the last year of the previous study, while they employed 1.246.007 people in 2018. This accounts for a variation of 4.46%. In the same period, total employment in Turkey increased 19.20%. As a result, the share of total employment created by copyright industries in the total employment in Turkey fell from 5.40% in 2011 to 4.34 in 2018. From the perspective of labour productivity, however, a different result was observed. There has been a steady increase in labour productivity in copyright industries since 2011. This demonstrates that copyright industries create higher added value (at fixed prices) with fewer employees. Copyright industries use labour force more productively.

In 2011 which was the last year of the previous study, 32.44% of total employment was created by core industries, 13.25% by interdependent industries, 46.49% by partial industries and 7.35%

by non-dedicated support industries. In 2018, however, 30.90% of total employment was created by core industries, 12.81% by interdependent industries, 45.08% by partial industries and 11.21% by non-dedicated support industries. Partial industries had the highest employment figure among copyright industries. The most important reason for this is the position of these industries in Turkey's economy and relatively more labour-intensive nature of apparel, textiles and footwear among these industries.

There has been an important variation in the share of employment created by each of core copyright industries in total employment created by core copyright industries combined. In 2011 which was the last year of the previous study, press and literature had the highest employment share in the total employment created by core copyright industries; whereas in 2018, software, computer games and databases had the highest share as in turnover and added value. This was followed by press and literature. Advertising services ranking the second in 2011 in terms of its share in employment ranked the third in 2018. This was followed by radio and television with its share in employment in 2018.

Among the interdependent industries, television, radio, smart phones etc. employed the highest number of people. As regards employment, this sector was followed by paper and computer and peripheral equipment. These three sectors combined created 93.92% of employment created by interdependent industries in 2018. With its contribution to employment, television, radio, smart phones etc. rose from the third place in 2011 to the first place in 2018, whereas computer and peripheral equipment fell from the first place to the third place and paper held its position in the second place. As in turnover and added value, television, radio, smart phones etc. rose to the first place in terms of its share in employment.

Among partial copyright industries, the highest employment by far is created by apparel, textiles and footwear. This is followed by furniture. The total employment created by these two sectors combined accounted for 88.32% in the total employment created by partial copyright industries in 2018. They were followed by architecture and engineering. The ranking did not change compared to 2011.

Another aspect analyzed in the study was the import and export figures of copyright industries. First, the development in the export values of copyright industries was compared to those in the previous study. The same comparison was also performed for the share of export values of copyright industries in Turkey's total export values. The analysis revealed the following:

Total exports of copyright industries rose from 9.272.261.947 USD in 2011 that was the last year of the previous study to 11.998.484.444 USD in 2018. This corresponds to an increase of 29.40%. In the same period, Turkey's total export increased by 24.47%. Therefore, export values of copyright industries grew beyond Turkey's total export compared to the last year of the previous study. As a result, the share of exports of copyright industries in Turkey's total export increased from 6.87% in 2011 to 7.14% in 2018.

The share of each copyright industry's export in Turkey's total export was also analyzed:

In 2018, the share of core copyright industries in Turkey's total export was 1.04%, that of interdependent industries was 1% and that of partial industries was 5.09%. The share of core copyright industries in Turkey's total export exceeded one per cent in 2018 and rose to 1.04%. Thus, the share of core copyright industries in Turkey's total export exceeded the share of partial copyright industries. It was 0.29% in 2011 that was the last year of the previous study. This represents an important progress for core copyright industries.

Compared to 2011, a remarkable contribution to the increase in the share of core copyright industries in total export came from musical and theatrical productions, radio and television, software, computer games and databases. The most important reason why exports in music increased was that music consumption shifted to digital channels. Although there has been a decrease in recent years, export in TV series has increased considerably since 2011. Exports in software, computer games and databases also increased significantly. From 2015 to 2018, the most important contribution to increased exports in core copyright industries came from software, computer games and databases.

The total import amount of copyright industries and its share in Turkey's import figures was also analyzed, which revealed the following result:

Import amount of all copyright industries combined was 10.182.465.865 USD in 2018. The share of this amount in Turkey's total imports was 4.17% in 2018.

Among core copyright industries; software, computer games and database had the highest exports. However, this sector also had the highest imports. Therefore, this sector has a substantial foreign trade deficit.

The contribution of copyright industries to Turkey's economy was compared with those of other industries and it was found that the economic contribution of copyright industries as much higher than or very close to that of many important industries:

The contribution of copyright industries to GDP in 2018 was higher than the contributions of,

- healthcare and social services,
- professional, scientific and technical activities (including legal, accounting, administrative consultancy and scientific research activities),
- mining, administrative and support service activities (including rental, employment agencies, travel agencies, private security, facility management and cleaning activities) to GDP.

Among these sectors, especially healthcare sector is remarkable. The contribution of copyright industries to GDP was higher than that of healthcare sector.

Another remarkable point is that the contribution of copyright industries to GDP was very close to the contributions of finance and insurance as well as hotels and restaurants to GDP.

Copyright industries contribute to Turkey's economy almost in the same amount as finance and insurance as well as hotels and restaurants also including all tourism companies.

The share of copyright industries in gross domestic product (in another word, their contribution to the economy) increased more than the shares of important sectors such as healthcare, agriculture, wholesale and retailing, maintenance of motor land vehicles, mining and construction compared to 2011. The growth rate in their share was very close to that of public administration, defense and mandatory social security.

