

The Importance of Domestic Devices for Cinema and Television

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Abstract: The image on the screen is the reinterpretation of it with technological tools. Turkey is the second biggest exporter of the content produced for the cinema–television in the world. Turkish TV series and movies are watched in more than 140 countries. TV producers and filmmakers are obliged to follow the technological developments constantly. They have to invest continuously in either renewing or updating their technology, to stay competitive with their contemporaries. The outspread of Turkish content throughout the world, makes a great contribution to the Turkish goods, the Turkish lifestyle and the recognition of Turkey. With the developing investments, devices with similar characteristics in the defense industry have started to be produced locally. It is crucial to create domestic brands that can challenge global brands with government–supported private sector investments. For an industry that is the second in the world with the content it produces and whose export target is more than 1 billion dollars, to produce its own equipment should be a prime target. The development and recognition of these brands to be created will be realized rapidly, thanks to the magnitude of the market size.

Keywords: Broadcasting, Television, Cinema, Technology, Export

JEL Classification: A12

1. Introduction

Television and cinema are the most popular mass media tools. The days of one TV set/per house are over. Today, there is a TV screen everywhere. The contents of television and cinema can be consumed in the subways, on the buses, on the planes, on our phones, on our computers, in short, anywhere that you can connect a device to the internet. Today, “Rating” is outdated by “clicks” and “likes”.

The cinema and television industry has two types of technological requirements. While a wide range of electronic devices are demanded for production, it is also a necessity to use a range of electronic devices for transmission (Kars, 2003). This two–

way technological requirement creates a two-way interaction. The message no longer reaches the audience only from the television and cinema screen. The message can now be delivered in many different methods, thanks to technological changes. These different methods helped the audience to consume the content effortlessly and caused an explosion in the demand. Secondly, the equipment and tools used in the production of the content are developing rapidly with technology. The simplest example is the transition from analog cables to HDMI cables. Higher technological devices have been used for recording and this had a massive impact on the produced content.

Turkey is the second biggest exporter of the content produced for the cinema-television in the world. Turkish TV series and movies are watched in more than 140 countries. Annual income from exports is expected to exceed 1 billion dollars in 2023. In the 11th Development Plan, it was mentioned that the sector showed a great development. However, the equipment and technological devices needed by the sector were not mentioned. The purpose of this article, by making use of the data of TV series and film exports, is to draw attention to the increasing demands of domestic and foreign markets, while investigating the necessity to increase the domestic production of these technological equipments for the sector, in Turkey. The necessity of adding the production of domestic cinema-television broadcasting equipments to the technological pool created by the domestic technology maneuver, has also been mentioned. The information obtained about the sensors, signal transport devices and imaging systems, which have already been developed by the national defense industry with the help of the government promotions and incentives, can be easily transferred to the devices used by the broadcasting infrastructure. This inter-sectoral technology transfer will lead to an increase in Turkey's capacity to produce high technology, as well as a decrease in the foreign dependency of a sector that adds value with its productions. Furthermore, it will be very easy to advertise and market these devices that are utilized in the production of the content, which reaches 140 different countries.

2. The Effect of Technology on the Content in Cinema and Television

The screen has started to change with the developing technology. This change has affected the 80-year-old television technology, as well as the socio-cultural structure of the individuals and society that is the technology. (Gezgin, 2018).

Today, advanced technological products are used in broadcasting, as in every

business. The term 'broadcasting' is used as an umbrella term to cover all the equipments needed during the content production stage, and includes a massive variety of equipments. It contains about two hundred items; from a simple cable to a microphone, from a camera to lights and precision balancing systems, and from live broadcast systems to software. This equipment is generally imported. Even if certain products have started to be produced domestically with some initiatives, they occupy a small spot in the product range. The demand for the above-mentioned equipments is increasing day by day with the development of broadcasting, with the increase in OTT services, with the rapid expansions in small-budget productions and with social media broadcasts. These devices play an important role in the quality of the content by facilitating the production, as well as contributing to reality and cultivating the creativity.

This reality, which can be formed easier with the developments regarding quality, is called "reality in cinema" or "filmic reality". *Cinema has its own reality that captures the attention of its audience. The film changes the actual reality to create a sense of filmic reality* (Gök, 2007). The enigmatic ability of cinema to provide this twist in reality and to connect the audience with a passion can be achieved easier with the developing technology today. *"New machines and techniques are not only new products, but also resources of fresh and creative ideas."* (Künüçen, 2013).

