

How resilient is the Turkish transportation system? Lessons learnt from COVID-19



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Cover image | Photo by JÉSHOOTS from Pexels

Publisher | IC4R and ITU, Istanbul Technical University, Taşkışla, 34367 Istanbul, Turkey email: info@ic4r.net; website: <https://ic4r.net/>)

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İTÜ



foreword

Network Industries Quarterly Turkey, Vol. 1, Issue 1, 2020 (September)

“How resilient is the Turkish transportation system? Lessons learnt from COVID-19”

Welcome to our first issue of Network Industries Quarterly Turkey, NIQ-TK in short! From now on, you will find a NIQ-TK every three months!

NIQ-TK is an offspring of NIQ, the Network Industries Quarterly which has been published 4 times a year since 1998! If you have never done so, please check it out at www.network-industries.org.

Several considerations have led us to launch a specific NIQ-TK: for a start, we have launched the Istanbul Center for Regulation (IC4R) in 2019. IC4R is located at Istanbul Technical University, but has an independent board, chaired by the Vice-Minister of Energy and Natural Resources, Mr. Alparslan Bayraktar. IC4R aims at developing into the region's center in matters of regulation and regulatory policies. We look at both to the traditional and the new network industries, namely telecommunications, postal services, transport, energy, water and the newly emerging digital platforms. NIQ-TK will serve as the Center's main communication tool. As such, NIQ-TK will pursue the same ambition as the Center, namely to create and disseminate policy-relevant knowledge, in other words, linking theory and practice.

In addition, it is obvious that the different network industries, which play such a crucial role in the development of the country and the region are ill known, to say the least. In our view, this is less because

the research does not exist, but rather because it is scattered and lacks a proper vehicle for dissemination.

This is also why we have launched an ambitious book project covering the regulation of all the relevant network industries in Turkey. The project is well under way and the book is scheduled to be published by Springer in 2021. The first three issues of NIQ-TK will actually be written by some of the authors of this book. In doing so, we hope to create a community of experts on the different network industries, in Turkey first and later on reaching out to the region.

As we are still in COVID-19 times, and as transport has been particularly impacted by the pandemic, we wanted to explore, in this first issue, how the various transport modes have held up in Turkey. More precisely, this first issue is composed of four short articles covering Istanbul's urban transport system (by Umut Alkım Tuncer), railways (Şahin Ardiyok and Evren Sesli), air transport (Ömer Faruk Erol) and intercity coach services (by Ali Osman Solak). While all four sectors, and especially air transport, have been heavily impacted by COVID-19, the four authors also show that the different transport systems proved to be very resilient.

The first contribution, authored by **Tuncer**, analyses the impact of COVID-19 on Istanbul's urban transportation

foreword

system. The most populous city and the economic center of Turkey, Istanbul became the epicenter of the outbreak. Due to intermittent lockdowns, bans on international and intercity travel, closing down of schools and universities, and transition to remote work, the share of the transport modes have shifted and the demand for public transport has dropped. However, the negative effects have been mainly economic. The urban transportation system remained relatively resilient with no noteworthy cancellations in public transport service or disruptions in the infrastructure.

Ardiyok and **Sesli** examine the liberalization period and the improvements in deregulation process in Turkish railways. They argue that although the COVID-19 pandemic has led to a decreasing trend in passenger transportation, export transportation through railways has seen a high increase. Thus, they discuss the health and structural measures and infrastructural investments being necessitated due to the pandemic, as well as the next steps towards the ultimate aim of creating efficient and cost-effective railways.

Erol examines the Turkish Civil Aviation's reaction and resilience to COVID-19 from two perspectives: the administrative/regulatory perspective and the private sector. He argues that notwithstanding the negative global effects of the pandemic in air transport sector, Turkish air transport systems remained resilient thanks to the establishment of a sound private sector infrastructure, the correct positioning of the sector with the regulations of the administration and the effective measures taken during the crisis.

Solak discusses how COVID-19 pandemic has led to a new turning point for Turkish Intercity Coach Industry which is the most common mode of intercity passenger transportation in Turkey. The restrictions in early periods of the outbreak brought coach transport

to a near standstill. With gradual easing of restrictions, intercity travel demand has increased, but remained in very low levels compared to the pre-COVID-19 period. This situation severely harmed companies' revenues and operating budgets, despite the falling oil prices. In fact, the medium-long term effects are not certain. Yet, along with the increase in intermodal competition, changes in the travel patterns and mode choices, and reduction in travel demand due to the pandemic are anticipated.

We trust that you will enjoy our first NIQ-TK issue and hope that we will be able to count you as our regular readers in the future.

Deniz Ece Dalgıç Tetikol, managing editor of NIQ-TK

Matthias Finger, professor, İTÜ, and director of the Istanbul Center for Regulation

contents

6 **COVID-19: The Impact on Istanbul's Urban Transport System**

Umut Alkim Tuncer

10 **The short story of liberalization period in Turkish railways**

Şahin Ardiyok, Evren Sesli

14 **Recovery of Turkish Air Transportation System from COVID-19**

Ömer Faruk Erol

16 **Turkish Intercity Coach Industry and COVID-19: Lessons and Future Insights**

Ali Osman Solak

COVID-19: The Impact on Istanbul's Urban Transport System

Umut Alkim Tuncer*

Transport has been one of the worst-affected sectors during the COVID-19 pandemic. This paper analyzes the impact of the pandemic on Istanbul's urban transport system by taking into account transport demand, service provision, economic, and overall resilience aspects.

