Informal private transportation in Turkey: The minibus and dolmuş systems

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About this document

This report provides an overview of Turkey's minibus and dolmuş system. Since the minibus-dolmuş system was first established in Istanbul and the Istanbul Metropolitan Municipality (IMM) is the largest and most influential in Turkey, the report primarily focuses on Istanbul's experience.

Key Features of the Minibusses and Dolmuşes

Turkey's paratransit system relies on the operation of dolmuş (dolmush) and minibus vehicles. According to the "Highways Traffic Regulations," dolmuş buses are defined as "commercial vehicles of the M1 category (motor vehicles with nine seats), designed to carry passengers with a maximum of nine seats, including the driver, and transporting passengers for a fare charged per person." Minibuses, on the other hand, are defined as "commercial vehicles of the M2 or M3 class (motor vehicles with more than nine seats and weighing more or less than five tons), designed for commercial passenger transport with a maximum seating capacity of 16 people, excluding the driver" (TUHIM).

In his book "The Story of Dolmuş," İlhan Tekeli (2004) provides the following list describing the features of dolmuş buses:

- 1. "It is a vehicle where passengers board individually and depart once full.
- 2. It is a public transport system without a pre-arranged departure time or set schedule.
- 3. It is a vehicle that easily adjusts its service to meet travel demand.
- 4. It is a transportation business that enables individuals, without prior organization, to come together spontaneously to purchase the service.
- 5. It is a vehicle operated by a small entrepreneur, serving as a job opportunity for the "marginal fraction" (low-income and semi-unemployed individuals).
- 6. It is typically a vehicle originally designed for a different transport function but uniquely modified to suit shared taxi services.
- 7. It is often a crowded vehicle that operates above a certain capacity limit.
- 8. It is a transportation system composed of small vehicles.
- 9. It is an alternative public transportation system operating parallel to official public transport systems.

10. It is a business model that is not confined to a specific type of vehicle (car, boat, motorboat, motorcycle, airplane)."

When dolmuş services first began operating, they were highly flexible with no predetermined routes. The only established details were the starting point (X) and the ending point (Y) of their routes, giving drivers complete freedom between these points. They did not adhere to a specific path. However, this is no longer the case; today, municipalities determine the routes and stops that drivers must follow (Tekeli, 2004).

The most distinctive feature of the dolmuş is that it departs only when all the seats are filled. Since dolmuş drivers were small, independent entrepreneurs, they were not organized collectively. Dividing revenues and losses among drivers was not feasible due to their independence. Therefore, to maximize their earnings, they chose to fill all seats before departing (Tekeli, 2023).

Marcus Enoch, in his study "Demand Responsive Transports: Lessons to be Learned from Less Developed Countries," highlights that although dolmuşes offer trips individually tailored to meet customer needs—allowing passengers to be picked up and dropped off almost anywhere—they are more comfortable than public buses (as there is always a seat available) and have fares comparable to buses (slightly higher). However, they face a significant issue: "The risk of collisions and congestion caused by drivers veering sharply or stopping suddenly" is high since passengers can board and disembark at any time (Enoch, 2005, p.69-71).

Minibusses and dolmuşes share some similarities but also have notable differences. Their capacities, vehicle types, operating costs, fares, and passenger profiles vary, primarily because they operate in different areas.

Map 1: Minibus Routes in Istanbul



Map 2: Dolmus Routes in Istanbul



These maps were obtained from the Istanbul Metropolitan Municipality's (IMM) Open Data Portal. As shown, minibus operations are more widespread across Istanbul compared to dolmuş routes, which are concentrated around the city's business and shopping centers (IMM Open Data Portal).

Minibusses have a seating capacity of 17 but also allow standing passengers, giving them a higher total capacity than dolmuşes. However, overcrowding is a significant issue, with drivers often accepting nearly twice the legal number of passengers. Minibuses primarily serve low-income groups, as they operate in outlying areas, which keeps their fares relatively low (Şanlı, 1981, as cited in, Özkurt, 2012).

