



A comparative analysis of building large-scale projects in developing countries by emphasizing on land value changes: Tehran-Iran Mall versus Istanbul-Third Airport

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Abstract

Today's cities are competitive in the process of globalization. Their survival depends on attracting as much capital as possible for the various productive, infrastructure, economic, political and social sectors. The more capital raised, the parts that use it also get improved in number and scale. The process of raising capital depends on the circumstances of each city. So that, in some cities, high demand leads to increase the capacity of economic infrastructure sectors, in others, they make demand by creating economic, social, infrastructure capacity and opportunities on a large scale. This is even more important for cities in developing countries as it helps them reach the development thresholds. Meanwhile, the Tehran (Iran) and Istanbul (Turkey) cities, due to their location, economic and political conditions, have always been challenged to attract capital. Therefore, in recent decades, they have started to make investment capacities by developing large-scale projects. This study aims to verify two of the most challenging large-scale projects in these two cities. To achieve the study's goal, the projects and their types are first discussed. Also, the impact on the lands values in the neighboring area is evaluated as one of the existing effects on the host environment. The rate of impacts varies depending on the type of projects. According to the research findings, the essences of the two projects and the purposes of their constructions are different from each other. One attempts to attract as much capital as possible in order to show off its social and cultural capitals (Iran mall- Tehran), and the other aims at economic and political benefits in competition with similar projects. Regarding land prices, in addition to the fact that these two projects have caused significant increases in land values of the host districts, they have also transformed the social structure of the residents living there.

Keywords: Airport, flagship, developing countries, land value, large-scale,

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1. Introduction

Megaprojects are defined as large scale projects cost billion dollars or more (Flyvbjerg et al, 2014). Such types of projects take many years by multiple public and private stakeholders (Sarkheyli et al. 2016, 2017). Large-scale projects can be considered as powerful tools for implementation of radical plans contrary to current approval urban plans (Kuyucu & Ünsal, 2010; Kuyucu, 2014, 2017). To policy makers, implantation of right-done large-scale projects provides extensive investment for city and region such as high-quality of life by improvement of infrastructures, providing sustainable employment, productivity and competitiveness (Flyvbjerg, 2005; Flyvbjerg et al, 2014; Kheyroddin & Omidi Bahremand, 2017). Risk is an irrecoverable part of large-scale projects. Long-term planning horizons, Process of decision making and its multi-actor who seek their own interests are among the reasons. Having long planning horizons, large scale projects' scope, stakeholders or physical borders can be changed over time. One of the challenging issues of such projects, especially in developing countries is cost and interests of wide range of stakeholders which lead to civic mistrust (Flyvbjerg et al., 2003; Kuyucu & Ünsal, 2010; Kuyucu, 2014, 2017; Sarkheyli et al.,2016).

Tehran (Iran) and Istanbul (Turkey) cities, due to their location, economic and political conditions, have always been challenged to attract capital. Therefore, in recent decades, they have started to make investment capacities by developing large-scale projects. In recent decades, unlike the harsh economic sanctions (Ghasseminejad & Jahan-Parvar, 2021), the implementation of megaprojects in Iran accelerated (Sarkheyli et al.,2016; Kheyroddin & Omidi Bahremand, 2017). Extensive investment of such projects is mostly based on promoting the conditions at both national and international level through public-private partnership. The vision of building Iran mall project was creation a world-class socio-cultural and commercial complex (ATC, 2019).

In 2003, while global nations were dealing with crisis, Turkey was improving its civil aviation which had started operations in 2002. Istanbul's two airports were facing significant capacity constraints that could not be able to deal with the growing passengers and goods demands. Definitely construction of a new airport was required to deal with the short of capacity of Ataturk and Sabiha Gokcen airports in the early 2000s. In order to reach its 2023 targets, Turkey's infrastructure projects are being planned and implemented with high-speed and in large-scales. Istanbul as the largest metropolis of Turkey is planned with strategic projects to be an international hub of airway transportation. The purpose of such large-scale airport was providing opportunities for economic growth in addition to meet air traffic needs (Düzgün & Tanyaş, 2014; Saldıraner, 2013; Deveci et al., 2020).

Considering the scale of the projects, financially and physically, they can definitely have significant effects on the host environment and even neighboring districts. The present study with the purpose of understanding the influence of large-scale projects on land value changes in developing countries try to answer the following question:

- What is the relationship between building large-scale projects (Iran mall and Istanbul airport) and land value changes in adjacent neighborhoods in Tehran and Istanbul?
- What are the similarities and differences between implementation of large-scale projects in Tehran and Istanbul?

This paper is arranged as follows: Section 2 reviews the literature on large-scale project definition and its relationship with land value dynamics. Section 3 introduced the methodology and materials. Section 4 described the case studies and specifically large-scale projects in both cities. Result and discussion are described in section 5. And finally difference between two studies and suggestions for future research.

2. Literature – Large scale projects

After the World War two, damaged cities and generally mass destructions lead to demand for implementation of large-scale projects (Orueta & Fainstein, 2009).

Large-scale project is often defined as combination of diverse small-scale projects (Flyvbjerg et al, 2014). These types of projects are also considered as mega-projects which could be categorized due to their cost (Flyvbjerg, 2006). City branding contributes large-scale projects to choose their type, scale, activities, and target groups by focusing on already known dimensions of cities in global arena (Dogan & Stuper, 2017). In fact, Large-scale projects are the result of the strategic view of the territory (Borja & Castells, 1997).