Introduction

Since the beginning of 2020, the lives of people around the world have changed in an unprecedented way, with no clear indication when things will be as they were before, if ever. Governments have advised, and sometimes forced, people to stay at home with limited social interaction and these movement restrictions have inevitably hit the global transport sector. In Turkey and Istanbul, since the first confirmed case on March 11, 2020, there have been intermittent lockdowns, a series of measures implemented such as bans on international and intercity travel, closing down of schools and universities, tax relief, and cash grants (Günay, Bayraktaroğlu, & Özkul, 2020). Turkey has been relatively successful at limiting the spread of the virus and especially mortality. As of August 24, 2020, 7,047,282 tests had been conducted and 269,550 cases had been confirmed. The total number of deaths in this period was 6,326. Since the country's first confirmed case, Istanbul became the epicenter of the outbreak, with 121,179 confirmed cases as of August 24, which accounts for almost half of the cases in the country (MHRT, 2020). The impact that this spread has had on Istanbul's urban transport system is the focus of this paper.

Change in Transport Demand

Housing almost 16 million people, Istanbul is the most populous city and the economic center of Turkey (Turkstat, 2020). Lately, the city been the scene for large-scale transport infrastructure projects implemented in public-private-partnership (PPP) schemes such as bridges, tunnels, and toll roads, and the central government and Istanbul Metropolitan Municipality (IMM), the local government, have invested

heavily in urban railway projects. Although car ownership has been on the rise in the city, it remains low compared to other global examples and high-income countries, with approximately 180 cars per 1,000 inhabitants, accounting for 38 percent of motorized trips (IMM, 2017). All modes of urban transport exist in the overall system: road, rail, and maritime. In the public transport market, railway systems have a public monopoly. Road and maritime transport modes are dominated by the private sector, although there is also public service provision (Tuncer, 2018).

Figures from 2019 show that 15,149,333 daily trips were realized by public transport; the modal share is 18.6 percent rail, 77.1 percent road, and 4.3 percent maritime, while paratransit modes such as minibuses and shuttles have an important presence in road transport (İETT, 2020). A recent modeling study carried out by Istanbul Metropolitan Municipality indicates that before the COVID-19 outbreak, mobility demand was mainly met by walking and public transport with equal shares and cars only constituted 15 percent. However, in the weeks after the first confirmed case in March, shares of these modes turned upside down; of the limited number of inhabitants who went out, 54 percent used private cars and public transport's share decreased from 42 percent to 20 percent (ISO - IMM, 2020). The sharp decrease in mobility demand for March is also demonstrated in smart card usage data share by IMM. Istanbul has a common ticketing system called Istanbulkart, which is the only medium for paying fares in rail systems, maritime modes, public buses (both public and private operation), and the BRT line, which accounts for half of the public transport trips (the remainder being paratransit modes such as minibuses, taxis, and employee/student shuttles, which usually have a cash

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transaction inside the vehicles). Before the first confirmed case, around 7.5 million trips were realized using Istanbulkart on a daily average in February and by March 31st the figure had dropped to as low as 1 million, representing an 86.4 percent drop. Even removing trips realized by paratransit from the calculation, a similar change in the demand for these modes can be estimated. On the demand side, the latest figures show that, after the initial shock and easing down of restrictions, there has been a recovery in ridership and the daily average number increased to 3.7 million in late August for trips realized using Istanbulkart (ISO, 2020). However, it is important to note that this ridership figure is still half of the daily average before the outbreak.

Impact on Service Provision

Turkey's fight against COVID-19 started before the virus arrived. There were flight cancellations and border closings with countries that had seen a rise in cases and a Scientific Board was formed by the Ministry of Health. Similar measures were also implemented at the municipal level in Istanbul. For example, IMM installed hand sanitizers at BRT stations at the beginning of March (IETT, 2020).

In the railway system, the first actions after the spread were the closing down of some cable car lines, which was mostly used by tourists, and halting of night services. Later, thermal cameras were installed at the stations and people who were identified as having a fever were not allowed inside (Metro Istanbul, 2020). In public buses there were similar measures, such as driver cabin separation, installation of hand sanitizer, and fever checks for drivers before beginning service (IETT, 2020). However, these kind of applications were not adopted in minibuses, taxis, or shuttles. Meanwhile, IMM started offering free disinfection service for buses, ferries, and paratransit modes (TUHIM, 2020).

At the national scale, regulatory interventions were made by the Ministry of Interior through the issuing of several circular letters. The first one, No. 5823 dated March 23, 2020, decreased the number of passengers allowed inside public transport vehicles and employee/student shuttles. With this circular, all public transport operators had to restrict their passenger numbers by up to 50 percent of vehicle capacity until further notice. This rule was abolished with a further circular, No. 8567 dated June 1, 2020, and public health assemblies under governorships were authorized to decide on number of passengers to be

allowed in vehicles. In line with this circular, Istanbul Public Health Assembly issued decision No. 86 dated September 8, 2020, stating that minibuses and public buses in which the number of seats cannot be decreased (which means that physical distancing is not possible) are not allowed to carry standing passengers. On the other hand, in railway systems such as metro and trams, the number of standing passengers allowed is defined as 50 percent of standing passenger capacity. The same capacity is defined as one-third for the BRT line and public buses in which seat adjustments can be made. Furthermore, the decision makes it compulsory to wear masks on all public transport vehicles.

Another development at the local level was the suspension of free public transport use for people aged 65 and over by some municipalities after the first cases (EGO, 2020). Traditionally, and according to Law No. 4736 (dated January 19, 2002) and a by-law issued by the Ministry of Family and Social Policies (No. 28931, dated March 4, 2014), certain people have the right to use the public transport for free in Turkey. These include disabled people, security forces personnel, military veterans, and relatives of martyrs. Since the pandemic began, healthcare professionals have also been added to the list of people who can use public transport free of charge.