It's important to clarify that "taxi dolmuşes" and "dolmuşes" are nearly identical. The key difference is that taxi dolmuşes have the flexibility to operate as regular taxis when they choose, depending on congestion and demand levels. However, the regulations applied to both dolmuşes and taxi dolmuşes are the same, making them interchangeable in use (Özkurt, 2012).

Evolution of Dolmuş-Minibus Operations

Istanbul was primarily a pedestrian city until the second half of the 19th century. The only public transportation system at the time consisted of small boats docked around the city, operating with fixed fares and departing only when full. Around 4,000 recorded boats followed this "departure after all seats are full" principle. This system laid the foundation for today's dolmuş concept, which originally began as a form of marine transportation in Istanbul (Tekeli, 2023).

Istanbul gradually transformed into a city of automobiles. In 1825, Sultan Mahmud II became the first to use a horse-drawn carriage, followed by government officials who were granted permission to drive them. By 1860, all income groups were allowed to purchase and drive vehicles. The invention of the Model T car by Henry Ford in 1909 led to a significant increase in the number of automobiles on the roads (Tekeli, 2023).

The 1929 World Economic Crisis had a severe impact on Turkey's economy. While the exact year when the first taxi dolmuş appeared is unknown, it is widely believed that in the early 1930s, some individuals with private cars began working as taxi drivers, allowing passengers to share the fare. Tekeli notes that in 1954, the Istanbul Municipality Council announced that the parliament permitted drivers to operate as dolmuş buses if they wished (Tekeli, 2004).

At the end of the Second World War, Istanbul's urban population rose significantly, leading to a gap between the demand and supply of public transport. The municipality's services were insufficient to meet the needs. Between 1955 and 1960, under Adnan Menderes' "Highway Policy," most tram systems were dismantled, and new highways were constructed, which also contributed to increased traffic congestion (Tekeli, 2004). The transportation system shifted from being railway-dominated to highway-dominated. However, the infrastructure could not keep up with the rapid pace of urban growth, causing public transportation to fall short (Özaydın et. al., 2010).

Taxi drivers began organizing and operating on specific routes, providing shared services to multiple passengers simultaneously. Old American cars were modified to seat up to seven passengers. As urbanization increased, suburban districts expanded, and the number of slum houses grew. Due to the limited capacity and size of dolmuş cars, they were insufficient for serving the suburbs. This led to the introduction of Chevrolet buses, with capacities of 12 to 30 passengers, marking the beginning of the minibus system. In 1960, Ford and Koç Holding established the Otosan Company and began producing 12-passenger minibusses. The production of these Ford-brand minibusses led to a rise in the number of small entrepreneurs, minibus operators, and dolmuş drivers (Tekeli, 2023).

Turkey's minibus-dolmuş production history can be divided into three periods:

The first period, from 1960 to 1975, is described by Kurtgözü (2020) as the "installation" and "infinite brands" era of the Turkish automotive sector. During this time, various brands of American, European, and Eastern Bloc cars were modified in small workshops and sold. The most popular models included the British Thames, Commer, Morris, Matador, Ford FK, Volkswagen T1, and Renault Goelette. However, most of these vehicles, except for the Renault Goelette, had some drawbacks—they were too small, had low ceilings, and were very close to the ground (Kurtgözü, 2020).

The second period, from 1975 to 2000, marked the transition from mere assembly to national production. During this time, the popular Renault Goelette minibusses were redesigned with a new "Bus Body," which was flat and angular, allowing for easier repairs. This design featured large windows and a spacious interior, accommodating more passengers in a more comfortable environment. The most popular minibus brand of this period was the German Magirus Deutz, which also featured the "Bus Body," the most durable engine of the time, and a higher ground clearance. In the 1980s, modified Magirus Deutz minibusses with panzer chassis dominated the market. Ford Transit was the third most popular model during this period, favored by drivers

due to its extensive service spare parts availability and flexible payment options (Kurtgözü, 2020).