Mega projects are used the preferred delivery model for goods and services across a range of business and sectors, life, infrastructure, water, and energy. From view point of land use, large-scale projects include expensive infrastructure (airport, expressway, etc.) and flagship projects (shopping malls, etc.) (Bahrainy & Aminzadeh, 2006; Flyvbjerg, 2006; Flyvbjerg et al, 2014; Sarkheyli et al., 2016, 2017). For instance New York's Chrysler building (1930) with 319 meter height was the tallest building in the world (Dubai, Burj Khalifa (2010) with 829 m)-(Flyvbjerg, 2014). Chinese's high speed rail project is one of the longest megaprojects that costs hundreds billion dollars (Orueta & Fainstein, 2009).

Since the 1970s, socio-economic dynamism in urban areas has contrasted large-scale projects with metropolitan projects. Although this conflict has not invalidated urban plans, they challenge urban plans in terms of their size and impacts on the host environment. Besides The contradiction and ambiguity in the concept and performance of these projects is that a project implemented with the aim of generating short-term revenue for the private sector must meet long-term responsibilities for the public. It must be noticed that large-scale projects are in fact elements of an articulated system, the activity of each of which affects not only the other part but the whole system in a transformational manner (Borja & Castells, 1997).

In terms of main features, mega-projects transitioned from government-fund including environmental impact assessment (EIA)-(1950S-1960S) to public-private partnership with or without EIA (1980-Present). Since 1980s government prefer to encourage private sector to play developer role in building large-scale projects by facilitating legal, political and economic issues rather than involving as developer itself (Borja & Castells, 1997; Altshuler & Luberooff, 2003; Orueta & Fainstein, 2009; Sarkheyli et al. 2016). The form of public-state collaboration in implementation of such projects is one of the main reasons for successful operation. Without necessary social and political support large-scale projects face movements against their operation. Since they have massive environmental impact on people and enormous economic cost lead to civic mistrust (Flyvbjerg, et al. 2003; Orueta & Fainstein, 2009; Kuyucu & Ünsal, 2010; Kuyucu, 2014, 2017).

Orueta and Fainstein (2009) define other categories for large-scale projects considering their operation. Due to their study such projects can be included in regeneration, renovation or recovery of old and historic areas or construction of totally new projects or their extensions (Orueta & Fainstein, 2009).

The approaches of planning such projects differ from country to country regarding their political and economic context and also nature of urban processes (Orueta & Fainstein, 2009; Orueta & Fainstein, 2009). The reason for this is due to the contemporary circumstances of cities which are not merely restricted sites to their boundaries and deal with specialized local economic, and political issues, rather they are elements of a global model of capitalist urbanization which has multidimensional tendencies (Brenner, 2009).

In some cases, large-scale projects built to meet consumers' demands while for some others symbolizing their rise to power is main purpose (Shanghi – Dubai)- (Flyvbjerg, 2009; Flyvbjerg et al, 2014). In developed countries obsolete industrial lands, waterfronts, old warehouse zones, and

ports are chosen for large-scale projects (Flyvbjerg et al, 2014). Bilbao Guggenheim Museum and its environment is one of the examples in European countries while in developing countries, slum areas and generally residential neighbourhood with vulnerable residents often are the best choice for building large-scale projects. Obviously, the aftermaths of such location choice are displacement of a group of households or their resistance which challenge the implementation by law issues (for more study see Nasrollahzadeh & Koramaz, 2021).

Mega projects are attractive to decision makers in terms of four sublimes: technical, political, economic and aesthetic. To technological approach, engineers and technologists eager to push the boundaries by building innovative design and large-scale projects such as larger towers, bridges and etc. (San Francisco, Oakland by bridge). Political sublime emphasized on building megaprojects by politicians who are media magnets and use such projects for better visibility to get reelected. Economic sublime is a context for business people and traders to make lots of money by achievement enormous budgets for large-scale projects. Through this approach a wide group of bankers, scholars, and owners, contactors and etc. reach their interests. Finally the last sublime, aesthetic, focuses on designers and planners who appreciate masterpieces of large-scale buildings (San Francisco's Golden Bridge, Sydney's Opera Home) -(Flyvbjerg et al, 2014).

Sakheyli et al (2016) about sustainability of assessment of large-scale redevelopment plan in one of the metropolise in Iran (Mashhad) deals with deviation of projects from its approved EIA report. Due to their study sustainability issues were neglected while encouraging private investment. such modifications in redevelopment program due to attract more investment and extend the scale of project lead to inefficiency of designed policies and defeat in public participations , and accelerating heavy traffic, and etc. (Sarkheyli et al.,2016). Kheyreddin and Bahremand (2016) studied estimating the impact of urban mega projects on housing price in adjacent neighbourhood in Tehran by evaluating the relationship between the value changes and fitting years. Before, during and after implementation of large-scale project (Sadr Multi-layered expressway) due to his findings, residential properties prices declined sharply by starting construction. But prices increased after project completed. To their study, farther neighbourhood to the Multi-layered expressway achieved economically benefits comparing to the closer districts. One of the reasons for the aforementioned impact is that the entry of more vehicles to these areas and increase quality of residents' lives (Kheyroddin & Omid Bahremand, 2017).

Pouya et al (2016) In their study, examined the three large-scale projects located in the northern peripheral areas of Istanbul from an environmental point of view, and compliance with approved urban plans. According to the designed SWOT model, the weaknesses and threats of the Third Bridge project outweighed its opportunities and strengths. Most of these threats were environmental and degrade the quality of urban life in Istanbul. In relation to the third airport, the environmental aspects were discussed as threats and weaknesses, while its functional, economic, and social aspects were categorized as opportunities and strengths (Pouya et al, 2016).