The contribution of copyright industries to employment in Turkey is also remarkable compared to many leading sectors:

Copyright industries contributed more to employment in Turkey in 2018 than many other sectors. Copyright industries had the same contribution to employment as transportation and storage sector that is one of the important sectors in Turkey. Similarly, their contribution is very close to that of healthcare which is a crucial sector in Turkey. The contribution of copyright industries to employment was much higher than that of finance and insurance.

CHAPTER 1

METHODOLOGY AND ECONOMIC CONTRIBUTION OF COPYRIGHT INDUSTRIES

This part of the study presents the main approach used for classification of copyright industries in order to facilitate data collection; the data collection methodology; methods used to determine the copyright factors in order to identify the relation between the economic size of partial and non-dedicated support industries with copyrights. This is followed by an analysis of the contribution of copyright industries to the Turkish economy (contribution to GDP, employment, and foreign trade); trends in the contribution of copyright industries; economic contribution of copyright industries and comparisons with other sectors within the national economy; and international comparisons in the light of the data collected.

1.1. CLASSIFICATION OF COPYRIGHT INDUSTRIES ACCORDING TO WIPO METHODOLOGY¹

Although the copyright-protected works are varied, they usually include the following according to WIPO methodology:

- Press and literature (periodicals such as newspapers, magazines and books, poems, stories, etc.)
- Musical works (songs, operas, operettas, musicals etc.)
- Works of fine arts (paintings, sculptures, graphics, etc.)
- Maps and technical drawings (architectural and engineering drawings, etc.)
- Photographic works
- Motion pictures and other cinematographic works (movies, documentaries, television programs, television serials, etc.)
- Software, computer games and databases
- Radio programs
- Products such as jewellery, furniture, textiles, toys, carpets and household goods having an element of artistic creativity (incorporating intellectual labour) in their creation.

The copyright industries that are also defined as creative or cultural industries are those industries that are engaged in creating and producing the abovementioned works and distributing them to consumers. Any given industry must absolutely be related to a work based on copyright for it to be referred to as a copyright industry. Such relation can be in the form of actual creation and production of the work (such as writing and printing a book, writing and staging a play, making and performing a composition, writing scripts and shooting them as a film, programming software, etc.) as well as in the form of contributing to the production of such works

¹2015 WIPO Guide on Surveying the Economic Contribution of the Copyright-based Industrieshttps://www.wipo.int/edocs/pubdocs/en/copyright/893/wipo_pub_893.pdf

(manufacturing and sale of paper to print books, manufacturing and sale of equipment to shoot a film, manufacturing and sale of musical instruments to make compositions, etc.) and contributing to the distribution and consumption by users (screening a movie at a movie theatre, terrestrial, satellite broadcasting or webcasting to make available television programs to the audience, production and sale of television sets to view television programs, manufacturing and sale of computers to program and use software, etc.). So, the activities of copyright industries include both goods and services.

While assessing the economic contribution of the copyright industries for statistical purposes, it is important to identify these industries accurately in light of the general principles outlined above.

Researchers found that the copyright industries were identified using different methods in the studies conducted in the past in various countries. This led to certain challenges in comparing the economic contributions of the copyright industries in different countries. In order to overcome these challenges, WIPO issued the "Guide on Surveying the Economic Contribution of Copyright Industries" in 2003, which was then updated in 2015 based on the experience gained. This updated guide defines an industry as 'a cluster of activities which can be identified and are statistically measurable'. Thus, various activities related to copyright were grouped under certain industries and categories of copyright industries were formed. In the meantime, it was found out that certain industries had greater relations with copyright compared to other industries; therefore, the copyright industries were grouped under four main categories in the abovementioned guide according to their respective relations with copyright. The main categories suggested in the guide and explained below were also taken into account in this study.

The first category consists of the core copyright industries. As mentioned above, these industries refer to the ones that have the highest level of relation with copyright. All the activities of these industries are related to the creation of intellectual and artistic works protected by copyright and cultural contents and products (writing, composing, programming, etc.), and the production (printing, filming, etc.), provision of support services (cast agencies, booking services, training etc.), screening, staging, performance, broadcasting, distribution, wholesaling and retailing of such subject-matter. The industries in this category are listed below:

- Press and literature;
- Music, theatrical productions;
- Motion picture and video;
- Radio and television;
- Photography;
- Software, computer games and databases;
- Visual and graphical arts;
- Advertising services;
- Copyright collective management societies.

Interdependent copyright industries constitute the second category. The core copyright industries use the products produced by the interdependent copyright industries while they create their works and consumers use the products produced by the interdependent copyright industries while they benefit from the works of the core copyright industries. If the products of these industries did not exist, no copyright work could be produced nor could consumers benefit from such works.

On the other hand, without core copyright industries, the products of interdependent industries would not be needed. For example, in the absence of a TV series, documentary or news program, TV sets would not be needed either. Thus, these industries are named as interdependent industries and their raison d'être is the copyrighted products.

The industries that are included in this category are listed below:

- Manufacture, wholesale and retail of TV sets, radios, smart phones, CD- DVD- blu-ray players, game consoles etc.;
- Manufacture, wholesale and retail of computers and peripheral equipment;
- Manufacture, wholesale and retail of musical instruments;
- Manufacture, wholesale and retail of photographic and cinematographic instruments;
- Manufacture, wholesale and retail of photocopiers;
- Manufacture, wholesale and retail of blank tapes, CDs and DVDs;
- Manufacture, wholesale and retail of paper.

Partial copyright industries constitute the third category. This definition refers to industries in which a portion of the activity is related to the works and other protected subject-matter and/or also their creation, production, performance, broadcasting, transmission, exhibition, distribution and sales.