TV producers and filmmakers are obliged to follow the technological developments constantly. They have to invest continuously in either renewing or updating their technology, to stay competitive with their contemporaries. In addition, the daily development of the technological broadcasting equipments, enable creators to convey the effect they had created in their minds to the audience, the way they desire. For example, let's consider that the camera is following a walking soldier from the behind, in a trench in a movie about the First World War. The director wants you to feel like one of those soldiers as the camera strolls along the trench. He achieves this by the help of the stabilizers that prevent the camera from shaking, lenses that work best with the headshots, and lights that create the best ambiance.

In order to show the magnitude of the battlefield and escalate the filmic reality, the director has to use numerous individual state of art equipments. In other words, he will have to spend a lot of money. If we give an example from the 2019 movie "1917" (Mendes, 2019), the total money spent was 95 million US dollars. The movie earned \$384 million in revenue worldwide (imdb, 1917, 2020). Contrary to this example, in the movie "Paranormal Activity" (Paranormal Activity, 2007), the director was able to

create a chilling filmic reality with only one standard camera and a straightforward light equipment, with two people in the same house throughout the whole movie. The movie was completed with only US\$15,000 budget but grossed US\$193 million worldwide (imdb, 2009). The foremost reasons of giving these examples are to underline that the success of the content is not always dependant on the budget, and to emphasize that the creators of the content need a great many technological tools to convey their dreams to the audience. *Technological equipment adds its own creativity to the living creatures, events, and the scene, while improving it, almost recreating it (Kunuçen, 2013).*

Consumption of the contents created by the broadcasting industry has become much easier and simpler today. The audience or listener consumes the content with an extraordinary appetite. This gives way to a huge increase on the amount of the content produced. In the report prepared by the "Development of Visual Services Joint Working Group", which was included in the 11th Development Plan, this matter was mentioned as follows: *"Another highly important component of the creative cultural industries is the television content and particularly the TV series. Television content expenditures worldwide have increased to the level of 1.8 trillion dollars. In the television industry, where the content is consumed daily, even more hourly, television channels are in a huge demand of content in order to take part in the compelling competition"* (The 11th Development Plan, 2019). Creating the content in demand will be possible with the utilization of technological equipment. This content, is just as important as an industrial production line for our economy, and its contribution to the country's economy is absolutely unthinkable to disregard.

3. The Contribution of the Exports of TV Series and Films to the Economy of the Country

At its first stage, the sector developed domestically, but later on started to export the content produced. *For a long time, TV series in Turkey were produced only for the domestic market. Since 2006, a rapid increase has been recorded in the export of the TV series and these series have been exported to all over the world, especially to the Balkans and Middle East countries (Öztürk & Atik, 2016).* In the same period, the cinema sector showed a great development in the domestic market. According to the data of the Ministry of Culture and Tourism, 407 films, (147 domestic and 260 foreign), were released in theatres in 2019. Turkey, which has not left the first place in Europe, in terms of domestic movie viewing for 8 years, maintained its place with a 55 percent viewership rate in 2019 (NTV, 2020). The content became an export

material, no different than an industrial production. After the 2000s, the production of TV series escalated with the revival of the audio-visual sector in Turkey. The TV series industry, which grew fast enough to turn into an industry on its own, shattered the rating records on national television channels and became an important commodity that is exported. Over a hundred TV series are produced in Turkey every year. 75% of them are exported to more than 140 countries. It is predicted that Turkish TV series, which are marketed all over the world, from the USA to Chile, from China to Russia, especially to the Middle East and Balkan countries, currently have atop 400 million viewers. This data have made Turkey the second country that exports TV series to the world following the USA (The 11th Development Plan, 2019). The first Turkish TV series to be exported was the 1975 TRT (Turkish Radio and Television) series "Aşk-ı Memnu" (Forbidden Love). "Muhteşem Yüzyıl" (Magnificent Century), which is the most broadcasted TV series, has reached more than 500 million viewers in 70 different countries (jurnal.ist, 2019). The revenue from TV series exports is expected to reach 1 billion dollars in 2023. Since the revenue was not even 1 million dollars ten years ago, we can undoubtedly mention that the content produced in Turkey today is capable of attracting viewers all over the world. The role of new technological tools utilized in the sector in achieving this quality is at a very principal point. According to the research conducted by Eurodata in 2016, TV channels around the world produce 70% of their content and import 30% from the other countries on average. It is revealed that 25% of the imported television content is composed of Turkish content. In short, one of the four TV content imported around the world is produced in Turkey (The 11th Development Plan, 2019). Istanbul Chamber of Commerce President Şekib Avdagiç underlines that the Film & TV Series Industry, which is described as "soft power", makes a significant contribution to the image of Turkey all around the world. Avdagiç says, "*The Turkish TV series that enters the new markets, promotes the Turkish lifestyle, consumption style, and national treasures of Turkey, which pave the way for other Turkish products' exports to these new markets. We are very pleased to see that Turkish productions are locking millions on TVs, smart phones and computer screens from Sweden to Costa Rica, from China to Spain. The sympathy to the Turkish TV series in these countries makes it very easy for our entrepreneurs to penetrate these markets*" (Habertürk, 2018). In addition, Avdagiç talked about its commercial benefits as follows: "*The revenue from Turkish TV series and films exports was 100 thousand dollars in 2008. This figure has reached over 300 million dollars as of 2017. If good projects come out, exports will easily exceed 400 million dollars. The target set for 2023 is at least 1 billion dollars. Our potential is way above that. We export TV series to over 100 countries all over the world*" (Habertürk, 2018).