Economic Implications

A sudden and sharp decrease in travel demand after COVID-19 had an economic impact on global and local transport sectors. As indicated above with the figures for March and August, public transport operators in Istanbul almost lost all of their fare revenues in the first month and have only now recovered to 50 percent of their pre-COVID-19 levels. Here, it is important to note that private bus and paratransit operators in Istanbul and other cities in Turkey generally rely mostly on fare revenues to cover their costs, operating under licenses. Railway systems and buses that are operated by public operators can be subsidized by local government budgets when they are making a loss (Tuncer, 2017). Therefore, the parties most affected by the pandemic have been the private operators.

In order to minimize the economic effect on transport, there have been several policy responses from the central government and local governments. The first one to mention here is the enactment of Law No. 7244 on April 17, 2020. Through this law, municipalities and metropolitan municipalities were authorized

to distribute income support to public transport operators providing service under license for an extendable period of three months. Most of the municipalities have supported private operators under this law or with other means. In the case of Istanbul, IMM announced that it would be covering the fuel and driver expenses of buses operated by the private sector and there would be a cash support (IMM, 2020). However, nation-wide, private bus operators are still not satisfied, especially due to the long-debated 'free ridership rights' for the aforementioned groups of people, and they indicated via a recent declaration that they would not be carrying free passengers apart from military veterans, relatives of martyrs, and security forces starting in 2021 (TOHOB, 2020) (NTV, 2020).

On the infrastructure side, the most remarkable negative economic effect occurred in recently implemented PPP projects. These projects, such as the Yavuz Sultan Selim Bridge and the Eurasia Tunnel connecting the two sides of the city via Bosphorus Strait crossings, have been constructed and operated by the private sector in a BOT model. Under the model, there are traffic guarantees by the central government and, due to a general decrease in transport demand and low utilization in these infrastructures, the amount of guaranteed payments has increased for the current year (Rayhaber, 2020).

Analysis and Concluding Remarks

When we take into account the developments in Istanbul's urban transport system since the COVID-19 virus arrived in the country and the city, it can be said that the system has remained relatively resilient so far, especially for users. There have not been major and noteworthy cancellations in public transport service or disruptions in the infrastructure. In all modes of public transport, the number of daily trips has been reorganized in such a way that there are sufficient daily services available even if there is not enough demand. Moreover, there have been additional services for healthcare professionals during lockdowns (IMM, 2020).

During the period since the first COVID-19 cases, the negative effects have been mainly economic, and this situation has mostly affected paratransit operators, which have a large share in road transport. This is demonstrated in the case of private bus operators and their recent statement. The fact that minibus and taxi services have continued in the same way as before the pandemic also implies that operators

are willing to take the risks involved irrespective of the current situation. It can be said that this is mainly due to the financing structure in these modes as they mainly rely on fares to cover their costs, as is the case with developing cities around the world (Meakin, 2004). Similar problems have also been observed with shuttles, which have not been able to return to their pre-COVID-19 levels as schools have been closed and teleworking has become increasingly common. It seems that the situation will remain the same for these operators for a while and similar shocks in the future will also produce such consequences. It is also important to note that even though the whole transport system looks as if it is still functioning well thanks to policy responses, there has been a dramatic increase in government spending both at the national and local level. This has manifested itself in the increase of payments made for PPP infrastructure projects and subsidies for private bus operators in Istanbul.

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The short story of liberalization period in Turkish railways

Şahin Ardiyok*. Evren Sesli**

The railway industry had been one of the heavily regulated industries all over the world until the increasing trend in deregulation and privatization of the industry after the 1980s. Turkey have followed a similar pattern in the deregulation process of railways within the scope of the European Union accession negotiations. This article shortly analyses the background of the Turkish liberalization period, examines the liberalization method within the context of current problems of the sector followed by the effects of COVID-19 pandemic, and finally proposes future solutions to the sectoral problems.

Liberalization period

Since the end of the Ottoman era, Turkey has experienced rapid expansion in railway transportation, both within and outside the country's current borders. The railway-dominant period continued from the Republic era until the beginning of the 1950s when the industrialization policies of the government steered toward highway transportation. Along with the new tendencies that appeared in the automobile industry, huge financial losses prevented the government from maintaining necessary investments in railway infrastructure and providing efficient transportation services. Following this sharp decline in railway transportation, Turkey inevitably followed global trends in railway liberalization policies and started to discuss alternative models of deregulation.

In the 2000s, a significant change in the government policies towards building the necessary infrastructure and new lines that accompanied Turkey's negotiations for membership of the EU. Hence, with the goal of integrating Turkey into the EU, the legal harmonization of railways was one of the crucial targets on the agenda. In this respect, Turkey used the EU's legal framework as a base for its own regulatory reforms and shaped its own policy through development plans. Turkey set a target of providing competitive, high-quality, and sustainable railway services for consumers at affordable prices, and gradually liberalized railways.

Vertical separation became a prominent strategy for the deregulation of railways (Karamanoğlu, 2012, p. 13-14; UNECE, 2018, p. 5), which aims to provide

infrastructure services and railway operations through two separate legal entities affiliated to a holding company (Solak, 2018, p. 8). The Act regarding the Liberalization of Railway Transportation No. 6461 (Law No. 6461)¹ discharged the state monopoly (TCDD) from its duties and responsibilities concerning railway operations and established TCDD Taşımacılık A.Ş. as the rail operator. TCDD continues its activities as an infrastructure provider and operator under the Ministry of Transportation. Besides TCDD, Taşımacılık A.Ş., which started operations on 1 January 2017, has executed all operational activities of railways that were previously under the responsibility of TCDD. As a requirement of the unbundling process, TCDD Taşımacılık has its own financial, legal, and human resources that are allocated to the operations of the railways (TCDD Taşımacılık A.Ş., 2017b, p. 29). Law No. 6461 also set out a gradual transition period for some railway activities, which has financially supported the public service obligations and other activities of TCDD and TCDD Taşımacılık A.Ş. for five years.