The industries in this category are listed below:

- Apparel, textiles and footwear;
- Jewellery;
- Other crafts
- Furniture;
- Household goods, china and glass;
- Wall coverings and carpets;
- Toys and games;
- Architecture, engineering, surveying;
- Interior design;
- Museums.

Non-dedicated support industries constitute the fourth category. They transport, distribute and sell (delivery to final consumers) the products that are produced by the core copyright industries, interdependent, and partial copyright industries. In other words, a portion of the activities of the non-dedicated support industries is related to the transportation, distribution and sale of copyright products. The industries in this category are listed below:

- General wholesale and retailing;
- General transportation;
- Communication and Internet

After the copyright industries had been grouped under four main categories, the type of data needed for these categories was identified. Turnover, value added, employment and foreign trade figures were identified as the type of data to be collected with respect to the copyright industries. After deciding on the type of data to be collected, the sources of the data and the way the data would be assessed were identified. Since 2009, TURKSTAT has been classifying economic activities according to the Statistical Classification of Economic Activities in the European Community (NACE Rev 2.) and collecting the turnover, value added and employment statistics in compliance with this classification.

Following the identification of activity classification codes under NACE Rev 2 that cover copyright industries; turnover, added value and employment statistics were compiled from the database of TURKSTAT. It was understood that certain activity codes covered multiple copyright industries or non-copyright industries. In order to separate the mixed codes, additional data was collected from the Ministry of Treasury and Finance and/or experts were consulted. Data was also collected from public bodies that are engaged in activities in copyright industries. Foreign trade statistics (import and export) were compiled with two methods. Foreign trade statistics related to goods was compiled from TURKSTAT database. Statistics about miscellaneous payments made to abroad for copyright-based products and collections from abroad (TV program broadcasting right, TV program format, digital music revenues, right to screen a motion picture, software export and import etc.) were collected from collecting societies, public reports of leading companies in the sectors and reports published by public bodies operating in these fields as well as studies conducted by research institutions. In the previous study, copyright factors related to partial copyright industries were identified by consulting the sectoral assemblies under the Union of Chambers and Commodity Exchanges of Turkey and getting expert opinions. The same factors were also used in this study. Copyright factors related to non-dedicated support industries were identified by applying the method proposed in WIPO's Guide.

1.2. COPYRIGHT FACTORS

Copyright factors indicate the relationship of a given industry with copyright. As also noted above, the copyright industries are categorized into four main groups and this categorization is based on the relationship of the relevant group with copyright. The WIPO Guidelines have laid down that 'this factor must be determined in copyrights-based industries other than the core copyright industries for which the copyright factor shall be taken as 100%'. As the definition suggests, all the activities of the core copyright industries rely on the creation (authoring, composing, programming, etc.), production (printing, shooting of a movie, etc.), display, performance, publishing, distribution, wholesaling, and retailing of copyright products. All activities in these industries directly relate to copyright, and as a natural consequence, the copyright factor shall be assumed to be 100% for such industries. In almost all international studies, the copyright factor of the interdependent copyright industries is assumed as 100%; this assumption is an internationally recognized practice. This is because products of the interdependent copyright industries are mainly used for producing the products of the core copyright industries and their use by consumers. As noted above, copyrighted products are the raison d'être of interdependent industries. Our research also confirms that this practice is reasonable. Therefore, this present study assumes the copyright factor as 100% for the interdependent copyright industries as we did in the previous study. At this point, however, an important point should be underlined. When the activity codes of the interdependent industries were identified, activities that were not related to copyright were excluded. For instance, while identifying the economic activity codes in the paper industry, activity codes 17.21 (manufacture of corrugated paper and paperboard and of containers of paper and paperboard), 17.22

(manufacture of household and sanitary goods and of toilet requisites), 17.29 (manufacture of other articles of paper and paperboard) were excluded because they were not related to copyright. Moreover, four-digit codes were disaggregated into six-digit codes to exclude activities that were not related to copyright. However, there exists an exception for interdependent copyright industries. This applies to smart phones. Smart phones are used for different purposes including primarily for communication apart from consumption of copyrighted products. Therefore, a specific copyright factor was identified for smart phones. To this end, Deloitte Mobile Use Survey was relied on and the copyright factor for smart phones was assumed as 55%.

As the factors of partial copyright industries and non-dedicated support industries have remained unchanged since the previous study, the same copyright factors were used in this present study. It is important to briefly describe once again the way how these factors were identified in the previous study.

The sectoral assemblies under the Union of Chambers and Commodity Exchanges of Turkey were consulted since they were deemed to provide the most relevant information regarding copyright factors that demonstrate the relation of partial industries with copyright. The representatives of the sectoral assemblies were asked to draft brief reports on copyright factors. We contacted the following sectoral assemblies, which prepared the reports in return:

- Glass and Glass Products Industry Assembly
- Ceramic and Refractory Industry Assembly
- Clothing and Apparel Industry Assembly
- Jewellery Industry Assembly
- Furniture Products Assembly

The Carpet Industry Report, which had been prepared by the Ministry of the Trade of the Republic of Turkey, was reviewed to reflect on the carpet industry. Sector experts were interviewed for the toys, architecture, engineering and surveying industries. The copyright factor for museums was determined according to the data of the Ministry of Culture and Tourism. Thus it can be understood that our research method to determine copyright factors was based on interviews because we determined that if we sent questionnaires to firms, the rate of reply would be too low to draw useful conclusions. But sector assemblies and sector experts have the best knowledge in their respective industries. For this reason, we decided to interview them. The basic questions we asked are presented below:

- How important is copyright in the operations of the sector?
- Do the companies in the sector receive or pay any form of payments (royalties or license fees) for the use of intellectual rights?
- What is the percentage of the sector's operations, on average, that is based on copyright or creative activities?