The export extent of the content produced by the industry is remarkable. It is estimated that the TV series industry has created an economy 10 times bigger than its total turnover, while facilitating exports and the sale of goods and services. In addition, it is very important to create a pro-Turkey content in opposition to the lobbying efforts against Turkey recently. The developing relations are tried to be prevented by anti-Turkey lobbying activities, especially in countries far from Turkey, such as the USA, South America and the Far East. However, these contents, which reach everyone from the ordinary citizens, to the governors of those countries, are of great importance in providing the righteous image of Turkey.

4. The Effect of TV Series and Films Exports on Tourism and Other Export Items

It should not be overlooked that Turkish TV series and films exports have the potential to have a great impact on other sectors. This visual content, which is defined as *The Soft Power* and described as *the 7th Art*, has an enormous turnaround when exported abroad. For example, the world-famous American TV series "Game of Thrones", shot in Croatia, made a great contribution to the promotion of Croatia in the international arena. According to the report "The Development of Film Tourism in Croatia" published in 2013, "Game of Thrones Croatia" has been searched 1,570,000 times on Google, and the number of American tourists to visit Dubrovnik, Split and Sibenik has increased 25% since the Series' broadcast. This shows that the audience does not just consume by watching; furthermore, they are thrilled by what they see and they choose to travel and to see the filming locations on the spot. According to the research, the countries bringing out the most original productions in the TV series category are India, China, Russia, Nigeria and Turkey. 80% of the content produced in India consists of TV serials. This number is 60% in China, 45% in Russia and Nigeria, and 44% in Turkey (The 11th Development Plan, 2019).

The reflection of TV series exports on Turkey's tourism is another important subject to discuss. We understand from the data of the Ministry of Tourism that, in recent years people have come to Turkey from all over the world thanks to TV series. Even students from South America come to Turkey to study (Marketing Türkiye, 2020). With the recent popularity of Turkish TV series broadcasted especially in South American countries, the number of tourists coming to Turkey from this region increased by 46% as of last year. It is evaluated by the sector representatives that; there will be positive developments in the exports of services sectors, such as health

and education tourism, gastronomy and transportation to these countries where Turkish TV series are broadcasted and watched with admiration (AA Ajansı, 2019). At this point, film tourism emerges as an important domain. The positive effect of the TV series on the increase in the number of tourists is clearly seen from the tourism statistics and from the touristic tours to the shooting locations. And with the recently escalating wedding tourism, this effect is expected to develop further.

Additionally, it is seen that export categories such as real estate, furniture, food and jewelry indirectly benefit from the TV series industry. In this sense, it can be said that TV series induce a dynamic contribution in increasing an awareness of the Turkish brands abroad. Goods exports to Venezuela, Brazil, Peru, Paraguay, Dominican Republic, Argentina, Uruguay and Chile, which are the countries where most of the Turkish TV series are broadcasted, have increased steadily in the last 3 years. When exports in 2016 and 2018 are compared, exports to Venezuela increased by 572 percent, to Dominican Republic by 155 percent, to Paraguay by 105 percent, to Peru by 88 percent and to Chile by 78 percent (AA Agency, 2019). In addition to Latin America, these TV series are also deliberately watched in Africa, Western Europe, Central Europe and the Balkans. For example, exports to Spain, where the TV series "Kara Sevda" (Endless Love) and "Kara Para Aşk" (Black Money Love) are watched with admiration, increased by 55 percent in 2018 compared to 2016. Turkish TV series are watched with a similar appreciation in Africa too. Goods exports to many of the African countries have also increased in the last 3 years. Exports to Senegal, Tanzania and Kenya, where the TV series "Kara Para Aşk" (Black Money Love) were sold, increased by 153 percent, 134 percent and 63 percent, respectively. Exports to Morocco, where the TV series "Beni Affet" (Forgive Me) is highly popular, also increased by 35 percent in the same period (AA Agency, 2019).