The third period, which began in 2000 and continues today, reflects a growing awareness of environmental protection, customer service, and safety in minibus production. The Karsan Jest model is currently the most popular minibus in Turkey, featuring an engine that complies with Euro 5 emission standards and is designed to be disabled-friendly, with a platform that lowers to accommodate individuals in wheelchairs. The Renault Trafic model is also widely used as a dolmuş. In 2010, Otokar launched the M-2010 minibusses, which have since become dominant in the Turkish minibus market (Kurtgözü, 2020).

Requirements for Becoming a Dolmuş or Minibus Driver

The requirements to become a minibus or dolmuş driver have been regulated by the government since 1954 (Tekeli, 2004)

Özkurt (2012) noted that, in the past, the first dolmuş chauffeurs were expected to be married, at least 25 years old, and "morally upright." Today, drivers must be at least elementary school graduates and complete a Driver Education Certification coordinated by the Istanbul Metropolitan Municipality (IMM), the corresponding guild, and the Municipality of National Education. This training covers first aid, map reading, elocution, and road and traffic rules, among other topics. Drivers are required to undergo annual eye and infectious disease checks, and they must provide a "psychotechnic report" and a "drug-free report" issued by the Provincial Health Directorate. Additionally, candidates must present their criminal records (no older than six months) and hold valid driver's licenses, which must have been obtained at least seven years prior for minibus drivers (UKOME's decision no. 2007/4-1, "Directive for (M) and (TM) Series Plate and Route-Registered Commercial Minibuses", 2007)

To obtain the "Public Transport Vehicle Usage Certificate," TUDES requires drivers to be between the ages of 22 and 66. They must not have been involved in a consciously negligent fatal traffic accident in the past five years or had their licenses revoked more than once due to traffic violations, such as speeding or drunk driving (UKOME, 2007/4-1).

Standards Minibuses Must Meet

Vehicles must be between 0 and 10 years old, with a maximum seating capacity of 17, including the driver. Essential features include air conditioning, a hydraulic steering wheel, and an engine that meets at least Euro 4 emission standards. All minibuses must be registered with the IMM Public Transportation Services Directorate (TUHIM). Additionally, doors should be

automatic, and the ceiling height must be between 1.80m and 2m. There should be uniformity in the colors of the buses: for example, minibusses on the Anatolian side are light blue, while those in Beyoğlu are light green. Finally, vehicles must be wheelchair-friendly, and equipped with platforms that can be lowered to accommodate passengers in wheelchairs (Directive for (M) and (TM) Series Plate and Route-Registered Commercial Minibuses", 2007).

Standards Dolmuşes Must Meet

Taxi dolmuş vehicles must be between 0 and 8 years old. They must have at least a Euro 4 or higher engine, hydraulic steering, and automatic doors. The license plates of taxi dolmuşes will have "TZ" on them, and the vehicles will be painted in yellow color with the RAL 1021 code. The vehicles must be low-floor and without steps. A fare chart must be posted inside, visible to passengers and the front and rear sections of the vehicles will display the route number on a sign of the size specified in the regulations directive ("Taxi Dolmuş Transportation Directive", 2005).

Purchasing Prices of Popular Minibuses/Dolmuşes in Turkey

Brand	Model	Year	Capacity	Price Range (TL)
FORD	Transit *	2024	14+1	2,176,700 - 2,426,600
			16+1	2,330,700 - 2,660,500
	Tourneo Custom*	2024	8+1	1,742,100 - 2,072,900
FIAT	Ducato*	2024	20+1	1,886,900 - 1,946,900
VOLKSWAGEN	Caravelle*	2024	8+1	2,726,000 - 3,078,000
	Crafter*	2024	16+1	2,300,000
			19+1	2,380,000
MERCEDES	Sprinter*	2024	13+1	2,601,600 - 2,857,500
			15+1	2,515,000 - 2,893,100
			16+1	2,755,800 - 3,029,200
	Vito Tourer*	2024	8+1	1,992,400
PEUOGEOT	Expert Traveller*	2024	8+1	1,701,000
Blue cellsDolmushes Orange cellsMinibuses Price ranges were obtained from the official websites of each car				