It should be pointed out that these are the basic questions we asked during the interviews. We then discussed further with the industry assemblies and experts to identify copyright factors as realistic as possible.

As a result of all these efforts, the copyright factors were determined for the partial copyright industries, as illustrated in the table below.

Copyright Factors of the Partial Copyright Industries

Industries	Copyright Factors
Textile, apparel and footwear	0,25
Jewellery	0,07
Furniture	0,45
Household goods, ceramic and glass	0,01
Wall coverings and carpets	0,10
Toys	0,03
Architectural, engineering, surveying	0,25
Museums	0,20

A different method was followed for determining the copyright factors for non-dedicated support industries as we did in the previous study. The most important industry within this context is Internet. Because, today many products based on copyright (newspapers, magazines, books, musical works, films, software etc.) are accessed electronically via Internet. Therefore, the Internet plays a significant role in the consumption of many copyrighted products and enjoys a considerable position among the non-dedicated support industries. In order to determine the copyright factor of the Internet, the results of the "Information and Communication Technology (ICT) Usage Survey on Households", regularly conducted by TURKSTAT, were used. Compared to the pervious study, the copyright factor of the Internet almost tripled. The significant increase in the use of copyright-based products electronically via the Internet is the main reason for the increase in the copyright factor.

The method suggested in the WIPO Guidelines was used for determining the copyright factor in the general wholesale and retailing and general transportation sectors. The formula of this method is presented below:

To this end, first sum of the added value shares of the Core, Interdependent and Partial Copyright Industries was calculated (1). Then, the total added value of general wholesale and retailing and general transportation was subtracted from GDP (2). Finally, the result of step (1) was divided by the result in step (2) and the relevant factor was obtained. The mathematical equation for this calculation is presented below:

Sum of the added value shares of the Core, Interdependent and Partial Copyright Industries/(GDP –added value of general wholesale and retailing and general transportation)

Therefore, as also noted in the WIPO Guidelines, the copyright factor of non-dedicated support industries may vary every year. The copyright factors of the non-dedicated support industries are indicated below:

Copyright Factors of the Non-dedicated Support Industries

Industries	Copyright Factors					
	2015	2016	2017	2018		
General wholesale and retailing	0,026	0,026	0,027	0,029		
Transportation	0,026	0,026	0,027	0,029		
Internet		0,	36			

The copyright factors of the general wholesale and retailing and general transportation sectors have not changed significantly over years in Turkey. As the data on the turnover, added value, employment and foreign trade in partial copyright industries and non-dedicated support industries were shown, the values related to these industries (turnover, value added, employment, import

and export) were multiplied by the copyright factors, which must be considered while assessing figures in connection with these industries.

1.3. CONTRIBUTION OF COPYRIGHT INDUSTRIES TO THE TURKISH ECONOMY Economic Size of Copyright Industries (2015-2018)

The table below shows the economic size of copyright industries in 2015-2018. The economic size was represented in the form of turnover, added value and the share of added value in GDP as well as employment and its share in total employment figures. To show the turnover, added value and employment figures of partial industries and non-dedicated support industries, the turnover, added value and employment figures of the sectors engaged in these industries were multiplied by relevant copyright factors.

The concept of added value should be defined at this point because the economic contribution of a sector is measured by the added value it creates. Added value is calculated by subtracting the value of inputs that a business gets from other businesses or persons (input cost) in order to produce or offer its goods and services from the value of relevant goods and services that business produces or offers (output prices). In this way, the total value added by this business is determined. The most important elements of added value include profit, wages paid by a business to employees and amortization which is the cost of using fixed capital.

Economic Sizes of Copyright Industries (2015-2018, At Current Prices)

	2015	2016	2017	2018
TURNOVER				
Core	93.903.779.463	103.177.554.915	122.369.489.857	151.020.554.964
Interdependent	78.106.613.214	83.725.996.542	99.895.831.631	119.008.219.499
Partial	109.470.025.637	120.284.995.982	147.995.436.510	181.886.509.229
Non-dedicated Support	56.905.434.033	62.035.371.322	80.488.179.401	104.697.278.291
All copyright Industries	338.385.852.347	369.223.918.761	450.748.937.399	556.612.561.983
ADDED VALUE				
Core	25.450.232.402	28.449.497.608	34.658.633.586	41.639.242.033
Interdependent	8.849.547.898	9.176.260.495	12.287.022.387	19.059.359.661
Partial	21.679.410.781	24.757.442.923	29.801.136.262	37.092.380.597
Non-dedicated Support	5.148.203.041	6.028.092.931	7.299.070.017	9.332.176.900
All copyright Industries	61.127.394.121	68.411.293.957	84.045.862.252	107.123.159.191
GDP	2.338.647.493.683	2.608.525.749.333	3.110.650.154.919	3.724.387.935.570
Share in GDP (%)				
Core	1,09	1,09	1,11	1,12
Interdependent	0,38	0,35	0,39	0,51
Partial	0,93	0,95	0,96	1,00