5. Connectivity

All sectors are connected with some subsidiary industries or services. *Back to back connections of a sector, a business or a product are defined as a cluster, which provide an input for that sector. The increase in the demand of that sector, also increases the production in the entire cluster* (Yülek, 2019). With the increasing demand of the domestic and foreign markets from the cinema and television industry, the demand for technological devices and equipment has increased too. The content exported to more than 140 countries, escalates the recognition of Turkey and Turkish goods. Therefore, the domestic production of the equipment used in the sector and the emergence of more domestic alternatives will both increase the import rates and

will provide added value to the exports. As we have seen in the data before, the rate of trade made to other countries has increased during or after the broadcasting of the Turkish content. This shows that, the international demand in the cinema and television sector will create an interaction not only in the sector but also in a wider framework. Therefore the sector's improving connection with its subsidiary industry will enable the main industry to capitalize from this great potential.

The outspread of Turkish content throughout the world, makes a great contribution to the Turkish goods, the Turkish lifestyle and the recognition of Turkey. As seen in the previously examined data, the produced content publicizes Turkey at every front it reaches. The data show us that the audience is not passive when consuming, on the contrary the audience is consuming the content actively. And this activity sometimes turns into recognition of our country, and adds up to the economy sometimes with trade and sometimes with tourism. The expansion and continuity of the sector has made the need for technological equipment permanent.

6. Sectoral Needs and The 11th Development Plan

Television and cinema have become virtualized because of the cyclical conditions and the Corona virus epidemic. The fact that people are locked in their homes, and that the produced content can easily be watched on mobile devices, has led to a rapid consumption of the content and a new demand explosion. As mentioned in The 11th Development Plan, since the consumption had shifted to the internet and mobile devices, this situation led to an increase in the supply. In the 11th Development Plan, the sector was classified in two categories, as cinema and television, and it was envisioned to follow a similar path for both.

In general, these two sectors are quite similar from the standpoint of the tools and equipment used in the production phase, and some elements have been emphasized in order to the development of the sector in the 11th Development Plan. Setting strategic plans and targets, fighting against piracy, regulating the shooting permissions and fees, and generating solutions for international marketing were also mentioned. However, no study has been carried out about the supply or production of the necessary technological tools for the sector, which is the main subject of my research. Whereas, when the last five development plans are examined in detail since the beginning of the 2000s, the attentiveness in the sector had increased in each new development plan. However, only the production of the sector is taken into consideration. While the know-how and trained personnel required for production is

found to be sufficient, large fees are paid for the imports of the technological equipment. Big international brands hold the technological equipment sector in their hands. Some alternatives have been produced by foreign new ventures in the country, but the domestic alternatives are rather barren or limited to certain equipment and tools. For example, the price of a high-quality camera and its necessary auxiliary tools are at the level of 50 thousand dollars. There is a necessity for reducing the foreign dependency by producing our own equipment in the sector. The state should revive the industry/technology and cinema/television connections with the mechanisms it establishes.

The general objectives in the Visual Services Sector are listed in the 11th Development Plan as follows:

- 1. Constituting the strategic plans and objectives*
- 2. Producing TV series reflecting our cultural values*
- 3. Ensuring sustainable and qualified productions*
- 4. Increasing the export volume of the sector to 1.5 billion dollars in 2023*
- 5. Protecting the cultural heritage in the visual services sector and transferring it to future generations*
- 6. Using the visual services sector effectively as a soft power*
- 7. Developing support and incentive mechanisms*
- 8. Adopting an education system that takes applied training to its focus*
- 9. Developing a qualified workforce*
- 10. Increasing and encouraging R&D and infrastructure investments*
- 11. Advancing the marketing and promotion strategies*
- 12. Generating statistics for the field*
- 13. Developing international cooperation*
- 14. Anti-piracy and copyright protection*
- 15. Increasing the income and creating new financial resources*
- 16. Ensuring coordination between public institutions and the private sector*