Within this scheme, the General Directorate of Railway Regulations ("GDRR") was established as the regulatory body with the purpose of maintaining a competitive environment that is efficient, qualified, and prioritizes the public interest under the duties and competencies of the GDRR. In order to provide non-discriminatory access conditions to the infrastructure, GDRR is entrusted with regulation, monitoring, and dispute resolution between infrastructure operators and rail operators. Moreover, in line with the relevant EU regulations,² Turkey introduced a Safety Management System within the body of TCDD.

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¹ Published in the Official Gazette No. 28634 and dated 1 May 2013.

² Directive 2004/49/EC of the European Parliament and of the Council on safety on the Community's railways and amending Council Directive 95/18/EC on the licensing of railway undertakings and Directive 2001/14/EC on the allocation of railway infrastructure capacity and the levying of charges for the use of railway infrastructure and safety certification.

Level of competition in the post-deregulation period

Since Law No. 6461 gave private entrepreneurs the opportunity to invest in railway operations, three freight and three private passenger train operators and one agency have been authorized for railway operations (Ministry of Transportation and Infrastructure, 2018, p. 234). However, due to the need for large investments in railway operations, only two private companies currently offer freight transportation services: Körfez Ulaştırma³ and Omsan Lojistik.⁴ For passenger transportation, private entrepreneurs have still not launched railway operations. Only two municipal companies in İzmir and Kayseri have operations in urban lines. Only TCDD Taşımacılık operates intercity lines.

Despite the improvements in deregulation process, Turkey still struggles with insufficient connections to production centres and insufficient port connections of the railway network. This situation limits the participation of private sector and prevents reaching the expected benefits of deregulation in freight transportation (Solak, 2018, p. 15). On the other hand, two private companies as newcomers rented their locomotives from TCDD Taşımacılık and benefited from the idle capacities, but this could create barriers of entry or increase costs for latecomers. For passenger⁵ transportation, there has been almost no progress since deregulation. Finally, public subsidies on behalf of a public company in a capital-intensive market and uncertainty over the requirements of these subsidies have the potential to reduce the investments of new entrants in both the passenger and freight markets. according to the 11th Development Plan, railway lines with public service obligations should be offered to private companies through public tenders (11th Development Plan, 2019, p. 125); however, it is difficult to say that the level of competition between public and private railway operators is sufficient to achieve the expected benefits of liberalization in the market since the end of 2018.⁶ The main reasons for this landscape are as follows:

Inadequate public investments in the routes with highest usage or demand (i.e., İstanbul-Ankara, İzmir-Ankara)

1. Conflict of interest with other transportation modes in the same routes
2. Reluctance in private sector involvement and investments due to uncertainty in economic conditions
3. Uncertainty in liberalization schedule (i.e., which lines will be privatized, when it is scheduled, how the tender process will be designed)
4. Public subsidies on behalf of a public company in a capital-intensive market
5. Uncertainty over the requirements of these subsidies have the potential to reduce the investments of new entrants.
6. Effects of the COVID-19 outbreak

Although the COVID-19 pandemic has led to a decreasing trend in passenger transportation, export transportation through railways is seen as “contact-free commerce”,⁷ and has shown an increase of approximately 100 percent. Despite the high amount of load that can be transported through railways, it only requires a few machinists to manage the transportation, which contains very low health risks for many. Moreover, since the neighbor countries closed the highway gates, transportation costs increased for highways or semi-trailer trucks queued up in front of some gates; hence, exporters have gravitated towards using railways. In March, the share of railways in export increased by 0.4 percent,⁸ reaching a total of 0.9 percent. This increasing trend in railways proved that high investments may come into play if necessary legislation gaps are properly filled.

Throughout the COVID-19 outbreak, functioning railways necessitated certain health and structural measures in Turkey. Despite the increasing share of railways in exportation, the current structure of railways in Turkey felt short of reaching destination and production centers of ports, and the insufficient in-

³ Körfez Ulaştırma, which is a wholly owned subsidiary of Tüpraş, carries fuel oil between the Kırıkkale and İzmit refineries of Tüpraş with five locomotives rented from TCDD Taşımacılık and 491 self-owned rolling stocks since 2017.

⁴ Omsan Lojistik carries freight transports of a cement company (Solak, 2018, p. 25) via 15 rented locomotives from TCDD Taşımacılık and 512 rolling stocks. It has railway operations between Sivas-İskenderun, İzmir/Aliağa-Kayseri, and Hatay/Payas-Kayseri.

⁵ Only two municipalities (İzmir and Ankara) have licenses for passenger transportation, but they have used them for intra-city passenger transportation. In this regard, the market has not yet been opened up to competition.

⁶ The share of private railway operators in freight transport is expected to reach 40 percent in 2023 (Railways Engineers Association, interview with the general manager of TCDD Taşımacılık A.Ş. p. 29).

⁷ “Demand Shifts from Semi-trailer Trucks to Wagons in Freight Transportation”, UTİKAD News, <https://www.utikad.org.tr/Detay/Sektor-Haberleri/28864/yuk-tasimaciliginda-talep-tir-dan-vagonlara-kaydi> Last Accessed: 10.09.2020.

⁸ Ibid.

infrastructure prevented the fully efficient use of equipment. Hence, the higher operational costs proved the immediate need for restoration. As in the case of the EU,¹⁰ distancing obligations, mandatory seat reservations, and other mandatory health measures are already being taken by TCDD⁹ in case of passenger transportation. Having said that, no specific COVID-19 measures have been initiated regarding infrastructure or rail constructions.

