

DEINDUSTRIALIZATION UNDER THE IMPACT OF
GLOBALIZATION: THE CASE OF ISTANBUL

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ABSTRACT

DEINDUSTRIALIZATION UNDER THE IMPACT OF GLOBALIZATION: THE CASE OF ISTANBUL

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In the two last decades, the cities were within the transformation period of their economic and spatial structure in order to be adapted to competitive global system. In addition, the decrease of industry sector and its decentralization to outer city, increase of service sector with the help of technological developments and its centralization are the core assets of the globalization. In compatible with the socio-spatial and economical aspects of globalization phenomenon, the structural transformation of industry in Istanbul that is the most important production center of Turkey, are on the agenda. In the light with these arguments, this thesis study aims to highlight the relocation tendency of industry in Istanbul with reference to the impact and context of globalization.

In this thesis, in order to determine the relocation tendency of the position of industries and sub-sectors, the questionnaire that prepared by Istanbul Metropolitan Planning Center is taken as the base data source. In compatible with the analysis that derives from this questionnaire; the industry sub-sectors, firms sizes, their spatial

distributions and their tendencies to relocate or to decentralize their production sites will be clarified.

Keywords: Globalization, Competitiveness, Deindustrialization, City Region.

ÖZ

KÜRESELLEMENİN ETKİSİ İLE ORTAYA ÇIKAN SANAYİSİZLEŞME EĞİLİMLERİ: İSTANBUL ÖRNEĞİ

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Son yirmi yılda, “yarışabilir” küresel sisteme adapte olabilmek için, kentler ekonomik ve mekansal yapılarında dönüşüm sürecine girmiştir. Küresel ekonominin getirdiği temel değişiklikler, sanayi sektörünün azalması ve kent dışına çıkması, gelişen teknolojiye paralel olarak hizmet sektörünün gelişmesi ve merkezileşmesidir. Bu tartışmalara paralel olarak, İstanbul’un sanayi yapısının değişimi Türkiye’nin sanayi ve üretim merkezi olması nedeni ile önem taşımaktadır ve bu tez çalışmasında İstanbul sanayisinin yer değiştirme eğilimi küreselleşme kapsamında incelenmiştir.

Tez çalışmasında, sanayi sektörünün yer değiştirme eğilimi analizlerinde İstanbul Metropolitan Planlama Merkezi tarafından hazırlanan anketler temel alınmış ve yer değiştirme eğilimi alt sektörler, firma büyüklükleri ve mekansal dağılım krüterlerine göre incelenmiştir.

Anahtar sözcükler: Globalleşme, Yarışabilirlik, Sanayisizleşme, Kent bölge.

TO MY FAMILY

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CHAPTER 1

INTRODUCTION

1.1. RESEARCH PROBLEM AND AIM OF STUDY

This study aims to ascertain the relocation trend of Istanbul's industry and whether or not it is in tendency of global economic trend.

Especially in last decades, "deindustrialization" has been one of the most important phenomena in world economy. Whilst the developments and innovations in the telecommunication technologies and service sector increased, industry sector started to decrease. As a result, cities had to adapt to this changing system by going through "restructuring" or "structural adjustment". This means that parallel to economic deindustrialization, industrial activities polarized in the core of the city. In compatible with this argument, they have been forced to move out of the city which caused the expansion of these cities. Thus the basic feature of competitiveness has been changed and especially in last decades, "city regions" which Scott describes as "economic motors of their country" was became the main actors of global economy. In parallel to global economy change, some cities turned to regions which became more advantageous for global economy. The turn from world cities to city regions became one of the main spectacular movement in important developed and developing countries.

The relation between the "deindustrialization" of global economy and "emerging of new urban constitutions" is explained by Hall that in city regions the internal linkages of functional dependences are more important than external linkages in

which decentralizations parallel to technological developments play important roles. The study is explored on Istanbul case because Istanbul and its region are the production centers of industry in Turkey and it has a dynamic and competitive potential that is affected by global economic system. In other words, Istanbul and its region are the main point of the global policy. (The following indicators put forward this truth certainly: Istanbul has 32.8% of industrial workplace (in Turkey), 27, 4% of total industry sector employment, 23% of value added, 49, 1% of import volume and 45, 1 % of export volume.¹) Thus, it is important to find out that, the affects of globalization on the industry sector to determine general trend of Istanbul economy. To do it, the relocation tendency of industry relocation will be studied with the help of the questionnaire that constitutes one third of total industries in Istanbul. (3098 firms) The main questions here to answer in order are;

- 1) What is the tendency of industry in Istanbul ?
- 2) Is Istanbul in tendency to loose its industry weight parallel to global “deindustrialization” trend ?
- 3) Incase there are relocations, what are the reasons for these and vice versa?

1.2. METHOD OF THE STUDY

In theory, the infrastructure has been formed by means of a literature study. In this part, libraries, internet, various books were used, studies and articles were examined. As a result of the literature survey; theories and studies have been carried out on globalization, economic development and spatial reconfigurations of cities and city regions.

¹ Turkstat, www.die.gov.tr, last accessed date: 02 April 2008

The information and the documents obtained from the Greater Istanbul Municipality, governor and institutions (Turkey Statistics Institution (Turkstat), Treasure Institutions, State Planning Organization (SPO) have been examined and negotiated. As a result of this study, the position of Istanbul economy in Turkey and in competitiveness was handled.

In the “case study” part, to be able to understand the relocation tendency of firms, questionnaire prepared by Industry Department of Istanbul Metropolitan Planning Center (IMP) was used. This questionnaire constitutes 3098 firms (in 13 sectors 32 districts) that are equal to 30 % of total industry firms registered to “Istanbul Chamber of Industry”. Table 1 shows that the number of sectoral distribution of firms in the questionnaire. The method of the questionnaire is based on the ratios of the sectors to total. In each quarter, the same ratio is taken. Then, the evaluations of the questionnaire are prepared by using the program of SPSS, Excel and Archgis.

Table 1: Numbers of sectors in the questionnaire

Sectors	Total
Wood	62
“Metal fabrication”	376
Not Classified	84
Leather	141
Electric	145
Food and Beverages	138
Paper	142
Chemicals	112
Machine	156
Not Metal and other minerals	118
Plastic and Rubber	273
“Textile”	1241
Transportation	110
TOTAL	3098

Source: IMP, Questionnaire, 2006

1.3. CONTENT OF STUDY

Chapter 1: Introduction part introduces the background and the aim of the study. This part summarizes the way of the study expression.

Chapter 2: Literature Review Part1: This part summarizes the evolution of economic system and the transformations taking places at global level and its affects on spatial configurations. In other words, how the cities have been affected from globalization is explained in this part.

Chapter 3: Literature Review Part2: This part directly focuses on spatial configurations and dynamics of city regions with the help of case studies; Barcelona and London.

Chapter 4: The case study part1: The position of Istanbul in the global and national system will be studied and its economic weight is defined. Then, what kind of economic changes have taken places with globalization are defined. This part of the study will define the main structure of Istanbul economy, its trend and spatial development. At the end of this part, this structure is compared with the trends of the main Metropolitan Areas of the world. Accordingly, the spatial configuration of Istanbul in response to the global economic transformations and structure of industrial landscape is presented.

Chapter 5: The case study part2: The questionnaire of industry defines the tendency in relocation of different manufacturing sub sectors. This study will include the general trend, origin-destination relations and reasons of relocations by sub sectors and firm sizes.

Chapter 6: Conclusions

CHAPTER 2

CHANGING ECONOMIC SYSTEM AND SPATIAL CONFIGURATION FROM 1970S

2.1. A BRIEF HISTORICAL EVALUTION FROM 1970s

Since 1970s, cities have experienced a process of spatial restructuring, accompanied by globalization, technological transformation and economic change all over the world. Throughout history, the economy has played a significant role in determining the shape of business, industry and manufacturing; commencing with globalization and ending with structural transformations, geographic dispersal of manufacturing and increased centralization of the service sector²With the facilities of increasing technology use, it became easier to relocate firms, and manufacturing activities taking place in different forms at different locations with different production processes in order to take advantage of different conditions.³ As a result, in that new composition; “the deindustrialization of older cities” in advanced capitalist countries, “the industrialization and expansion of cities” in developing economies and the “deconcentration of economic activity from cities to suburbs” became the main trends of cities.⁴

All these economic dynamics brought fast urbanization and more and more of the world’s population started to move from rural to urban areas. While less than 40 %

² Sassen S,2001,pp16

³ Sassen, 2001,pp12

⁴ Vicino Thomas j., Hanlon Bernadette and Short John Rennie,2007, pp2

of the world's population lived in urban areas twenty-five years ago; today, this share reached nearly 60 % and is predicted to reach to nearly 90% in developing countries. In that way, 15 megacities of 19 in the world emerged in the “developing world” this trend is thought to continue.

In the table 2, the main features of economic change and their spatial transformations are summarized. According to the table, these are; **transformation taking place from Fordist to post-Fordist production system, increasing use of technology and innovation, neo-liberal government policies and increasing importance of international firms.**

Table 2: Spatial reconfigurations parallel to economic transformations

Key newness affecting spatial configuration	Spatial affects
From “Fordist” to more flexible production system	Divergence in the space of production
Using more technology and velocity	Flexibility in the distance of location of firms
Decreased national government system	Decreasing public authority on spatial organization
Increasing international firms	Increasing attractiveness of spaces

Source: Gathered from the thesis of Çakır, I.B., 1999, World Cities and Service Sector in Istanbul, Master Thesis, ITU, Istanbul

The historical perspective indicates that in 1970s, after petroleum crisis, what Knox defines as over accumulation crisis, serious economic structural changes have been observed. By that time the economic growth in general has been slowing down, rates of profit were falling, inflation was rising and there have been increasing concerns about international monetary instability.

During the time beginning from 1970s up to now, the major shift in economic transformation became the deindustrialization of labour force towards a service-oriented economy with important changes in the organization of production; transformation from mass production (the so called “Fordist” approach to production) to “lean” and “flexible” production systems (called “post-Fordist” production) that are able to exploit new technologies such as robotics, computers and telecommunications systems. The characteristics of Fordist production is described by Tödtling (1994) as large corporations that have a dominant role in organizing production and innovation, highly developed division of labour and a clear-cut separation of conception and execution.⁵ On the other side the post-Fordist production system can be described as “flexible specialization”. In this new system, the objectives of the market are increasing profitability to eliminate waste materials and to minimize labour costs and the costs of production, storing and distribution of products.

Production necessities decrease in the power of nation states and transnational firms conditions have more enhanced role to play within this new economic situation. In that way, cities could integrate the global city networks as centers and application areas of decisions and different economic activities. ⁶ In that way, competitive and innovative economic system is tried to be built and cities have become more and more individual spatial associations seeking for advantageous economic linkages, policies and imagery to be highly competitive in the spatial markets. As a result, **competitiveness became as a necessity** and the main source for sustainable economic survival. The level of this success depends on the level of adaptability of the economy to techno-economic system.⁷

5 Harmaakorpi Vesa, 2004, pp45

6 Ryner, J. M., 2002, pp 117.

7 Harmaakorpi, Vesa, 2004,pp52

This period is summarized by Ryner (2002) as the transformation period from nation state and Fordist production based system to transnational, technology oriented, and neo-liberal ideology (post Fordist production) system.

In 1980s, globalization of culture, economy, and society became the main feature of the period and it brought international cities, societies and the new division of labour due to wide use of telecommunications and technology use. In that way the world has become smaller in economic, cultural and social sense. These changes in information and communication technologies have caused different ways of global acting. Huge and ever-increasing amounts of economic activity (input-output chains, migration streams, foreign direct investment by multinational corporations, monetary flows, and so on) have started in the form of cross-border relationships with the integration of world-wide economy and fast urban growth. Atkinson and Gottlieb, (2001) define the economy emerging as a result of rising information and knowledge jobs, competition, innovation and transformative information technology revolution as **“New Economy”**.⁸ He also supports his definition with his classification of “what is new about new economy” under 5 headings in the research of 50 most popular cities; **knowledge jobs, globalization, economic dynamism and competition, the transformation to a digital economy, technological innovation capacity.**

Then, 1990s were marked by an accelerated sequence of fluctuations which in times past might have taken several decades. In the early 1990s in addition to sharp resumption in innovations, technologies, that provides multiplying the production, processing and exchange of information, called “information technologies” by Sokol (2003) new and increasing complex derivatives, and speculative endeavors, and the rapid growth of hedge funds as important actors in the financial markets developed.⁹ In that way, globalization gained new dimension in international relations and

⁸ Atkinson, Gottlieb, 2001, pp6

⁹ Sassen, 1994, pp21

transactions, based primarily on the internationalization of information and knowledge.¹⁰

In that period, parallel to economic changes, cities have entered spatial transformation that mean changing agglomeration types and relocations. Agglomeration knowledge has become the main feature of this economic geography (for example in some cities new technology based and innovation agglomerations started to emerge such as Silicon Valley, Tsukaba in Japan. These newly emerging spaces are called as “spatial innovation complexes” by Tumertekin.¹¹) and global advanced telecommunications allowed for new freedom for maximum population and resource dispersal. The table 3 provides some examples of the locations of these information activities.

Table 3: The informational activities and their location

R&D, innovation and prototype production activities	Concentration in metropolitan centers of global industrial significance (e.g. Silicon valley) ;and an internal hierarchy among such centers, secondary innovation sites being developed to foster industrially deconcentrated technology industry system (e.g. Southern Paris)
Highly skilled manufacturing activities	In areas of recent technological industrial development in central countries
Large-scale electronics production	For a long time needed semi-skilled labour, and was quickly decentralized to South-East Asia
Customer-related production and after-sales repair and service activities	Close to the main metropolitan markets; dispersed throughout the entire area of the industrialized and rapidly industrializing world

Source: Compiled from Borja and Castells, 1997

10 Soete L, 1995,pp26

11 Tuemrtekin, 1999,pp45

As a result the territorial sprawl, facilitated by telecommunication, agglomeration of certain centralizing activities has increased. In that way, not only firms but also some cities and territories increasingly found themselves in competition with each other. Opening territories to a global economy has restored the idea of territories in continual incremental adjustment to external market forces, instead of the idea of territories as fixed physical structures.¹²

With the increasing investment of FDI flows in service sector, where before it had been concentrated in manufacturing or raw material extraction, the geographic dispersal of manufacturing became one of the most distinct trends and brought the issue of capital mobility. Thus, globalization and the advent of information technology has made it possible to relocate low-value-added standardized goods and information processing services. So, there have been many plant closings in all major industrialized countries and transfers of production jobs to lower-wage domestic or foreign locations. It means that, while the role of industrial cities (production cities) in advanced capitalist countries began to decline and faced social and economic changes through the role of service employment and as centers of consumption,¹³ the emergence of “industrial districts” in territorial areas the relocation of industries from mature industrial centers with the help of technology to these areas created new symbols of **industrial urbanism** in some countries¹⁴.

However, although manufacturing lost its share in total economy and shifted from cities to territorial areas, Sassen claims that manufacturing plays important role in both feeding the growth of services and economic development. She says that service sector could not exist without manufacturing. Producer services depend on strong manufacturing sector in order to get sustained growth.¹⁵

12 OECD, 2001

13 Couch Chris, Fraser Charles and Percy Susan, 2003, pp20

14 Edward W. Soja, 2000, pp163

15 Sassen S., 1994, pp64

“Cities with large, diverse manufacturing bases promised secure growth and stable employment; the Soviet Union set its goals as outpacing the West through the development of heavy industry; and the task in front of war-ravaged Europe was the reconstruction of its manufacturing capacity. Now, in a world awash in commodities, peripheral locations have become the most advantageous sites for manufacturing. The future of older cities appears to depend on capturing the financial, informational, and managerial functions that determine the world’s capital flows, although some areas can alternatively rely on tourism scientific or medical services, and high technology manufacturing to maintain a competitive edge.”,

On the other hand, contrary to the process of dispersal of activities that have become a universal feature of suburbanization-decaying core areas and increasing regional affluence, Knox (1993) claims that, centralization involves the merging of the resultant large enterprises from different spheres of economic activity to form large, diversified corporations. Thus, the diversification in branches of finance resulted in the concentration of the management of global industry and financial innovations being limited to a number of key locations.¹⁶ Soja defines three main sectors for agglomeration economies in the city in the last decades;

1. High tech based production, especially electronics, aerospace, technopolis...
2. Craft based and often high labour and design intensive industries, ranging from production of garments to guided missiles and movies
3. FIRE sector (Finance, Insurance, Real Estate) ¹⁷

¹⁶ Sassen S.,2001, pp20

¹⁷ Edward W. Soja, 2000, pp164

The vacant areas, brown fields, that are the outcomes of decentralizations, experienced different ways of functional transformation such as; transformed urban waterfronts, gentrification occurred, rare instances of industrial redevelopment... In many European cities, this kind of regenerations occurred in last decades.

2.2. NEW URBAN CONSTITUTIONS AS AN OUTPUT OF SPATIAL RESTLESS URBANIZATION; FROM WORLD CITY TO CITY REGIONS

As the events of urban economics and geography, residential relocation and industrial decentralization are the determinants of urban growth or urban decline. As cities enter in transition period, three main stages in urban growth emerge; **urbanization** (spatial concentration of activity) followed by **suburbanization** (decentralization and decline in the core) and ultimately desurbanization, **deconcentration** (dispersal of activity to satellite towns and rural areas)¹⁸ which result in new urban constitutions.

Table 4: City transformation through history

ECONOMIC SYSTEM	URBAN CONSTITUTIONS
Trade capitalism	Urbanization (compact city)
Industrial capitalism	
Advanced industry and servic	
Service and technology	
High-technology-information-informatics	suburbanization and deconcentration(post industry cities)

¹⁸ Ivan T. And Vlad M., 2006 ,Pp6

Table 4 shows the changes in economic system and general new urban constitutions emerged as response throughout the time. It summarizes this transformation and spatial outcomes. First of all, “**urbanization**” process, according to the table, starts with the growth of population or urban developments in urban centers which result in the growth of pre-existing towns and consequently perpetuates the basic pattern of distribution of the historical trade centers. Then, with industrial capitalism, location near to raw materials or the places of assembly direct the population settlements which cause new centers of service emerge or this dispersion from the city centers (big cities) caused the expansion of cities and merge with pre-existing centers in its closer environs.¹⁹

After the cold war, Soja claims that in that period, new economy of space altered the boundaries of cities to reach unprecedented scale, scope and complexity²⁰ With more use of information and technology, different kinds of agglomerations in which enormous quantities of information and transactions are created and circulated in the daily round of business and relocations occurred by firms emerged. As a result, a decline in manufacturing and reversely increase in central functions (finance, management.) emerged and these new information agglomerations made cities to function as centers of learning, creativity. On the other side, the **dispersed and suburbanized** urban forms needed more centralized control activities and services.²¹ Hence, the formation of new urban economic core of banking and service activities replaced the older typically manufacturing oriented office core.

In that period, some cities and regions have been more flexible than their countries in adapting changing world system by innovations and using technology. World cities (Friedman) or global cities (Sassen) with complex international transactions emerged as major centers. World cities are defined as the control, coordination and supervision centers of the functions that dispersed in the world while the global city

19 Dickinson, 1967, pp101-104

20 Soja, 1997, pp193

21. Sassen Saskia, 2000, pp53-54

is defined as the financial or specialized service cities. The major characteristics of global cities are defined by Sassen as follow; center of high profits, high technology based speculations and innovations, international firms and businesses, high capacity transportation nodes and public services.²²

The transformation of 1980s, from global or world cities to city regions, is explained by Peter Hall that while city regions correspond to **internal linkages**, global cities are defined in terms of their **external information exchanges**. These internal linkages reflect an extremely complex and sophisticated internal geography of global city-regions. Hall argues that this geography is “**quintessentially polycentric**” as many functions (back offices, industry, logistical management, new-style headquarters, media centers, etc.) relocate over time to decentralized locations in part as a result of improving transport and communication infrastructure with the facility of technological development.²³ Likewise, Atkinson defines this dominant spatial structure development as “**dispersed development**”²⁴. According to him, as decentralizations occur, geographical polarizations, “**conurbanization**” emerge as the characteristic of development process. Conurbanization is defined by Dickinson in 3 factors; 1) Continuously built up area, which is not representing a ribbon development, and not necessarily excluding a “built up area separated by a narrow strip of rural land from the main built up areas to which it was strongly attached for employment or other reasons, 2) The consideration of a local area for inclusion in the conurbation to whose focal center was strongly attached as a center for work, shopping, higher education, sports or entertainment, 3) The consideration of the population density²⁵

According to Scott and Storper, in both developing and developed countries, manufacturing relocation is the main driver for the decentralization and polarization

22 Sassen, 1996,pp43

23 Hall,1999,pp71

24 Atkinson,1996,pp56

25 Dickinson, 1967,pp174

of declining sectors. Those most effected by agglomerations and externalities are mainly small scale manufacturing firms in low technology industries and branches of services.²⁶ So, it can be said that the emerged post-industrial cities have an area wider than city with its continuing settlement area, gate communities, edge cities, minor centers at discrete at linked locations, etc. and it refers to the enlarged and transformed Metropolitan Areas, cited as the wider city-regions. (Figure 1)

“Post-Fordism, service sector increase, globalization and new telecommunications system, are all highly interrelated. None of these perspectives in isolation provides a comprehensive explanation for the changing economic context of city growth. However, taken together they begin to illuminate some of the factors that have so radically altered city structures in recent years. Cities are no longer single entities; instead, they are increasingly multi-centered phenomenon.”(Knox and Pinch, 2000:49)

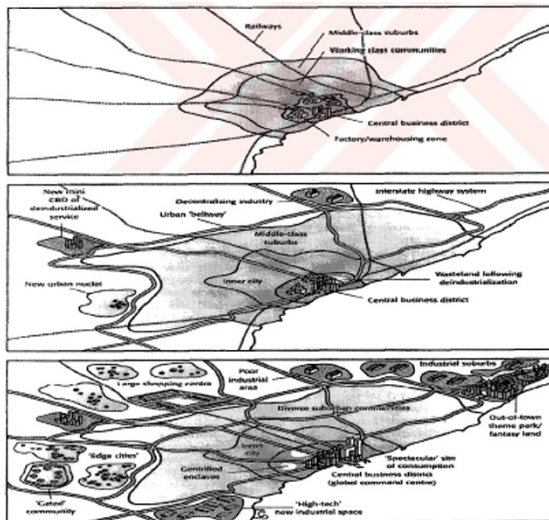


Figure 1: The transition from the classical industrial city, circa 1850-1945(upper) to the fordist city, circa 1945-1975(middle) and the post-fordist city metropolis, circa 1975-lower (Sorce: Hall, 1999,pp56)

26 Scott A. J., Storper M., 2003,pp584

2.3. THE REASONS AND FACILITATORS OF DECENTRALIZATION

There are some advantages that the regional level settings present for decentralizing activities. First of all, it is believed that, because of its rich labour pool and resource appraisal at the top level with the help of innovation and telecommunication facilities, regions turn into a consumption area for both consumer and producer and become the best scale to operate the global economy. In that way, the reconstruction of cities caused by changing economic base is believed to get benefit from the resources with the synergy between different level and kind of information such as scientific research centers, international and national information. As a result, regions become the most convenient scale for clustering activities (**agglomeration affect**). Sassen explains the emphasis on regional internal linkages due to the reasons; first one is “proximity” and second is “the decentralized nature of economy, networking among firms and specialized people; idea networks, job networks, daily networks, money networks...”²⁷. She says that the only way to success in networking is to access all these networks of locating in them with least cost. Besides, the geographically based infrastructure of skills, labour pool constituted at regional level attracts firms to region and makes it worthwhile. These factors create an environment conducive to innovative and economic activity in city regions by encouraging competitive variations and creative action. Thus, the more complex regional production firms can create national level platforms in order to be competitive in the international arena²⁸

Secondly, with increasing central functions, the pressure on urban land pushed prices up and led to fall profits, when industrial land could be converted to residential or service functions (**valorization affect**).²⁹ The expansion of existing industries and new plants took place in new suburbs. New locations in regional level are better suited for such activities, since land prices are lower there.

²⁷ Sassen, 1996, pp20

²⁸ Calthorpe P. and Fulton W., 2001, pp57

²⁹ Sassen, 1996, pp54

Thirdly, while manufacturing industry decentralized, central functions and specialized firms servicing such functions expands through these decentralized areas. And at the same time the decentralization of manufacturing help the growth and diffusion of such activities as R&Ds and universities that need large areas to locate. With urbanization in these suburbs, they become rich labour pools for other investments. (**Polarization affect**)

Finally, industrial relocation and transformation are dependent on the resources that cities and regions present. For example, existing industrial clusters allow for the ease of relocation through joining existing agglomerations moving out from centers to the periphery, thus creating new sub regions.³⁰ So, since 1970s, many cities observed a decline in the manufacturing and increase in decision making of de-centralization. These attempts were supported by political decisions (as transportation facilities, infrastructure...) and investment orientations. Mostly, the central policies play important role in decentralization. Investments are oriented to these areas and development zones were assigned due to this policy. (Public **interventions affect**)

³⁰ Mert Z , Çiraci H, 2004, pp80-88

CHAPTER 3

CITY REGIONS WITH CASE STUDIES

3.1. SPATIAL CONFIGURATION OF CITY REGIONS

There are many different definitions for relational and spatial structure of city-regions. The general definition, however, is the alliances of urban center in proximity that work together in order to harvest the benefits of mutual cooperation. And as a result of this cooperation of enlargement and decentralized functions of the city, there emerge a functional area in which different relations occur. The relations that extend beyond administrative border can be explained in four main headings;

1. Trade relations (trade area),
2. Social relations-social area (cultural and educational associations)
3. Movement of population to and from the central city settlement area (daily, seasonal movements)
4. Impact of the central city on land uses. ³¹

Sassen and Robinson's explanations of "relational cooperation" are another point that should be considered in the definition. According to Sassen city regions have

³¹ Dickinson R., 1967, pp96

different kinds of interactions with different size of settlements some of which are their own extensions. On the other hand, Robinson's city region is the opportunity area to engage with the city as both a place and as a series of unbounded, relatively disconnected and dispersed, perhaps sprawling and differentiated activities beyond the physical boundaries of a given city. This gives the advantage of allowing for the diversity and multiplicity of the linkages and connections.³²

“A functionally inter-related geographic city area comprising a central, or core city with a hinterland of smaller urban centers and rural areas, which are socially and economically interdependent” 33

Similarly, for the urban form of city region, Dickinson, Friedman and Hall make different definitions. According to Dickinson, the city region is arranged into 3 main zones, which can be described as the central urban tract, the city settlement area and the city trade area. He uses “**Urban tract**” (**con-urbanization**) as refer to the continuous built up area, “**city settlement**” for the movement of population to and from the central city, and lastly the “**city trade area**” for the wider and more extensive area with more occasional circulations to and from the city.³⁴

Then, Friedman defines three spaces similarly, the first one is “**integrated functional / economic space**” constituting of a core city and its surrounding “urban field”, secondly, “**political administrative space**” covering all functional /economic relations and is primary space of governance and lastly “**life space**” that is a set of smaller, loosely bounded, more intimately constructed spaces of social relation and that both functional/economic and political administrative spaces overlies.³⁵

32 Robinson,1992,pp49

33 Sassen, 2005, pp28

34 Dickinson, R. 1967, pp101-104

35 Friedmann, 2000, pp16

And lastly, according to Hall, as seen in the table 5, different sub-centers specialized in different functions emerge at distinct locations at the end of which a polycentric city region emerge.

Table 5: The spatial definitions of city regions by Hall

PART	LOCATION	FUNCTION & ACTIVITIES
1 TRADITIONAL DOWNTOWN CENTER	In the cores of old cities	Serves the oldest informational services (banking, insurance, government)
2 NEWER BUSINESS CENTER	Often in an old prestige residential quarter	Serves as the location of newer services (corporate headquarters, the media, new business services such as advertising, public relations, design)
3 INTERNAL EDGE CITY	Near to traditional centers	
4 EXTERNAL EDGE CITY	Often on the axis of the main airport, more rarely a high speed train station	
5 OUTERMOST EDGE CITY COMPLEXES	At major train stations 20-40 miles distant from the core	Serves back offices and R&D
6 SPECIALIZED SUBCENTERS	<ul style="list-style-type: none"> ▪ On reclaimed or recycled land close to the traditional core ▪ Older centers 	Usually for education, entertainment and sporting complexes, exhibition and convention centers

Source: Gathered from Hall and Scott, 2001, pp74-75

3.2. DYNAMICS OF CITY REGION

Four main dimensions of dynamics can be counted; **governmental, geographical, economical, and social dynamics**. Firstly because city regions are formed by some of the territorial units that are already urbanized and where there is some tendency to

spatial polarization within any given set, all these sets' political territorial combinations affect city regions. In some, although these territorial bases are functionally interdependent, they have separate political and administrative features.