	2015	2016	2017	2018	
Non-dedicated Support	0,22	0,23	0,23	0,25	
All copyright Industries	2,61	2,62	2,70	2,88	
EMPLOYMENT					
Core	370.466	369.596	376.116	385.063	
Interdependent	155.377	153.807	156.934	159.598	
Partial	537.357	535.270	548.645	561.656	
Non-dedicated Support	119.115	120.130	127.968	139.691	
All copyright Industries	1.182.316	1.178.803	1.209.663	1.246.007	
Turkey's Employment	26.621.000	27.205.000	28.189.000	28.738.000	
Share in Turkey's Employment (%)					
Core	1,39	1,36	1,33	1,34	
Interdependent	0,58	0,57	0,56	0,56	
Partial	2,02	1,97	1,95	1,95	
Non-dedicated Support	0,45	0,44	0,45	0,49	
All copyright Industries	4,44	4,33	4,29	4,34	

As illustrated in the chart above, the contribution of all copyright industries to GDP was 2.88% and their contribution to employment was 4.34% in 2018. Among copyright industries, core copyright industries had the highest contribution to GDP (1.12%). The highest contribution to employment was made by partial industries (1.95%). The most important reason for this is that textiles and apparel as well as furniture sectors in partial industries are more labour-intensive compared to other sectors. Particularly textiles and apparel has a very important place in Turkey's economy. The copyright factor of furniture is relatively high. This indicates that Turkey develops original furniture designs. In 2011 which was the last year of the previous study, the contribution of copyright industries to GDP was 2.73%, while their contribution to employment was 5.40%.

The contribution of copyright industries to GDP has increased whereas their contribution to employment has decreased slightly, which is not significant though. This is mainly because the contribution of partial copyright industries to employment decreased from 2.53% in 2011 to 1.95% in 2018. The employment figures of partial copyright industries fell from 611.174 people in 2011 to 561.656 people in 2018. However, as illustrated below, such decline in employment was caused by increased labour productivity. This is considered as a positive development.

1.4. FOREIGN TRADE CONTRIBUTION OF COPYRIGHT INDUSTRIES

The following three tables present the export and import values of each copyright industry in 2015, 2016, 2017 and 2018:

Foreign Trade Values of the Core Copyright Industries (US\$)

	20	15	2016		2017		2018	
	Exports	Imports	Exports Imports		Exports	Imports	Exports	Imports
Press and	78.746.836	132.350.991	66.768.704	66.768.704 108.156.426		119.493.060	95.137.779	95.757.400

literature								
Music and performing arts	30.161.022	306.875.449	29.815.164	265.007.257	16.155.807	119.453.607	26.727092	86.132.227
Motion picture and video	1.285.789	37.221.510	1.829.823	35.971.028	1.712.375	35.501.365	527.374	23.373.690
Radio and television	251.000.000	53.000.000	201.000.000	48.000.000	151.000.000	40.000.000	131.000.000	33.000.000
Software, computer games and databases	700.000.000	1.251.000.000	1.000.000.000	1.526.220.000	1.250.000.000	1.861.988.4000	1.500.000.000	2.271.625.848
Photography	187.691	962.332	62.264	864.340	122.639	706.821	176.967	502.919
Total	1.061.381.338	1.781.410.282	1.299.475.955	1.984.218.049	1.488.965.995	2.177.143.253	1.753.569.212	2.511.392.084

Foreign Trade Values of the Interdependent Copyright Industries (US\$)

	2015		2016		2017		20	18
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
TV and radio sets, CD-DVD, game consoles, smart phones etc.	1.818.128.444	6.247.288.799	1.605.231.807	5.862.614.228	1.651.162.507	5.693.941.189	1.679.722.311	4.453.434.111
Computers and peripheral equipment	112.051.543	2.333.169.162	84.594.786	2.014.213.807	89.641.275	2.123.351.721	86.852.794	1.771.831.649
Musical instruments	9.166.162	34.201.465	9.557.214	31.274.386	9.484.354	34.271.649	11.302.425	33.817.906
Photographic and cinematographic instruments	24.367.629	192.803.970	23.045.643	216.879.503	23.666.486	274.503.702	29.711.281	230.786.044
Photocopiers	1.794.940	100.887.508	1.936.225	99.866.114	2.005.254	105.640.510	1.226.491	83.730.819
Blank tapes, CDs, DVDs etc.	558.342	6.533.393	559.141	5.239.975	110.761	4.487.896	123.586	3.080.019
Paper	45.189.364	922.459.024	49.323.519	1.043.214.255	58.630.451	1.003.101.137	80.489.862	837.386.083
Total	1.831.947.386	7.658.757.275	1.636.580.311	7.238.884.431	1.668.193.815	6.968.583.218	1.694.574.360	5.338.137.282

^{*}Copyright factor of smart phones is applied.

Foreign Trade Values of the Partial Copyright Industries (US\$)*

	2015		2016		2017		2018	
	Exports	Exports Imports Exports Imports Exports		Exports Imports		Imports	Exports	Imports
Apparel, textiles and footwear	6.441.830.495	1.944.010.294	6.423.783.731	1.776.143.681	6.506.365.186	1.831.303.767	6.707.071.258	1.196.812.247
Jewellery	788.445.145	292.842.869	852.346.927	504.304.697	761.547.080	1.221.048.632	502.063.092	878.961.158
Furniture	943.628.468	329.667.376	930.977.876	231.253.127	969.794.708	239.660.358	1.099.805.741	235.499.332
Household goods, china and glass	13.104.258	8.869.849	11.884.874	7.666.207	11.807.406	6.817.925	12.365.163	5.973.858