Blue cells--Dolmushes || Orange cells--Minibuses|| Price ranges were obtained from the official websites of each car brand.|| *: Diesel

Fare Schedules

Table 1: Fare Schedule for Istanbul's Taxi Dolmuş Services

	VALID FROM: 29 Jul 2024					
TAXI DOLMUSH TRANSPORTATION FARE SCHEDULE						
Route Code	Operating Group	Route Name	Distance (KM)	Fare (TL)		
BŞK 1		Beşiktay-Harbiye	3,0	22,0		
BŞK 2	Beşiktaş Region	Beşiktaş-Taksim	3,0	22,0		
BŞK 5		Beşiktaş-Ortaköy-Kuruçeşme-Bebek- Bebek Yokuşu-Etiler Metro	7,8	29,0		
D11	Suriçi Region	Bakırköy-Taksim	14,9	40,0		
D15		Yenibosna-Taksim	18,7	47,0		
D41		Cevizlibağ-Topkapı-Taksim	8,7	31,0		
D44		Kocamustafapaşa-Aksaray-Taksim	6,7	29,0		
D46		Eminönü-Taksim	4,0	22,0		
D21		Üsküdar-Doğancılar-Kadıköy	4,5	22,0		
D22		Üsküdar-Bağlarbaşı-Kadıköy	7,5	29,0		
D25	Üsküdar	Üsküdar-Bağlarbaşı Kültür M.	1,5	22,0		
D28	Region	Kadıköy-Çekmeköy	24,0	62,0		
D30		Üsküdar-Emniyet Distr.	5,2	22,0		
D58		Mimar Sinan Distr Çekmeköy Metro	3,0	22,0		
D31*		Kadıköy-Taksim	15,1	55,0		
D34	Kadıköy	Kadıköy-Bostancı	8,7	31,0		
D38	Region	Söğütlüçeşme Metrobus-Bostancı	7,8	29,0		
D61*		Ataşehir-Taksim	18,6	62,0		
* An addition	nal traffic toll bo	ooth fee is included				

Table 2:Fare Schedule for Istanbul's Minibus Services

VALID FROM: 29 Jul 2024					
MINIBUS TRANSPORTATION FARE SCHEDULE					
Distance (KM)	TCD's Decision (TL)				
0-4 KM	18,00				
4-7 KM	19,00				
7-11 KM	20,00				
11-15 KM	21,00				
15-20 KM	22,50				
Over 20 KM (An additional 0,65 TL for each KM)	22,50				
**TCD: Transportation Coordination Directorate					
**Primary, Middle, and High School Students (Discounted IstanbulCard must be presented) in Uniform or Not: 12,00 TL					
** Passengers with baby strollers (pushchairs) and/or people with disabilities must be accommodated. Additionally, passengers with baby strollers will be considered under the category of disabled passengers.					
** For minibuses operating on regional routes, student and full fare increases will be applied at the rates listed in the table above.					

How is the Minibus-Dolmuş System Currently Regulated in Istanbul?

The informal private transportation system in Istanbul is primarily regulated by two bodies: the Istanbul Public Transportation Services Directorate (TUHIM) and the Istanbul Transportation Coordination Directorate (UKOME).

TUHIM is responsible for determining, canceling, and merging minibus and dolmuş routes. It also sets fares and designates minibus-dolmuş stops. These decisions are made within the framework of the "Major Transportation Plan," and TUHIM's authority is limited to regulating minibusses and dolmuşes within Istanbul's borders. Once these decisions are made, TUHIM presents them to UKOME for approval (TUHIM, n.d.).

Istanbul UKOME is responsible for planning urban transportation, managing traffic, and coordinating and inspecting transportation services in Istanbul. Each of Turkey's 30 metropolitan cities has its own UKOME. Istanbul UKOME evaluates TUHIM's proposals and makes the final decisions. It prepares meeting minutes and reports these regularly. If needed, UKOME forwards matters requiring intervention by the High Council of Traffic Safety to the Ministry of Internal Affairs (Istanbul UKOME, n.d.).