“Any Metropolitan Area or any contiguous set of Metropolitan Areas together with a surrounding hinterland of variable extend-itself a locus of scattered urban settlements-whose internal economic and political affairs are bound up in intricate ways in intensifying and far-flung extra national relationships”.³⁶

Secondly, city regions are seen as the focal points of new capitalist world system. In 1990s, with huge innovation and technological capacities, the wider boundaries and networks, city regions have been seen as the producer of innovation and drivers of economy and productivity growth together with large multi-faceted local labour markets. They function as territorial platforms for much of the post-Fordist economy that constitutes the dominant leading edge of contemporary capitalist development, and as important staging posts for the operations of multi-national corporations.

They have also been the locus of powerful super agglomeration economies, and the key spatial scale with fast population and economic polarization in respect to economic development and competitiveness.³⁷ It means that, they have strong incentives to deal in one way or another with those aspects of regional collective order that help to sustain or enhance their competitive economic advantages. So, Scott describes new global system as the global mosaic of city regions.³⁸ According to him, city regions have become the economic motors of their countries with their new economic substance; super agglomerations. In developing countries, mostly a

³⁶ Scott. A.J., 2001, pp48

³⁷ Hutchins and Parkinson, 2004, pp59

³⁸ Scott. A.J., 2001, pp48

few large city regions develop and tend to be the essential and privileged channels through which these countries interact with the global economy.

And lastly, in social mean, as told before because of fast urbanization and migrations, variety of social makeup-; cultural, ethnic and racial variations emerge. However, this sudden development, in especially developing countries, almost all city regions face with some social problems such as high levels of income inequality.

3.3. CASE STUDIES: BARCELONA AND LONDON

Barcelona and London are important outstanding examples of a certain way of improving cities that could adapt to world system in economic and spatial means. It means that their spatial configuration shaped as response to the economic transformations under affect of globalization. While Barcelona transformed from the most important industrial city in Spain to knowledge based industrial city, London transformed from port to financial city.

3.3.1. Economic Reconfiguration

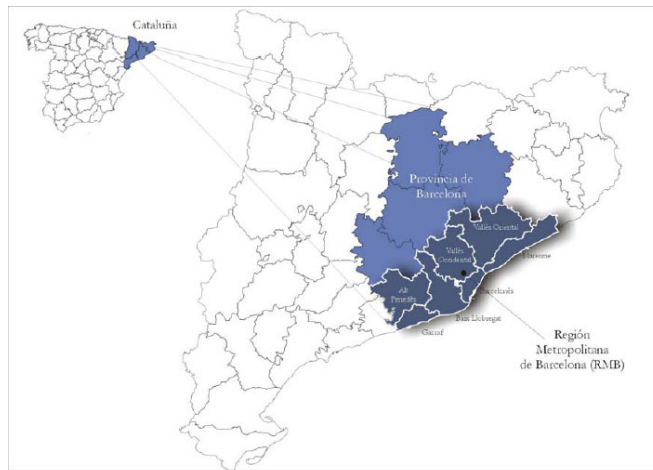


Figure 2: Barcelona and Catalonia Region (Source: Marmolejo, http://www-cpsv.nts/W11_paper_.pdf, last accessed date: 03 April 2008)

Barcelona the post and industrial city locates in Catalonia region. (Figure 2) Throughout the time, from 1960s, very visible growth in economic and spatial dimension was observed and this tendency continued till 1980s. While it was the most important industrial city in 1960s in Spain, and Catalonia, a high tech belt formed in that period was supported by projects. So a knowledge city surrounded by technological suburbs highly connected with metropolitan center emerged. However it kept its importance in the region. In 1996, the population of the city reached 69% of Catalonian population (4.228.047 inhabitants) and the Metropolitan Area's GNP became equal to 69% of Catalan's and 13, 4% of total country GNP. Likewise, the province of Barcelona absorbed 25, 6% of Spanish imports and generated 22, 3% of exports.

Additionally, as a result of globalization, huge economic transformation was observed which brought a spatial repercussion that exceeds its boundary of administration of the central municipality. The city lost its industrial weight; traditional sectors have been replaced by innovative products and produces. This change can be seen in the employment share below in figure3. The new international division of labour plunged its dominant **“Textile” sector** into a deep crisis. **Chemicals, Pharmaceuticals, rubber, publishing, printing, wood products, furniture, food and beverages** made substantial gain, while **metal work** came to be the most important activity in metropolitan region.

But there emerged an unemployment problem that economic transformation caused so, in early 1980s, to compete with unemployment, decision of reindustrialization was taken. To do so, FDI investments were maintained to overcome the crisis. They supported SMEs to bring more balanced regional development. These actions were supported by the aim of decentralization and technological modernization.

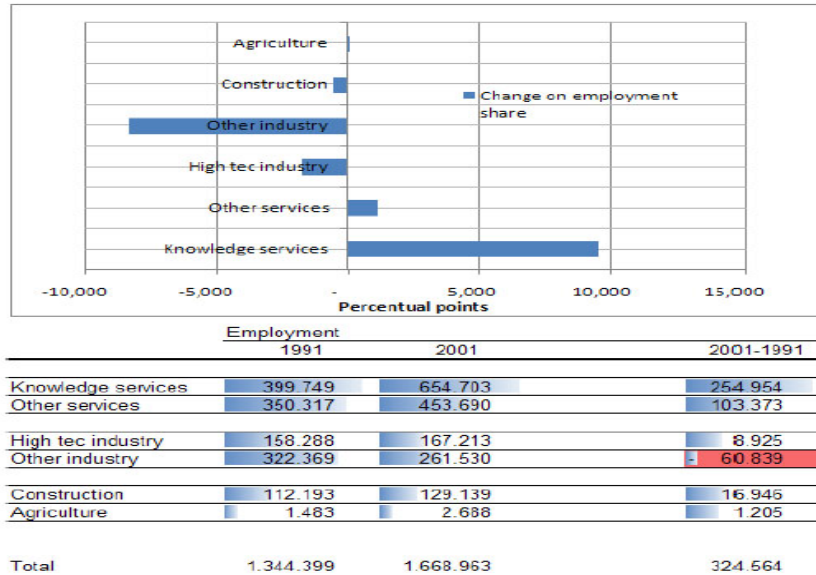


Figure 3: Sectoral change of Barcelona between 1991 and 2001 (Source: Marmolejo, http://www-cpsv.nts/W11_paper_.pdf, last accessed date: 03 April 2008)

In the same way, London transformed to one of the most important financial centers (the others are New York and Tokyo) while as long ago as the 16th and 17th centuries, it was the world's greatest port, and its development as Britain's largest single center of manufacturing. However, under affect of globalization, it has become in the first rank of cities development order basing scoring four service economies; **accountancy, advertising, banking, legal services and their competitiveness scores.**³⁹ They account for about 50% of measured employment. London's sectors are relatively productive in comparison to the UK average. Output per head is greatest in utilities, real estate and financial services.

39. Smith Taylor, 2000,pp96

Table 6: Change of employment in London and England (1981–1996) (%)

	1981-1991		1991-1996	
	London	England	London	England
Agriculture	36	-11	0	5
Energy	-37	-37	-81	-69
Industry	-48	-24	-33	-21
Construction	-10	8	-24	11
Telecommunication	-14	0	0	9
Banking, Insurance, Finance	36	57	36	48
Public Services	2	2	-44	-30
Health, Education and others	-1	11	-4	11

Source: Gathered from Sassen, S., 2001, pp78

Table 7: The changing employment in industry and service sector in London between 1977 and 1996

	1977	1985	1996
Industry	22	16	8,4
Service	73	78,5	88,5

Source: Gathered from Sassen, S., 2001, pp78

In the table 6, the subsectoral changes between 1981 and 1996 in London and its comparison with England are seen. The industry sector decreased more in London than in England. Almost all manufacturing activities are under represented in the region, the important exceptions being **publishing and pharmaceuticals, and to lesser degree printing and measurement instruments** similar to Barcelona. Additionally, from 1977 to 1996 while the share of industry decreased from 22% to 8%, service sector share increased from 73% to 88%. Parallel to this decrease, London has become the greatest origin of industrial movements in every period, from 1945s. ⁴⁰ Greater London originated relocations were as seen in figure 4 towards other regions of Britain and towards more populous development areas.

⁴⁰ Sant M., 1975, pp113



Figure 4: London originated industry movements (Source; Gathered from Sent, M., 1975, pp116)

3.3.2. Spatial Reconfiguration of Economic Activity and Its Dynamics

Both Barcelona and London have experienced urban development parallel to economic restructuring as suburbanization and centralization of the industrial and service sectors. While high level businesses and services centralized, technology led industry and some services that need larger areas decentralize to the outer areas. These out movements result in different constitutions in two cities. In Barcelona new suburbs emerged while existing suburbs developed in London. The cities expanded through these suburbanization developments. It is clear that there is a close relation between decentralization and the expanding urbanization of the city. The dynamics of this transformation is summarized by Marshall in three headings;

Dispersion; due to many reasons told before, population and other activities concentrated tend to disperse throughout the Metropolitan Area

Expansion; a physical expansion is visible at the same time with the urban sprawl with population and activities dispersion.

Specialization; functional specialization of the expanded area and society of the city is another important condition. ⁴¹

Expanding service and finance sector in central areas of cities, rent increase, environmental externalities and public encouragements can be counted as the force to shift to outward of the city. First of all, the central policies play important role in decentralization and configuration of both cities such as investments orientations to possible development, land availability, infrastructure support. Barcelona is good example of public support. As said before, in early 1980s, because of the increased unemployment rates due to decreased industrial sector, decision of reindustrialization was taken. Infrastructure investments, urban planning system and public subsidiaries to SMEs were directed parallel to the aim of decentralization and technological modernization. As a result, as seen in table 8, small and medium sized firms became dominant in the region of Barcelona.

Table 8: Change of firm sizes inner Barcelona Metropolitan Area, between 1985 and 1988

Firms size	Workers		Firms	
	1985	1988	1985	1988
1-9	13,23	13,88	75,9	73,26
10-24	19,37	21,98	18,65	20,5
26-100	17,85	19,02	4,23	4,4
101-500	18,83	19,14	1,01	0,97
>500	30,72	25,97	0,21	0,17
total	100	100	100	100

Source: Gathered from Butler C. J., Shachar A., Weesep J., 1997, pp193

⁴¹ Marshall T., 2004, pp28-29

Additionally, investment was directed to electronics, computers, motor vehicles, auxiliary industries which demand high level know-how. 62% of new firms were supported in that way located in metropolitan region that reinforced the industrial role of the city.⁴² With technological development, the center consisted of highly advanced and high value activities. The rent increased and the profits decreased for industries in the city land. So, the pressure on industries and low value activities increased to move out of city which result in expansion of existing industries and the sitting of new plants in new suburbs. Because, the lower price lands have been more suitable for such activities. The government made developed lands available and the area around Barcelona; local assets were used for revitalization. (**Valorization affect**)

As a result in Barcelona, while the central area of the city was loosing its importance in industry, the surrounding area industry increased. Additionally, because advanced services can grow everywhere with the help of telecommunication facilities, these services could emerge at central and peripheral locations and because they can supply more dynamic, flexible environment so that most of the high tech manufacture grew at peripheral locations.⁴³ Because the decentralized activities have friendly externalities, it became possible to integrate them both in mixed office parks and in residential suburban areas. So, in the same way people moved to suburban areas. Besides, such activities R&Ds, hospitals, TV studios... that need extensive sites started to accommodate at peripheral areas and old industrial centers in the region (redevelopment areas).⁴⁴ This prosperity creates a dynamic internal networks and magnetism for other possible networks. As a result, two surrounding rings; 10-20 (first ring) and 20-30km (second ring) around the main center of Barcelona emerged; manufacturing is gaining concentration in far metropolitan belts (e.g. 2nd

42 Butler C. J., Shachar A., Weesep J. V., 1997, pp179-209

43 Duarte C., <http://www-cpsv.upc.es>, last accessed date: 03 March 2008

44 Springer H. G., 1994, pp39

and 3rd) meanwhile services are gaining concentration in the centric belts, like 2nd.⁴⁵ (Figure 5) In past 20 years, the ratio of inhabitants decreases from 40% to 35% in Metropolitan Area. While the first ring remains stable, the second ring grows at an accelerated rate.⁴⁶ This trend is parallel to manufacture increase that it lost most employment in center than on periphery and reduces its overall presence. In that way, as a result of spatial redistribution of metropolitan employment; the center expended but smaller ratios on spatial rings and gets less importance. All these shifts to outside of the city meant the functional urban territory expanding through these new sub-centers.

As a result, the specialized industrial or commercial city arose with medium sized multi centers. The reasons of this decentralization can be summarized as; dispersion of population and economic activities through the Metropolitan Area with suburbs and interregional migrations associated with the labour market.⁴⁷

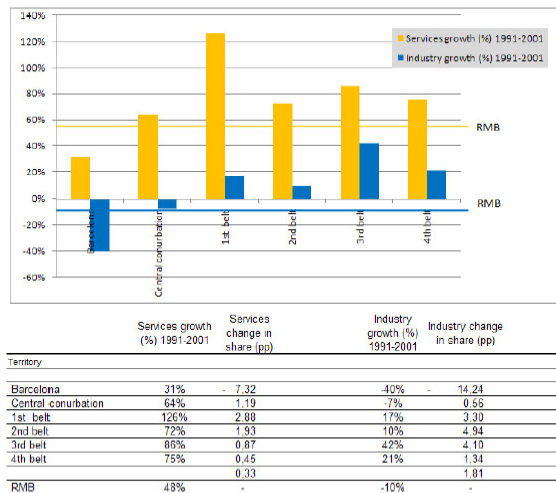


Figure 5: The spatial specialization of sectors between 1991-2002 in Barcelona

45 Duarte C., <http://www-cpsv.upc.es>, last accessed date: 03 March 2008

46 Marshall T., 2004, pp30

47 Marshall T., 2004, pp31

Similarly, from 1970s, London began to lose its economic base and already half of its port was to close down. The dynamics of spatial reconfiguration was similar to Barcelona such as the relocation of decreasing sectors, the public subsidy, the relocation of service and people.

In London, some industries; such as clothing, furniture... were closed and these firms moved out to home countries or regions (such as Northern England, South Wales and Central Scotland) because they could not find wide areas that they needed along the roads of great industrial areas and some firms relocated to outer the centre of the Metropolitan Area. These decentralizations that started with manufacturing continued with routine office jobs and people were supported by government policies. Production industries are today weakly represented within London itself and strongest in a few key manufacturing towns in the outer ring.

While the creative and higher education sectors are relatively concentrated in the central area, such as are tourism, professional services and the environment sector, the service sectors that need wide areas locate in outer areas with manufacturing too. In the process remaining manufacturing employment in 1970s has diminished, while the port has been reduced to a shadow of its former importance, and located outside Greater London's boundaries, mostly in the eastern direction... Many of companies have migrated outside London, through motorways. But they don't have as much employment rate as they had. Local authorities have reacted to the situation with redevelopment pressures as flexible zoning; house back offices, superstores and retail parks, and multiplex cinemas...⁴⁸ Additionally, the old workshop rings inner city and manufacturing entered a transition.

The new growth areas as a result of agglomeration economies that mostly consist of high level activities and skills belong to London in functional relations. In other

48 Buck N., Gordon I., Hall P., Harloe M., Kleinman M., 2002, pp25-26

words, the core city and surroundings are in strong communicating flows, in terms of widely shared economic assets. Developments that need extensive space are inevitably more likely to be found in the outer rings. As a result almost every centre in the outer metropolitan ring was beginning to spawn a cluster of office towers. In that way, Office jobs' location in the outer city became eased due to the availability of qualified labour pool. Large scale decentralization of activity over the past 40 years produced emergence of major counter magnets, but growth at and around most of the existing urban centers, especially those on the western side. Business services employment here is heavily concentrated, and exhibits a strong westward direction in its distribution. Since this has been the major drivers of growth in the 1990s, while production employment has continued to shrink, the growth at the centre and in West London, moderate growth throughout the outer ring; and decline in the outer east London because of the manufacturing growth. And, London region is turning into a polycentric mega-city region extending over progressively wider areas of South-East London. (Figure 6)

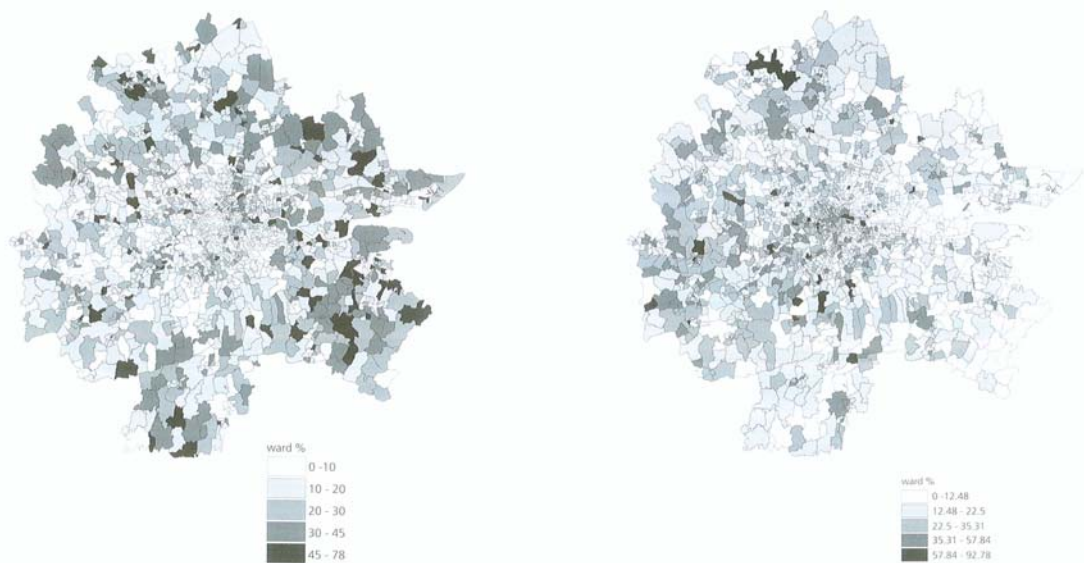


Figure 6: Industry and service sectors density distribution in London (Source; Buck N., Gordon, I., Peter H., Michael H., Kleinman M, 2002, pp 28)

The general spatial reconstructions can be summarized as; rebuilding of tracts of east and south London-and the upsurge of business parks and new housing developments across the outer Metropolitan Area, the new central offices, the transformation of old industrial areas...⁴⁹.

As a result, in spite of these political attempts, decentralization of industry was not completely successful and it kept its importance in economy but not as much as it was. ⁵⁰ Some industries could stay in the city or they moved surrounding the city. However they were high tech based industries or complementary industries that could work with services in inner city.

3.4. DIFFERENT AFFECTS OF GLOBAL ECONOMY ON DEVELOPED AND DEVELOPING COUNTRIES

Under affect of globalization, till now, it is seen that deindustrialization has been the main trends of global economy. As seen in examples of London and Barcelona, we saw major reconcentrations of business and commercial service activities, together with dependent clusters in parts of their sub-urban fringe areas. But, although developed economies are the main actors of globalization (due to the stability of population increases, high level of technological development, creation and maintenance of efficient land and property markets, the development of more and more better housing finance options, a greater emphasis on municipal finance and institution building, strengthening of urban utility systems are cited of many fresh policies), this situation differs for underdeveloped countries, because industrial activities take place in different forms at different locations to take advantage of differences in social and economic conditions such as cheap and variety of labour, low rent, low taxes. and these countries mostly can not produce goods and services that can withstand competition with others.⁵¹ For example, these cities mostly serve,

49 Buck N., Gordon, I., Peter H., Micheal H., Kleinman M, 2002, pp22

50 Butler, 1949 ,pp199

51 Storper, M. ,1991, pp114

large local labour markets for any given rate of unemployment and this implies directly that employers in the former type of labour market have a higher probability- in a given time- of finding a job seeker with specified characteristic. So, more traditional, low value added jobs developed in these countries to take advantage of labour.

As a consequence, industrial development has become an imperative recourse for underdeveloped economies, in that it must be seen as a key component of their development process. In other words, the role of the industrial sector that started to decentralize from major cities has further intensified the appeal and the compelling urge for industrialization for the developing countries.

In this way, very large cities or industrial regions may appear as the common features of the capitalist industrial landscape. Storper describes two main city types; firstly a very large city where any single sector is both highly agglomerated in space and secondly a primate city with many other large cities already in existence that transformed rapidly from small towns into large cities and jumped up the urban sized hierarchy in very little time.⁵²

This rapid transformation of course also brings some problems because of fast urbanization and increasing immigrations to these cities, such as poverty, squalor, deprivation, frustration and insecurity among their citizenry, all of which culminates to political instability. For example; Arab States that comprise a great diversity of socio-economic and human settlement profiles from least developed through developing to oil rich countries; increasing number of poor living in urban areas of Pacific Region seem to be one of the great problems; Latin America, the most urbanized region in the world has been facing with the growing urbanization poverty.

⁵² Storper, M. ,1991, pp18

CHAPTER 4

CASE STUDY ON ISTANBUL: RELOCATION TENDENCY OF INDUSTRY IN ISTANBUL

Istanbul, one of the major cities of a “developing country” like Turkey has been subjected to a restructuring processes that aim to complete its integration into the world market. The emerging competition within this market, the flow of social and cultural movements, economic restructuring etc.; all have led to the reshaping of several cities and regions within the city-region of Istanbul. At that point it is vital to delineate, whether there is a trend of deindustrialization in Istanbul like other world markets or not. Therefore, this chapter -the case study- of the study will try to examine the tendency of industry in Istanbul:

1. The existing economic situation in global and national level
2. The spatial transformation parallel to economic developments
3. The tendency of industry relocation

4.1. ISTANBUL’S ECONOMIC CONFIGURATION AND ITS CHANGING TREND IN THE COMPETITIVE WORLD SYSTEM

4.1.1. Istanbul’s Position in Global and National System

Within the global context, Istanbul is under the affect of global cities that are the epicenters of innovation, finance and administration. According to “Global and World Cities Research Group (GAWC)”, there are three levels of cities in global

hierarchy that are designated according to subservice sectors: Alfa, Beta and Gama groups. Alfa group embodies four most developed cities: London, New York, Paris, Tokyo; while Istanbul is in Gama group with the other 14 cities at the lowest rate.⁵³ (Gama group includes Atlanta, Barcelona, Berlin, Buenos Aires, Budapest, Copenhagen, Hamburg, Istanbul, Kuala Lumpur, Manila, Miami, Minneapolis, Montreal, Munich and Shanghai) Also, figure 7 that shows the distribution of service GDP supports this hierarchy. Istanbul is again in the group of cities that has 50-59 % GDP service sector value added while this value for most of the developed countries is over 70 %.⁵⁴ This value should be higher in order to be able to catch the level of the developed cities.

On the other hand, Istanbul is the mega city of Turkey since it is located in the most important industrial region of the country and has already been integrated into the world system via export, finance, administration facilities and several international activity centers. Thus, it becomes more meaningful to scrutinize Istanbul's position in Turkey than inspecting its importance within the global context.

⁵³ Istanbul Metropolitan Planning Center, ,2006, pp 23

⁵⁴ Worldbank, <http://worldbank.org> , last accessed date: 12 February 2008

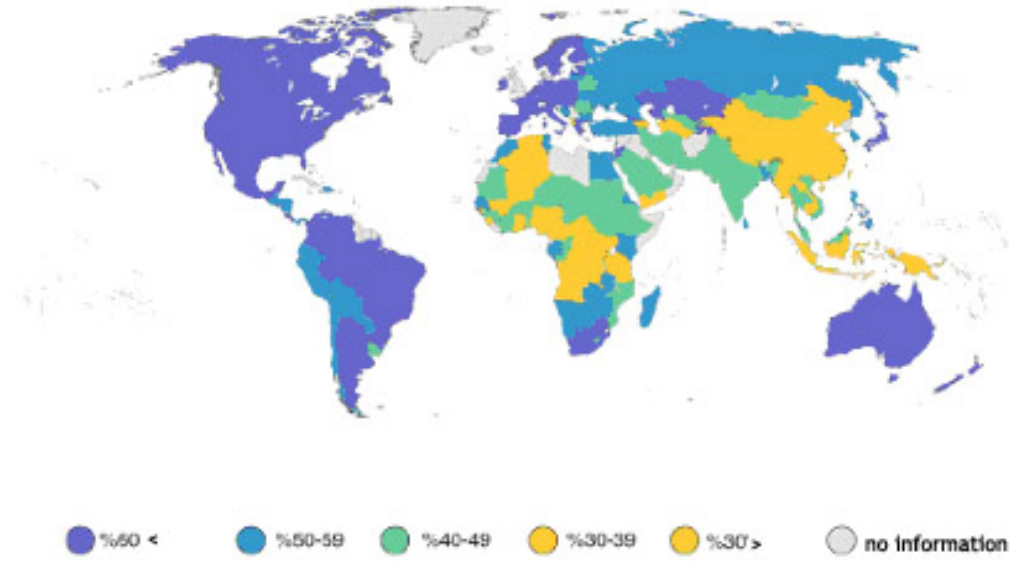


Figure 7: Distribution of service sector GDP in world (Source: wordbank, <http://worldbank.org>, last accessed date: 12 February 2008)

Also, Istanbul is the center of the country with respect to economic means and population density. Especially throughout last decades, neo-liberal governmental policies and direct subsidies have led to a rapid urbanization. Therefore, such an aggregate density rendered Istanbul a primary city that is serving the whole country in terms of various economic and social dimensions

Figure 8 demonstrates the position of the city in the region and country in the year 2000. Accordingly, population and industry concentrations come to the fore with respect to share of the city in country. Firstly, due to high level of urbanization, today the city represents 21 % of Turkey’s population, while this number for Marmara Region is 32 %. Additionally, 66 % of urban population and 60 % of total population of Marmara region dwell in Istanbul..⁵⁵

⁵⁵ Turkish statistical Institute; Census- 2000, www.die.gov.tr, last accessed date: 03 April 2008

With respect to economic dimension, industrial sector has the highest employment share (nearly 35 % of total employment due to high agglomeration density of industry. (Figure 8)

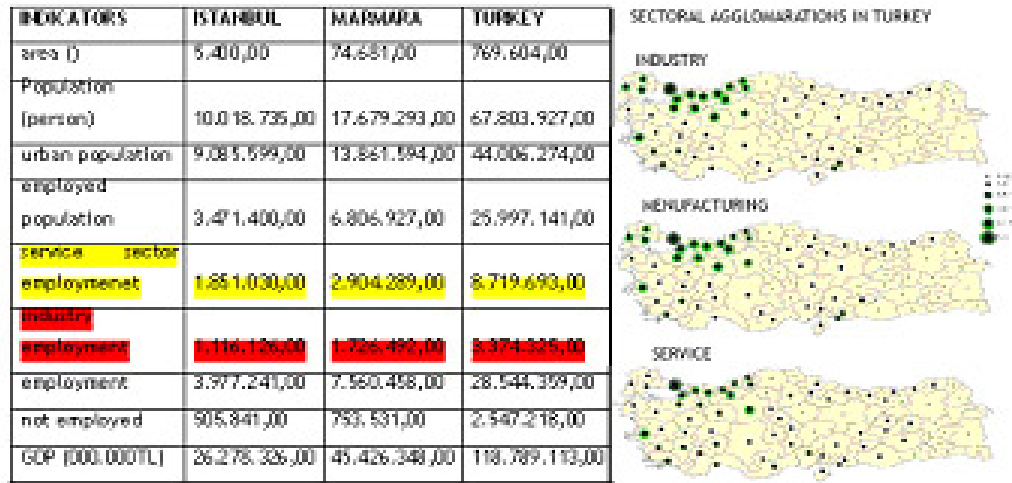


Figure 8: Comparison of social and economic indicators between Turkey, Marmara Region and Istanbul (Source: Turkstat; www. die.gov.tr, last accessed date: 09 February 2008)

If we look at the change of sectors' contributions to the country in table 9, it can be seen that between 1995 and 2004, the change of industry sector is about 1 %, from 26 % to 25 %. On the other hand, service sector has considerably increasing shares in Turkey's economy, such as finance sector (45 %) and banking sector (50 %)

It can easily be concluded that the trend of economy is increasing through service sector. But we should evaluate the importance of industry in comparison with other cities because in spite of this % 1 decline, Istanbul is still the most important industry center within Marmara region.