2.1. Land value and large-scale projects

Analyzing the impact of large scale projects and land value changes is one of the significant topics that has been studied frequently from many aspects. According to related studies, large scale projects impact land value fluctuations in host districts from the very beginning of the announcement. To what extent the impact of such project infiltrates land values across the neighborhood depends on how the projects change the quality of living life in host neighborhood and its adjoining districts. (Kheyroddin & Omid Bahremand, 2017, Nasrollahzadeh & Koramaz, 2021, Lukowski, 2019).

Examination of land value fluctuations is a significant factor that reflects the potential worth of urban land, which determines the type and scales of upcoming urban projects. According to the results of this examination, urban lands are divided into two types of values; "use value" and "exchange value". Use-value focuses on the main feature of urban land that is expected to meet

and support residents' needs, such as providing housing for households or commercial land for employees. However, in exchange value, land is a commercial commodity that is bought and sold with the aim of utilizing investment as much as possible regardless of meeting the needs of real consumers of urban spaces (Pivo, 1984; Logan & Molotch, 1987). The relationship between land type in terms of value and location of large-scale projects is a reciprocal relationship, so that sometimes large-scale projects give exchange value to host urban lands and sometimes fluctuations in land value drives the value of land to exchange which recall such projects (Pivo, 1984; Blanco et al., 2016; Albrecht, 2016).

Lukowski (2019) in his study evaluated the impacts of three different large-scale projects on land value changes in Hamburg, Germany. He restricted the impact radius of project construction to 1.500 m. He found that the projects which have overlapped impact radiuses need to be considered in one regression while the totally separated impact radiuses can be considered in one or in separate regressions (Lukowski, 2019). In most of the large-scale projects' construction periods, land value in the closer district declined as result of noise pollution, construction debris, and etc. But whatever distance is taken from the projects, the positive impacts can be generated (Lukowski, 2019; Kheyroddin & Omid Bahreman, 2017).

Regarding studies with urban land value variability, changes in real estate values are considered as various shocks such as construction of shopping mall, Bridge, airport, sport arenas, entertainment facilities, etc. It must be noticed that, types of large-scale projects have various impacts on land value in host district. The impacts vary from land uses it generated. Residential construction large-scale projects, sport arenas, infrastructure, and etc. (Sarkheyli et al., 2016; Lukowski, 2019; Nasrollahzadeh & Koramaz, 2021).

3. Materials and methods

In the current study, in order to analyze the impact of building large-scale projects on the host neighborhoods, the variable of land value is chosen and quantitative method is applied. To define the type, and scale of large-scale projects (case studies) the theoretical framework is used. In order to compare different types of simple linear regression model, polynomial linear regression model degree 2 is chosen. For both case studies data obtained through a secondary data method and as external resource. Considering case study of Tehran, the average value of each residential land use (sqm) is extracted from Iran statistics center (between 2010 and 2021). In order to explore the depth of projects' impact, the adjoining districts' land value fluctuations are also discussed (Distracts 5, 21). For data analysis of Istanbul's large-scale project, land value (Tax assessment) are extracted from official resource; Ministry of Treasury and Finance of Turkey (2009-2022).

It must be noticed that Iran mall was inaugurated in 2019, and a few months later, in 2020, the covid pandemic began, which slowed down and, in some cases, stopped the activities of businesses in Iran. Also, by using this project as a hospital in the Coronavirus pandemic, its main activity was practically stopped. Therefore, the process of influencing on its environment continued at a slow speed. However, the significant increase in land values was the first notable impact since the resumption of the project activity, which is preferred as the focal point of this study.

4. Case Study

4.1. Iran- Tehran- Iran mall

Tehran, as the capital of Iran, includes 22 municipality districts and covers 730 km². It is limited to the green areas of the Caspian Sea from the north and to the arid desert region from the south (Pishgar et al., 2020). District 22 of the municipality, located in the northwest of Tehran with an area of about ten thousand hectares equivalent to twice the largest district of Tehran, in other words, one-seventh of the city. It is one of the newly built areas of Tehran, which has been built to meet

the service needs of the western part of Tehran and to relocate part of the population living in the worn-out tissues of central Tehran. This district is restricted to the Alborz Mountains from the north to the Kan River area from the east to the Tehran-Karaj freeway from the south, and to the Wardavard plantation forests from the west. Iran Mall, one of the biggest shopping malls including various commercial, cultural, and social functions located in this district (Tehran Municipality, 2021).

Iran mall is among the top 5 projects in the world and also the first in the middle-east. Construction of the project began in early 2012 and completed in 2019 despite of its massive size. This outstanding multiple purpose project is a world class mega project. Iran mall is considerably larger than The Trafford center in the United Kingdom and the Mall of America in the United States (ATC, 2019). The projected budget amounts 3 billion and 149 million euros (Bid, No.32, 2022).

The purpose of building such project is attraction of domestic and international investment through business owners. Its funding is based on private sector (Banker). According to its special designs (like Didar-garden, Mahan Garden, resembling traditional bazaars) and gathered activities (as Jondishapor library, Mirror Salon ...) it is a little Iran in Tehran. This project was planned with aim to apply the sustainable principles (environmental, economic, social) by providing a platform to attract tourists, improving economic growth, building cultural and social centers with iconic structures for local people to socializing and familiarizing. To what extent it achieved this goal can be the discussion of another study (ATC, 2019; URL 1; URL 2).



Figure 1 View of Iran mall, URL 1.