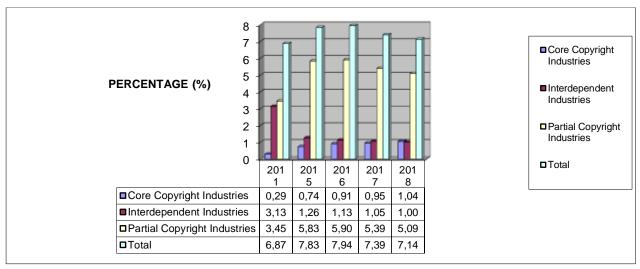
Wall coverings and carpets	201.676.517	17.958.358	191.731.118	8.272.419	217.133.348	7.527.519	227.755.764	6.173.109
Toys and games	1.102.961	11.725.119	1.098.341	13.577.815	1.205.022	13.301.257	1.179.763	9.246.729
Architecture, engineering and surveying	444.824	421.088	182.873	247.922	159.450	608.223	100.091	270.066
Total	8.390.232.668	2.605.494.953	8.412.005.740	2.541.465.868	8.468.012.199	3.320.267.681	8.550.340.872	2.332.936.499

^{*} Copyright factors are applied.

The total exports of copyright industries increased from \$ 9.272.261.947 in 2011 that was the last year of the previous study to \$11.998.484.444 in 2018. This corresponds to an increase of 29.40%. In the same period, Turkey's total exports increased by 24.47%. Thus, export figures of copyright industries grew higher than Turkey's total exports compared to the last year of the previous study. As a result, the share of exports of copyright industries in Turkey's total exports rose from 6.87% in 2011 to 7.14% in 2018.

The following table presents the share of export values of copyright industries in Turkey's export values.

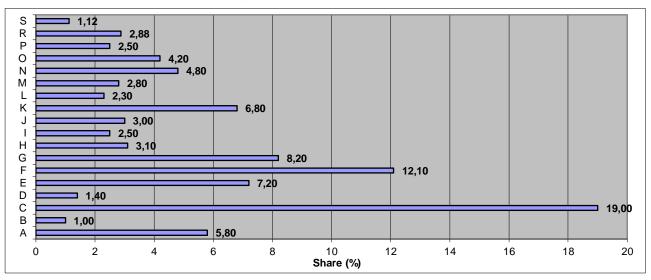
Share of the Copyright Industries in Turkey's Total Exports (2011, 2015-2018)



1.5 COMPARISON OF COPYRIGHT INDUSTRIES WITH OTHER INDUSTRIES IN TURKEY

The contribution of copyright industries to GDP in 2018 was compared with the GDP contribution of other industries.



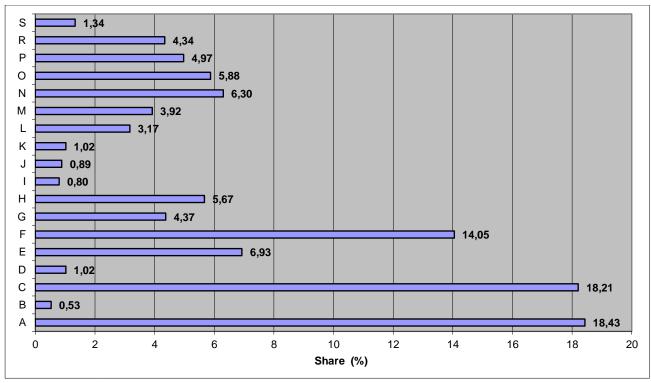


Key: Industries

A	Agriculture, forestry and fisheries	K	Real estate activities
В	Mining and quarrying	L	Professional, scientific and technical activities
С	Manufacturing industry	M	Administrative and support services
D	Electricity, gas, steam and hot water production and	N	Public administration and defense; mandatory social security
Е	Construction	О	Education
F	Wholesale and retailing, repair of motor land	P	Healthcare and social services
	vehicles and motorcycles		
G	Transport and storage	R	Copyright industries
Н	Hotels and restaurants	S	Core copyright industries
I	Information and communication		
J	Finance and insurance		

As can be understood from the figure above, the contribution of the copyright industries to GDP in 2018 was higher than that of healthcare and social services, professional, scientific and technical activities (including legal, accounting, administrative consultancy, scientific research services), mining, administrative and support services (including rental, employment agencies, travel agencies, private security, facility management, cleaning services). Particularly healthcare is remarkable among these sectors. The contribution of copyright industries to GDP was higher than that of healthcare which is a very important sector. Another important point is that the contribution of copyright industries to GDP was very close to those of finance and insurance and hotels and restaurants. Copyright industries contribute to Turkey's economy almost in the same amount as the crucial industries for Turkey such as finance and insurance as well as hotels and restaurants including all tourism companies.

Contributions to Total Employment in Turkey (2018)



Key: Industries

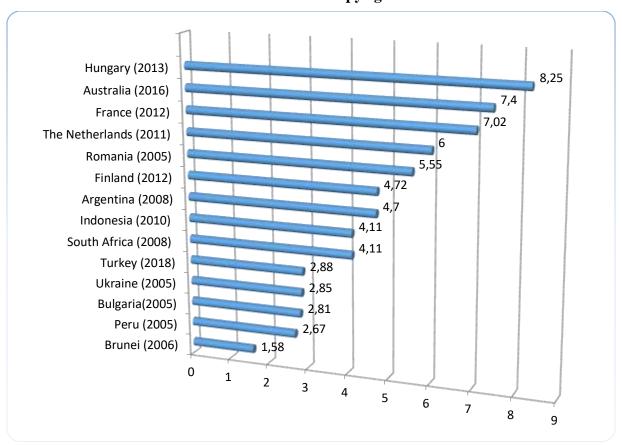
A	Agriculture, forestry and fisheries	K	Real estate activities
В	Mining and quarrying	L	Professional, scientific and technical activities
С	Manufacturing industry	M	Administrative and support services
D	Electricity, gas, steam and hot water production	N	Public administration and defense; mandatory social security
Е	Construction	О	Education
F	Wholesale and retailing, repair of motor land	P	Healthcare and social services
	vehicles and motorcycles		
G	Transport and storage	R	Copyright industries
Н	Hotels and restaurants	S	Core copyright industries
I	Information and communication		
J	Finance and insurance		