Table 9: Sectoral shares of Istanbul in the Turkey economy

SECTORS	1995	1999	2001	2004
Agriculture	1,8	0,8	1,2	1
Industry	26,2	26,4	24	25
Construction	16,3	18,6	17,1	18
Trade	28,7	34,8	34,1	35,5
Communication and Transport	22,9	22,9	21,1	21
Finance	40,4	47,6	46	45
Housing ownership	30,9	32,7	31,5	32
self-employed	39,3	41,4	41	41
banking	48,8	53,3	49,9	50
total	21,9	23,3	22,4	24
GDP	21,1	21,8	21,3	22,7

Source; OECD, Istanbul Metropolitan Area Report, 2006, pp21

With all these economic advantages, Istanbul has the highest export, investment and GDP values in Turkey's economy. Firstly, as we can see in Table 10, Istanbul possesses 41 % of total export volume of the country. Throughout the last decade, while import rate has been decreasing, export rate increased. This indicates the increasing openness of sectors to global trade. In 2004, the external trade volume of was 57, 4 billion dollar in Turkey and 24 billion dollar in Istanbul. This ratio has increased to 159, 9 billion dollar in Turkey, where this number for Istanbul is 67, 5 billion dollar. Istanbul's export share in Turkey reached 41 % in 2004, whereas its import share decreased from 47 % to 43 %.

Table 10: Indicators of Foreign Trade in Istanbul and Turkey economy (Million Dollars)

YEARS	TÜRKİYE		İSTANBUL		%	
	EXPORT	IMPORT	EXPORT	IMPORT	EXPORT	IMPORT
1995	21.637	35.709	10.305	13.733	47.6	38.5
1996	23.224	43.627	10.745	17.132	46.2	39.3
1997	26.245	48.585	11.679	18.383	44.5	37.8
1998	26.974	45.921	12.054	18.517	44.7	40.3
1999	26.588	40.691	11.551	16.561	43.5	40.7
2000	27.775	54.503	13.596	22.608	48.9	41.5
2001	31.334	41.339	14.781	16.821	47.1	40.7
2002	36.059	51.554	16.687	21.459	46.3	41.6
2003	47.525	69.339	21.732	28.626	45.7	41.3
2004	67.516	159.916	27.511	67.516	41.5	43.5

Source: Gathered from Prime Ministry Undersecretariat of Treasury, www.hazine.gov.tr, last accessed date: 09 March 2008

Secondly, Istanbul creates a significant dynamism for investments and subsidiaries. It attracts about 60 % of total FDI, while 65 % of the aggregate is being directed to Marmara Region. This means that only 5 % was left for other regions of Turkey

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Lastly, Istanbul has an increasing GDP share in Marmara Region and Turkey. As illustrated in Table 11 and figure 9, GDP value has increased from 20.1 to 21.48 both in Turkey and Marmara Region since 1987. This is an evident indicator of the unfair GDP distribution in Turkey, where Istanbul -having the highest GDP value in the country- enjoys an approximate value with the whole Marmara Region.

Table 11: Istanbul's share in GDP values of Marmara Region and Turkey

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
IN TURKIYE	20, 7	20,2 4	20, 68	20, 74	20, 83	20, 99	21, 44	20, 28	21, 75	21, 81	22, 49	22, 09	22, 13	22, 12	21, 48
IN Marmara	35, 26	35	35, 98	35, 86	36, 13	36, 35	36, 94	35, 63	37, 21	37, 38	38, 14	37, 78	37, 72	37, 98	37, 23

Source: Gathered from SPO-OECD-IBB, Istanbul Metropolitan Area Report, 2006, pp21

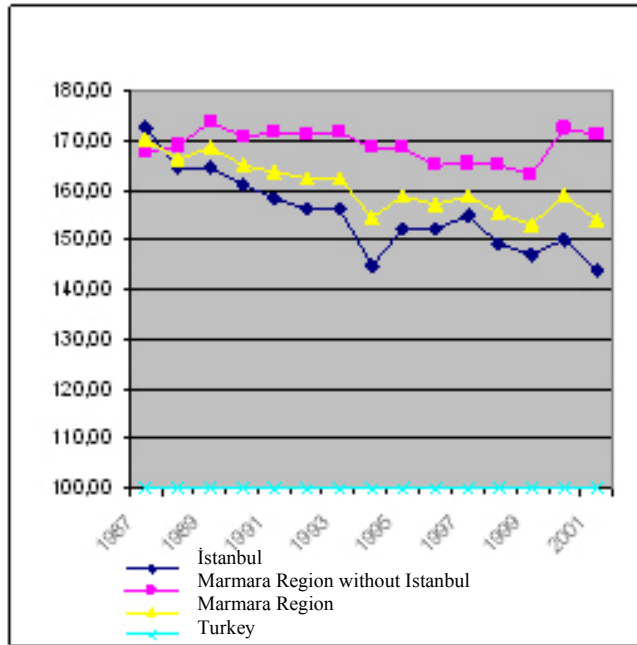


Figure 9: GDP per capita in Istanbul, Marmara Region and Turkey (Source: Gathered from METU , the Report of “Symposium of Istanbul Spatial Development and Transformation Research”, 2005)

4.1.2. Increasing Competitiveness of Istanbul Economy

4.1.2.1. Economic (sectoral) transformation of Istanbul Economy

Historically, there are two important turning points that deeply changed the economic structure of Istanbul: 1950s and 1980s. While 1950s were representing the turn from industry to service sector for advanced capitalist countries, it was the period of transition from agriculture to industrialization for Turkey and Istanbul.⁵⁷ Especially after 1980s, the impacts of globalization has become more visible and eradicated the obstacles of investment in Istanbul for national and international firms. Industry sector that generates the main economic contribution for the country has entered into a transformation period after 1980s, where service sector has started to occupy an important share like other developed world cities. Table 12 shows the increase rates of sectors from 1980 to 2000. While 1 of 11 person was working in

⁵⁷ Aysan M. and Dökmeçi V., 1995, pp56

industry and 1 of 6 person in service sector in 1960s, it decreased to 1 of 6 person in industry and increased to 1 of 5,5 person in service sector in 1990. From 1980s onwards, due to the buoyancy of the markets, industrial activities increased until 1985. However, from 1985s, economic problems occurred and industry sector fell about 5 %. Totally, this represents a decline from 34, 4 % to 32, 2 %, where the service sector boosted by increasing from 2 % to 53, 3 % .

Table 12: Sectoral employment change between 1980-2000 in Istanbul

SECTORS	1980		1985		1990		2000	
	Number	%	Number	%	Number	%	Number	%
Agriculture	85.730	5,5	97.439	5,2	130.322	5,1	282.317	8,1
Industry	538.440	34,4	652.044	38,8	853.625	33,6	1.116.126	32,2
Construction	111.690	7,1	122.936	6,6	224.126	8,8	215.925	6,2
Services	800.930	51,2	973.118	51,9	1.289.447	50,8	1.851.030	53,3
Others	27.149	1,7	28.060	1,5	42.443	1,7	6.002	0,2
Total employment	1.563.939		1.873.597		2.539.963		3.471.400	

Source: Gathered from Istanbul Metropolitan planning Center , 1/100.000 Plan Report, 2006, pp 68

Furthermore, this ongoing transition from industry to service sector is supported by the FDI (Foreign Direct Investment) figures throughout last 20 years in Turkey. In that period most of the FDIs have been directed towards service sectors. (Figure 10) After 1980, the volume of FDIs increased as compared to the pre-1980 period, where the sharpest increase took place after 1990. Between 1980 and 2001, the number of FDIs made in Turkey increased 323 times, most of which have been placed in Istanbul. In this period, while the share of manufacturing in FDIs was decreasing from 91.5 % to 54.4 %, those that were directed to the service sector increased from 8.4 % to 48.1 %.⁵⁸

⁵⁸ Istanbul Metropolitan Planning Center, 2006, pp117

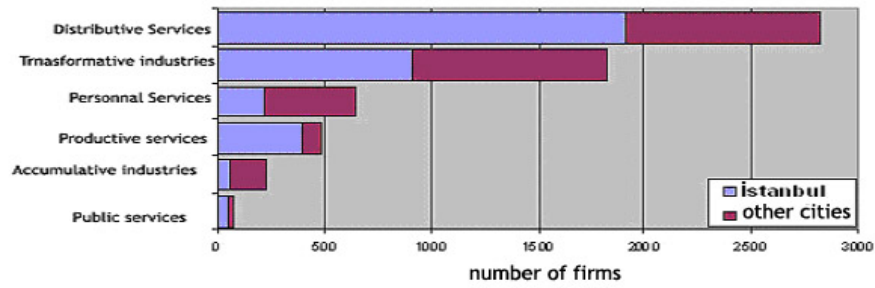


Figure 10: Multinational companies founded between 1980–2002 in Istanbul (Source: Istanbul Metropolitan planning Center, Industry Department Report, 2005, pp78)

4.1.2.2. The Changing Structure of Industry - The Increasing Competitiveness of Industry Sector

4.1.2.2.1. Historical Evolution of Industry Sectors in Istanbul

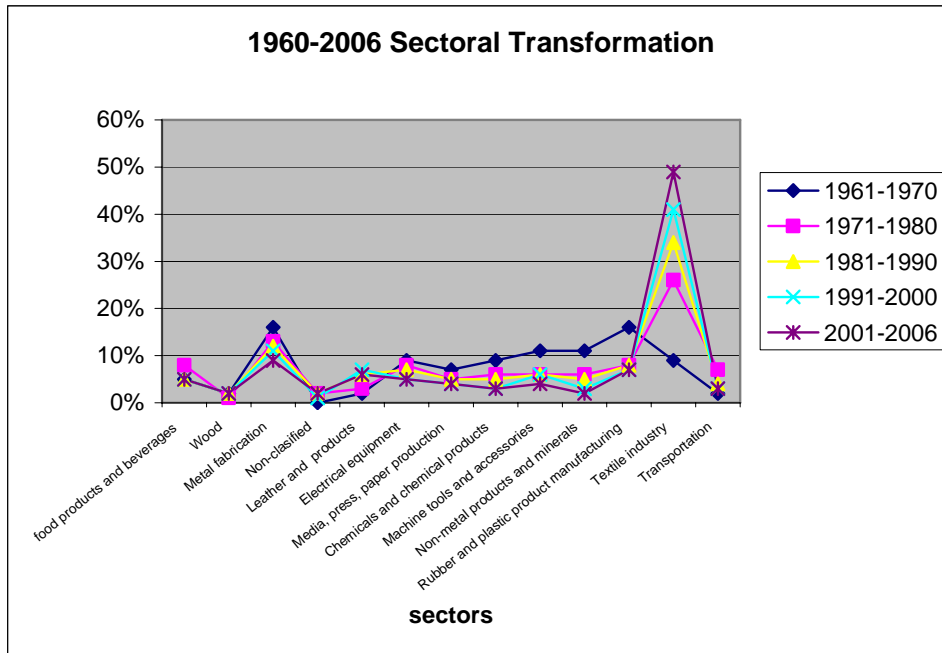


Figure 11: Subsectoral development of industry in Istanbul between 1961 and 2006 (Source: Collected data from Istanbul Chamber of Industry, 2005 and Turkstat 2000)

The Figure 11 makes it clear that from 1970s onwards the shares of industrial sub-sectors have obviously changed. Two main sectors came to the forefront: Metal fabrication and textile sector. While machine, rubber & plastic and metal fabrication sectors were dominant until 1970s, textile sector joined them throughout 1970-1980. From then onwards, the share of textile sector continued to increase and today it has become the leading among others with a share of 49 %, where metal fabrication follows it with 9 %. Here, we should indicate that the share of metal fabrication sub-sector has declined from 16 % to 9 % between 1961 and 2006.

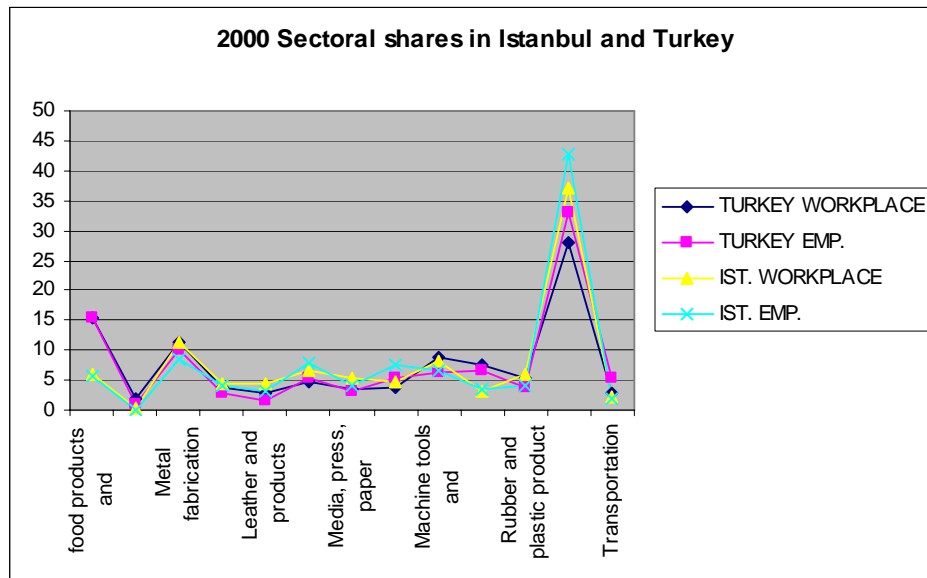


Figure 12: Comparison of workplace and employment change in industry sub sectors in Istanbul and Turkey (Source: Collected data from Istanbul Chamber of Industry, 2005 and Turkstat 2000)

Moreover, if we examine the specialization of sectors according to employment and workplace both in Turkey and Istanbul, the figure 12 shows that the textile sector has been specialized in Istanbul with a share of 42, 9%. Then, metal fabrication and electrical equipments sectors follow the textiles. This supports the superiority of textile sector both in terms of the number of workers employed and number of specialized workplaces in Istanbul.

4.1.2.2.2. Value Added and Employment Change

Table 13: Changing ratio of “industrial workers of Istanbul / Turkey” and “value added of Istanbul /Turkey” between 1980-2002

	Employment	Value added
Years	Istanbul/Turkey	Istanbul/Turkey
1980	30	27
1990	30	27
2002	27	23

Source: Istanbul Metropolitan planning Center, Industry Department Report, 2007, Pp20

As we have mentioned before (4.2.1.), the share of industry employment in Turkey and Marmara Region decreases slightly since 1980s. The value added also follows nearly an identical route like the employment ratio (Table 13). While the share of employment decreases from 30 % to 27 % in Turkey, the share for value added falls from 27 % to 23 %. If we look at the details, we can observe that the employment rates do not change much in time, whereas the value added fluctuates due to the investment, employment and economic crisis. We can especially notice important fluctuations in textile, metal fabrication & transport products, chemicals and transportation sectors; where other sectors do not show such a tendency in terms of value added. Since 1980s, although textile sector has had an important share in employment, it could not provide value added as much as metal fabrication & transport products and transportation sectors. As we can see from Figure 14, these sectors have always higher value added if compared to other sectors.

If the value added is accepted as an indicator of technology, we should underline the importance of metal fabrication sector in Istanbul’s economy with the textile sector that supplies the highest employment rate. Besides, the OECD classification of competitive sectors supports this observation. According to this classification, there are three levels of sector competitiveness: High (automotive sector), medium (other

sectors) and low (textile and medicine sectors).⁵⁹ (This research has been based on input provisions, firm strategies and structure of competitiveness, demand conditions, interested institutions and public provisions.)

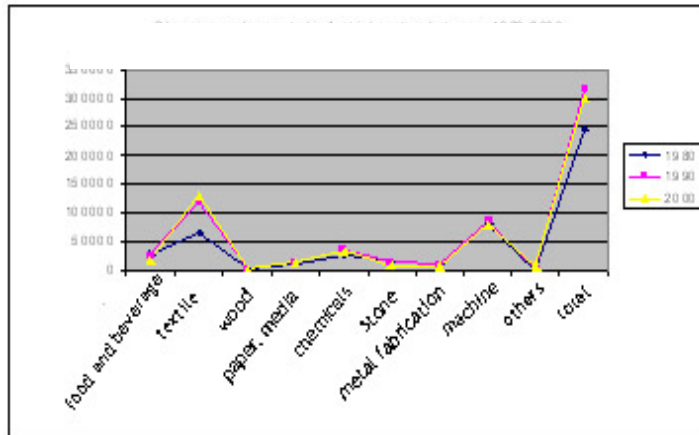


Figure 13: Employment change of industry sub sectors between 1980-2000

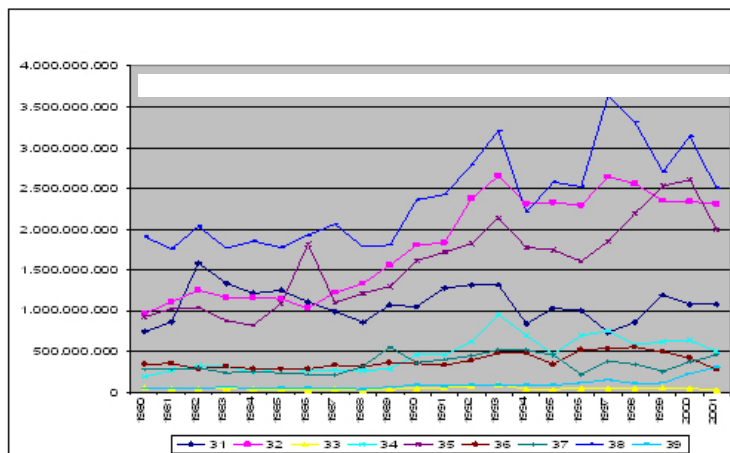


Figure 14: Sectoral value added change in Istanbul between 1980 and 2000 (Source: METU, Kentsel Dönüşüm Raporu, 2006 (31 food and beverages products 32 “Textile” and leather, 33 forest and furniture, 34 paper, media press, 35 chemicals, plastic products 36 stone based , 37 “Metal fabrication” , 38 metal, transport products , 39 others))

59 Istanbul Metropolitan Planning Center, 2006, pp98

4.1.2.2.3. Change of Firm Size

Table 14: Shares of firm sizes in total number of firms in Istanbul

Number of workers	%
1- 9 workers	29
10-24 workers	33
25-49 workers	21
50-99 workers	10
100 + workers	7

Source: Istanbul Metropolitan Planning Center, Industry Department Report, 2007

While production system is preferring to employ post-fordist production techniques and its locational preferences are getting more flexible, we can observe that small scale industries are mostly getting dominant in Istanbul as Scott and Storper supports. As we can see in table 14 and figure 15, 10-24 sized firms have the highest share (33 %), which is followed by 1-9 sized firms with a share of 29 %.

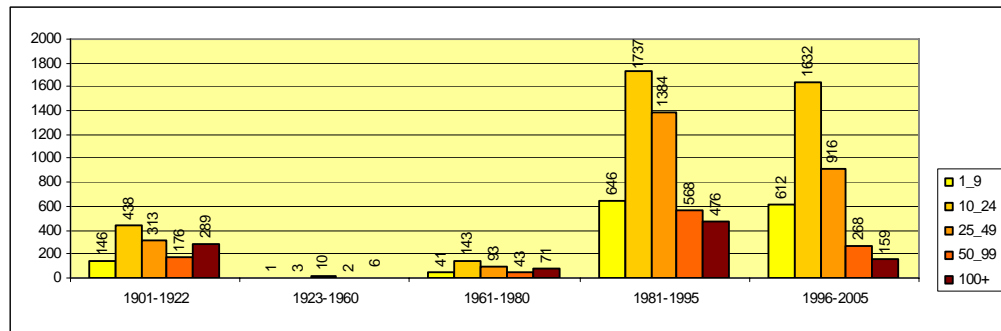


Figure 15: The firm sizes' foundation percentages between 1910 and 2005 (Source: Istanbul Chamber of Industry, [www. iso.org.tr](http://www.iso.org.tr), last accessed date: 17 April 2008)

According to Figure 15, 48 % of total firms were founded after 1980 and most of them are small scale firms that do not employ more than 24 people. The ratio of the firms that are founded between 1901-1923 and employ more than 100 people fell from 33 % to 11 throughout the period of 1995-2005. This is mostly due to the decrease of investment in industry after 1980s, where the existing investments were generally directed to the small scale firms. Large scale and highly standardized firms are being oriented to the outer areas of the city.

Moreover, the sub-sectoral distribution of firm sizes shows that most of them are small scale firms. Machine, metal fabrication, textile, food & beverage, not metals and minerals sectors are the most dominant ones. The two biggest sectors, textile and metal fabrication, with a share of 31 % and 34 % respectively, are composed of 10-24 sized firms. On the other hand, 1-9 firm size is dominant among wood & furniture, transportation and sectors that are not classified (Table 15).

Table 15: The percentages of firm sizes in each sub-sector in Istanbul

	100+	10-24	1-9	25-49	50-99	
Wood products	0	29	60	8	3	100
“Metal fabrication”	4	34	40	17	6	100
Not classified	5	27	44	14	10	100
Leather and leather products	7	28	23	27	15	100
Electric and optic	8	36	26	19	12	100
Food and beverage products	6	35	38	16	6	100
Paper and media press	3	27	47	17	6	100
Chemicals	6	36	33	19	6	100
Machine	3	40	31	22	4	100
Not metal, minerals	6	40	45	4	5	100
Plastic and rubber	4	41	31	19	5	100
“Textile”	10	31	18	27	14	100
Transportation	10	29	36	17	7	100

Source: Istanbul Metropolitan Planning Center, Industry Department Report, 2007, pp78

4.1.3. General Evaluation

As a result, it can be concluded that Istanbul's economic structure follows a different tendency if compared to other world economies with respect to three points stated below:

1. Sectoral weights
2. Sub-sectoral differentiation
3. Structural differentiation of these sectors (such as labour intensity, value added etc.)

First of all, although economic structure of Istanbul is experiencing a transition from industry to service sector, industry still has a very important share in the overall economy of the city as elaborated in Part 4.3.1. If we compare Istanbul with London and Barcelona, we can notice that the industry sector has very small shares in these cities, where it amounts to 7, 7 % of total economy in London and 13 % in Barcelona. However this is not valid for Istanbul, where this value is equal to 32 % and there is no obvious difference between industry and service sector (Table 16).

Table 16 : Comparison of sectoral shares between Istanbul, Barcelona and London

	Industry	Service
London (2000)	7,7	87,7
Barcelona (2000)	13	81,6
Istanbul (2000)	32,2	53,3

Source: UK Statistics Authority, www.statistics.gov.tr, last accessed date: 03 January 2008; Duarte, Barcelona a Good investment, pp11; Turkstat, www.die.gov.tr, last accessed date: 08 March 2008

Secondly, sub-sectoral differentiation stands out as another important difference compared to other world examples. If we look at the global system with respect to

sectors' share in export volume, general evaluations can be derived about the recent position of Istanbul's dominant sectors in world economy.

According to Table 17, it is seen that textile sector has lost its importance in global export system due to the low level competitive as we have mentioned in the former chapter. On the other hand, sectors like pharmaceuticals, furniture, RTC components, transport equipments started to become dominant as they have been in Barcelona and London economy. However, the textile sector is maintaining its dominance in Istanbul economy and it still provides the maximum employment opportunities.

Table 17 also shows that there is a transition from the production of electronic goods (new economy goods) to transport products, metal, machine etc -the goods of old economy. Here, we can claim that metal fabrication can be an advantage for the competition within the global system it has an important share and increasing value added in Istanbul economy.

Table 17: Changing importance of sectors in export in global system

	Great development in both periods	Development under average in both periods	Development in 1st period and decrease in 2nd period	Less development in 1st period, more development in 2nd development
1992-2000 and 2000-2004	Equipments	Paper	Computer	Transport
	Pharmaceuticals	Textile	electrical machinery and apparatus i.e.	Machine
	Furniture	Leather	aircraft and spacecraft	Basic chemicals
	RTC components	games and toys	RTC transmitters	"Metal fabrication"
	Transport Equipment	Press		Other chemicals
		Fibers		Plastic
		Tobacco		Minerals
				Other transport
				cleaning and polishing preparations,
				sports goods

Source: Miotti L, Sachwald F., [www.Ifri.Org/Files/Economy/ World_Trade_English_Final.Pdf](http://www.Ifri.Org/Files/Economy/World_Trade_English_Final.Pdf), last accessed date: 08 December 2007

Lastly, compared to new economy sectors, the dominant sectors of Istanbul are more traditional, labour intensive and small scale as mentioned in 4.1.3.2. Same table also shows that to specialize in knowledge-intensive and high value-added sectors such as computer, machine, electricity is one of the main impulsive forces for countries like Turkey to take part in global economic system.

4.2. ISTANBUL'S SPATIAL CONFIGURATION AND ITS TENDENCY

4.2.1. A Brief Historical Evaluation of Spatial Development on the core of Istanbul and its city-region (Importance of Industrial Movement in Determining Spatial Configuration)

Throughout the time, Istanbul has witnessed important economic changes with spatial restructuring under the impact of globalization. In 1950s, due to the industrialization attempts, an important wave of migration led to a rapid urbanization, which enlarged the city haphazardly with wrong planning decisions. Industrial plans could not be implemented due to the wrong choices and insufficient infrastructure. Consequently, industries were located through motorways or randomly anywhere in the city, which unfortunately expanded through these areas. In that period, 65 % of industry was small scale and mostly involved in the production of frail consumption goods.⁶⁰

Between 1960-1970, Istanbul witnessed the boom of textile industry, which replaced the top sectors such as machine, plastic & rubber and the others which are not classified. While new, large scale textile industry preferred to inhabit within the area surrounding the city, small scale industry stayed still within the city.⁶¹

At the end of this period, as the figures 16-19 show, Istanbul became a monocentric city, wherein all main activities such as industry and service activities were polarized

⁶⁰ Yüzer, Ş.A., 2002, pp76

⁶¹ Şehirçilik Enstitüsü Dergisi, 1972

in the center (Eminönü, Beyoğlu). On the other hand, industrial movements have been the main determinants of the enlargement of the city towards East-West direction. since these industrial movements started to determine new subcenters by decentralizing the urbanization process and enlarging CBD functions along with the residential areas. It also spoiled the rural-urban balance due to the increasing population and human activities.⁶² Additionally, important changes occurred within the city such as the provision of transportation networks (e.g. building of Bosphorus bridges), technological developments supported by the easy location pattern of housing, employment and services.

During this period, in order to control the development of the city -location of housing, industry, trade, transportation- many attempts had been made and two important plans were prepared: 1980 and 1995 plans. Under the impact of deepening globalization, both plans tried to push Istanbul to a competitive level by increasing service sector and technology based qualified jobs while labour and standard technology used in industry were aimed to be decentralized. 1995 plan emerged as the continuity of former. The dominant sectors were textile, metal fabrication, chemicals and wood & paper. In 1995 plan, it was decided to decentralize these dominant sectors. Textile industry was decided to get decentralized to the Western side, which is near to its market area. Metal fabrication and chemicals sectors were aimed to head to the Eastern direction. Moreover, it was decide to encourage the textile industry to increase its value added that was 19 %. On the other hand, the value added percentages for metal fabrication and chemicals were respectively 27 % and 22 %. However, neither plans could succeed to be sufficiently effective due to the high speed development of the city and concurrently increasing rent.