Iran mall is located in the municipality district 22 of Tehran. The project form the north reaches to Botanical park and from east to Chitgar park. The project form other sides is surrounded by various residential, recreational, and commercial projects which made its accessibility more convenience from northeast, south and west. The location choice was based on having equal distances from the center of two cities (Tehran –Karaj)- (Tehran Municipality, 2021).

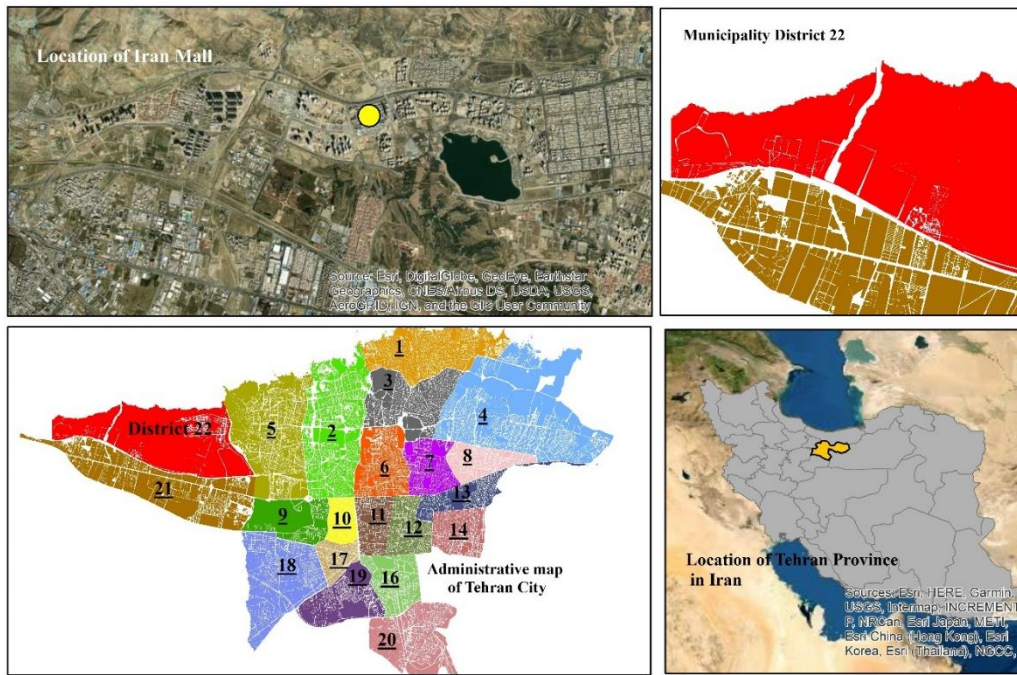


Figure 2 Location of case study in district, province, country. Tehran municipality, 2021 (URL 3).

Iran mall projects with floor area of 1700 000 m² (Project's length is 14.7 km) took about 5 years to complete and includes the following section (ATC, 2019): Persian Garden (as the heart of the project and one of the most beautiful parts of Iran Mall), ice rink, porch crystal, diamond reception hall, car gallery and exhibition, cinema complex, food court and family entertainment center, amphitheater, 5-star Iran Mall hotels, Iran Mall Lake with water show and dance, as well as future development plan which includes a large store complex and Tehran International Trade Center and Exhibition Center, movie theater, libraries, sophisticated musical fountains, ice hockey auditorium, hotel, concert hall, international convention center (under construction), A collection of restaurants and cafes (URL 1; URL 2; URL 3; ATC, 2019)