Future expectations

While restructuring railways, the legislators and the relevant regulatory bodies expect to have consultations with private railway operators in these restructuring processes. Fees for access to infrastructure should be determined with consideration of inter-modal competition between railways and highways by TCDD to enable railway transport fees to compete with highways. Accordingly, determining a lower access fee may result in higher efficiencies and profitable operation though setting tariff prices determined by the needs of market.

Since it is difficult for railways to self-finance and governments continue to subsidize both infrastructure and train operations, faster and more predictable public finance could accelerate private sector investments in railways. In this respect, as is the case of Romania, the amount of subsidies provided for TCDD to cover the operating costs could be structured by Multi-Annual Agreements in accordance with the EU rules (Tangül, p. 37). By this, the amount of subsidies will be determined by the agreement period, and aligned with the performance and capacity requirements to be ensured by the infrastructure operator. Accordingly, removing uncertainties in public subsidies and clarifying the supervisory authorities for competition issues could be the next steps towards the ultimate aim of creating efficient and cost-effective railways.

As stipulated under Article 55 Directive 2012/34/EU, it is essential to provide an independent regulator. In the case of Turkey, the regulator should be provided independent from the Ministry of Transportation along with an adequate wide-ranging set of powers and competencies. The competencies of the regulatory body need to be organized in a way that enables it to coexist with the Turkish Competition Au-

thority (“TCA”), which should also take an active role in accelerating liberalization in railways, without any conflict of authority.

Under the current regulatory structure, there are significant issues regarding the delegation of supervisory powers in competition issues. One of the most problematic issues is the lack of independence of the regulatory body, the GDRR, which was established as a branch of the Ministry of Transportation. As in many countries, the railways industry in Turkey needs an opt-in legislative framework for a full independent regulatory body. Additionally, the relationship between powers of the two regulatory authority in the industry, namely the GDRR and the TCA, is not clear enough to provide a foreseeable landscape for the sector players. In this context, the TCA is also responsible for the implementation of competition legislation without any sector-specific restriction, including railways. Therefore, the debate over the clarification of roles of the TCA and the GDRR is still ongoing, as it is in many other countries.

With regard to inadequacies in operational activities, it is vital to take effective action for the construction of the secondary lines of boarding points, especially for freight transportation (that is, outsourcing of the project to the private sector in return for a deduction from its service fee, as happened during the liberalization of the electricity market). Furthermore, in accordance with the needs resulting from the COVID-19 outbreak, it is essential to invest in infrastructure to connect railways to seaports and logistic centers accompanied by the consolidation of dispersed logistics centers and activation of current logistic centers.

⁹ Guidelines on the progressive restoration of transport services and connectivity – COVID-19, Communication from the Commission No: 2020/C-169/02.

¹⁰ “Stopped Operations of High-Speed Train Due to COVID-19 Starts Continuing”, TCDD News, <http://www.tcddtasimacilik.gov.tr/haber/455/> Last Accessed: 10.09.2020.

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Recovery of Turkish Air Transportation System from COVID-19

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COVID-19 and its results have negatively affected many sectors, especially the air transport sector. The Turkish government have tried to keep the country's economy alive by taking general measures on a national scale against COVID-19, considering sectoral differences and seeking to meet the needs of the air transport sector. In short, the reason why these practices have positively resulted in the short and medium term is that the Turkish air transport sector has a strong business system from the past and the measures that have been taken are accurate. Therefore, it would be appropriate to examine these two aspects in order to analyze the effects of COVID-19 on Turkish air transportation.

Since 2002, there have been very important developments in Turkish Civil Aviation, and significant growth has been achieved in both actors and activities of the civil aviation sector. The Directorate General of Civil Aviation (DGCA) regulates the Turkish civil aviation sector with both economic and security-safety dimensions. At the same time, the Ministry of Transport and Infrastructure closely follows the regulation of the sector and is responsible for and authorized to direct the sector in many issues. Therefore, these regulators, which can also be called administrations, follow the operation of the sector very closely. On the other hand, the General Directorate of State Airports Authority, a state-owned enterprise, also serves within the sector as an airport operator and air traffic controller and directs/regulates the sector with its service-based activities under the supervision of the administration.

The efforts of the private sector to gain a place in Turkish Civil Aviation since the 1980s entered an upward trend in 2002. Today, with 11 airline companies and 41 air taxi companies, the private sector actively operates in commercial air transportation. In addition, the private sector actively operates in sectoral activities other than air transportation, with 10 airport operators and 40 ground handling companies. Considering the distribution of the owners of air carriers in the sector from the public-private capital framework, we can say that private capital is predominant. The fact that the private sector plays an important role in the civil aviation sector, especially in air transport, ensures that the sector is dynamic and adapts quickly to changing conditions.

It would be appropriate to consider the Turkish

Civil Aviation's reaction and resilience to COVID-19 from two perspectives: the administrative/regulatory perspective and the private sector (especially air carriers) dimension.

With the exigency of the COVID-19 epidemic, as a result of the disruption of mobility as in the whole world, Turkish air carriers had to ground its planes. On the emergence of the virus in Turkey, the flight ban was implemented by the Turkish government in order to limit the mobility.¹ As a result of these restrictions, government incentives were announced to financially support air carriers to revive the disrupted economic situation. In addition to the support provided to all other sectors, the following supports and measures were also announced to the civil aviation sector: a tax reduction in airline services, a 50 percent discount in the DGCA 2020 service tariff, and amendments in the Passenger Rights Regulation.