⁶² Yapıcı Z., 1995

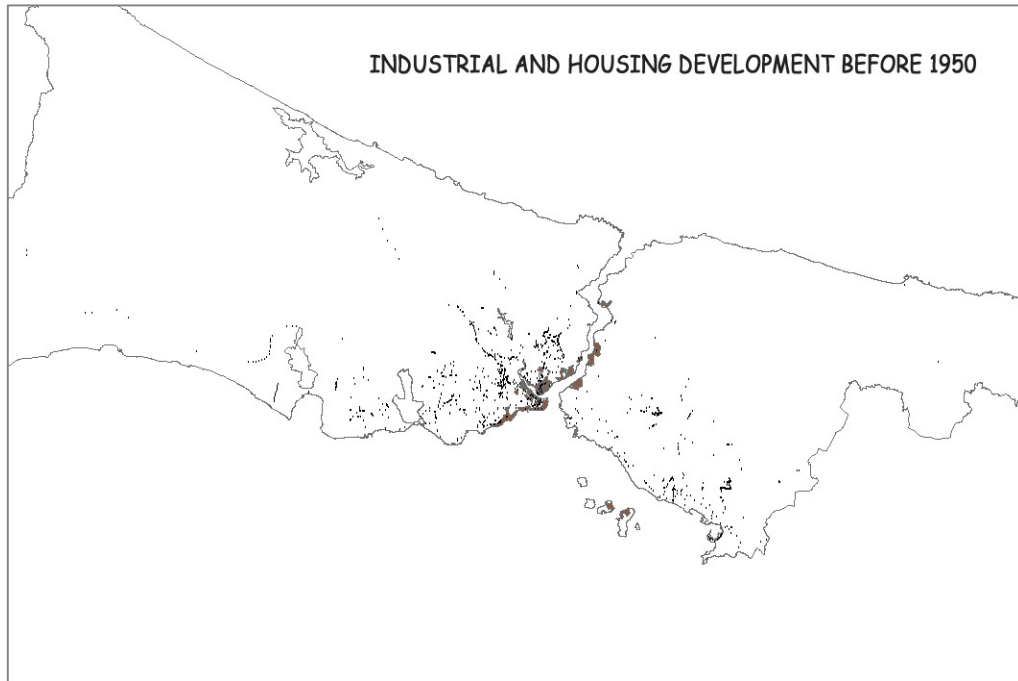


Figure 16: Industry and urban development in Istanbul Metropolitan Area before 1950s

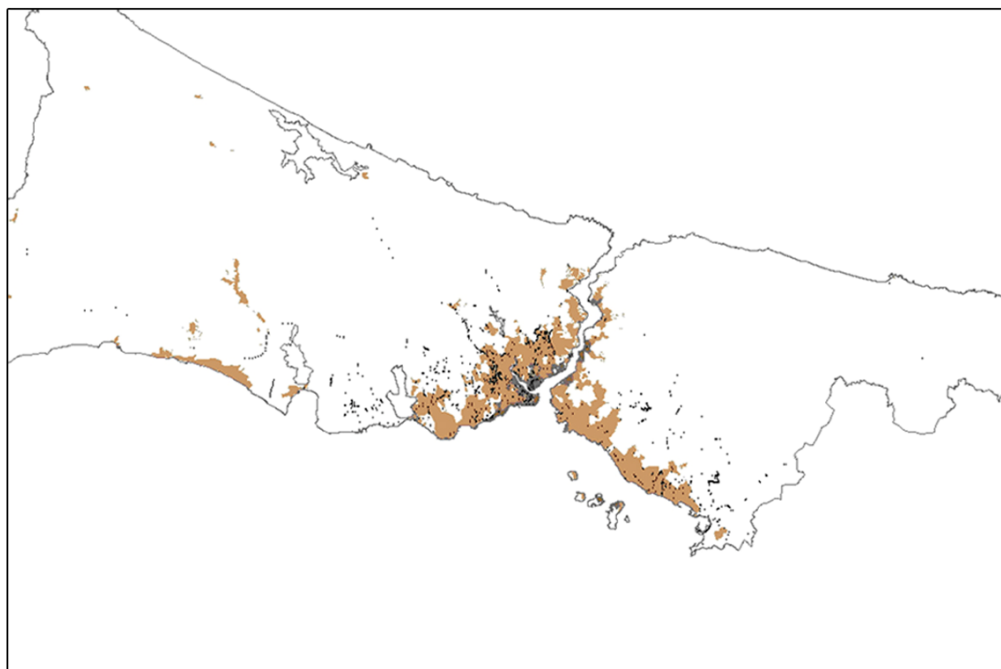


Figure 17: Industry and urban development in Istanbul Metropolitan Area between 1950-1980

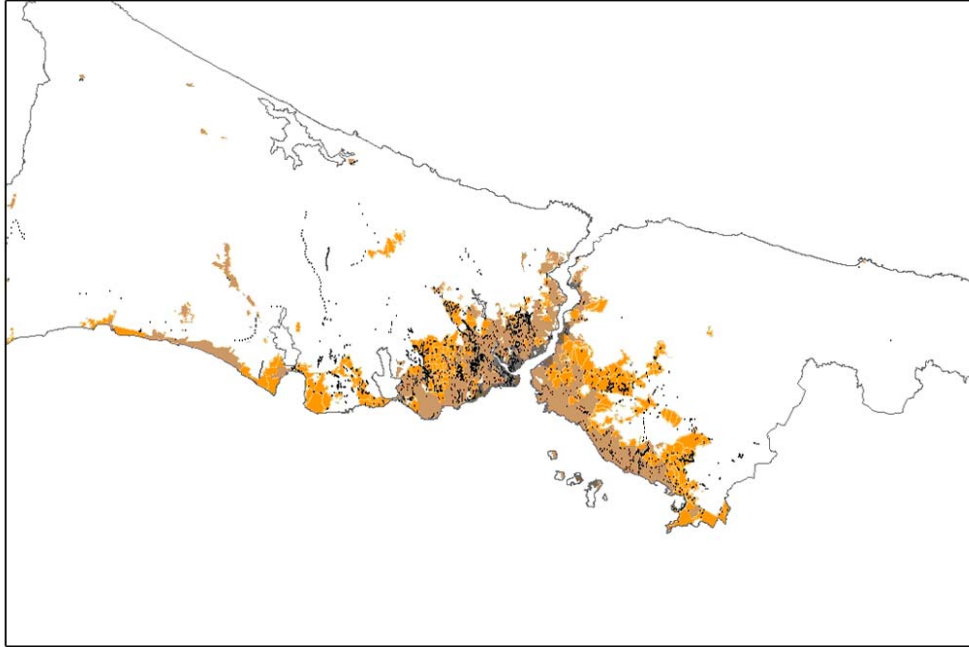


Figure 18: Industry and urban development in Istanbul Metropolitan Area between 1980-1990

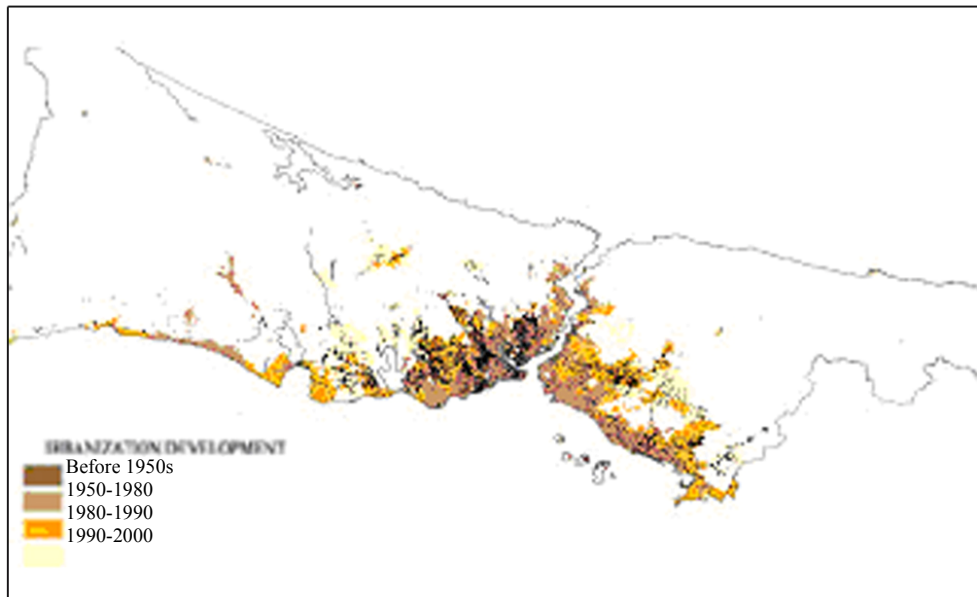


Figure 19: Industry and urban development in Istanbul Metropolitan Area between 1990-2000

In addition to the core city restructuring, like other important industrial centers in Turkey, Istanbul expanded out of its boundaries. In other words, its production power has been decentralized to outer areas. Because since 1980s, while important industry centers were losing their power, the importance of industry had increased mostly for the cities surrounding them. The table 18 embodies examples concerning the values of decentralized major traditional industrial cities and emerging sub-industrial centers at the same instance. Accordingly, between 1988-1997, the main centers of industry -Istanbul, Izmir, Adana, Ankara and Zonguldak- had lost their share in industry and their surrounding cities caught an increasing industrial development tendency.

If we are to get in details, Istanbul kept its attractiveness for industry due to the opportunities that the city presents such as rich labour pool, transportation facilities, urban facilities etc. However, industries started to spread because of the increasing urban rent and / or the need for larger areas. Here, we can also see the generalization of this decentralization process with numbers including Istanbul's surrounding cities -Kocaeli, Bursa, Tekirdag, Kırklareli, Bolu, and Bilecik. Accordingly, while employment ratio of industry in Istanbul was decreasing from 30 % to 28 % in that period, the values of surrounding cities are on the rise. Such as Bolu that increased its value from 0, 91 % to 1, 07 % or Bursa, from 6, 25 % to 8, 53 %. Some sectoral examples can be presented at that point. In the former chapter, we have illustrated that some sectors like food, metal fabrication lost their shares in Istanbul's economy since 1980s. Or it can easily be claimed that the industries, which are raw material intensive are getting further from Istanbul like the food sector concentrated in the skirts of Marmara Region like Edirne, Bursa, Kırklareli or the stone-based industries in Canakkale.⁶³

63 OECD, 2006, pp76

On the other hand, while textile sector expanded its size in Istanbul, cities like Tekirdag and Kırklareli have become the new dimension of that sector. Chemicals, other important sector, continued to concentrate in Istanbul and Izmit.

Table 18: Change of Industry weights between 1988-1997 in traditional industry centers and sub-centers

Traditional industry centers					Traditional industry _Sub centers				
		Workpl ace	Employ ment	Value added			Workpl ace	Employ ment	Value added
		%	%	%			%	%	%
1988	Adana	2,47	4,41	4,35	1988	Bolu	1,15	0,91	0,59
1997	Adana	1,97	3,03	2,93	1997	Bolu	1,26	1,07	0,96
1988	Ankara	6,93	5,78	4,46	1988	Bursa	5,2	6,25	5,55
1997	Ankara	5,35	4,22	4,07	1997	Bursa	6,52	8,53	6,4
1988	Istanbul	41,82	30,57	27,82	1988	İcel	0,77	1,47	2,6
1997	İstanbul	33,54	28,44	24,8	1997	İcel	1,96	1,45	3,26
1988	İzmir	10,64	9,24	13,83	1988	Kırklareli	0,47	0,57	0,81
1997	İzmir	9,74	9,55	12,07	1997	Kırklareli	0,69	1,16	1,21
1997	Kırıkkale	0,13	0,51	2,31	1988	Kocaeli	2,85	5,7	15,36
1988	Zonguldak	0,87	2,41	3,16	1997	Kocaeli	3,82	5,07	15,27
1997	Zonguldak	0,41	0,84	2,38	1988	Manisa	2,02	1,98	1,38
					1997	Manisa	1,86	1,78	1,76
					1988	Sakarya	1,15	1,09	0,5
					1997	Sakarya	1,09	1,17	0,83
					1988	Tekirdag	0,95	1,92	1,89
					1997	Tekirdag	2,18	4	3,32

Source: The Prime Ministry, State Planning Organization, 2000, Regional Development Specialization Committee Report, pp18

However we should state that it is not relevant to limit the expansion of industrial movement only with the surrounding cities, where the decentralization exceeds beyond these boundaries. Therefore, although the boundaries of Istanbul city-region are not drawn certainly since because it needs complicated researches, these cities are accepted within the Istanbul region..

4.2.2. The Existing Spatial Composition of the Industrial Structure of Istanbul

There are quantitative and structural differentiations of industries within inner Istanbul, both on the east and west side of the metropolitan area. First of all, as the quantitative distribution shows, 75 % of total industry is located in the west side, while the remaining 25 % is in the east side.⁶⁴ Parallel to the distribution of firms, west side gets more FDI than east: While 76 % of FDIs were directed to west side, the share of east side is 24 %.

Secondly, each side represents almost unique characteristics in terms of structural features. One of them is their intensity of labour or capital. Güvenc identifies this difference as such: While the firms in the east of the city (Anatolian side) are more capital intensive and dominated by large plants, west side firms are more labour intensive and small plant dominated. It is well known that 54 % of total metropolitan area employment belongs to the labour intensive firms. This number increases to 64 % in west side and decreases to 40 % in the east side of the metropolitan area. The figure below supports this assumption since the average labour per hectare in the west side is 0,6 and 0,34 person in the east side. This number is 0,51 in the metropolitan area.

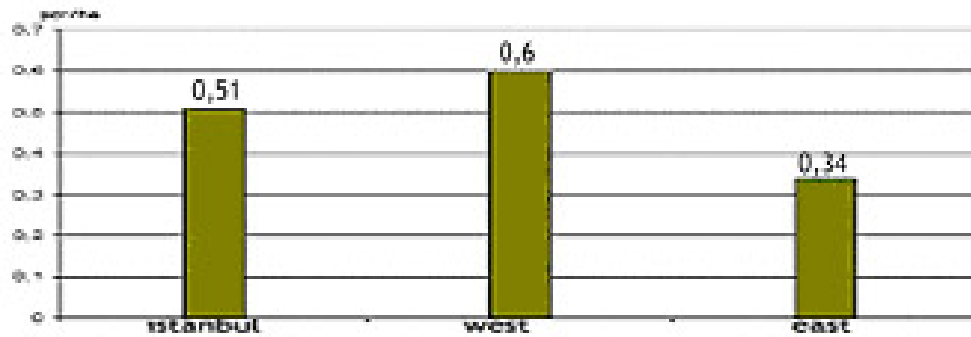


Figure 20: Density of employment in east and west side of Istanbul (Source: State Institute of Statistics, (2000 office questionnaires))

⁶⁴ Turkish statistical Institute, www.die.gov.tr, last accessed date: 05 April 2008

In the view of areal size, according to Istanbul Environment Planning Report (2005) firms in the west side are small plant dominated while firms in the east side have larger areas. This is because west side firms mostly locate near CBD zone and as getting further from city center, number of the organized industry sides and large area dominated industries increase. ⁶⁵

Another structural differentiation between two sides is the sectoral differentiation. Figure 21 illustrates that textile, paper, media press and chemicals sectors are concentrated in west side, where food, rubber & plastic, metal fabrication and other sectors that are not classified dominate the east side of Istanbul

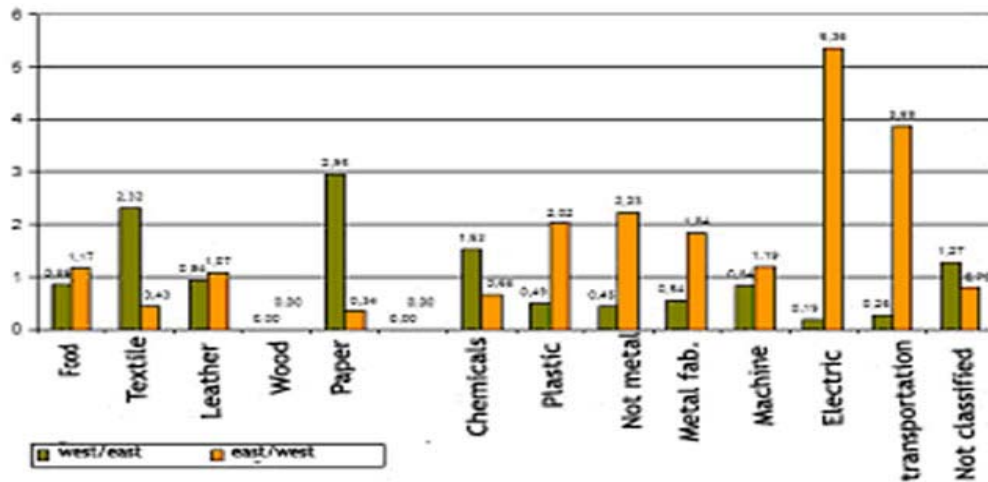


Figure 21: Sectoral distribution in West and East Side of Istanbul (Source: State Institute of Statistics, (2000 office questionnaires))

CHAPTER 5

THE RELOCATION TENDENCY OF INDUSTRIES

The major aim of this chapter is to examine the trend of industrial relocation in Istanbul with the help of the questionnaire prepared by Industry Department of IMP. It is detailed in squares and includes 3098 firms that nearly amounts to 30 % of total industrial firms registered to Chamber of Istanbul Industry. The ratios of sectors interviewed is same with the ratio of sector in Istanbul.general

The flowchart stated below (table 19) illustrates the way that the study is carried out. The relocation tendency is evaluated with respect to two dimensions (spatial dimension and reasons) based on two criterion (13 sub-sectors and 5 firm sizes). After identifying the general tendency according to the criterion, the spatial dimension (origin-destination relations) and reasons of relocations will be specified in the same way.

Table 19: Flowchart of study expression

BASEMENTS	(YES/NO) GENERAL TENDENCY	SPATIAL DIMENSION	REASONS OF RELOCATION	
GENERAL TENDENCIES	General Trends of Relocation	General origin-destination relations	Reasons to Relocate	Reasons to relocate according to the space and reasons
sub-sectors	Sectoral Tendency to Relocate	Origin-destination relations based on Sub-Sectors	Reasons to relocate based on sub-sectos	
firm-size	Tendency to Relocate Based on Firm Sizes	Origin-destination relations based on firm Sizes	Reasons to relocate based on firm sizes	

Since it would be difficult to illustrate and evaluate all the cross examinations of 32 districts and 14 sectors in details, 7 main zones based on 3 factors are determined: The existing spatial dispersion of industries, the development tendencies of the and industrial development foresights of the industry department of IMP. (These foresights are mainly based on the development of service sector and existing projects in the city. It supports the organized industrial sites and transformation decisions aiming the development of the service sector and the protection of natural resources) These zones are overlappig the district boundries. Because of that, they include forests, agricultural lands, housing areas addition to settled areas.

1st zone: It is the existing rural and tourism area of the west side and rarely includes industries. Since these industries cause threat for natural resources and life, which are thought to be transformed.

2nd zone: It is both CBD zone and one of the most industry concentrated areas of the city. Therefore, existing industries are thought to be transformed with regards to CBD development.

3rd zone: It is the existing concentration zone of industries and planning decisions support this tendency.

4th zone: It has similar characteristics with the 1st zone located in the west side. It is the rural area of the east side that is rich with respect to tourism opportunities and natural resources. Comparatively it has fewer industries.

5th zone: It embodies the business district of the east side, which is thought to be transformed.

6th zone: It is similar to the 2nd zone and embodies the industries that are under the impact of business district. It is thought to be transformed.

7th zone: It is the supported industry concentration area of east side and contains organized industrial sites. (Figure 22)

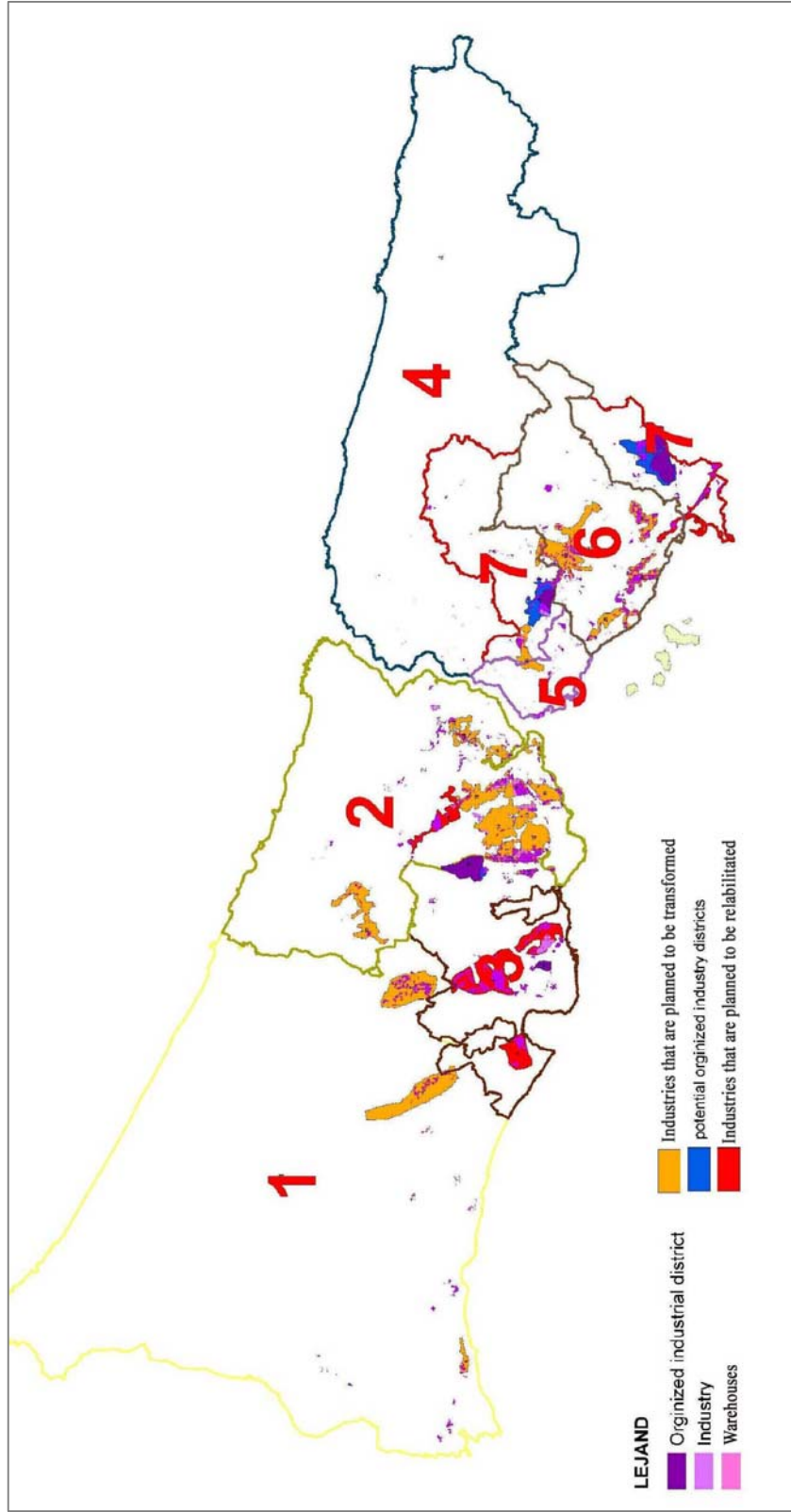


Figure 22: The zones of the study; the intersection of industries and plan decisions

5.1. GENERAL TRENDS

This part of the study evaluates the general tendency of relocations with respect to spatial (west and east side of the metropolitan area), sectoral, and firm size differences.

Initially, in table 20, we can see that approximately 29 % of total firms (883 firms) tend to relocate while the remaining 71 % (2215 firms) do not. It is clear that this low relocation tendency shows a reverse trend of deindustrialization. However, the dimension of the relocation will be clearer when the tendency is detailed whether it is towards outer parts of the city or not. Since 77% of interviewed firms locate in west side, most of the firms tend to relocate are again from the west side. Therefore, in order to analyze the impact of the spatial dimension, assessing the relocation tendency according to inner sides or zones was more meaningful. Accordingly, 28 % of west side firms tend to relocate, where this value is 31% for the east side. These fairly accurate values implies that none of the zone comes to the forefront pertaining to relocation tendencies.

Table 20: Distribution of interviewed firms in the questionnaire

	number of firms		number of firms		
	yes	%	no	%	total
WEST SIDE	657	28	1719	72	2376
EAST SIDE	226	31	496	69	722
total	883	29	2215	71	3098

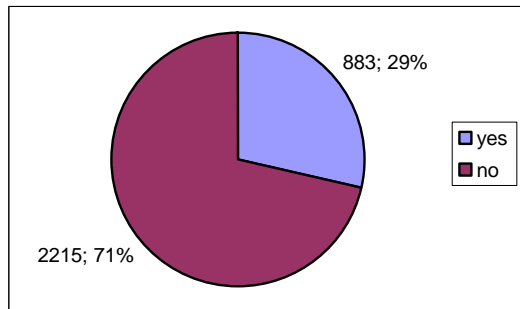


Figure 23: Tendency to relocate in Istanbul - general

5.1.1. Tendency to Relocate Based on Sectors

Table 21: Sectoral distribution of firms in the questionnaire

Sectors	number of sectors	%
wood	62	2
metal	376	12
non-classified	84	3
leather	141	5
electric	145	5
food	138	4
paper	142	5
chemicals	112	4
machine	156	5
non-metal	118	4
plastic	273	9
textile	1241	40
transportation	110	4
total	3098	100

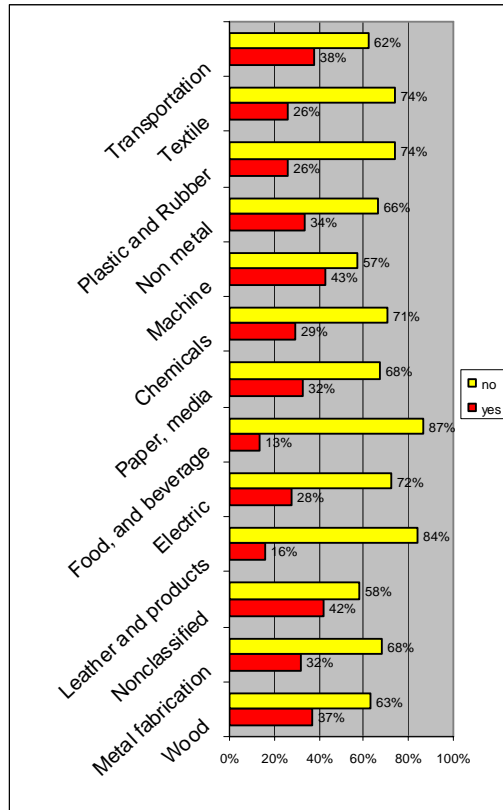


Figure 24: Tendency to relocate according to sectoral differentiation

Since the samples of sectors are chosen equal with their ratios to the total, we can say that the textile and metal fabrication sectors -the dominant ones in the questionnaire- have the highest ratios to relocate within the whole sample as can be seen in Table 21 (Figure 24).

On the other hand, these sectors have smaller ratios within themselves compared to others. Only 26% of textile sector and 32% of metal fabrication sectors tend to relocate. However, machine (43 %), transportation (38 %), wood (42%) and not classified (37%) sectors, which are more capital intensive have higher ratios.

5.1.2. Tendency to Relocate Based on Firms Sizes

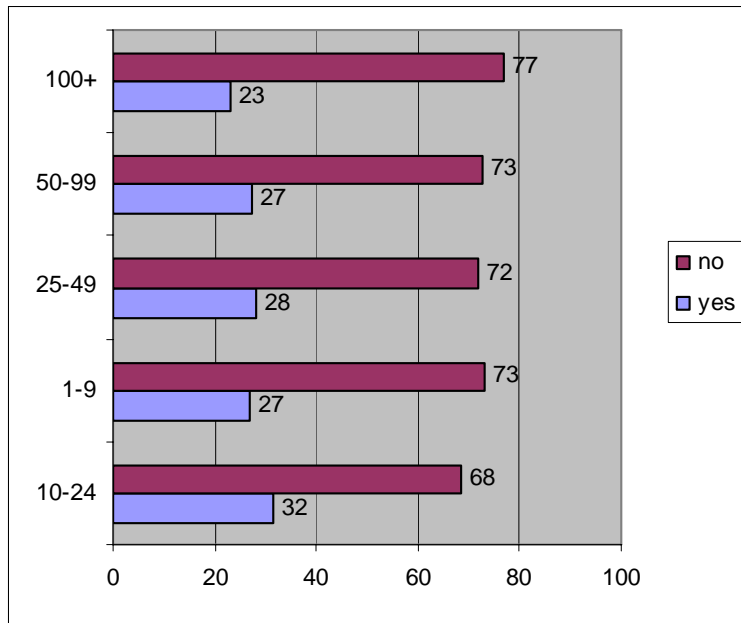


Figure 25: Ratios of tendency to relocate within firm sizes

Table 22: Distribution of firm sizes in the questionnaire

	1-9	10-24	25-49	50-99	100+	total
number of firms	897	1022	652	306	221	3098
%	29	33	21	10	7	100

In tandem with their numerical superiority in the total, small scale firms have occupied a larger amount as can be seen in Table 22. The figure 25 shows that although all relocation ratios are close, 10-24 sized firms with a share of 32 % shows a higher tendency than others.

5.1.3. Spatial Dimension of Relocation

5.1.3.1. General Evaluation of Origins and Destinations

In this part of the study, spatial evaluations of relocation tendencies are evaluated under three headings: **1. Evaluation of origins** , **2. Evaluation of destinations** and **lastly 3. Origin-destination relations**

While origins are evaluated in detail of east and west side of Metropolitan Area, destinations are classified as outer city destinations (Marmara Region cities, other cities and foreign countries) and inner city destinations (sides and zones of Istanbul). The table 23 shows the distribution of firms in each zone. According to that, naturally, 2nd zone has the highest number of firms and it has the highest ratio of relocation. However, within themselves, 5th, 6th in east side and 2nd zone in west side, have the higher values respectively. 39% of total firms in 5th zone, 35% of firms in 6th zone and 31% of firms in 2nd zone tend to relocate

Table 23: Distribution of relocation tendencies in detail of zones

	number of firms		number of firms		Total number of firms
	yes	%	no	%	
1.zone	18	23	57	77	75
2.zone	513	31	1144	69	1657
3.zone	129	20	516	80	645
WEST	657	28	1719	72	2377
4.zone	13	23	43	77	56
5.zone	23	39	36	61	59
6.zone	107	35	195	65	302
7.zone	83	27	221	73	304
EAST	226	31	496	69	722
total	883	29	2215	71	3098

This outcome can depend on the characteristic of the firms in these zones or the features of these locations' externalities. As mentioned before, 2nd and 5th zones are CBD development areas and 6th zone is the area under the impact of CBD

development. Therefore, external factors such as rent increase, labour availability etc. may become important reasons of relocation for these firms. These reasons will be studied and detailed in part 5.4. Moreover, since east side sectors are more capital intensive as mentioned in part 4.2., it is easier for them to relocate. We should bear in mind that machine, transportation and non-classified sectors have higher relocation tendencies and most of them are located in the east side since their dependency on labour or place is less than the others.