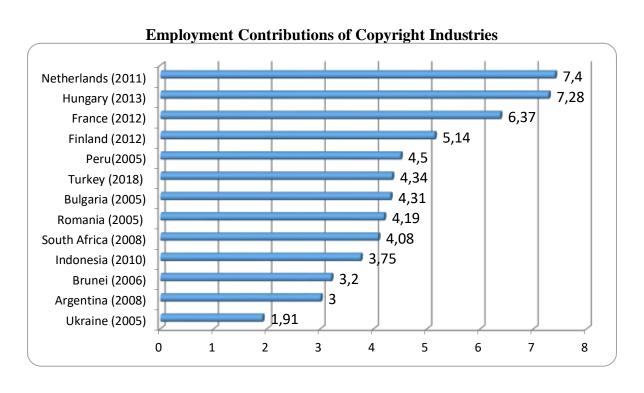
Copyright industries contributed to Turkey's employment much more than many other sectors in 2018. The contribution of the copyright industries to employment was almost the same rate as the contribution of the transport and storage that is one of the important sectors in Turkey. Similarly, it was close to the contribution of healthcare sector to employment which is another important sector in Turkey. It was also much higher than the employment contribution of finance and insurance sectors which are both important sectors of Turkey.

1.6 INTERNATIONAL BENCHMARKING

The following figures respectively show the GDP and employment share of copyright industries compared to other countries. Years indicated in parenthesis refer to the last year that the data pertains.

GDP Contribution of the Copyright Industries





CHAPTER 2

OVERALL ASSESSMENT AND CONCLUSION

2.1 OVERALL ASSESSMENT

The first study to measure the economic contribution of copyright industries in Turkey covered the period of 2009-2011 while the present study with the same purpose covers the years 2015-2018. When the results obtained from these two studies combined, the share of copyright industries in GDP in Turkey appears to be consistent and steady since 2009. The share of total added value generated by copyright industries in GDP varied from 2.61% to 2.88% in the period including also 2009-2011 which was covered by the previous study. This demonstrates that the economic contribution of copyright industries is higher than 2.5%, which is above the share of certain important sectors in Turkey such as healthcare and social services. The same consistent structure was also observed in the share of core copyright industries in GDP which created the highest added value among copyright industries in the aforementioned period. The GDP share of the added value created by core copyright industries ranged from 1.09% to 1.33% including years 2009-2011 covered by the previous study. In the light of the information provided in this paragraph, the added value share of copyright industries appears to be consistent and steady in the mentioned period.

According to TURKSTAT statistics, the share of entertainment and cultural expenditures among the total household consumption expenditures was 2.9% in 2018. It was 2.7% in 2011 that was the last year of the previous study. Therefore, there seems to be stability in the share of entertainment and cultural expenditures among the total household consumption expenditures. It is obvious that this share will further increase once the target national income per capita indicated in the Eleventh Development Plan (2019-2023) is achieved. This will have a positive impact on the economic size of copyright industries.

Assessment of the Added Value Created by Core Copyright Industries

Core copyright industries have the most important position among the copyright industries. Because core copyrighted products are produced and offered by these industries. The most prominent core copyright industry is software, computer games and database. The share of added value created by this sector in the total added value created by core copyright industries increased steadily starting from 2011 that was the last year of the previous study (it was 21.68% in 2011) and reached 55.66% in 2018. This accounts for an increase of 157%. Therefore, according to the share of core copyright industries in total added value, software, computer games and databases ranking the third in 2011 outscored and rose to the first place in 2018. In the export figures of copyright industries, exports of software, computer games and databases also ranked the first by a long way. Given the digitalization and mobile applications becoming common in Turkey in recent years, software computer games and databases sector seems to grow further. Software computer games and databases sector is the driving force in core copyright industries. This is followed by press and literature as well as advertising services.

• Assessment of the Added Value Created by Interdependent Copyright Industries

The share of each individual interdependent industry in the total added value created by interdependent industries has also changed compared to the previous study. In the previous study, while computers and peripheral equipment had the highest share in the total added value created by interdependent industries, it was the TV and radio sets and smart phones etc. that ranked the first in this present study. The most important reason for this is the fact that smart television sets compatible with today's pay TV television services hit the marketplace and the demand for smart phones, which is included in this sector, increased. Today, many copyright-based products (watching TV and videos; reading newspapers, magazines, books; listening to music etc.) are consumed via smart phones. This resulted in the substitution of desktops and laptops by smart phones. In addition, it is also suggested that television and radio sets, smart phones etc. sector started producing their products with high added value. It should be noted at this point that the share of interdependent industries in the total added value created by copyright industries was 17.79% in 2018 and as a result interdependent industries ranked the third among copyright industries. As regards added value share, core industries ranked the first with 38.87% while partial industries ranked the second with a share of 34.43%.