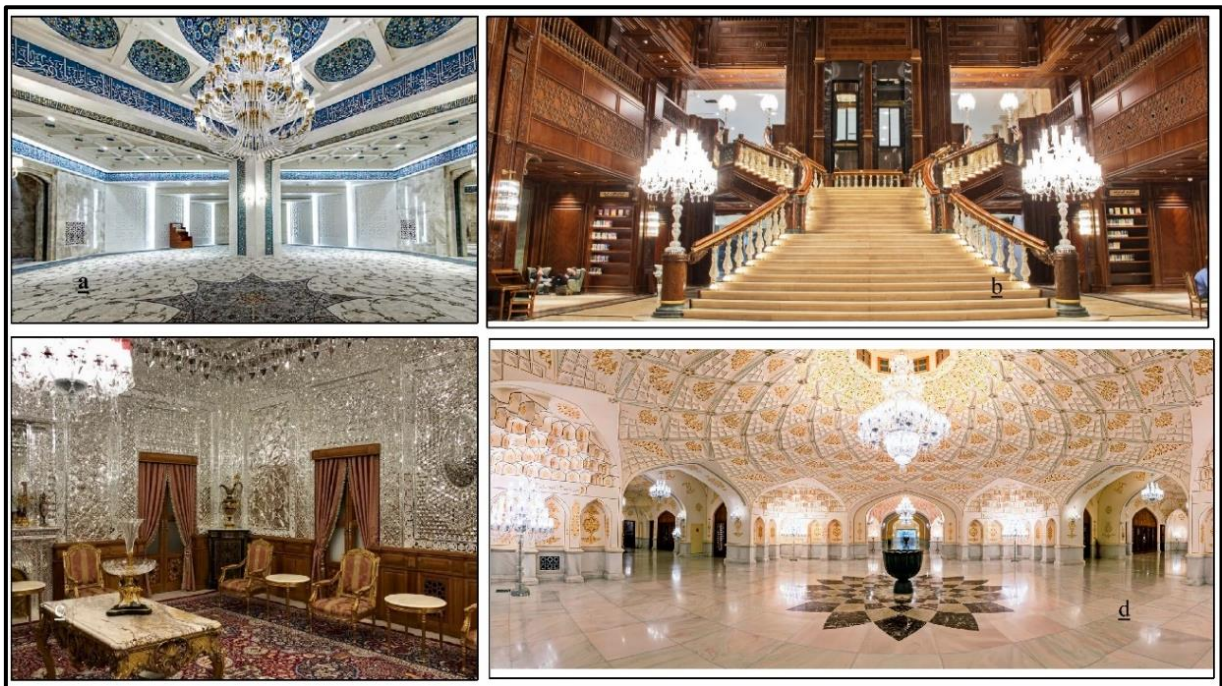


Figure 3 View of some activities inside Iran Mall. Mosque (a), Library (b), Mirror salon (c), Grand bazaar (d). URL 2, URL 6

4.2. Turkey- Istanbul – 3rd Airport

Istanbul is known as a megacity located on the continents of Asia and Europe. The city has hosted numerous large-scale construction projects in recent decades like Marmaray motorway, Third bridge, Canal Istanbul, Istanbul third airport that are distributed throughout the city. The location of these projects is a challenging issue for Istanbul's urban planning system. Since Istanbul is densely populated city located in a significant area of protected natural resources such as forests and watersheds, and also valuable cultural heritage and old urban textures, it is difficult to find a suitable location for projects of this scale (Dogan & Stupar, 2017; İlhan & Gülhan, 2020).

Eyüp, as one of the districts of Istanbul that its northern part covers the protected forestry areas, has received more attention in recent decades for large-scale urban constructions. The district also includes residential neighborhoods surrounded by forestry areas like the Gokturk neighbourhood, and Kemerburgaz (Eyüp municipality, 2018). The background of their development refers to the urbanization process in the northern peripheral areas. One of the most challenging projects that has been built in this district is Istanbul Airport, which is located 15 km far from the Gokrutk neighbourhood (Nasrollahzadeh & Koramaz, 2021).

4.2.1. Istanbul third airport

Istanbul as the largest city of Turkey has hosted many international and domestic passengers. Located in the passage between two continents, Istanbul's air transportation faces annually increase in global traffic. According to the official reports (General Directorate of State Airport Authority-DHMI, and Turkish Statistical institute-TUIK, Union of Chambers and Commodity Exchange of Turkey-TOBB) the number of aircrafts increased with 179% between 2002 and 2013 (Alan, 2014; Baş et al., 2018; Deveci et al., 2020; Düzgün & Tanyaş, 2014; Saldıraner, 2013; TUIK, 2002-2013; DHMI, 2013). The passenger traffic, including direct transit and domestic passenger increased respectively 5 and 10 times for such a short time (Düzgün & Tanyaş, 2014). Such a tremendous growth encompasses economic, tourism, international trade in addition to air sector in turkey. Due to the government authorities the number of passengers even overpassed Istanbul's population at the period of time (Baş et al., 2018; Deveci et al., 2020; Düzgün & Tanyaş, 2014).

The decision makers of building the third airport aimed to meet the constantly growing international demand for good, load and passenger traffic in response to the insufficiency of Ataturk Airport's (1953) and Sabiha Gokcen's (2001) capacities. The construction of the afore-mentioned mega-project started in 2014 and opened in 2019 (Saldıraner, 2013). Due to the global experiences such analytical reports are also issued for many busy airports that would fall short of needed capacity (George Bush Intercontinental, London-Heathrow, Baltimore-Washington International, and etc) (Baş et al., 2018; Düzgün & Tanyaş, 2014). The Third airport of Istanbul is located in the European side on an areas of 7650 hectares in Arnavutkoy on the Black Sea coast. Arnavutkoy is a district in the northern part of Istanbul. Project budget amounts to 22 billion 152 million euros (Kahraman & Alkan, 2018).



Figure 4 Location of Third airport in district, region, province, and country. Derived from Eyüp municipality, 2014, Istanbul metropolitan municipality, 2020

The third airport project constructed due to some strategies in planning and building process. Providing necessary infrastructures to Turkey's 2023 vision, protecting national interests, creating a closed and strong airport project organization are among the planned strategies (Düzgün & Tanyaş, 2014). Located on the coastal area, this mega project instigate the environmentalists to rise against aftermaths of ecological problems (Kahraman & Alkan, 2018; Bayrakdar & Durmaz, 2014). Accordingly, the large-scale airport project encountered growing challenges coming out of specialists during construction and implementation (Bayrakdar & Durmaz, 2014; Karacor & Korshid, 2015). The extent to which the concerns of environmentalists and urban bachelors are substantial can be explored in another study.

Göktürk neighbourhood is as one of the residential districts of Eyüp district in Istanbul is the closest quarter to the new airport. Therefore, it has been directly exposed to the impacts of the project. The extent to which such effects interfere with the environmental context of the neighborhood is analyzed in the discussion section.