Secondly, we have mentioned the destination dimension. As it is shown in the table below, 87 % of firms tend to relocate within inner city, whereas the remaining 13 % prefers outer city. In inner city destinations, 2nd zone comes first within the total, where 6th zone follows it. (Figure 27) Here, we should ask an important question: Why the dominant zone of origins come to the fore as one of the dominant destinations again? This may be due to the firms' reluctance of not to relocate further, which means the 2nd zone is the most concentrated area of industry and relocations occur within the zone or from the nearer zones. Or because there may be high number of relocations from other zones to the 2nd zone

Table 24: Inner and outer city destinations of firms (Istanbul general)

	number of firms	%
Istanbul inner	768	87
Istanbul outer	115	13
total	883	100

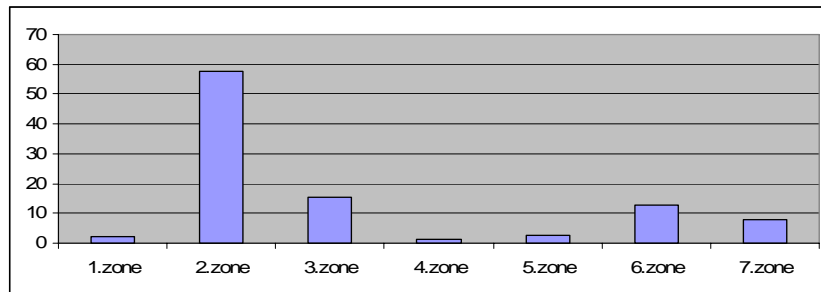
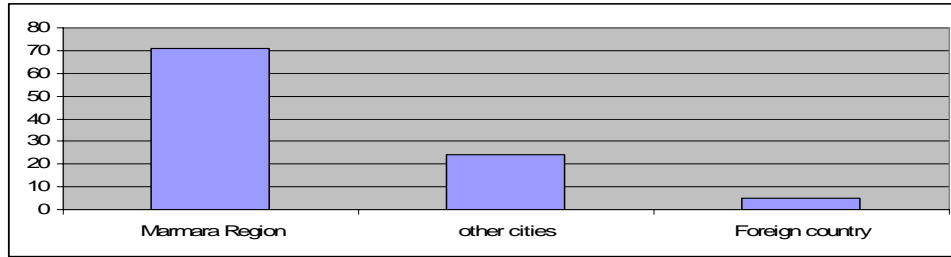


Figure 26: Inner city destinations (Istanbul general)

On the other side, as the distance gets longer in outer city destinations, ratios of relocation get smaller. As seen in the figure below, Marmara Region has the highest ratio about 70 % then comes the other cities and outer country destinations follow them with the lowest ratios. Gebze, Corlu, Tekirdag and Izmit that surround the city come to the fore among Marmara Region destinations. Again, we can see Duzce as an industrial developing area with the highest ratio. Therefore, we can say that all these outcomes support the relocation tendency to nearer places.



Other cities		Marmara region		Foreign country	
Adiyaman	4	Adapazari	4	Kirgizistan	20
Ordu	4	Balikesir	3	Rusya	20
Ankara	4	Corlu	12	Almanya	20
Düzce	40	Gebze	61	Misir	20
Gaziantep	4	Izmit	5	Ukrayna	0
Maras	4	Kocaeli	1	Bulgaria	20
Malatya	8	Tekirdag	9		0
Sivas	4	Yalova	1		0
Sanliurfa	4	Bursa	1		0
Trabzon	4	Canakkale	1		0
Zonguldak	8		0		0
Kars	4		0		0
Kastamonu	4		0		0
Nevsehir	4		0		0
Total	100		100		100

Figure 27: Outer city destinations (Istanbul general)

5.1.3.2. Origin –Destination Relations

Until now, we tried to determine the origins and destinations of relocations in general. However, the relations between can serve to estimate the distance capacity of relocations and the tendency of industrial geography of the city.

Below figures indicate the inner zone based destinations in pie-charts. The first figure shows the inner city destinations, where the other one shows outer city ones. The relocations from all zones are mostly through the same zones or through the same side in which they locate. If we elaborate the tendency of dominant zones of relocation in details, we encounter 5th, 6th and 2nd zones. 2nd and 6th zones have similar tendency, where both generally prefer the same zones they locate or nearest zones. However, 5th zone shows a different tendency. There is no dominant zone with distinct value for it. It prefers all the zones usually nearer to it with close ratios.

On the other hand, with respect outer city destination dimension, Marmara Region comes to the fore for all zones except 4th and 1st zones. Because 4th zone bears the tendency of “other cities” destination with the value of 100 %, where the situation for 1st zone is 50 % Marmara Region and 50% other cities. Both zones are located at the skirts of the city, where they have larger plant availability. This shows their convenient situation for large plant dominant firms. Therefore, the firms in these zones may be more suitable to get decentralized through other cities due to their geographic positions and structural differentiations. Besides, only the 3rd zone shows the tendency of foreign countries destination, wherein the industry is most concentrated.

To summarize, it can be said that firms are generally show tendency to relocate nearer locations in both inner and outer destinations rather than further ones. This outcome may show the continuing trend of today’s industrialization tendency. As mentioned in part 4.2, while traditional industry centers are loosing their industrial power, their surrounding cities are industrializing at the first hand. Consequently, Marmara Region bears the most superior potential for new industry centers as it is now.

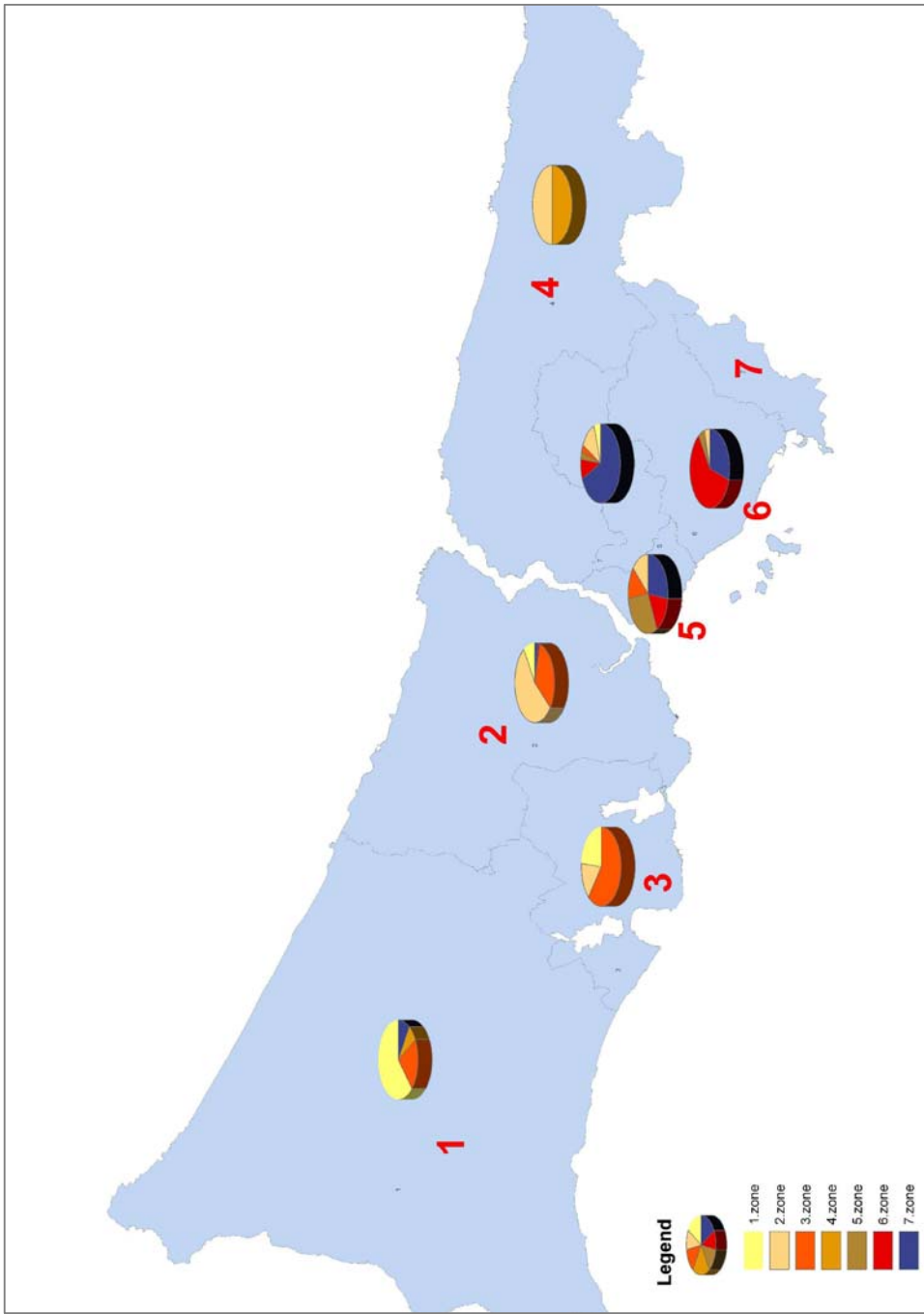


Figure 28: Origin- inner city destination relations

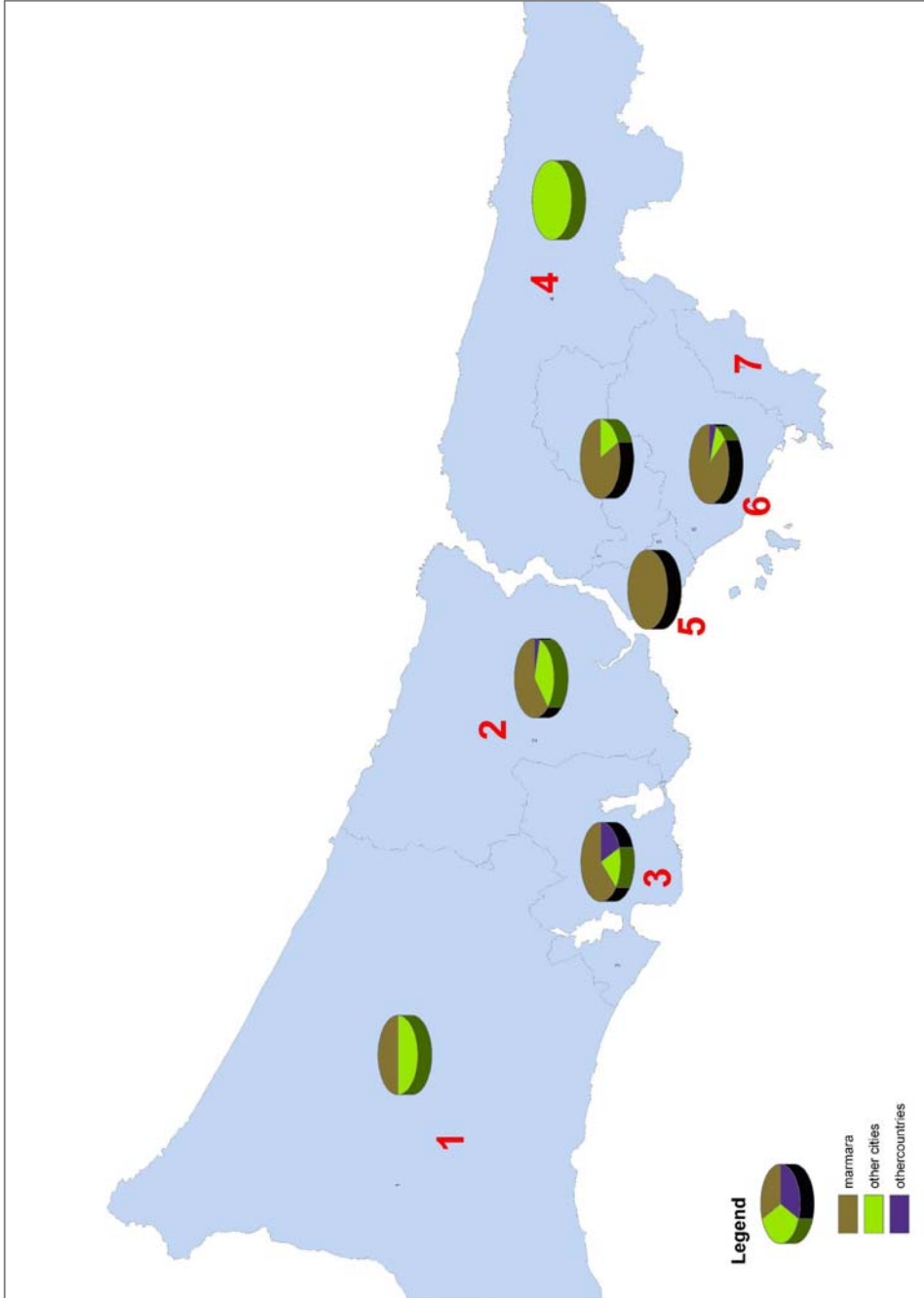


Figure 29: Origin- outer city destination relations

5.2. RELOCATION TENDENCY BASED ON SECTORAL DIFFERENCES

5.2.1. Evaluation of Origins

The second step of the study of spatial tendency will be detailed according to the sectors. The samples of sectors for the questionnaire were chosen from the district, due to the ratios of the sectors in the districts. This enabled the evaluation of the relocations according to the dominant sector of that zone.

Table 25 shows the sectoral distribution of the firms in the questionnaire and the Figures 31-37 show the tendency of the firms located within inner zones.

If we begin with the 1st zone, we can see that textile and plastic sectors are dominant here with a share of 20% and metal fabrication and transportation sectors follow them. Nevertheless, paper, chemicals and non-metal sectors have higher ratios of relocations while the dominant sectors, textile and plastic sectors have the least ratios of 13%. On the other hand, electric and non-classified sectors completely do not tend to relocate.

In the 2nd zone, textile sector comes first with a distinct value of 49% among total firms. However, all sectors, except non-classified, have smaller ratios of relocation. Non-classified sector has the highest ratio with 53 % but it amounts only 3 % of the total in the zone. Additionally, machine, chemicals and wood sectors have comparatively higher values. On the other side, 29 % of the textile sector, the dominant sector, tends to relocate.

In the 3rd zone, textile sector again has the highest share with 41 %. Then metal fabrication and plastic sectors follow textile sector respectively with 13 % and 12 %. However, they have very small ratios of relocation within themselves. On the other side, transportation (43 %) and wood (50 %) sectors have the highest ratios but these sectors don't have important shares in the overall sectoral share. Transportation sector has a share of 2 %, where wood sector has 1 % among total firms.

In the 4th zone, textile, non-metal, metal and food sectors are dominant with closer values. However, they have small ratios of relocation; even food sector completely does not tend to relocate. On the other side, leather and non-classified sectors have 100% to relocate. But similar to other zones, these sectors have 2% share of total.

In the 5th zone, similar to 2nd zone, textile sector has an overwhelming share with 41 %. Then, wood and food sectors come with a share around 12 %. Different from other zones, 50 % of textile sector, the dominant sector, tend to relocate. Then, there is the wood, where 43 % tend to relocate but food sector completely does not tend to relocate. Besides, metal sector has higher ratio of relocating than not tendency. Chemicals want to move completely from the zone. On the other hand, electric, non-metal and plastic do not have a tendency of relocation. However, all of these sectors have a small share in the overall sectoral share of the zone.

In the 6th zone, metal fabrication sector has superiority with a share of 24 % and textile and plastic sectors are the other dominant sectors with lower values. Similar to other zones, these sectors have smaller ratios of relocation. Respectively, metal fabrication has 41 %, textile sector has 23 % and plastic sector has 31 %. On the other side, non-classified and machine sectors have higher ratios of relocation than not tendency. Reversely, food and leather sectors completely do not tend to relocate.

Lastly, within the 7th zone, similar to 6th, metal fabrication is the dominant sector with a share of 18 %. Then, textile and electric sectors follow it with shares of 17 % and 10 %. Except non-metal sector, all of these sectors have very small ratios of relocation. 50 % of the non-metal sector shows a tendency of relocation. On the other hand, food and leather sectors completely do not want to move from the zone.

All of these tendencies portray a general industrial landscape of the zones. It can be said that, there is more tendency to relocate in east side firms than the ones located in the west side. In each zone, dominant sectors do not have high ratios of tendency of relocation. Only in the 5th zone, textile sector has 50 % value of relocation. On the contrary, sectors that have small shares among the overall sectoral share such as

chemicals, machine, transportation and non-classified sectors have higher tendency of relocation. These sectors are capital intensive and mostly located in the east side of the metropolitan area. As mentioned in the former part of the chapter, 5th, 6th and 2nd sectors have higher ratios and contain sectors with higher relocation tendencies. This can be explained with the impact of CBD development over these zones. On the other hand, other zones have smaller values of relocation for each sector. Even, in each zone except for the 3rd one, some sectors do not completely tend to relocate. 1st and 4th zones that are located in the skirts of the city are in tendency to keep their dominant sectors. Even all the sectors have very small ratios of relocation, where these zones are the development areas of the city and firms can find the large areas that they need. Again, in 6th and 7th zones that can again present large areas and more technological and capital intensive environment, there are two main sectors -food and leather sectors- that have no tendency of relocation..

Table 25: The sectoral distribution in the questionnaire in the zones

	wood	metal	non-classified	leather	electric	food	paper	chemicals	machine	non-metal	plastic	textile	Transport	total
1.zone	0	8	1	0	4	4	5	5	6	7	15	15	5	75
%	0	11	1	0	5	5	7	7	8	9	20	20	7	100
2.zone	25	149	43	92	69	80	82	32	74	40	122	808	41	1657
%	2	9	3	6	4	5	5	2	4	2	7	49	2	100
3.zone	8	81	19	22	23	23	24	31	34	21	79	266	14	645
%	1	13	3	3	4	4	4	5	5	3	12	41	2	100
4.zone	3	7	1	1	0	8	2	4	1	11	2	16	0	56
%	5	13	2	2	0	14	4	7	2	20	4	29	0	100
5.zone	7	5	2	0	3	6	5	1	0	2	3	24	1	59
%	12	8	3	0	5	10	8	2	0	3	5	41	2	100
6.zone	9	71	10	2	17	10	15	14	14	21	29	60	30	302
%	3	24	3	1	6	3	5	5	5	7	10	20	10	100
7.zone	10	55	8	24	29	7	9	25	27	16	23	52	19	304
%	3	18	3	8	10	2	3	8	9	5	8	17	6	100

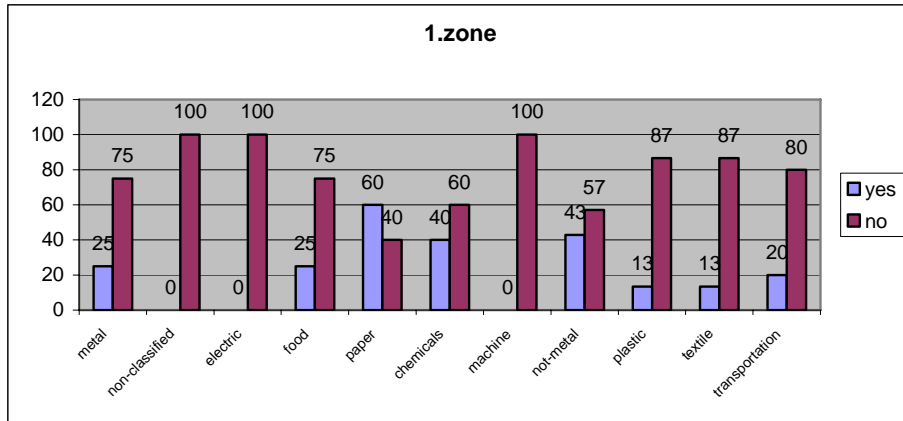


Figure 30: Relocation tendencies within sectors in 1st zone

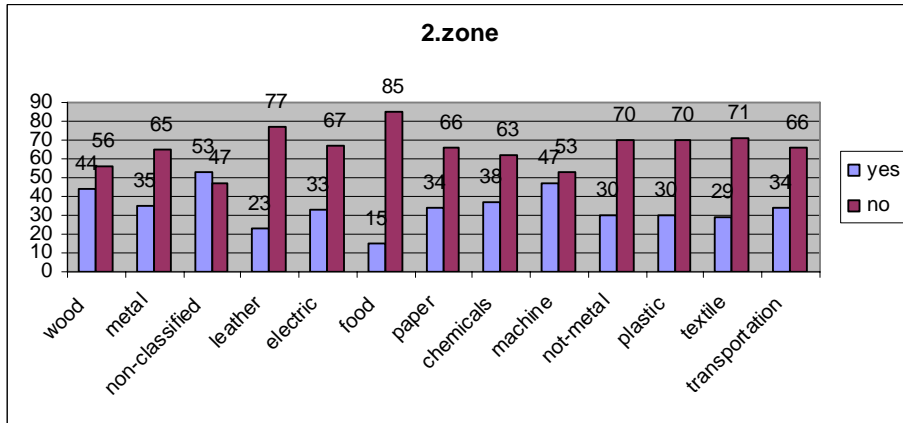


Figure 31: Relocation tendencies within sectors in 2nd zone

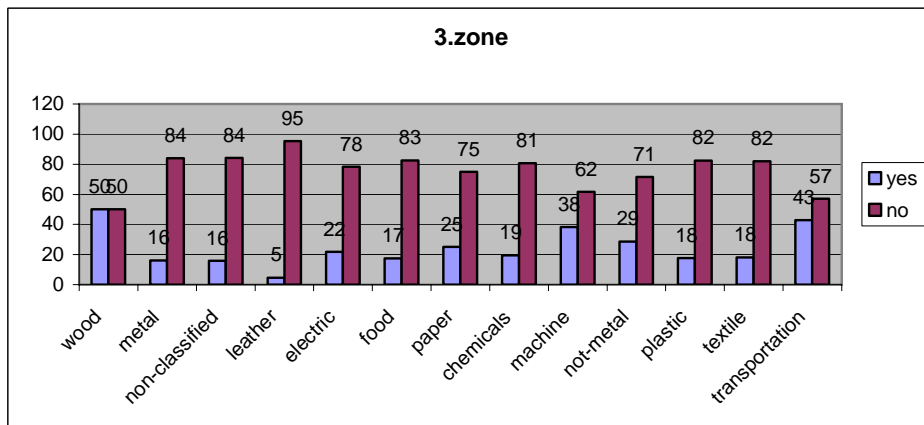


Figure 32: Relocation tendencies within sectors in 3rd zone

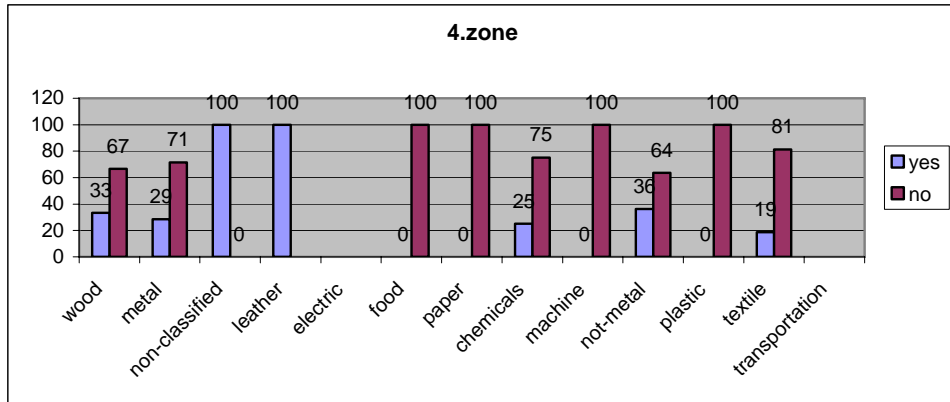


Figure 33: Relocation tendencies within sectors in 4th zone

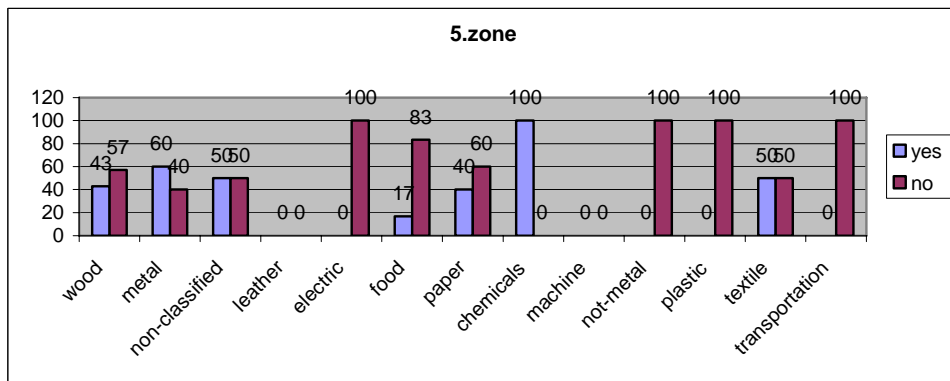


Figure 34: Relocation tendencies within sectors in 5th zone

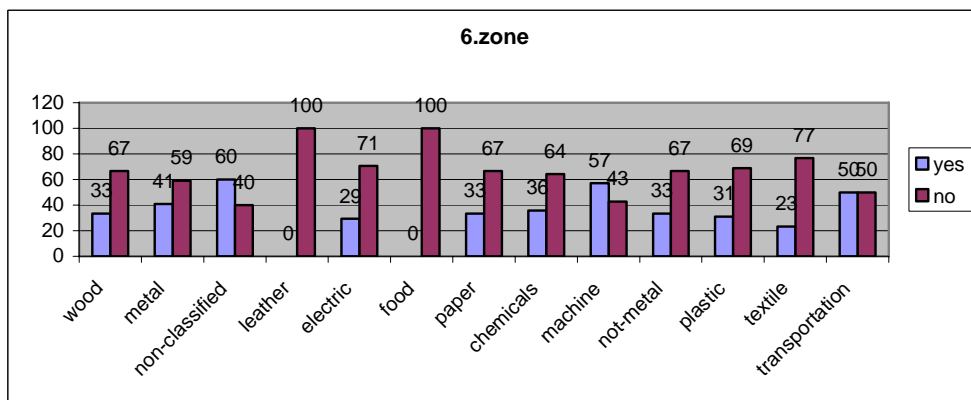


Figure 35: Relocation tendencies within sectors in 6th zone

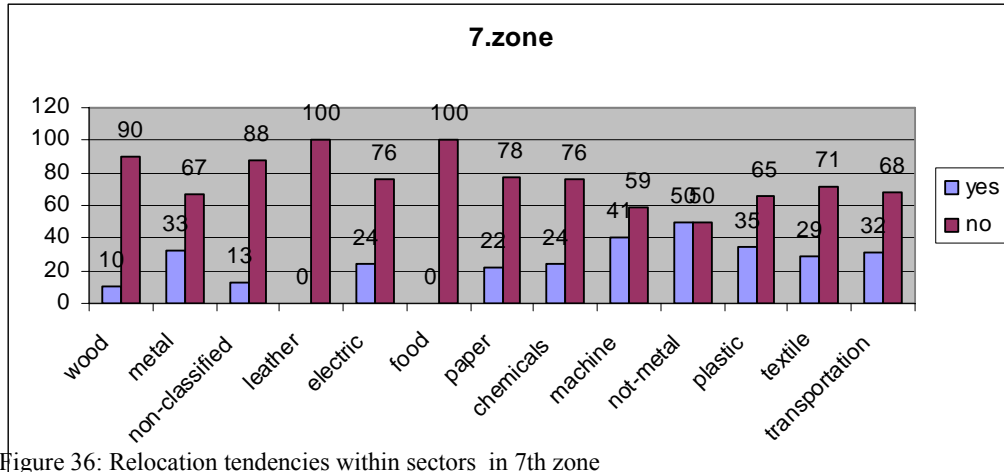


Figure 36: Relocation tendencies within sectors in 7th zone

5.2.2. Evaluations of Destinations

As can be seen in Table 26, inner-city destinations for each sector come to the fore. Then, Marmara Region follows them with nearer ratios. Only transportation sector does not want to relocate to the outer metropolitan area.