• Assessment of the Added Value Created by Partial Copyright Industries

The reason why the added value share of partial copyright industries was higher than that of interdependent industries was associated with the economic structure and production structure of Turkey. The production and consumption of products produced by partial industries (especially textiles, apparel, furniture and other household goods) are higher than those of interdependent industries. Furthermore, partial industries produce products with higher added value (using more local inputs) compared to interdependent industries.

The share of textiles, apparel and footwear is by far the highest in the total added value created by partial copyright industries. This is followed by furniture. These two sectors are followed by architecture, engineering and surveying. Particularly textiles, apparel and footwear is a driving force in Turkey's economy.

• Assessment of the Contribution of Copyright Industries to Employment

As for employment created by copyright industries, a similar case is observed as in added value. The share of copyright industries in Turkey's total employment appears to be stable. This share ranged from 4.29% to 5.59% in the period including the previous study. This value was 4.34% in 2018. From the perspective of labour productivity, however, a different picture is observed. Labour productivity of copyright industries has increased steadily since 2011. This indicates that copyright industries create higher added value (at fixed prices) with fewer employees. Copyright industries use labour more efficiently. Digitalization and automation are considered to be among the important reasons for this. Moreover, as in the radio and television sector, the pressure on profitability also pushes the sectors to manage labour costs better and improve labour productivity.

Among copyright industries, partial copyright industries had the highest employment share. The most important reason for this is the position of these industries in Turkey's economy, as noted above, and relatively more labour-intensive nature of textiles, apparel, footwear and furniture sectors. In terms of employment share, partial industries are followed by core copyright industries. The main reason why the employment share of interdependent industries is low is the fact that they are more capital-intensive (as they mainly rely on machinery and automation rather

than labour). Among the core copyright industries; software, computer games and databases had the highest employment share.

2.2 CONCLUSION

Software, computer games and databases sector is the leading one as regards its contribution to added value, employment, labour productivity and export among the copyright industries that constitute the most important pillar of copyright industries. The fact that Turkey has a young population, which is highly interested in this sector, also increases expectations that this sector will have a more ambitious position in global markets in the future. It is obvious that support to this sector will contribute substantially to the national economy from both employment and added value perspectives.

Important policies for software sector are laid down in the Eleventh Development Plan for the period 2019-2023, which sets forth the development goals of Turkey. These policies and the measures proposed therein are stipulated for the purpose of increasing the use of national software in public procurements, increasing the maturity of national software companies, increasing local added value in the field of software and encouraging internet-based initiatives. Such policies and measures will have a positive impact on the economic size of software and further development of this sector in the years to come.

It is suggested that motion picture and video, radio and television and musical and theatrical productions (especially music) that are included in core copyright industries in addition to software, computer games and databases should also target growing based on globalization and exports.

With a view to increasing the industrialization of motion picture and video, radio and television as well as musical and theatrical productions (especially music) among the core copyright industries, the relevant sector and the public sector collaborate for its future. It is critical to create an effective value chain (Research & Development, Design, Production, Marketing, Distribution, After-sales services) for the industrialization of a sector.

While creating, marketing or distributing a motion picture or TV series or musical work in the motion picture and video, radio and television and musical and theatrical productions (especially music) sectors, not only Turkish market but also global audience should be targeted. For the target markets, original contents that are not imitations or adaptations should be developed and the preferences of the audience in certain regions or countries should be identified, which is vital to increase the international recognition of core copyright industries in Turkey.

Turkish music industry is significantly diverse. The goal is to commercialize this diversity in Turkish music, convert it into products for global audience and publicise it to the whole world through well-organized publicity and marketing activities.

It should be noted that there are critical support programmes for the sub-sectors of copyright industries and cultural industries. The Ministry of Culture and Tourism published the "Guide on Subsidies and Incentives for Cultural Industries" that presents all subsidies and incentives provided by the public sector in this field.

A comprehensive study is conducted on these subsidies and incentives with a view to determining to what extent they are used, the reasons why these are not used, whether they fit to the purpose and taking necessary actions as a result of the findings of the study. It is planned to carry out activities to adequately publicize these subsidies and incentives to the sectors and design subsidies and incentives that will especially make internationalization attractive.

To increase the economic contribution of copyright industries especially core copyright industries, the most important role should be assumed by the companies in these industries that work with consciousness and have great achievements. It is observed that these sectors could not attain the desired industrialization level compared to the other sectors in Turkey that have relatively higher economic contribution. Therefore, it is important to set sector-specific strategies.

The products of core copyright industries differ from those of the other industries. Therefore, different funding models such as "venture capital investment funds" should be created for these industries. Furthermore, it should be highlighted that company mergers play an important role for the companies operating in the core copyright industries to grow, internationalize and create larger productions.

Core copyright industries are the locomotive that also affects the economic size of the other copyright industries. The most important feature of core copyright industries is that they completely rely on creativity and thus create higher added value. Furthermore, copyright industries employ more people than many other industries. The employment contribution of copyright industries is the same as that of transport and storage, which is one of the important sectors in Turkey, very close to that of healthcare and much higher than that of finance and insurance.

The main objective is to further increase the contribution of copyright industries (especially core industries) to Turkey's economy. In this context, core industries appear to have a significant growth potential. To activate this potential, collaborative steps are taken on the side of supply and demand with the cooperation of public and private sectors. On the demand side, it is a public priority to develop national policies to educate children and youth at early ages in order to improve their skills in cultural, artistic, literature and digital fields with a view to creating a life habit of participating in cultural and artistic activities and creating works based on intellectual labour and creativity. On the supply side, high-level policy papers prioritize the measures that can be implemented jointly by the public and private stakeholders to enable copyright industries to grow and get industrialized based on exports.