To ensure that regulations are properly implemented and service quality remains high, the Municipality of Istanbul launched the Public Transportation Service Quality Evaluation System (TUDES). On May 9, 2018, UKOME decided to audit the quality of drivers, vehicles, and services to address issues in minibusses, taxis, dolmuşes, public buses, and phaeton carriages. TUDES is a data system that collects, analyzes, and reports service quality data to stakeholders. Based on these evaluations, drivers receive grades and are categorized into groups according to their performance. Driver ratings are accessible on the TUHIM website, allowing employers to conduct internal assessments (TUHIM, n.d.).

The audit of drivers and their vehicles is conducted by TUHIM through a system called the "Vehicle Service Quality Compliance Check." These checks can be routine or initiated upon a complaint. Initially, TUHIM summons drivers to control centers; if they fail to appear, their licenses are temporarily suspended. If the vehicles meet TUDES criteria, drivers receive points. If a vehicle fails to comply with certain TUDES standards, drivers are given deadlines to make the necessary corrections and are required to schedule a follow-up appointment. After these evaluations, the drivers' points are recorded on their chauffeur report cards, which include their performance level (Group A being the most successful, followed by B, C, and D as the least successful), prior warnings (if any), and the training they have completed (TUHIM, n.d.).

Challenges in Managing Istanbul's Minibus and Dolmuş System

1) The Rant Problem

Starting in 1969, local governments periodically chose to limit the number of commercial license plates. These restrictions led to an increase in the value of these plates. With a constant number of dolmuşes and minibusses but a growing customer base due to the rising population, drivers began to earn more. However, this also led to the emergence of illegal (unregistered) dolmuşes and minibusses (Tekeli, 2023).

One major issue of this "rant problem" was that it created a stratification among drivers. In addition to the artisans who worked as dolmuş drivers and owned their vehicles and plates, a new group of license plate owners emerged who hired drivers to operate their vehicles. Over time, the roles of vehicle owner and driver became increasingly separate. Commercial license plates began to accumulate in the hands of car dealers. In 1986, the Council of Ministers issued the "Procedures and Principles to Be Followed in Issuing Commercial License Plates," which stipulated that to obtain a commercial license plate for a taxi, dolmuş, or minibus, one must declare that driving is their primary source of income and that they are continuously engaged in this occupation. The law also requires that license plate owners register with the relevant guild: the Taxi Drivers' Chamber of Tradesmen for taxi or dolmuş drivers, and the Minibus Drivers' Chamber of Tradesmen for minibus drivers. If no such guild exists in the region, they must register with the Drivers' Guild (Ersöz, 2020).

In 2015, the local government mandated that a declaration alone was insufficient; driver candidates were also required to provide a letter from the Tax Office confirming they were not employed in another job to obtain a commercial license. Today, in addition to drivers who own their license plates, some chauffeurs work for plate owners and pay a portion of their daily revenue as rent to their employers (Ersöz, 2020).

Current minibus license plate values, including the route, range from 4,500,000 to 7,500,000, while dolmuş license plate values range from 5,000,000 to 7,000,000, depending on the line of operation (Kale Ticaret, 2024).

2) Managing Competition Between Minibus Routes and New Metro Lines

Minibus and dolmuş routes often run parallel to other alternative transportation facilities, such as railways. As the transportation network expands, disparities in demand arise between different regions of the city. When the local municipality opens a new metro station or line in a particular area, some potential minibus passengers start using the metro instead. To address

this issue, UKOME proposed establishing a subcommission responsible for managing route rotations between lines (a decision reportedly made in August 2019, though no implementation details have been found). This issue has been raised by drivers to UKOME as a growing concern.