If we look at the inner city destinations, as can be seen in Figure 38, 2nd and 3rd zones have very close dominance ratios for the sectors such as textile, leather, wood, and non-metal that are concentrated in west side. This trend of relocation shows that the existing situation will keep its tendency. For example, 3rd zone, the most industry concentrated area of the west side is attracting all sectors both from east and west sides with high ratios. It is the dominant destination especially for media and press, machine sectors. Similarly 2nd zone is attractive especially for textile and leather sectors. The reason why these supplementary firms prefer same or nearer zones can be explained with the importance of proximity. Therefore, these firms prefer to be near to their sectoral beneficiaries. However, although these zones are thought to be transformed under the impact of business area development, this tendency shows the reversal trend.

Another interesting point is the high ratios of the 1st zone that is the development area of the west side. This zone is the destination point especially for machine and chemicals sectors that need larger areas in order to be located. However, this trend represents the opposite of the planning decision concerning the “transformation area”. Since this zone is the city’s development area, it is possible to see the negative impacts of industrial development there.

On the other side, in the east side, the situation is different for sectors. This means that if sectors are concentrated in the west side, mostly they prefer west side again, where east side industries prefer both sides. For example transportation sector tends to move out to 7th zone mostly, which has now been specialized in this sector and can also present larger areas or 3rd zone which can again present same opportunities. Additionally, electric, metal fabrication, chemical sectors prefer all zones with approximate ratios. This outcome can be explained with their flexibility in terms of labour demand and large area need. Since the industries located in the east side are more capital intensive and large scale, they can move more easily.

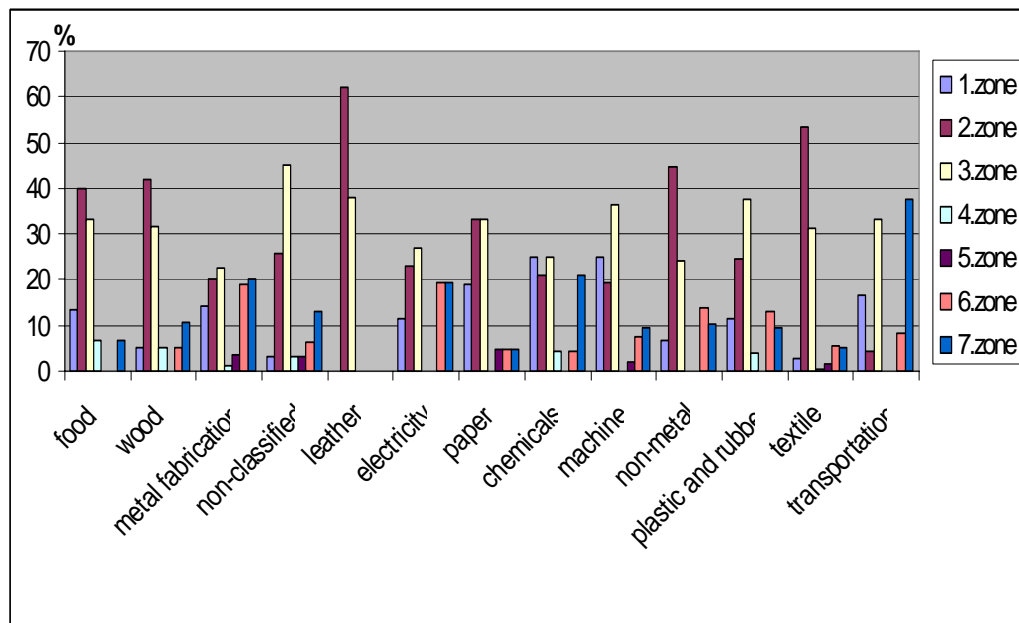


Figure 37: Inner city destinations according to sub sectors

As mentioned before, industries do not tend to go further with respect to outer city destinations, where Marmara Region cities have higher shares (Figure 39). For all sectors except leather and non-classified ones, Gebze and Duzce are the leading ones in the country. (Not classified sectors tend to relocate only in Balıkesir in terms of outer metropolitan area, where leather sector does not want to move out of city.) Tekirdag, Corlu, Bursa destinations follow them with nearer ratios. Additionally, the shares of foreign countries are too small. Only metal fabrication, non-metal, plastic and transportation sectors tend to relocate in outer countries (Table 26).

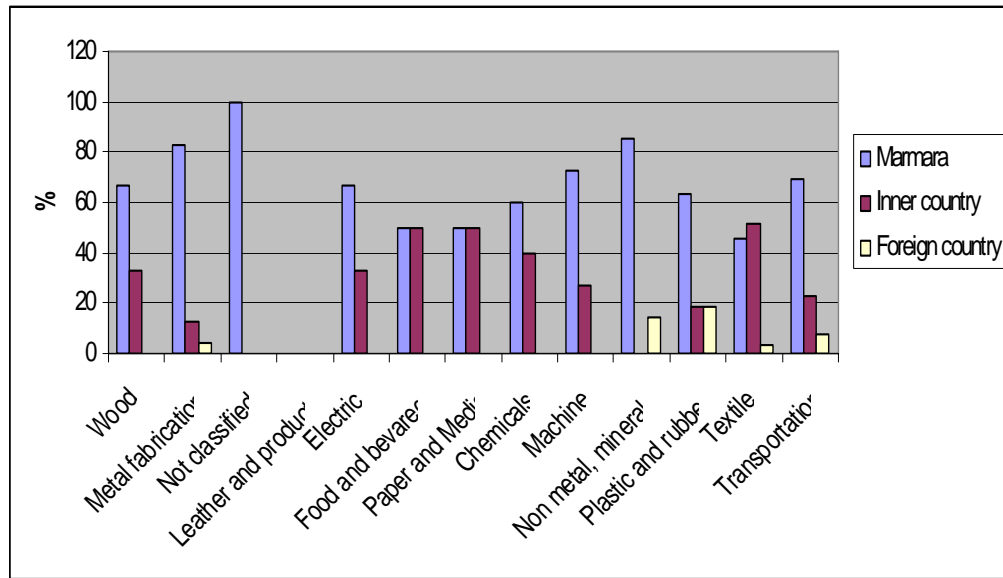


Figure 38: Outer city destinations according to sub sectors

Table 26: Ratios of Inner city- Marmara Region- Turkey and Outer country destinations of sectors

	Istanbul inner %	Marmara Region%	Inner country %	Foreign country %	TOTAL
Wood	87	9 (Gebze 50% Tekirdag 50%)	4 (Trabzon 100%)	0	100
Metal fabrication	81	16 (Gebze 58% Tekirdag 11% Canakkale 5% Corlu 5% Adapazari 5% İzmit 5% Kocaeli 5% Trakya region 5%)	3 (anywhere Istanbul 67%, Zonguldak 33%)	1	100
Not classified	97	3 (Balıkesir 100%)	0	0	100
Leather and products	100	0	0	0	100
Electric	78	15 (Gebze 50% Adapazari 17% Balıkesir 17% Tekirdag %)	8 (Duzce 67% Malatya 33%)	0	100
Food and beverage	89	6 (Gebze 100%)	6 (Adana 100%)	0	100
Paper and Media	96	2 (Gebze 100%)	2 (anywhere 100%)	0	100
Chemicals	84	9 (Gebze 100%)	6 (anywhere 50%, Ordu 50%)	0	100
Machine	84	12 (Gebze 50% Corlu 25% İzmit 13% Tekirdag 13%)	4 (anywhere 33% Duzce 33% Nevsehir 33%)	0	100
Non metal, minerals	83	15 (Gebze 67% Corlu 17% Marmara Region 17%)	0	3	100
Plastic and rubber	84	10 (Gebze 71% Corlu 14% Tekirdag 14%)	3 (Ankara 50% Duzce 50%)	3	100
Textile	90	5 (Gebze 33% Corlu 27% Bursa 7% Adapazari 7% Tekirdag 7% Yalova 7%)	5 (anywhere 24%, Duzce 24% Adiyaman 6% Anadolu 6% Maras 6% Kars 6% Malatya 6% Sivas 6% Zonguldak 6%)	0	100
Transportation	69	21 (Gebze 100%)	7 (Duzce 67% Kastamonu 33%)	2	100

5.3. RELOCATION TENDENCY BASED ON FIRM SIZES

5.3.1. Evaluation of Origins

In tandem with the general tendency, small scale firms (1-9 and 10-24 sized) are dominant throughout all zones. However, if the relocation tendencies according to firm sizes are examined in each zone, it is interesting that the firms in west side have very similar and small ratios of relocation. Conversely, this situation is different for east side firms.

Table 40 and Figures 41-47 show the distribution of firm sizes and their relocation tendencies according to the zones. Accordingly, in the 1st zone, 1-9 and 10-24 sized firms are dominant, which is followed by 100+ and 25-49 sized firms that have relatively high shares within the total. However, the dominant firm sizes have small ratios of relocation (about 25%), where 25-49 sized firms have the highest value with 36 %.

In the 2nd zone, similar to 1st one, 1-9 and 10-24 sized firms keep their dominancy. Here, comparatively all firms have relatively higher and close relocation tendencies, where 10-24 and 100+ sized firms have the highest ratios with 33 %.

In the 3rd zone, the share of different sized firms have very close shares in the total. This means that the small and large scale firms are mixed up in this region, where all have very small ratios of relocation.

In 4th zone, 1-9 sized firms have superiority with a share of 45 % in the total but it bears 19 % relocation tendency. On the other hand, 100+ sized firms have no tendency of relocation. Besides, 42 % of 25-49 sized firms show tendency of relocation and all 50-99 sized firms prefer to move out of the zone.

In 5th zone, again 1-9 and 10-24 sized firms are dominant. Yet, they do not tend to relocate, where 50-99 and 100+ sized firms have higher values of relocation.

Comparatively, similar to sectoral relocation, this zone has the highest relocation tendency based on firm sizes.

In 6th and 7th zones, shares of relocation tendencies with respect to firm sizes are similar to the 4th zone except for 50-99 sized firms, where they show 50 % tendency in the 6th zone and 27 % in the 7th.

Generally it can be said that, while large scale firms show more tendency to relocate, small scale firms are more dependent on their location for different reasons. This tendencies show that the west side zones are in tendency to preserve their structure of firm sizes since none of the firm sizes have high shares of relocation. However east side zones are generally inclined to keep its structure of small scale firms while large scale industries tend to relocate. Since large scale firms (100+) in 4th, 6th and 7th zones have 100 % tendency of relocation

Table 27 : Distribution of firm sizes in the zones

	1 9	10 24	25-49	50-99	100+	total
1.zone	25	19	12	6	13	75
	33	25	16	8	17	100
2.zone	471	577	358	163	88	1657
	28	35	22	10	5	100
3.zone	146	168	164	89	78	645
	23	26	25	14	12	100
4.zone	25	13	13	1	4	56
	45	23	23	2	7	100
5.zone	21	15	13	3	7	59
	36	25	22	5	12	100
6.zone	111	115	37	18	21	302
	37	38	12	6	7	100
7.zone	98	117	52	26	11	304
	32	38	17	9	4	100

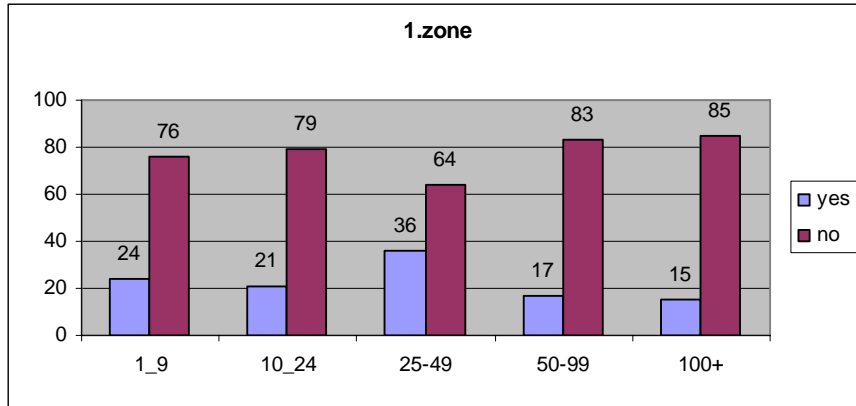


Figure 39: Relocation tendencies within firm sizes in 1st zone

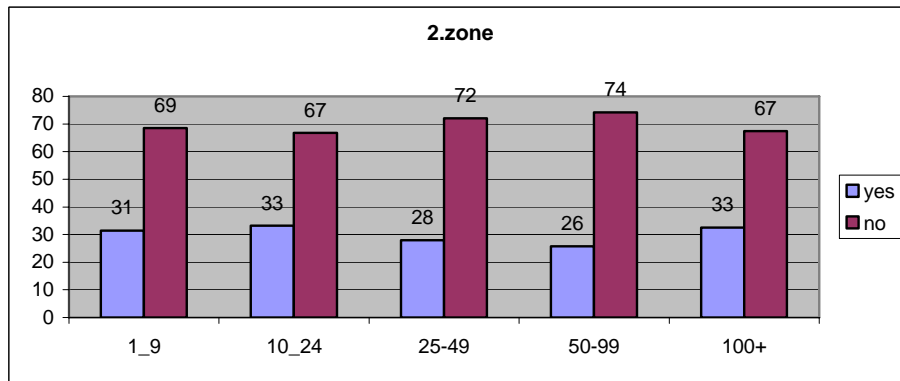


Figure 40: Relocation tendencies within firm sizes in 2nd zone

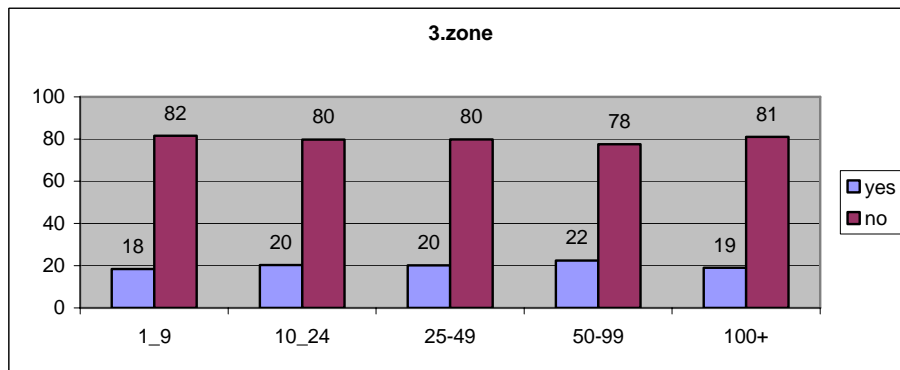


Figure 41: Relocation tendencies within firm sizes in 3rd zone

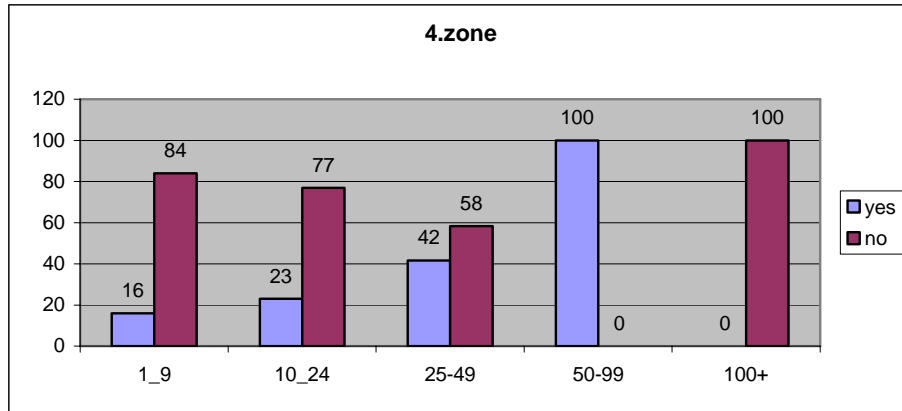


Figure 42: Relocation tendencies within firm sizes in e4th zone

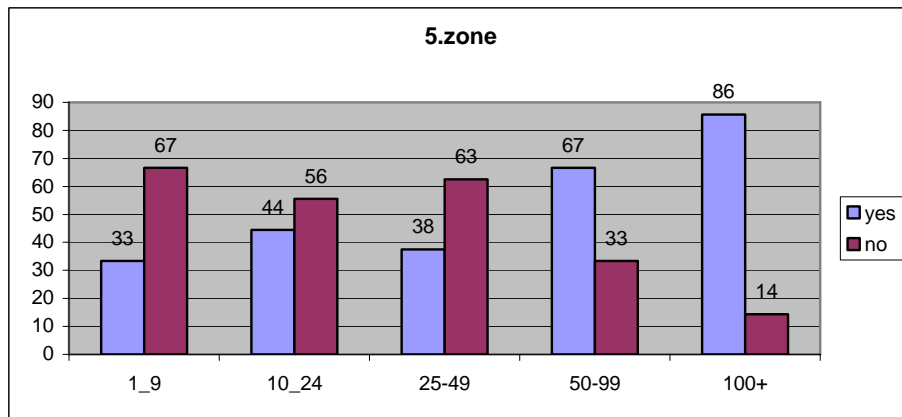


Figure 43: Relocation tendencies within firm sizes in 5th zone

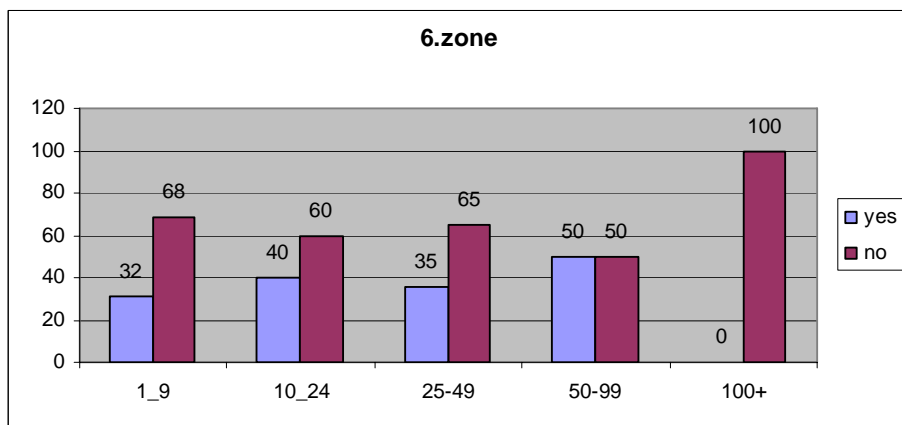


Figure 44: Relocation tendencies within firm sizes in 6th zone

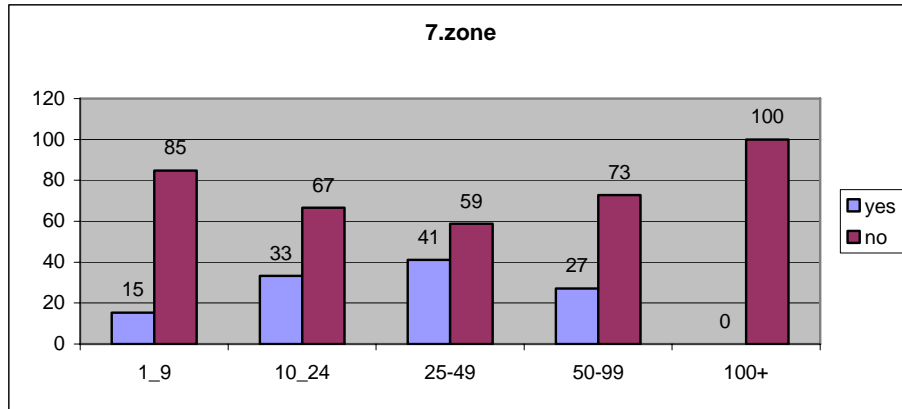


Figure 45: Relocation tendencies within firm sizes in 7th zone

5.3.2. Evaluations of Destinations

As can be seen in Table 28, inner Istanbul destinations are dominant for all sized firms. Below figure shows the distribution of these destinations. Accordingly, 2nd zone is dominant for each sized firm. This trend is again contrary to “transformation” trend envisaged for the 2nd zone. 3rd and 6th zones follow with lower ratios. As the scale of firms get larger, the tendency of relocation to 6th and 1st zones gets stronger. Similarly, large scale firms do not show tendency of relocation to 1st and 5th zones. This may be due to the large scale firms’ preference of outer zones for their larger area need and for the existing organized industrial sites in those areas

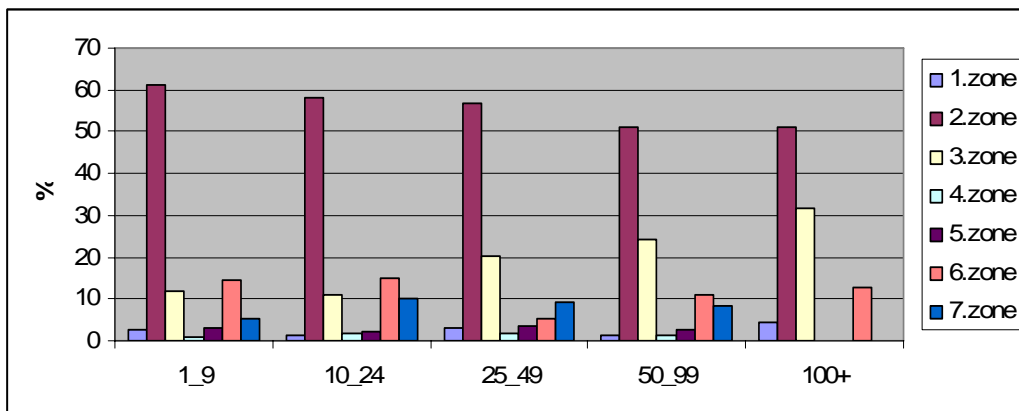


Figure 46: Inner city destinations according to firm sizes

On the other side, if the outer destinations are compared within themselves, Marmara Region is the dominant for all sized firms but we can't say that there are no differences, where it has higher values for 100+ and 10-24 sized firms (Gebze and Corlu come to the fore in Marmara Region with the highest ratios.) Besides, all firms have again close ratios for the other cities in the country, where 100+ sized firms have the lowest rate. Generally, they don't state a certain destination, where they mostly point out Duzce as the preferred destination. Only 1-9 sized firms prefer further locations than Duzce, for instance Ankara with a share of 20%.

In addition to these outcomes, we can state that only 1-9, 10-24 and 100+ firms tend to move out to foreign countries. These indicators strengthen the outcome of general destination evaluation, where industries mostly prefer nearer locations rather than further ones (Table 27).

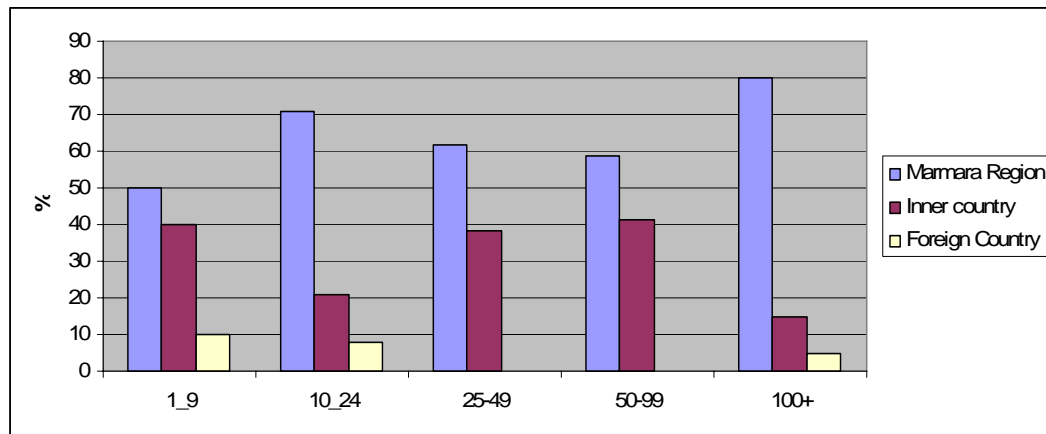


Figure 47: Outer city destinations according to firm sizes

Table 28: Ratios of Inner city- Marmara Region- Turkey and Outer country destinations according to firm sizes

scale of firms	Inner Istanbul	Marmara Region	Inner country	Foreign Country	total
1_9	94	4 (Corlu 25% Gebze 25% Balıkesir 13% Marmara 13% Tekirdag 13% Trakya 13%)	3 (anywhere out of İstanbul 20%, Ankara 20%, Kastamonu 20% Malatya 20% Sivas 20%)	1	100
10_24	89	8 (Gebze 81% İzmit 7% Tekirdag 7% Yalova 4%)	2 (Düzce 25% anywhere out of İstanbul 13%, Malatya 13%, Ordu 13% Trabzon 13%, Zonguldak 13%)	1	100
25-49	83	4 (Gebze 59% Tekirdag 18% Canakkale 6% Corlu 6% Adapazarı 6%)	3 (anywhere out of İstanbul 42%, Duzce 17% Adiyaman 8% Anadolu 8% Kars 8% Nevsehir 8%)	0	100
50-99	77	20 (Gebze 50% İzmit 13% Corlu 13% Adapazarı 6% Balıkesir 6% Bursa 6% Tekirdag 6%)	14 (anywhere out of İstanbul 33%, Duzce 33%, Zonguldak 33%)	0	100
100+	65	31 (Gebze 50% Corlu 40% Adapazarı 10%)	6 (Duzce 63% Adana 13% Gaziantep 13% anywhere out of İstanbul 13%)	2	100
TOTAL	87	9	4	1	100

5.4. REASONS TO RELOCATE

There are many different reasons of relocations that stem from the structural factors of industries or environmental factors such as the absence of infrastructural facilities, agglomerations facilities, locational externalities, monetary problems etc. However, what is common to all firms is their aim to make their benefits maximum. Therefore, they tend to move out to places where they can success this. In the questionnaire, “What conditions drive you to relocate?” has been asked and the answers are grouped into nine headings:

1. Labour availability
2. Property costs
3. Proximity to resources
4. Proximity to market
5. Planning decisions
6. Facilities of organized industry area
7. Proximity to sector
8. Transportation facilities
9. Feasibility of area (plant, water, season etc.)

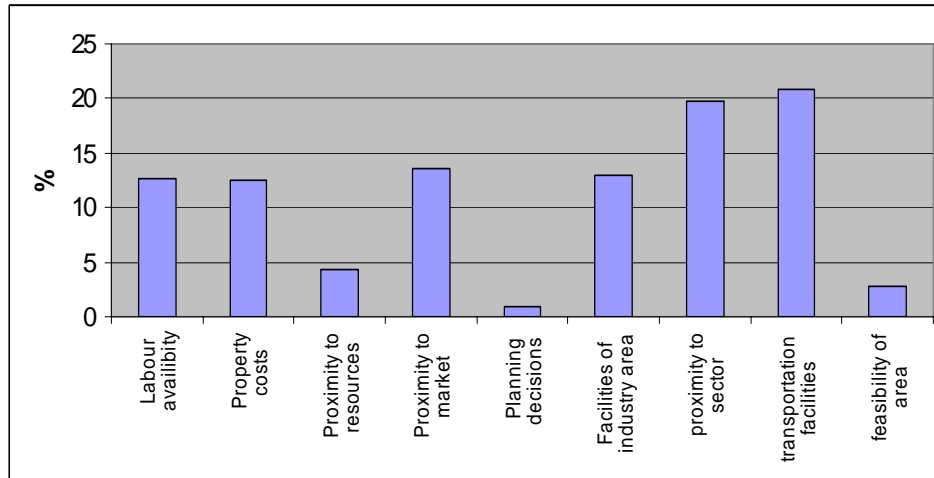


Figure 48: Ratios of reasons to relocate (Istanbul general)

As illustrated in the above figure, “transportation facilities” has the highest ratio within the overall. It is obviously true that the better transportation facilities mean the decreasing costs for industries. The development of motorways played the main role for the industry development orientation in Istanbul. However, with rapid urbanization of the city and increasing population, transportation facilities started to be insufficient. The dependency to transportation facilities certainly depends on the structure of the industry, where dependency to motorway is more in textile sector compared to transportation.

The second important reason is the “proximity to sector” since all sectors prefer proximity to other sectors, from where they can get benefits of agglomeration facilities. As mentioned in part 4.2, firms in Istanbul are randomly developed in the city and practically there is no sectoral agglomeration.

Subsequently, “proximity to market”, “labour availability”, “property costs” and “facilities of industry area” come as another important reasons with close ratios. All of these reasons correspond to an absence of industries’ various needs. First of all, it

is widely known that in Istanbul, the importance of “proximity to labour” stems from the dominance of labour intensive firms in the economy. Secondly, since most of the firms are renters (73% of industries are renters)⁶⁶, they prefer their own properties to decrease costs. For the same purpose, “proximity to market” has a higher ratio. Lastly, “facilities of industry area” stems from the absence of infrastructures and organizational facilities. Since there are just a few organized industrial sites and they do not work with full capacity.