The first financial support for the air transport sector due to the epidemic was in terms of tax. The tax (value-added tax) collected from air passenger transportation services has been reduced from 18 percent to 1 percent for three months.² During this period, this reduction in ticket fares aims to allow airline companies to earn more from ticket sales and to have some financial breathing room.

Another step that supports the civil aviation sector financially has come from the DGCA, which applied a 50 percent discount on the 2020 service tariff.³ The DGCA has made it clear that this discount is made in order to support the industry in its difficult situation, especially financially. The implementation of this application in order to financially support the aviation

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¹ <http://web.shgm.gov.tr/genel-duyurular/6336-koronavirus-COVID-19-hakkinda>

² <https://www.resmigazete.gov.tr/eskiler/2020/03/20200322-1.pdf>

³ <http://web.shgm.gov.tr/genel-duyurular/6352-genel-mudurlugumuzun-2020-yili-hizmet-tarifesinde-yuzde-50-indirim-yapilmistir>

industry has enabled civil aviation enterprises to significantly reduce their expenses for DGCA.

Finally, an important change was made regarding passenger rights during the COVID-19 period in the Regulation on the Rights of Passengers Traveling by Airline.⁴ Accordingly, if a flight is canceled due to the COVID-19 outbreak, the air carrier is exempt from the compensation and service provision clauses regulated in the regulation until the end of two months after the flight bans are lifted. In this case, the passenger can shift his/her ticket to a future date depending on availability or change the ticket to an open one. In addition, the unused ticket can only be refunded from the air carrier two months after the flight bans are lifted. With this regulation, the compensation liability of the air carrier due to the canceled flight is eliminated and cash outflow is postponed by delaying the refund of ticket fees. Indeed, the situation as a result of this regulation relieves the air carrier financially.

On the other hand, air carriers limited their operations and their activities were suspended due to flight bans. During this period, the short-time working allowance, which supports the private sector, provided financial support to air carriers. The state's contribution to the payment of wages of workers within the scope of short-time work allowance has relieved the economic difficulties of air carriers caused by the epidemic. In addition, the voluntary unpaid leave option offered to its employees has also relieved many companies financially. With the relaxation of flight bans and the gradual elimination of them, the option to start flights with high economic returns and the ability to prioritize flight routes can be considered as an important opportunity for the revival of the sector.

Despite the existence of flight bans during the COVID-19 period, it is also important that cargo transportation continues and active cargo carrier companies operate in Turkish air transportation. Thanks to the cargo transportation, the air traffic continued in a controlled manner and enabled these companies to continue generating financial income.

The fact that the private sector operates in a healthy economic regulation environment and the application of additional support to the aviation sector, as well as the entire private sector, has prevented the sector from drowning in the first wave. Later, the opportunity to consider financial preferences while starting

the activities of the private sector became an important opportunity to revive the sector. Both the support of the state for the private sector and especially the incentives for air transportation can enable Turkish civil aviation to overcome the coronavirus period with fewer financial difficulties.

In times of economic crisis, especially global crises, the structure and functioning of the sector increases in importance. The crisis period can be overcome more easily if there is a sector that has a healthy and fair regulation system, where competition rules are fully implemented and the private sector has a strong financial infrastructure. For this, the regulation of the sector before the crisis is more important than the measures taken during the crisis period. The Turkish civil aviation sector, and air carriers in particular, is financially audited by the DGCA and measures can be taken to ensure that they take the necessary measures without financial difficulties.

As a result, the fact that air transport is financially controllable and sustainable has enabled the sector to emerge from difficult circumstances with minimal damage in the face of crises. The Turkish civil aviation sector will be in a more advantageous position compared to other countries thanks to the establishment of a sound private sector infrastructure in Turkish civil aviation, the correct positioning of the sector with the regulations of the administration and the appropriate and effective measures taken during the crisis period.

⁴ <https://resmigazete.gov.tr/eskiler/2020/03/20200325-15.htm>

Turkish Intercity Coach Industry and COVID-19: Lessons and Future Insights

Ali Osman Solak*

In Turkey, coach transport is the most common mode of intercity passenger transportation. The Road Transport Law, enacted in 2003, was an important milestone for the industry, which has also been significantly influenced by intermodal competition in recent years. The COVID-19 outbreak seems to have led to a new turning point for the industry

A brief history and current outlook of the Turkish intercity coach industry

In Turkey, intercity coach services have been conducted by privately owned companies in free-market conditions without any government subsidies since 1926. In the early years, coach operations were mostly carried out on routes that did not have railways. Over the years, coach usage and the number of companies increased in parallel with the developing road network, growing population, and growing economy. By the 1970s, coaches had reached almost every city in Turkey, including the center, where there are also rail lines. Coach transport eventually became the most widely used mode of intercity public passenger transportation, ahead of the low-service-quality, state-operated railway transport, and uncommon and expensive air transport.

In 2018, approximately 27 percent of total intercity passenger transport was carried out by coaches (KGM, 2019b; TCDD, 2019b). Scheduled coach transport has a network structure that reaches all cities in Turkey. Ankara is a natural hub for the center and eastern regions of the country and Istanbul for the western regions. Coach services are carried out from these hubs to almost all other cities. The market structure is changing rapidly, adapting to seasons such as semester holidays and summer holidays. Generally, older people, low-income groups, and students prefer scheduled coaches.

As of the end of 2019, 338 companies operated in the market, with Metro Tourism, KâmilKoc, Nilufer Tourism, and Pamukkale Tourism being the dominant operators. In 2020, KâmilKoc was acquired by the German company Flixbus, one of the most sig-

nificant transporters in Europe. Many companies operate on a local-regional scale and only serve two or three cities. The service quality of the companies is high due to the intramodal and intermodal competition. Companies offer such services as extra-comfortable express coach services, offering in-vehicle food and beverage services, providing intracity and airport shuttle services, and selling tickets online and from call centers. Besides the companies' own websites, applications such as Obilet.com and Biletall.com also offer coach ticket sales services over the internet.