3) Passenger Perceptions and Safety Concerns in Istanbul's Minibus System

Melis Oğuz (2018) conducted a study using focus groups composed of minibus passengers in Istanbul. The research found that the "appearance of the minibus and the comfort of passengers are critical in people's perception of safety." Visual, auditory, and olfactory factors significantly impact the perception of being in a public space, making passengers feel like they are in a private enterprise. The study concludes that focus group participants described minibus rides as a "compulsion" rather than a "preference." To minimize discomfort, passengers have developed tactics such as changing their commute times. One female participant noted, "Getting in a minibus as a female passenger, I attract everyone's attention, and this is not something to be experienced on a bus." Participants emphasized that the appearance of the minibus, both inside and outside, affects their sense of insecurity (Oğuz, 2018).

Some minibus drivers personalize their vehicles with items like prayer beads, CDs, colored fluorescent lights, and curtains, which were found to negatively impact passengers' perceptions of safety. In response, the Directorate of Public Transportation Services introduced regulations to standardize minibus appearances, specifying colors down to the exact shade. However, inconsistencies among vehicles remain. The use of air horns, TVs, radio tapes, and similar devices is prohibited (Article 12/f). Focus group participants noted that loud music and colored lights, in particular, worsen their sense of security. The appearance of the driver was also highlighted as an issue, with female passengers reporting that they often choose to disembark one stop earlier than their destination to prevent the driver from knowing their exact location or to avoid being alone with the driver (Oğuz, 2018).

Irregular driving speeds were another concern, with passengers complaining that arrival times vary depending on the driver's behavior. Drivers sometimes speed excessively, avoid waiting at school stops to exclude student passengers, or drive slowly to pick up as many passengers as possible (Oğuz, 2018).

Passenger Complaints About Minibus Services

In 2018, a group of people opened a Facebook group to protest the existence of the minibusses. These are some of their complaints:

"They (minibusses) stop in the middle of the road.	"Ambulances avoid streets with minibusses because they don't give way."	
"They engage in speed races in traffic."	"They turn, stop, and start without signaling."	
"They pick up and drop off passengers in the middle of the road."	"They speak rudely or use slang with passengers, saying things like "anyone not paying from the back?"	
"They stop side by side in the middle of the road to chat."	"Traffic police never intervene with minibusses or their drivers."	
"Most drivers are untrained."	"It's an outdated form of transportation."	
"They stop side by side in the middle of the road to chat."	"They cause people to be late for work."	
"They start driving before passengers have fully exited or boarded."	"They enter side streets and cause traffic jams."	

(Kılıç, 2023)

Regulatory Changes and Future Prospects for Dolmuşes and Minibuses

Ilhan Tekeli emphasizes that the emergence of the dolmuş and minibus systems was due to a lack of public transportation supply, and their existence will not necessarily end with increased municipal budgets or expanded transportation facilities. Tekeli believes that dolmuşes will never disappear; instead, they will continue to evolve. Istanbul's experience demonstrates that if local governments wish to cancel a minibus or dolmuş line, they must negotiate with the Chamber of Tradesmen of the respective guild. According to Tekeli, this illustrates that minibus and dolmuş drivers are politically organized entities. He cites examples of past transformations: in the 1970s, when fuel prices increased, most dolmuşes switched to petroleum gas, and smaller "station dolmuşes" were replaced by the vehicles we see today. Tekeli also points out that with the growing concern over global warming, reducing the carbon footprint of dolmuşes and minibusses is crucial. He speculates, "Will we start seeing electric minibusses on the roads? Maybe" (Tekeli, 2023).

In December 2022, the Istanbul Metropolitan Municipality (IMM) proposed to UKOME the conversion of "spare minibusses and dolmuşes into regular taxis" due to a significant taxi shortage in Istanbul. This suggestion faced objections and lawsuits from the chambers of

tradesmen of minibusses and dolmuşes (Kul&Değirmenci, 2024). However, UKOME ruled in favor of the municipality and made two major decisions: (1) All 322 dolmuşes can voluntarily transition to operating as regular taxis and cease dolmuş operations, with all applications being accepted. (2) A total of 1,755 minibusses have been converted into regular taxis. (TUHIM).

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