On the other hand, contrary to these important factors, “planning decisions”, “feasibility of settlement area” and “proximity to resources” have the smallest ratios. As mentioned in part 4.2., the plans were not applicable until now due to the uncontrollable city development, authorization problem, superior power of industry in Istanbul and Turkey economy, increasing rents etc. Therefore, industrial development oriented the city’s development rather than plans.

Thus, it can be claimed that the internal factors depending on the structures of industries are more effective on firms rather than the environmental factors. In other words, their self interests and needs are the main guidance of their relocation tendencies..

5.4.1. Reasons to Relocate Based on Sectors

If these reasons are examined due to sectoral differentiation, it is seen that for all sectors, “transportation facilities” and “proximity to sector” are the common most important reasons. Additionally, “proximity to labour” has higher ratios for “textile”, “Food and Beverages” and “leather” sectors which are labour intensive.

On the other side, some other reasons such as “proximity to labour” can be specialized according to sectoral differentiations. Before all else, “Facilities of

⁶⁶ Exclusive, 2005,pp166

organized industry” come fore for the sectors that are capital intensive and larger area needed. (Plastic, Metal fabrication, Machine, Electric Equipment and Transportation). Because of the same reason, in former chapters it was seen that these sectors’ preferences are mostly at the skirt of area where organized industry areas locate or where they can be founded. Secondly, “Proximity to market” has higher value for leather, wood, chemicals, papers and non-classified sectors which prefer locating inner city near market area.

On the other hand; “property costs”, “proximity to resources” and “feasibility of settlement area” has comparatively low values for all sectors. But, as explained in the former chapter “planning decisions” have nearly no affect on all sectors. Even in “Paper” and “non-classified” it is equal to 0%. (Figure 50)

SECTOR	Labour availability	property cost	Proximity to resources	Proximity to market	Proximity to phasing decisions	facilities of organized trade by area	proximity to sector (agglomeration effect)	transportation facilities	Availability of cost-reducing area	TOTAL
Food and Beverage	17%	13%	4%	14%	1%	7%	11%	13%	4%	100%
Textile	14%	13%	3%	14%	1%	9%	22%	22%	2%	100%
Leather	11%	10%	4%	15%	2%	7%	24%	10%	2%	100%
Wood	10%	17%	1%	15%	1%	10%	14%	24%	3%	100%
Paper	9%	14%	4%	15%	0%	13%	15%	22%	4%	100%
Chemical	11%	13%	4%	14%	3%	11%	17%	17%	4%	100%
Plastics	10%	13%	4%	13%	1%	15%	17%	20%	4%	100%
Non-metal	13%	14%	4%	13%	1%	9%	17%	24%	3%	100%
Metal Fabrication	9%	13%	5%	11%	1%	10%	15%	10%	2%	100%
Machinery	8%	13%	9%	11%	1%	19%	20%	19%	2%	100%
Electrical equipment	13%	13%	5%	11%	1%	17%	15%	17%	5%	100%
Transportation	10%	14%	3%	10%	1%	19%	19%	10%	1%	100%
Nonclassified	9%	13%	5%	15%	0%	14%	19%	20%	2%	100%

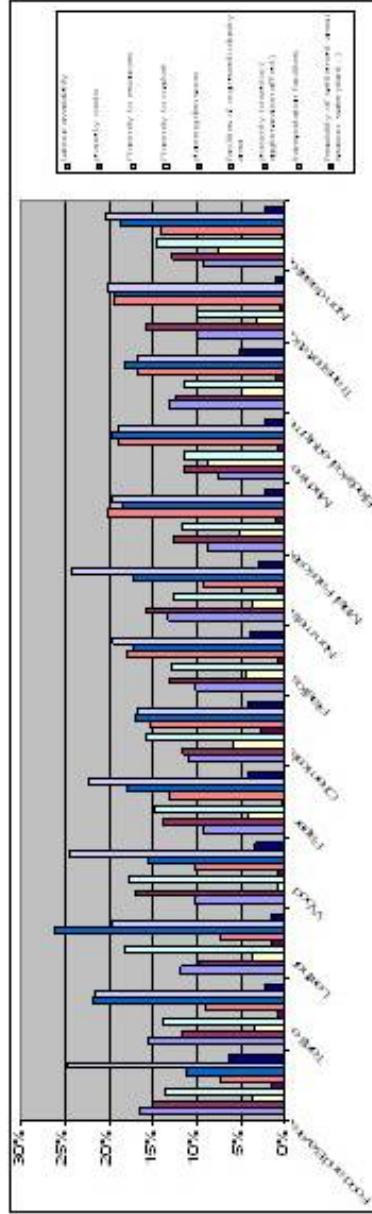


Figure 49: Reasons to relocate according to sub sectors

5.4.2. Reasons to Relocate Based on Firm Sizes

Needless to say that “transportation facilities” has approximately highest shares in all sized firms. However it is observed that as the size of industries get higher, the ratios of these reasons increase too. This can be due to the location of large scale firms mostly in the outer city. Therefore, they need better transportation facilities in order to get easy accessibility to sectors, markets and raw materials.

In the same way, “facilities of organized industries area” become more important for large scale firms. Since small scale firms mostly need smaller areas and can be located comparatively independently within the inner city. However, they still need the facilities that the organized industrial areas present.

On the other side, for 1-9 and 10-24 sized firms, “property costs” have important shares. By the same token, “property costs”, “proximity to resources” and “feasibility of settlement area” and “planning decisions” have very low values for all sized firms (Figure 51).

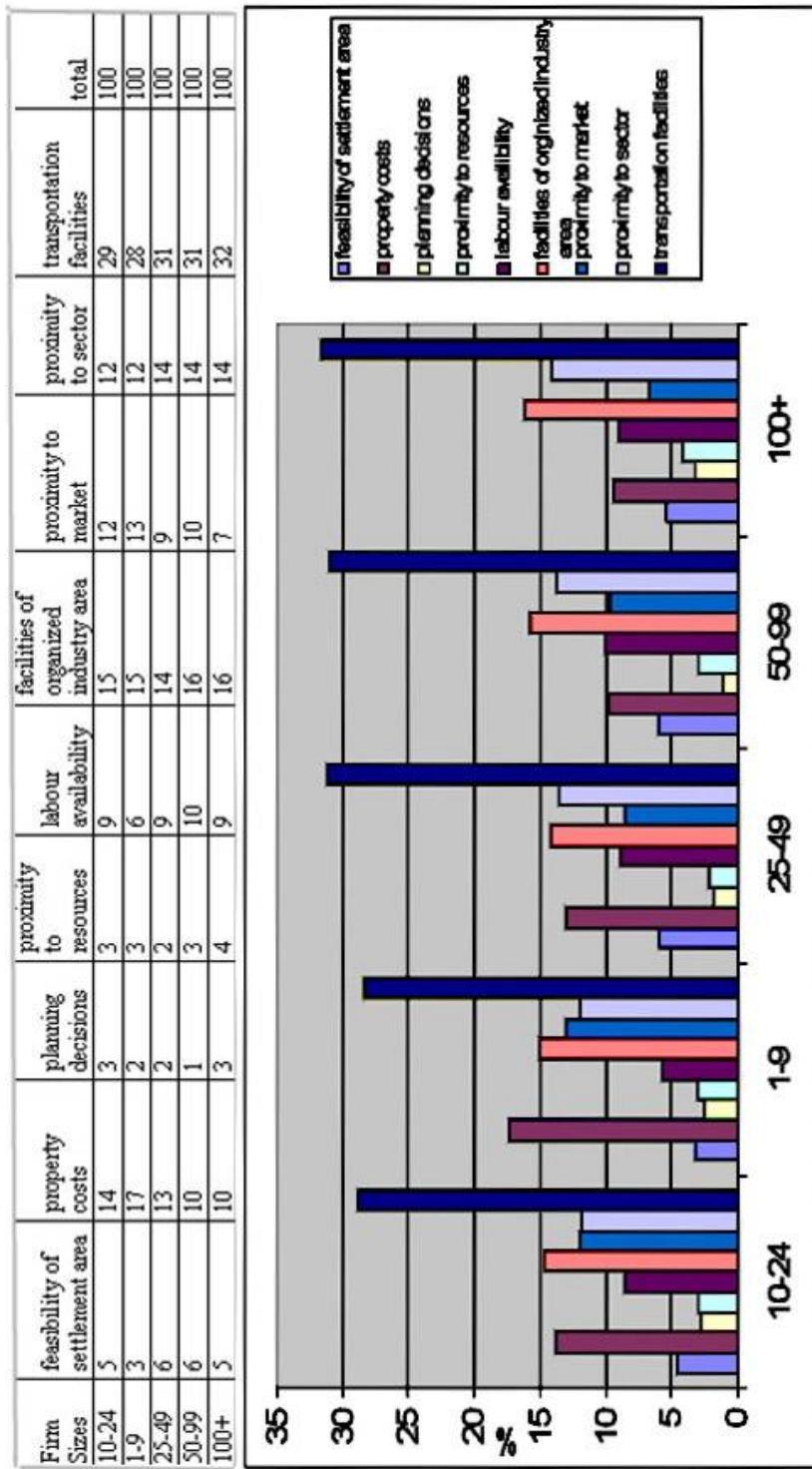


Figure 50: Reasons to relocate according to firm sizes

5.4.3. Reasons to Relocate Based on Zones

Lastly, reasons examined here are based on zones and sides of the metropolitan area. Transportation is again an important factor for all zones but not dominant. If we generalize it can be stated that “transportation facilities”, “facilities of industry area” and “property costs” have higher shares in east side, whereas “proximity to sector”, “proximity to market” are dominant in west side.

“Property costs” becomes important for 1st, 3rd, 5th and 6th zones, which may be due to the increasing rent under the impact of CBD development.

Organized industrial sites occupy a dominant portion at the outskirts areas, which are defined as the development areas of the city. These areas mostly present large plant locations, which are preferred by large scale and capital intensive industries as mentioned in the former chapter. Therefore, the dominance of “organized industry areas” in large scale firms is sensible in those districts.

“Labour availability” “Proximity to market” and “proximity to sector” have closer ratios for all sectors. “Labour availability” gets lower values in outskirts zones due to the increasing capital intensity (Figure 52)

	Labour availability	property costs	proximity to resources	proximity to market	facilities of industry area	proximity to sector	transportation facilities	feasibility of area	plan decisions	total
west	13	12	5	14	12	20	20	3	1	100
east	13	14	4	11	16	15	23	3	1	100

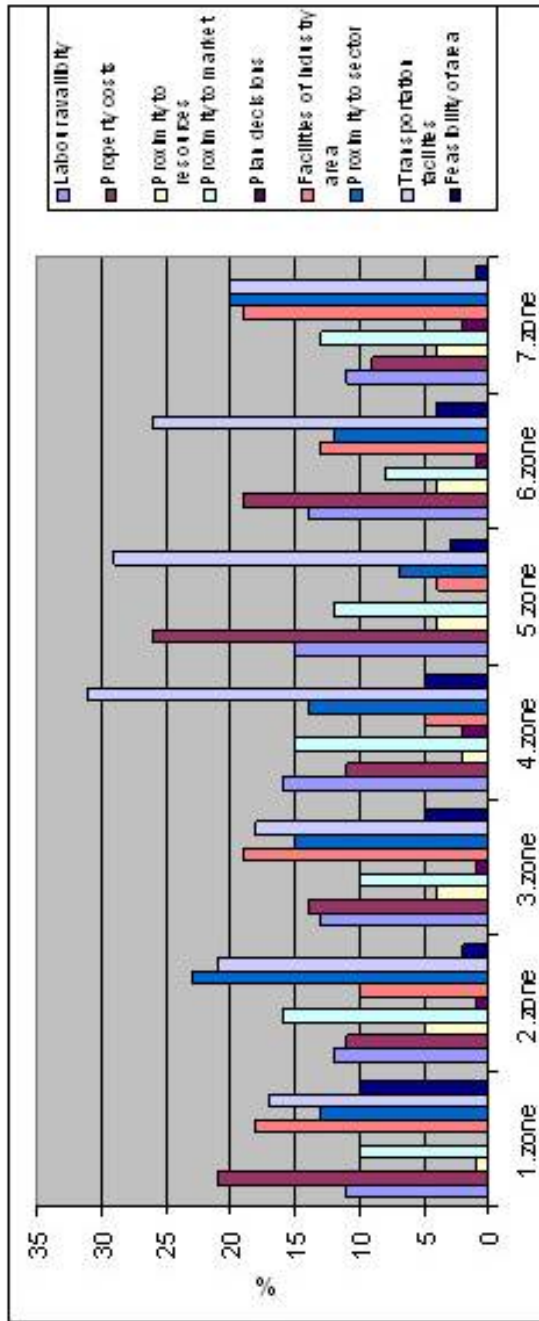


Figure 51: Reasons to relocate according to zones

5.5. GENERAL EVALUATION AND REASONS OF THE SMALL RATIO OF INDUSTRIAL RELOCATION TENDENCY OF ISTANBUL

5.5.1. General Evaluation

The case study undertaken explored the tendency of industry sector of Istanbul with respect to its importance as the industrial production center of Turkey. Comparisons with the world trend have been built and as a result, it was seen that the industry sector of Istanbul has a different tendency concerning two principal dimensions;

1. Its structure

2. Its tendency

In part 4.1.4., the structural differentiation was elaborated in details. In order to summarize, it can be stated that contrary to the world system which is experiencing a transition from industry to service sector and technology based economy, Istanbul, industry sector still possesses very important share in more traditional, small scale and low value added sectors, where 1-9 and 10-24 sized firms and textile sector are still dominant. Although the city has the richest qualified labour pool, the relations of industry sector is weak either with technology and information or with international fairs and organizations; universities and research centers in Turkey.

Secondly, with respect to the dimension of relocation, 29 % of total firms shows a tendency of relocation, where 87 % of them wants to move to inner city and the remaining (13 %) wants to go to the outer city. This is a contradictory situation in terms of “deindustrialization” inclinations.

In this study, relocation tendencies has been studied according to the sectoral differences, firm size and spatial dimensions. Firstly, it was generally determined that the capital intensive and large scale firms in sectors such as machine, transportation show stronger tendencies of relocation due to their little dependence on labour availability and larger areas. The dominance of small scale and labour

intensive firms within the inner city supports this assumption. For instance, the dominant textile sector comprises nearly 40 % of total economy but the value of its relocation tendency is just 26 %.

Secondly, in terms of spatial dimension, origins and destinations were examined one by one. In order to understand the change of industrial landscape with regard to relocation tendencies, the present situation was initially portrayed. As mentioned in part 4.2, in addition to the general dominance of small scale and labour intensive firms, there is also an important difference of industrial landscape between east and west sides of the metropolitan area. While west side firms are more labour intensive and small plant oriented (textile, plastic, leather, paper), east side firms are more capital intensive and large plant oriented (metal fabrication, transportation, chemicals). The case study part was prepared according to the zones in order to be able to examine the relocation tendency easily. While 1st, 2nd and 3rd zones locate in west side, 3rd, 4th, 5th and 6th zones are in the east side. Comprehensively, 1st and 3rd zones are the development areas of the city and randomly settled, whereas 2nd and 5th zones are business districts. Lastly 3rd, 6th and 7th zones are the ones under the impact of CBD development but mostly supported industrial areas. Since capital intensive firms are generally dominant in the east side zones, these zones bear comparatively higher tendencies. Accordingly, west side sectors seem more stable. Only the 5th zone shows a different tendency from others. While the firms in other zones have small tendencies of relocation, firms in 5th zone have relatively higher tendencies in almost all sectors -especially chemicals, metal fabrication and non-classified sectors- and large scale firms (100+). This tendency of 5th zone is convenient to its tendency to act as the business center of the east side. On the other side, it is dissimilar to the transformation aim of the planning decision concerning 2nd and 6th zones.

With regard to inner city dimensions, the areas which are now concentrated by industry are dominant. For instance, the most industrialized 2nd zone is again the most favorable destination among others. This stems from the need of “proximity to sector” or “proximity to market” as mentioned in part 5.4. (Textile industry’s preference of west side or transportation’s preference of east side). This does not

support the transformation tendency of 2nd zone due to the CBD development. Another important point is about 1st and 4th zones located in the skirt of the metropolitan area, which are attractive for capital intensive and large-scale firms. In terms of outer city dimensions, existing industry geography and the city's affect zone, taking root from industry decentralization, are expected not to transform too much. Since until now, the surrounding cities have usually developed based on the decentralization and the same destinations have become dominant again as mentioned in part 4.2.1.

Outer city destination are classified in three main headings: Marmara Region cities, other cities and foreign country destinations. Gebze comes first with relatively higher value, 40%. Then, Tekirdag (6%), Corlu (8%), and Duzce (8%) follows that are all surrounding the city. The rest of the outer destinations are mixed from the whole country such as Ankara, Zonguldak, Maras etc. (Figure 56). As a supporter indicator, there emerges possible dependencies and networking between Istanbul and these sprawled destinations. Since people and some other services, industries are supposed to move which will end urbanization or development. Therefore, networks of trading along with social and physical relations are supposed to emerge.

In the last part of the study part, the answers to why industries do not want to relocate are tried to be determined. In order to do it, the main factors for the locational preferences of firms and how Istanbul responses them were specified. Firstly, it was found that the labour intensive firms are dominant in the city, where fast urbanization and increasing population create a large labour pool for them. Secondly, since the raw materials and markets are supplied from the inner city, the firms prefer to stay there. In addition, the inconsistent government policies and low foundation costs are identified as the external factors independent of the characteristics of firms. They also facilitate and support the utilities and locational preferences of firms.

On the other hand, among the dominant reasons for the relocation tendencies, “transportation facilities “and “proximity to sector” occupy the first two row. This is

due to the random distribution of firms within the city and the insufficient transportation facilities

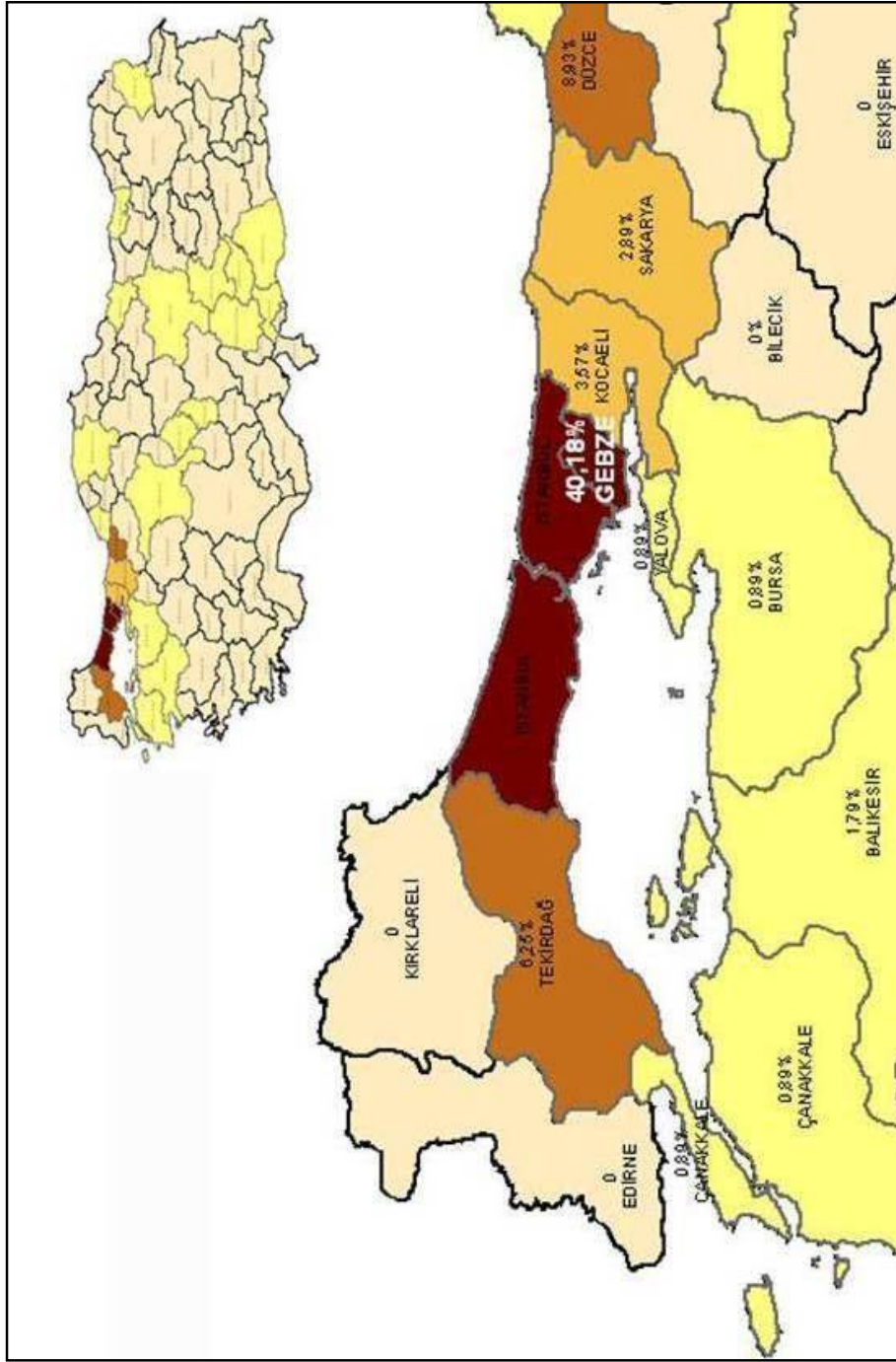


Figure 52: The ratios of outer city destinations (possible effect zones of industry decentralization)

5.5.2. Advantages of Istanbul For Firms Not To Relocate

In part 5.1., it was stated that only 29 % of firms (13 % of whom want to move out of the city) tend to relocate. The reasons for this low ratio can be grouped under two main headings: **Internal and external reasons**. While internal reasons mostly depend on structural characteristics of industry, external reasons arise from the demographic or natural characteristics of the city. Internal reasons are “labour intensity”, “size of firms”, “market, sector, raw material orientations”, where external reasons can be enumerated as “demographic reasons”, “low foundation costs”, “governmental reasons” and “infrastructural reasons”. All of these reasons have mutual relations as shown in table 29.

Table 29: The possible reasons of firms not to relocate

INTERNAL REASONS (STRUCTURAL REASONS)	EXTERNAL REASONS
<p>Structure of industries; Dominancy of labour sensitive firms</p> <p>Dominancy of small scale firms</p> <p>Structural differentiation based on locational differences</p>	<p>Demographic reasons 1.fast urbanization and population increase (Increasing migrations) 2.increasing industrial employment 3.increasing qualified and non-qualified labour availability</p> <p>“Proximity” 1.Proximity to market area 2.Proximity to sector 3.Proximity to raw materials</p> <p>Infrastructural 1. Transportation (seaport, airport...) Low foundation costs Public affects 1.unstable policies 2.multiple planning decision makers 3.subsidaries to industry sector</p>

5.5.2.1 City's Advantages That Response To Structural Diffrentiations Of Firms

According to the classification of sectors due to the locational preferences, there are four main groups of sectors:

1. Sectors depend on labour availability: Textile industry, shoes industry, stone and land industry (marble, porcelain etc), wooden industry, machine industry, electric industry.

2. Sectors depend on proximity to market: Many of food (bread, cake, macaroni etc.) and beverage sectors, textile sector, furniture sector, metal sector, paper and press sector.

3. Sectors depend on proximity to Raw material: Mining sector, few of food (sugar, meat, egg etc.) sectors, tobacco sector, wood sector, stone and land industry sector.

4. Sectors depend on agglomeration affects: Sectors that are in mutual relation of output and input or common raw materials. Therefore, their aim is to maximize their benefits by networking.⁶⁷

5.5.2.1.1 Fast urbanization and labour intensive industries

Due to the fast urbanization and increasing population of Istanbul, location within the city is more advantageous for labour intensive firms such as textile, machine, and shoes, electric etc. that have important shares in Istanbul economy.

⁶⁷

Table 30: The urban and rural population increase of Istanbul between 1980-2000

	URBAN POPULATION (%)		RURAL POPULATION (%)		TOTAL POPULATION (%)	
1980	14,81	2909455	7,3	1832435	10,6	4741890
1985	20,7	5560908	1,19	282077	11,53	5842985
1990	20,27	6753929	2,4	555261	12,94	7309190
2000	20,65	9085599	3,92	933136	14,78	10018735

Source; turkstat, 2000, www.die.gov.tr

Table 31: Industry and total employment increase of Istanbul between 1980-2000

YEARS	Industry employment	Rate of increase (%)	Total employment	Rate of increase (%)
1980	538.440	21	1.563.939	20
1985	652.044	31	1.873.597	36
1990	853.625	31	2.539.963	37
2000	1.116.126		3.471.400	

Source; turkstat, 2000, www.die.gov.tr

As mentioned in former chapters, in developing countries some centers (city-regions or metropolitan regions) come to the fore and face demographic problems. Istanbul is a good example to observe such a problem. Since population of the city is increasing too fast due to the increasing ratio of immigration. Istanbul is the main center of Turkey in terms of migration rates with a share of 19 % (Ankara is the second one with 8 % and Izmir follows it with 6 %)68, which increase its urban population rapidly. As can be seen in Table 30, while its urban population has increased from 14% to 20% between 1980 and 2000, rural population has decreased to 4% from 7%. Parallel to the increasing population, employment has diversified also. Therefore, the availability of both cheap and qualified or non-qualified labour has increased and this

68 Turkstat, 2000, Census

situation turns out to be a very advantageous situation for firms. Consequently, it can be seen in Table 31 that the industrial employment increased from 1980s onwards, parallel to total employment and population increase. If compared with London and Barcelona, it is can easily be observed that these cities conversely have kept their population rates nearly constant (Table 32).

Table 32: Population increases of Barcelona and London

years	Barcelona metropolitan region population	Years	London Population
1998	4.263.849	1981	6.805.000
1999	4.301.721	1991	6.829.300
2000	4.328.447	2001	7.172.091
2001	4.390.413	2006	7.657.300
2002	4.482.623		
2003	4.618.257		
2004	4.673.648		
2005	4.770.180		
2006	4.841.365		
2007	4.856.579		

Additionally, the existence of high number of illegal employment is another advantage for labour intensive firms. Due to the reasons such as the weakness of tax control, transforming houses to production places etc., there emerge many illegal workplaces, where an informal labour force has been employed. This means the decrease of costs for labor intensive firms.

5.5.2.1.2. Proximity to market and market oriented industries

Istanbul itself is a large market area due to its population density and it has fairly developed urban facilities. Therefore, especially for some industries such as food beverages, furniture etc. that serve to local markets, being located within the city is better and more advantageous. Besides, due to its geographical facilities, the city has good connection with other markets such as European and Asian markets.

It is known that the biggest share of market belongs to the inner Istanbul. It consists 85 % of the market, while this number for outer Istanbul is 36 %. Outer country consists only 29 %. Below figure shows the inner city market areas according to the sectoral differences.⁶⁹ Generally it can be seen that the markets of the sectors are near to where they are located. Accordingly, food, textile, wood and paper are the most dependent sectors on the city market area. These sectors are also the dominant ones with the least tendency of relocation.