5. Results and discussion

In the Iran Mall project, most of the prominent architectural, historical, social and cultural indicators have been deliberately exploited so that in addition to economic acquisition, these indicators can also be introduced. By restricting the applied architectural styles to historical masterpieces of Iranian architecture, Iran mall emphasizes on aesthetic sublime to provide a vitrine of Iran' magnificent events. Second priority in construction of this project focuses on the activities including recreational, and commercial that rely on economic sublime feature. The project's extensive allocation to a temporary hospital for the hospitalization of Covid -19 patients during the pandemic period (URL 1) indicates its success in multi-purpose applications. Recently Iran mall project faced with criticism of urban financial and legal debates, which reminds that in developing countries, projects in this scale that are not supported by the state and public deal with the civic mistrust. Being located in an area surrounded by large-size land uses, the project doesn't confront with inconsistency with its adjoining land uses. The financing of the Istanbul third airport project was private, but due to the location of the project in the northern coastal-forestry area of Istanbul

and the neglected reports of environmental impacts, the project also faced considerable opposition from urban experts. Despite all these obstacles, the project was built. Since the aim of the project is to address the lack of capacity of the two former airports and also to keep Turkey in the EU candidate position, so the emphasis of this project is on the economic and political aspects (Table 1).

Table 1 Type and scale of large-scale projects of Tehran-Iran mall and Istanbul-Third Airport, ATC, 2019, URL1, 2

Project Name	Location	Sublime Type	Funding	Vision	EIA
Iran mall	Iran- Municipality district 22 of Tehran	Aesthetic – economic	Private Sector (Banker)	Observing massive investment and tourists to relieve harsh economic sanctions. Valuing socio-diversity	The EIA report is issued.
Third Airport	Turkey- Northern Part of European side of Istanbul	Technological-economic – political	Private-state funding	Meet the short capacity of international Ataturk airport Keep economy growing Achieve the Turkey’s 2023 vision	The EIA report is issued. Some reports claim the deviation from principals.

Tehran – Iran mall project

According to the chart of land value changes, it can be seen that the host district for Iran Mall project has being matched to the 5th municipal district of Tehran in terms of land value especially after the project is completed and opened to public. It must be noticed that Tehran’s municipality districts considering land value and quality of living environment is classified from 1 to 22 which implies respectively the highest and the lowest districts.

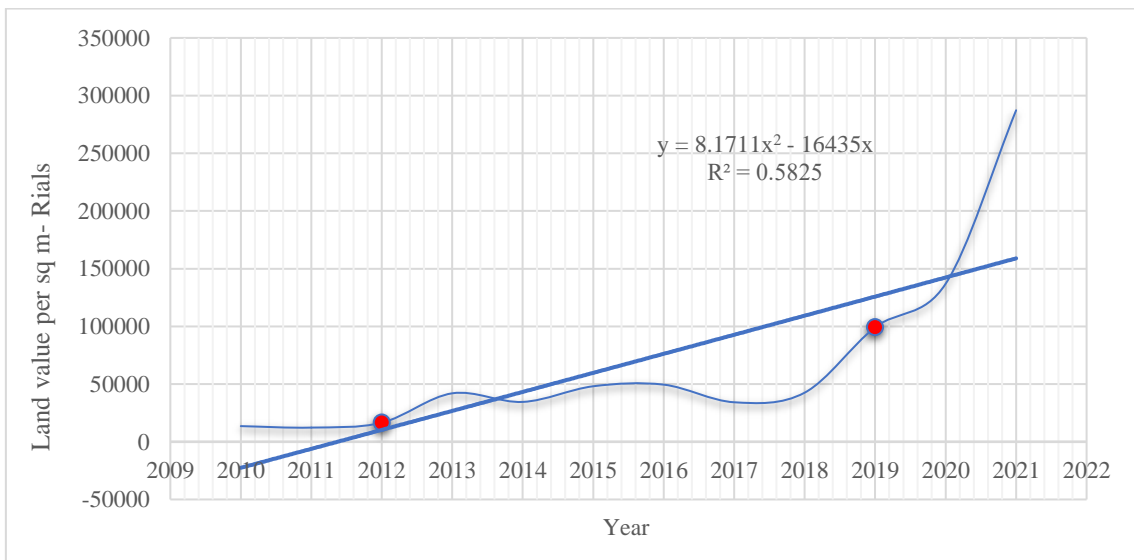


Figure 5 Land value changes around fitting years of building large-scale projects in the district 22, Iran Mall

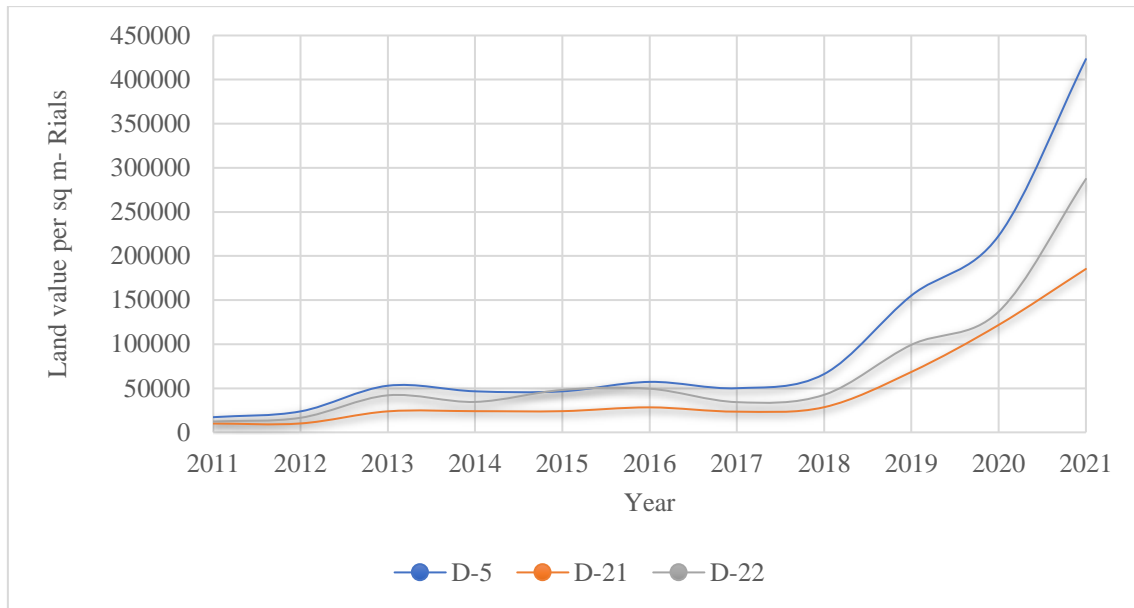


Figure 6 Land value changes by fitting years of building Iran mall in adjacent districts