Until 1990, the market was not subjected to any notable economic regulation. There was not even any requirement for companies to obtain an operating license to enter the market. Similarly, there was no considerable intervention on prices, using contracted coaches, routes, schedules, and frequencies. However, the lack of regulation led to haphazard development. The market consisted of many small and local-regional companies that could not benefit from the cost advantages of scale and density economy, could not operate efficiently, and were not institutionalized, which also prevented the development of a healthy competitive environment. Operators that served in the same routes were engaged in predatory price wars to take others out of the market in the absence of price floor regulations. The first regulation for the industry (the Regulation on Intercity Passenger Transportation on Roads) was issued in 1990. This regulation was renewed in 1994, and remained in force, with minor changes made on different dates, until the Road Transport Law (RTL) was enacted in 2003. The principal purpose of the initial regulation was to register the industry, but also to increase the institutionalization of the companies and reduce idle

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capacity.

The Road Transport Law (RTL) was enacted based on the European Union standards. The RTL was an important milestone for the industry, and regulations based on RTL had a significant effect on the industry, mainly the number of operators. The increasing intermodal competition in recent years has also had a major influence on the industry, particularly in terms of its share in intercity transportation. More recently, the coronavirus (COVID-19) outbreak, which was first reported in China in December 2019 and declared as a pandemic by the World Health Organization, seems to have represented a new turning point for the industry.

Consolidation and collaborations

In the past 15–20 years, the number of operators in the market has decreased, and considerable consolidation/concentration has occurred. While this consolidation was partly due to new regulations, it was also a result of intermodal and intramodal competition. Among the companies that withdrew from the market were large and well-established companies, as well as small ones. Two examples are Varan Tourism, which was founded in 1946 and went bankrupt in 2016, and Ulusoy Travel, which was founded in 1937 and went bankrupt in 2017. With those two companies withdrawing from the market, the market shares of the remaining leading companies – Metro Tourism, KâmilKoc, and Nilufer Tourism – have increased. Although the number of companies has decreased, the number of coaches has not. While 461 operators had 7600 coaches in 2003, 338 operators had 8024 coaches in 2019. Most of the coaches in the closing operators contracted or sold with existing companies in the market.

In addition to consolidation, collaborations that do not violate the Competition Law have been observed among companies. The rapid growth period in the industry between 1950 and 1995 is now over. Issues such as cost-effectiveness and productivity, which companies ignored during the growth period, have increased in importance. Companies have turned to collaborations to reduce their costs and increase their competitiveness. These collaborations are mostly related to sales networks, ground services, shuttle services, and private terminals. For example, Pamukkale Tourism and Anadolu Tourism have connected their ticket sales networks to reduce their costs and to sell their tickets at more points. In addition to these kinds of collaborations, large companies such as KâmilKoc

and Metro Tourism made franchise agreements with small companies to use their brands, broad service network, and web infrastructure. In addition, in cities such as Bartın and Kastamonu, all companies have completely removed local urban shuttle services to reduce their costs.

Intermodal competition

While the number of passengers transported by coach in Turkey has increased in recent years, coach transport's share of total passenger numbers has declined due to intermodal competition. Coaches face competitive pressure from the other transport modes on most transport lines. The increasing demand for private automobile use and air transport is particularly challenging for coach operators.

On medium and long distances, air transport is a significant competitor for coaches. With the opening of the airline market to competition in 2003, new airline operators have entered the market and ticket prices have become more inexpensive. Furthermore, the state has constructed many airports in recent years and the number of air transport lines has increased. In 2003, domestic flights flew to 26 points from two centers, but by 2019 this had increased to 56 points from seven centers (UAB, 2019: 406). Increasing the number of lines and cheaper ticket prices significantly increased the competitive pressure from air transport. Furthermore, government initiatives such as the exemption of airline companies from the excise tax on fuel prices and the absence of a price ceiling for air carriers – which caused plane tickets to become even cheaper than coach tickets on some lines – have also affected the coach services. The percentage of airlines in intercity transport increased from 2.1 percent in 2005 to 9.4 percent in 2018. A significant portion of these airline passengers used to prefer coach transport in the previous ly.

Private automobile ownership in Turkey has increased over the years. The number of automobiles per 100 persons increased from 6.8 in 2000 to 15.1 in 2018 (KGM, 2019a, p. 11). Parallel to automobile ownership, automobile use/mobility between cities has also increased. While 53 percent of intercity transportation was done by automobile in 2005, this ratio increased to 61.9 percent in 2018 (KGM, 2019b; TCDD, 2019b). This increase has mostly affected coach transport. Besides automobile ownership, BlaBlaCar (a well-known app that supports ridesharing private automobiles) has also become critical for

intermodal competition.

High-speed trains (HST), which started to operate on the newly built railway line in 2009, constitute a considerable alternative to coaches. As of the end of 2018, the HST line length was 1213 km (TCDD, 2019c: 30). While HST fares in the available lines are slightly more expensive than coach fares, passengers prefer to travel with them as they provide relatively comfortable and fast travel opportunities. Coach transport on these lines has decreased significantly. On the Ankara-Eskisehir line, for example, an average of 572 passengers per day were carried by conventional trains before the advent of HST; since HST entered, this number has reached 6000 on weekdays and 7500 on weekends. The railways' share on this line (HST plus conventional trains) increased from 8 percent to 72 percent once HST entered the picture (TCDD, 2017: 53). Coach operators affected by this increase have reduced the number of daily departures on this line, and some have even canceled all their daily departures.