More technological infrastructure support should be given to a sector that is so connected with technology. The R&D and infrastructure support mentioned in Article 10 should be expanded and detailed further. Thanks to the previous development plans and other incentives, important initiatives have been taken in the last 20 years. For example, Edelkrone, which was founded by an entrepreneur in Ankara in 2009, is a company that produces camera accessories with its award-winning designs. It is a well-known company that has received more than 12 design awards worldwide and

has vendors in many countries of the world. Similarly, MaynMedia manufactures six different products in Konya. In just 15 years, the company has transformed from a small production workshop into a global company that exports to Iraq, Dubai, Azerbaijan, Germany, Netherlands, France and the USA markets. The global success of these two companies shows that initiatives in the sector are appreciated worldwide. We understand this by the fact that Edelkrone being among the top companies that got the most patents in Turkey in the last two decades. Product innovation increases export tendency more than process innovation. *Therefore, the support that policy makers will give to companies, especially in product innovation, will considerably increase the possibility of these companies to export directly without using intermediaries* (Özçelik, 2021).

It is obvious that the budgets allocated to R&D by these high-tech companies have returned to them as patents and utility models. The television and cinema sector that creates the content is highly dependent on this technology and the companies that produce these technological products. Looking back a little further, the most important concepts that appeared in the 6th Development Plan were concepts such as "information gap", "information society", "information technology" and "computer literacy". The developments in computer technologies necessitated the development of the country in general and these concepts were included in the science and technology policies. In this period, the transition to technology production and the dissemination of the acquired knowledge and technology were determined as the basic principle. The later on established of Technoparks and R&D centers, contributed to the development of such companies. Technology producing companies, cinema-television sector members and actors should be brought together. In order for the 1.5 billion dollar target set in the 11th Development Plan to be achieved, these companies that produce "broadcasting" equipment should also be listened to and supported.

7. Conclusion, Discussion and Recommendations

This sector is mentioned in the 11th Development Plan as "*They appear as very predominant industries in development, in terms of creating high added value, creating new business lines by creating consumption demand, and its impact on employment*". While the TV series industry is so important, it is wrong not to mention the necessary equipment. However, with the developing investments, devices with similar characteristics in the defense industry have started to be produced locally. It is crucial to create domestic brands that can challenge global brands with government-supported private sector investments. For an industry that is the second in the world

with the content it produces and whose export target is more than 1 billion dollars, to produce its own equipment should be a prime target. The development and recognition of these brands to be created will be realized rapidly, thanks to the magnitude of the market size. In addition, *it is claimed that the international competition that companies are exposed to when they enter the international market, increases the product quality and process efficiency, which in turn leads to the improvement of the innovation performances of the companies* (Özçelik, 2021). In other words, why shouldn't an industry that produces content for so many countries produce and use its own domestic equipment?

The climate is suitable to increase the production of these technological devices, which have innumerable positive effects on the sector. The production of broadcasting technology equipment can also easily benefit from the learning curve that took place in some sectors with the help of the Technoparks and R&D centers. For example, it will be easy for us to carry the learning curve that occurs in imaging, mechanical stabilizers, sensors and detectors, and even signal transporters that are used in the defense industry to broadcasting infrastructure products. The technological depth of the broadcasting industry is quite vast. Thanks to a developed sub-industry, we will have a chance to compete in the international markets with a product that is demanded by both domestic and international buyers. And, thanks to the variety of devices and products used in this sector and the ever-increasing accumulation, technological development will be triggered and social welfare will rise (Yülek, 2019). As a result, the content produced with these tools reaches hundreds of countries. In addition, it is obvious that these technological devices can be advertised and exported abroad on the exported TV series easily. We can easily understand that this sector is not just about camera and light, since the list price of a 15-meter active 2.0 HDMI cable is five hundred Euros. When we consider that even a tool that is underestimated as a cable is imported, the effects of this situation on our country's import-export balance will be better understood.

It is foreseen by both the sector actors and the state that the sector will grow gradually. Similarly, it is thought that the equipment need of the sector will increase in direct proportion to the sector's. If the technological equipment producers take into account the needs of the sector's consumers, this will contribute to the development of user-friendly products and the international recognition of these user-friendly products. As long as domestic competitors of imported tools and devices are not established, the TV sector's content export will not provide sufficient growth. A national and domestic technology manoeuvre will provide new employment

channels, high added value production and export. In this way, Turkey will contribute to the production of high technology and high added value equipments.

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