On the other hand, in construction period of Iran mall, land value fluctuations in all three districts has increased with a slight jump while district 22 (host) unlike neighboring areas has experienced significant ups-downs from the construction year by the completion. Looking at the changes in land values and its approach to one of the best urban areas in Tehran, it can be concluded that this area has improved in terms of environmental quality due to the existence of this project. The construction of luxury residential complexes and towers near this project and the increase in the demand for purchase and rental units during the years of construction and completion of the project imply the rapid development of district 22.

Istanbul- Third Airport:

Gokturk neighborhood has gradually altered from a rural to an urban area, and residents of its informal settlements are being disappeared due to the rapid expansion of residential projects for high-income households. With the presence of the gated communities, the neighborhood has undergone fundamental adjustments and transformations. Quality of living environment in the neighborhood had being improved slightly by newcomers before construction of the third airport large-scale project in 2013. In the last decade the neighborhood has witnessed a significant increase in the speed of urban quality transformations. The presence of the third airport accelerated strongly the impact of the building gated communities and luxury apartments on socio-economic and physical aspects of host neighborhood.

Table 2 Descriptive analysis of land value- Göktürk neighborhood, Derived from URL 8.

Year	Minimum	Maximum	Mean
2009	57	343	90.643
2010	100	750	209.616
2011	104	779	217.007
2012	115	1188	240.871
2013	148	926	257.767
2014	400	1100	325.822
2015	420	1156	341.436
2016	432	1188	350.962

2017	448	1233	364.403
2018	583	1603	512.449
2019	652.17	2069.51	1552.12
2020	725.8	2303.16	1727.36
2021	725.8	2408.06	1797.7
2022	4811	4399.24	4658.2

Compared to the years before and during the implementation of this project, the price difference across the Gokturk neighborhood is decreasing. For instance, Gül street’s value was 7.4 sqm in 2005, as the cheapest, and Hızır street in the same year was 73.98 as the most expensive. Due to the statistics since 2019, the price difference between these two values has narrowed. It clearly demonstrates that Gokturk neighborhood in terms of land value and, consequently, its households has achieved homogeneity. The process of land value fluctuations in the district has taken place in such a way like the streets created during the years of the project implementation, which initially had the lowest value, have been quickly ranked in the high value areas in four years. For instance, Gül Street, which had the lowest price during the years before the project, was replaced by the new street, 1516 Parcel (2017-2018). In the same way, Hızır Street has been replaced by Zerrin Street. Surprisingly, in the last four years, the value difference between the aforementioned streets has also narrowed. The value difference has declined from 317% to 91% in one period which indicates that the development of the neighboring residential areas is designed based on the target group. It must be noticed that the initial low value of the adjoining areas is merely due to the temporary low quality of the environment as a result of their construction processes. Then after the completion of the new housing projects, in terms of value, it quickly approaches and adjoins its neighboring areas. In fact, there is a vibrant and high-speed valuation system for the development of residential areas, which has been strongly influenced by the airport project.

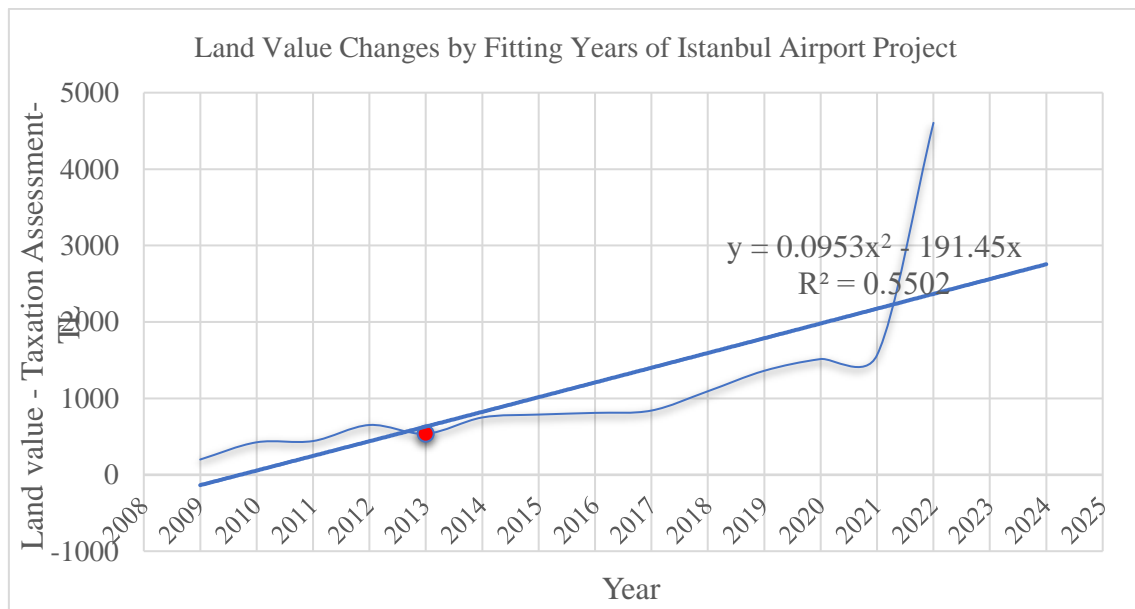


Figure 7 Land value changes by fitting years to Third airport project

6. Conclusion

In the present study, the phenomenon of large-scale projects in urban areas, as a result of neoliberalism and the philosophy of competitive cities, was discussed. The journey of large-scale constructions from Europe and the United States to developing countries in recent decades is a significant issue since acceptance and adaptation such projects by these countries brings new

challenges to them. Therefore, in this study, two examples of large-scale projects in developing countries have been discussed.