Precautions and regulations in the industry for COVID-19

On March 27, 2020, Turkey introduced stringent measures for the COVID-19 outbreak, from stay-at-home orders to restrictions of transport activities. In this context, intercity coach services were subject to local authorities' permission. A rule was introduced whereby the coaches that were allowed to travel had to operate at half capacity without filling two adjacent seats. These restrictions brought coach transport to a near standstill.

The government gradually eased restrictions beginning from June 1 and revealed a normalization plan. The government lifted intercity travel restrictions except for people aged over 65 and under 18. The rule requiring coaches to operate at half capacity continues, although the government did allow people from the same family to travel next to each other, increasing the passenger capacity of coaches by up to 65 percent.

Intercity travel demand has increased with the end of the restrictions, but has decreased drastically compared to the pre-COVID-19 outbreak. The response of operators to falling demand has mainly been to reduce supply. Operators started cancelling daily departures to a massive degree and coach use is well below capacity. This situation has severely harmed the companies' revenues and operating budgets and began to deteriorate their financial structures. Oper-

ators also had to take additional safety measures because of the outbreak, which have had profound impacts on their costs, even though the falling oil prices due to the outbreak have reduced fuel costs.

Operators had to increase ticket prices due to capacity reductions, half-capacity limitations, and additional costs. However, due to the excessive pricing, the regulatory institution set ceiling price tariffs considering the operational costs. Nevertheless, as mentioned earlier, operators have significant unused capacity. Although franchise agreements and contracted coach use are dispersing/reducing the financial risk at this point, many operators might face more difficult choices in the coming months. In order to support the industry, the regulatory institution extended operating licenses for six months, free of charge, with a Regulation change on June 23 of 2020. In addition to this support, firms in the industry have benefited from state aids provided to most industries, such as reduced taxes, deferred tax payments, and deferred debts to state banks.

Future insights

Looking at the intercity passenger transportation market, in general, reveals that the state supports air and rail transport to create a balanced transportation market by increasing the share of air and rail transport and invests in this direction. In air transport, many airports have developed in recent years, and new airports are emerging. When these airports are completed, the number of airline flight destinations will increase, meaning that air transport will increase even more. On the other hand, in rail transport, HST lines have been built and others are being developed. We can expect that these lines will attract significant demand when they become operational as the completed HST lines. Automobile ownership and usage are also increasing, as is BlaBlaCar usage. All these developments show us that, in the coming years, intermodal competition will increase in intercity passenger transportation.

Facing increasing intermodal competition, coach operators need to reduce their costs and bring innovative solutions to maintain their competitiveness. At this point, we can predict that consolidation and collaboration will continue in the industry with the industry's internal dynamics. We have seen examples of this in the industry. While companies used to serve as an umbrella for individual coach owners, the new trend is for a small number of national companies to act as umbrellas for small local companies. These

national companies will technically support subcontractors and be a kind of platform. The amendment to increase the contracted coach permission with the 2018 Regulation aims to open the way for this. Flixbus, which is one of the largest coach transport companies in the world and entered the Turkey market by acquiring KâmilKoc, has a business model based on collaboration with regional companies. According to this business model, local partners are responsible for the daily operations of the coaches, while Flixbus conducts commercial permits, network planning, marketing, pricing, quality management, and customer service activities. Flixbus has, in a sense, digitized the industry and established a transportation network/technology platform on the internet. It offers a cost-effective service with smart network planning and a dynamic pricing system.

In the coming years, there will also be developments in favor of coach transport. In recent years, a considerable length of the highway was built, and others are still under construction. Although these are toll highways, they have shortened travel times and their high-speed limits and travel comfort have made them more comfortable. Accordingly, we can expect that coach transport will increase on the lines passing these new highways. Besides, increasing environmental sensitivity may cause passengers to prefer coaches over automobiles in the coming years.

The COVID-19 outbreak is likely lead to a substantial reduction of intercity coach passenger volumes in 2020, but we are less clear how the outbreak will affect the industry in the medium-long term. Much remains known, including the extent of social distancing and restrictions on mobility. These uncertainties make it difficult to predict post-COVID-19. In other words, there is ongoing uncertainty in terms of the future of the industry. However, we can anticipate changes in the travel patterns and mode choices, hence travel trends. For example, we can expect an increase in non-shared modes such as car use and a decrease in shared modes such as coach transport and automobile ridesharing. The economic slowdown and unemployment caused by the outbreak is also likely to contribute to a reduction in intercity travel demand. In addition to these anticipated changes in the demand structure, partially digitized operations are likely to digitize even faster.

Conclusion

In the coach transport market, with the effect of the regulations introduced after 2003 and the increased

intermodal competition, the number of operators reduced and partial concentration occurred. Despite the consolidation in the market, monopolistic pricing was generally not seen due to intermodal competition pressure and potential competitive threat.

Recent developments point to the following future trends: Intermodal competition will increase further in the coming years, which will lead to the share of coach transport declining proportionally, although not necessarily numerically, and further consolidation in the market and improved collaborations.

The lessons learned from Turkey's experience for coach services are as follows: (1) It is possible to carry out the intercity transportation without government subsidies. In Turkey, with coaches, the privately owned companies provide passenger transportation services to all cities without using any public funding and without any public service obligation contract for years. (2) Intermodal competition and potential competition are significant factors in passenger transportation and should be considered when evaluating the transportation market. A decline in the number of companies in any transport line does not always lead to monopolistic behavior. The existence of intermodal competition and potential competition affects firm behavior. (3) In challenging times like COVID-19, franchise agreements and contracted coach use help companies to disperse/reduce financial risk. However, companies need to be robust financially to increase their resilience to the challenges they may face.

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