This study sought to answer the following questions:

1. What is the relationship between building large-scale projects and land value changes in adjacent neighborhoods in Tehran and Istanbul?
2. What are the similarities and differences between implementation of large-scale projects in Tehran and Istanbul?

In both of these projects, environmental impact assessment is in a state of ambiguity. Such kind of official reports are either not available or have not received much attention and support. Iran and Turkey, as two developing countries but with completely different political and economic challenges, define and implement large-scale projects. Under international economic sanctions, Iran is focusing on building projects based on its domestic social and cultural assets. It goes without saying that large-scale projects that seek to meet local needs are still under construction.

The location of the Iran Mall project has been well-selected in several ways; it is located at an equal distance between the two city centers, and this will greatly contribute to the development and exchange of services and employment in these two cities. On the other hand, it is among other touristic land uses such as Chitgar, which in addition to being complementary and compatible with this project in terms of activity, will also be an opportunity for them to develop themselves and integrate with the Iran Mall project.

In terms of impact on neighboring areas, the construction of this project over time and with further development will increase the environmental quality of the poor urban districts located in its south. Being located in the largest district of Tehran can be effective in improving the quality of neighboring environments since large-scale projects recall their complementary land uses swiftly. On the other hand, by generating employment opportunities for the residents of these areas, it will also cause the prosperity of the local economy in its neighboring neighborhoods. It must be noticed that during the years of construction of this project, the development of residential towers and complexes, has changed the use-value of urban land to exchange value. If Tehran municipality fails in the management of such construction projects, the opportunities created to improve the environmental quality of neighboring areas will become a threat to destroy the only lungs of the city.

For case of Turkey, it has been trying to join the European Union for years. Therefore, it is improving its infrastructure and economic situation in line with the standards of European countries. Given the nature of the crossroads between the two continents, it has focused on infrastructure projects to meet international needs and standards. Therefore, the construction of the third airport project is inevitable and according to the predictions before its construction, Ataturk and Sabiha Gokcen airports were no longer responsible for passenger and cargo exchanges. Whether the location of this airport was appropriate from an environmental and urban planning point of view can be debated in the form of another study. Their large scale and the accumulation of capital at the national level in such kind of projects lead to the rapid changes in the land values of the host and neighboring districts of the projects. One of the effects of this project on the nearest neighboring neighborhood is the change in its social context due to the introduction of a new group of households working in the airport complex (including pilots, flight attendants, owners and employees of international companies working in airport complex). From the comparison between these two projects, it can be seen that time is a very important factor in building large-scale projects in developing countries. Because these projects address the vital concerns of these countries. Therefore, achieving economic goals takes precedence over environmental considerations and some deterrent laws. In both of these countries, the construction of projects of this scale has always faced many legal obstacles that can be overcome depending on the governing structure of the

government (Table 3). According to studies, large-scale construction projects in Istanbul are faster and more numerous than in Tehran, which is due to Iran's economic sanctions.

If in the future, the economic and political circumstances in the countries get improved, the supporting reports will be demanding and clearer. As Wagner (2014) also emphasized in her study large-scale projects can function as a catalyst tool which can accelerate development in urban arena, and that is exactly the instrument which developing countries need it. But it should not be overlooked that it can be catastrophic without providing the necessary prerequisites for large-scale projects.

Table 3 Answers to research questions

Qs	Answers			
	Land values			
Q1	Price decline during construction and leapfrog increase after project completion (IA & IM). Changing the socio-economic context of the nearest neighborhood (IA) – From low-middle income group and informal settlements to high-middle income group (gated communities-luxury apartments)- (Gokturk neighborhood) High quality of nearest neighborhood as a result of land value changes brought newcomers (Airport International companies' employees, pilots, hostesses) Rising land values in neighboring districts (5-21) as well as arranged residential complexes in district 22 Use-value of urban lands turned to exchange-value in adjoining neighbourhoods (IA & IM)			
Q2	Differences		Similarities	
	Location	Istanbul Airport located in a challenging place in terms of urban planning regulations (Unsuitable location). Iran Mall in a suitable place for urban development (Barren land between two cities that have socio-economic interactions)	Project approval process	Facing legal obstacles and building the project despite it
			Type of land value	Creating exchange value for the neighboring residential land (IA) and non-residential (IA & IM)
			Social fabric	Since the construction of both projects has caused jumps in neighboring land values, newcomers from high income group replaced low-middle income group
	Type	Commercial-Cultural-Sports project (IM) Infrastructural project (IA)		
Aim	Raise capital to improve the national economy (IM) Not lagging behind the global transportation system and attracting more capital / Launched due to meet the demand of increased air traffic (IA)	Complementary reports	Ambiguity in EIA reports	

IM: Iran mall, IA: Istanbul Airport

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Resume

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