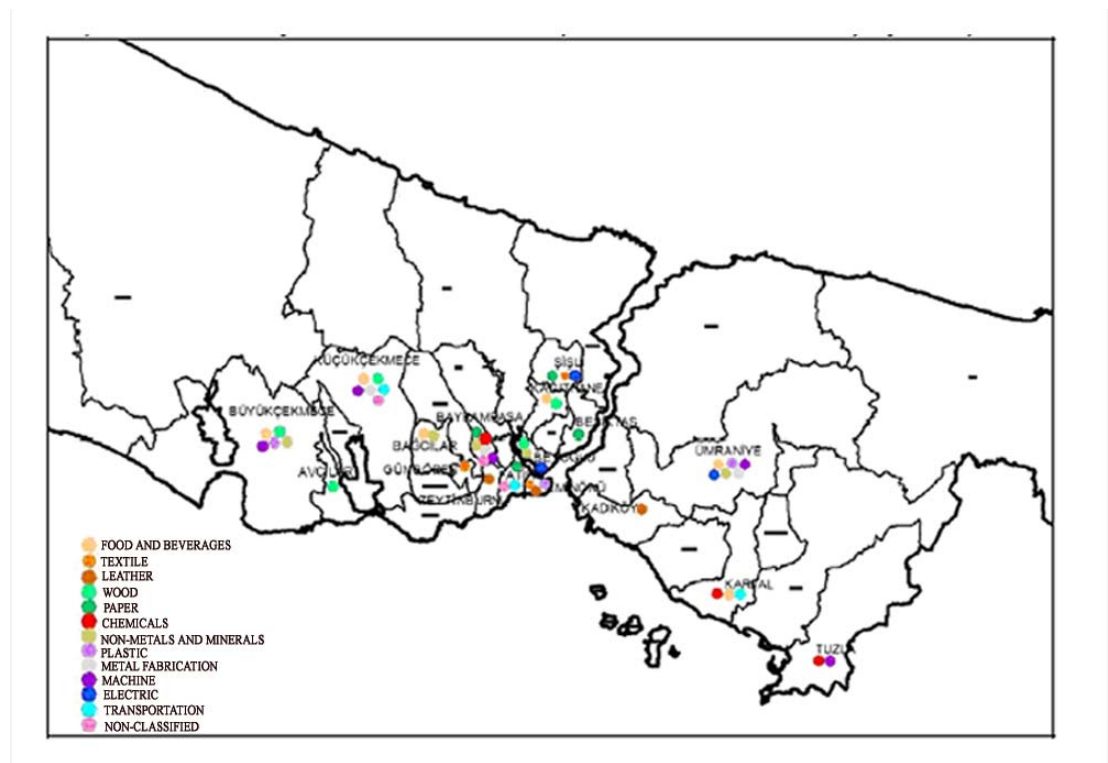


Figure 53: The distribution of markets in Istanbul Metropolitan Area

69 Bimtas, 2006, pp48

5.5.2.1.3. Proximity to Raw Materials

Similar to market area, 67 % of firms supply their raw materials from inner Istanbul.⁷⁰ The figure below shows these origins of resources according to sectors. Similar to market distribution, raw materials are again where the sector is mostly concentrated. For instance, raw materials of chemicals are in the east side, where the sector is heavily located or textile sector's raw materials are mostly supplied from the inner west side.

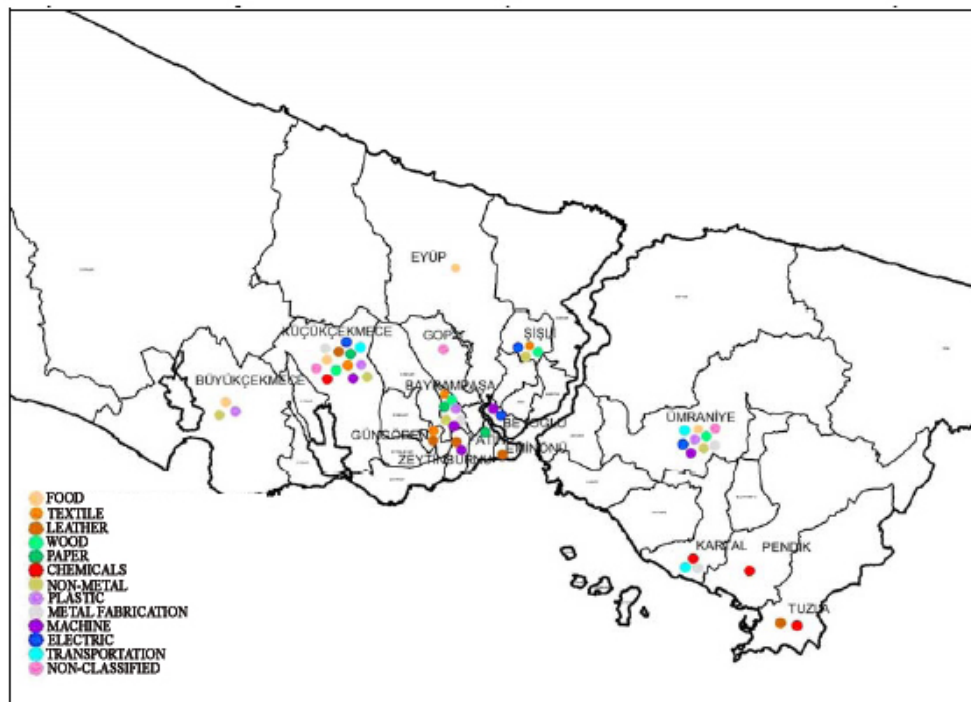


Figure 54: The distribution of raw materials in Istanbul Metropolitan Area

70 Bintas, 2006,pp49

*The figure 56 shows some sectors locational distribution to back up 5.5.2.1.4, 5.5.2.1.5. and 5.5.2.1.6

5.5.2.1.4. Proximity to market and CBD oriented industries

Some firms should be located within the city in order to benefit from the facilities of external economies such as media and press. Therefore, firms prefer being located in these areas in order to benefit from their central position. Although the rent values are increasing, all these facilities neutralize possible negative affects.⁷¹

5.5.2.1.5. Transportation facilities and waterfront or port industries

Istanbul presents water facilities as resources or port services to industries such as food process, petroleum, chemicals, and transportation. As seen in figure, these facilities are mostly located in places that are close to port.⁷²

5.5.2.1.6. Transportation facilities and industries located along motorways

Industries such as automotive or textile locate along the main axes of the city. As said before, these firms are the basic sectors orienting the city development parallel to transportation facilities as told in chapter 4.2.⁷³

5.5.2.1.7. Proximity to sectors

The opportunities of relations with the existing sectors render firms to benefit from external economies. For instance, the production of intermediate goods makes other firms to choose that location. Leather and shoes factories can be as example of that kind relation.

71 Ocakçı M., 1989, pp5

72 Ocakçı M., 1989, pp5

73 Ocakçı M., 1989, pp5

5.5.2.2. Other Advantages

5.5.2.2.1. Low Foundation Costs

The foundation costs are low especially in some places within central areas due to the external factors and their disorderly situation. This may be a reason to neutralize other negative externalities such as increasing rent values

5.5.2.2.2. Public Affects (Inconsistent Policies)

As mentioned in former chapter, the reason of “planning” gets very low importance in relocating. Inconsistency of policies can be explained as low efficiency of “planning decisions and public orientations” and “multi plan decision makers”.

Since there are many independent decision-making authorities of planning, these attempts can not be applicable. For instance, although the structural transformation is supported by the plans, investments and subsidiaries of government may independently continue to be directed to these sectors or firms. Or different authorities make different and independent policies, which extend the application period and demolish the control mechanism. The importance of industry sector in country’s economy can be as the main reason of that inconsistency.

CHAPTER 6

CONCLUSIONS

In this thesis I have defined two major dimensions of change under impacts of globalization; economic change and its spatial implications indicating that the structural transformation of the economy towards more technology based activities and increasing role of the service sector brought tendency of “deindustrialization”. Recently, many major Metropolitan Areas of the world experienced the loss of manufacturing employment and the decline in the share of industrial activities.

In the thesis, the relocation tendencies of Istanbul industry (whether it corresponds to “deindustrialization” trend or not) is explored with the help of the questionnaire survey with 3098 firms, which are asked whether they are interested to change the location of their existing production firms.

The findings indicate that 86% of total firms do not want to leave the city, if there will be no enforcement, which means that Istanbul is not going to loose most of its industry in the near future. Transformation of economic structure from industry-dominated structure to service based economy is not a strong tendency in Istanbul. In other words, contrary to the deindustrialisation movement in many major Metropolitan Areas, Istanbul will be still an industrial center in the coming decades. Table 1 presents the comparative features of transformation in industrial structure and city landscape in London, Barcelona and Istanbul. According to the table, Istanbul has a different trend in terms of deindustrialisation. Firstly, manufacturing sector has still important share in total economy. Secondly, while the low value added sectors are loosing importance in Barcelona and London, “textile” sector has

increasing share in Istanbul economy, which interestingly has the lowest ratios of relocation tendency. The the highest ratios of relocation mostly belong to more capital intensive firms, which still constitute a smaller ratio of total economy. Overall figures point to that while 29% of industries do tend to relocate , 87% of them prefer to move within the inner city. The firms interested in relocation defined nearby locations as the possible areas of relocation, indicating that possible **relocations will be bounded with the existing province boundary.**

The periphery of the existing Metropolitan Area and the neighbouring cities with industrial concentrations (Tekirdağ and Gebze) are defined as the possible inner and outer city destinations. Due to concentration of industrial activities, these cities areas are attractive. The proximity to other industrial firms, which form different clusters are the basis of the advantages of these cities. (**agglomeration affect**). It means that there will be no important changes in terms of the distribution of industry and decentralization futher than the periphery of Istanbul. This tendency is similar to Barcelona's decentralization experience and concentration of industry in outer parts of the Metropolitan Area, contrary to London, which experienced a completely different tendency of industrial firms moving from the metropolitan center to distant regions.

Another important point about spatial organization of industry in Istanbul is mixed use of the core areas covering both industry and services, while both London and Barcelona specialise different kinds of services. In these Metropolitan Areas industry sector decentralizes outer the city and and inner city specialises high value activities and special services . However, in Istanbul industry is dispersed in the city randomly and it is possible to identify the different industrial activities in the different parts of the city.

According to Sassen (1993), increasing central functions cause the rising prices of urban land in the inner-city, which facilitate the transformation of industrial areas to residential or service functions (**valorization affects**), or as happened in Barcelona and London, **government policies** play important role in decentralization of industry

sector. In Istanbul inner city industries do not want to leave their places in the . 2nd zone (including Şisli, Beyoğlu and Eminönü) in west side and 5th zone (including Kadıkoy and Uskudar) in east side are the business districts of the Metropolitan Area. Only 30% of the firms located in the 2nd zone (including Sisli, Beyoglu, Eminonu) are interested in relocation and most of them want to be located again at the same side of the city. As mentioned in former chapter this situation stems from the structure of firms (small scale firms, labour intensive firms), instable economic conditions and changing government policies.. On the other side of the Metropolitan Area,the firms in the 5th zone want to relocate their firms that points to the trend of deindustrialization. About 35% of total firms tend to relocate and the share of firms that are interested to change their place in each sector is relatively higher than other zones. Besides, destinations identified by the firms are mostly takes place in the other zones. If this tendency is supported, it will **facilitate the structural transformation of the area into a business district.**

At that point it should be noted that, all plans prepared for Istanbul aimed to move the low value added manufacturing industry out of the Metropolitan Area and use the vacant places either for the development of service activities or to to transform into areas for technology based industries. However, the findings of this study indicates that this objective is very difficult to achieve. In other words, **the plan decisions do not coincide with interests and tendencies of firms..**

In 2005 1/100.000 scale Strategic Plan brought decisions on the transformation of zone industrial areas into service functions (2nd zone and 5th zone). The organized industry areas in 3rd and 7th zones are protected as they are and the standards of other industries that will stay in the inner city are to be upgraded with the help of several mechanisms. The industries in 6th, 4th and 1st zones are also indicated as transformation zones In terms of the destinations of industries the cities, Tekirdağ and Gebze are idenfined.

However, the findings do not support the plan decisions. The interest of almost all of the firms do not comply with the plan decisions except 5th zone. The firms in 3rd, 6th

and 7th zones are defined the inner city locations as their main destinations. The peripheral zones; 1st and 4th zones are attractive for large-scale firms. On the other hand, the places assigned as destination points in these plans are the existing industrial cities in close proximity. This situation supports the importance of “proximity to related and supporting industries” in relocation.

Shortly it is possible to say that, the main objective of the plan is against the existing trends. In fact, Istanbul faces a different situation, which is quite different than the planning decisions that supported an existing trend of decentralization in Barcelona and London. This situation brings an important question related to the strength of the planning tools and decisions “Are they strong enough to change the existing trends and enable to convince the manufacturing entrepreneurs to comply with the planning decisions.

Table 33: Comparison of industry economy and its spatial reactions in Istanbul with Barcelona and

BARCELONA	LONDON	ISTANBUL
from industrial cityknowledge city	from port city one of the most important financial center	Industry center of its country
industry lost weight;traditional sectors have been replaced by innovative products and produces ; Dominant Sectors; Chemicals, Pharmaceuticals, rubber,publishing and printing, wood products and furniture, and food and beverages	industry lost weight;Almost all manufacturing activities are under represented in the region, the important exceptions being; Dominant Sectors; publishing and pharmaceuticals, and to lesser degree printing and measurement instruments	Industry sector does not loose weight;Industry sector is in tendency to keep its importance in the city; most of them do not want to relocate; The dominant sectors; textile, metal fabrication
Industry sector: 13% Service sector: 81,6%	Industry sector: 7,7% Service sector: 87,7%	Industry sector: 32,2% Service sector: 53,3%
the center consisted of highly advancedand high value activities,the low value activities were directed tosuburbs to lower price land	lowvalueadded industries were closed and these firms moved out to home countries or beyond regions	Low value added sectors are dominant and do not have high ratios of relocation. Inner-city relocations are dominant
small and medium sized firms became dominant in the region of Barcelona		Small scale firms are dominant
central area lost its importance of industry, the surrounding area increased two surrounding rings 20-30km (second ring), and 10-20 (first ring);manufacturing is gaining concentration in far metropolitan belts (e.g. 2nd and 3rd) meanwhile services are gaining concentration in the centric belts	Almost every center in the outer metropolitan ring was beginning to spawn a cluster of office towers. Business services exhibits a strong westward direction and manufacturing growth in the outer east London.	The surrounding city got the high ratios as destinations. However central area of the city does not have important ratios of loosing its industrial weight. The industries that want to relocate mostly prefer nearer places again.
Public policies and planning decisions played important role;The reindustrialization decision was taken after 1980s. And investments, subsidiaries were directed towards that policy.	Public policies and planning decisions played important role;	Panning decisions and public policies have scarcely any affect.Because plans are prepared independent to present situation.

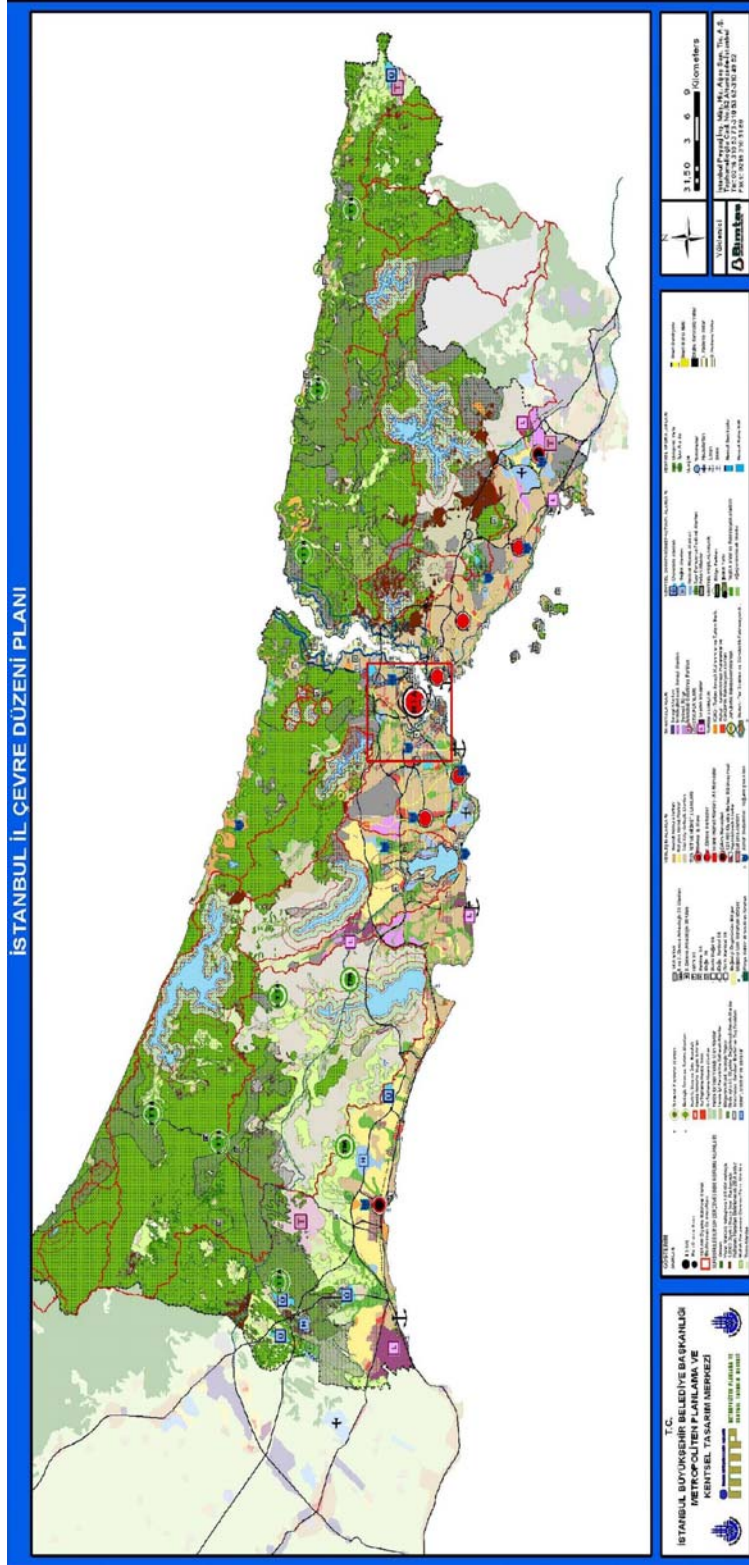


Figure 56: 2005-1/100.000 Plan (Gathered from, Istanbul Metropolitan Planning center, 1/100.000 Planning Report)

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APPENDIX A

ORIGIN DESTINATION RELATIONS DUE TO SECTORS

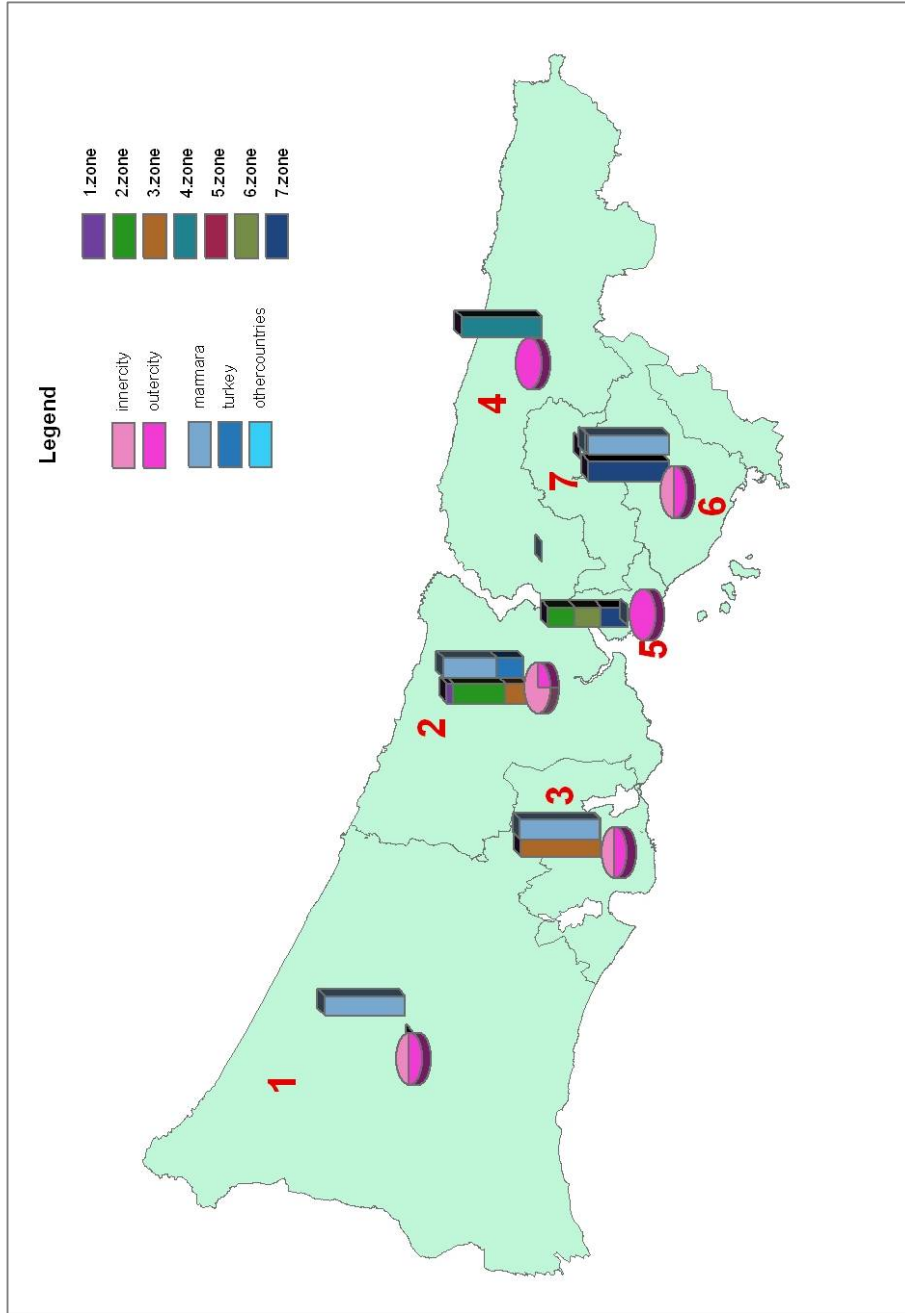


Figure 57: Innercity and outercity destinations of “wood” sector

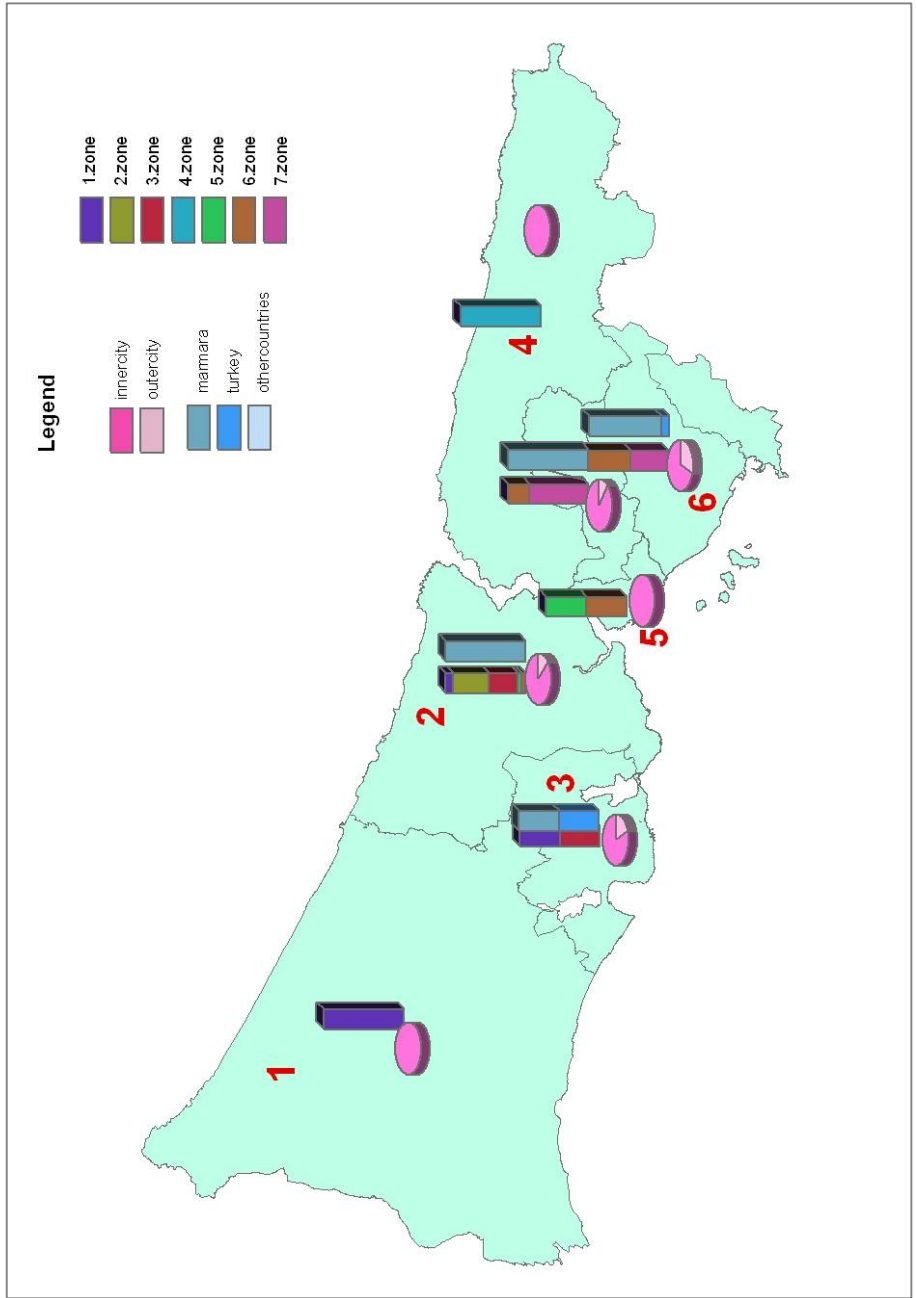


Figure 58: Innercity and outercity destinations of “metal fabrication” sector

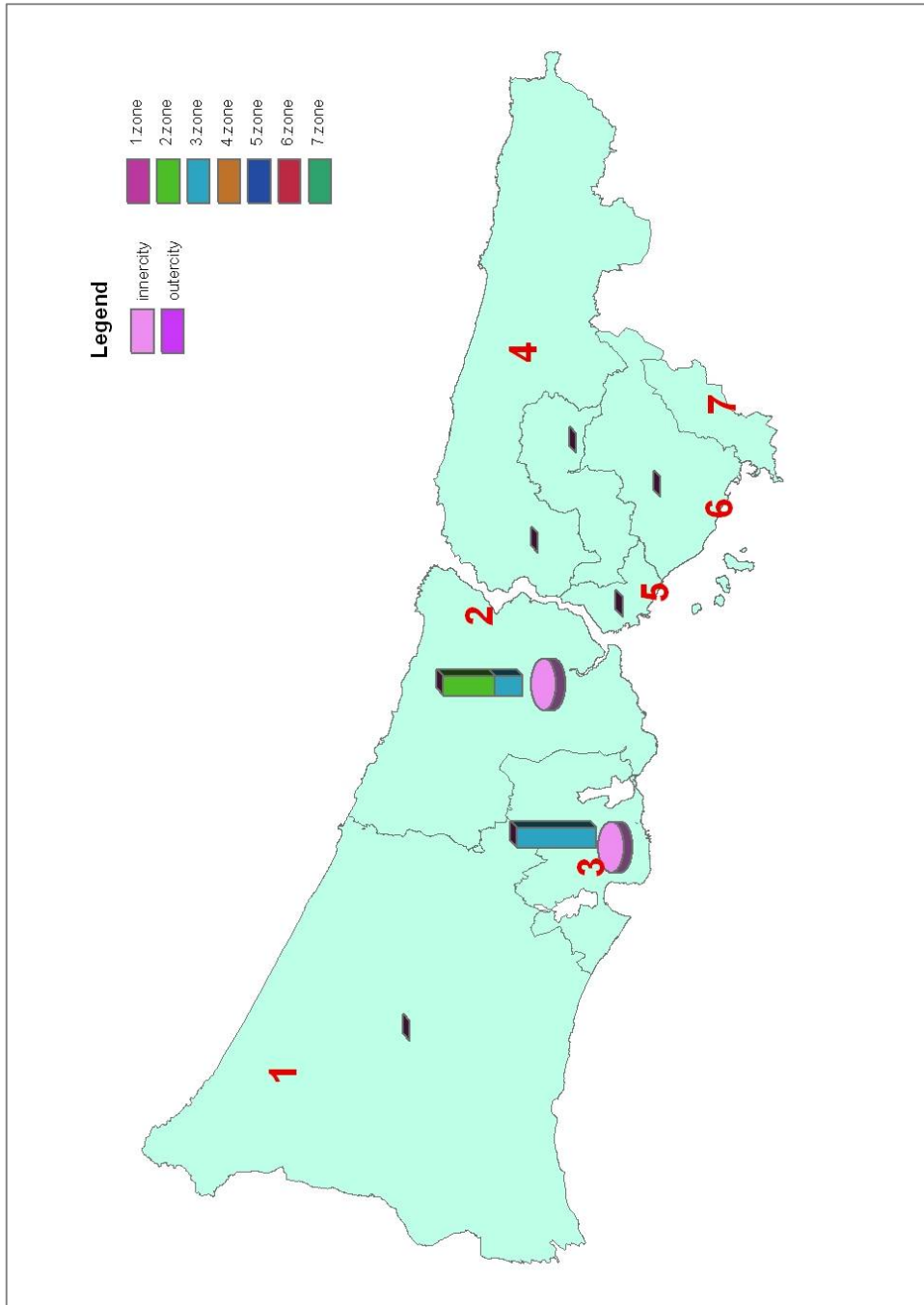


Figure 59: Innercity and outercity destinations of “leather” sector

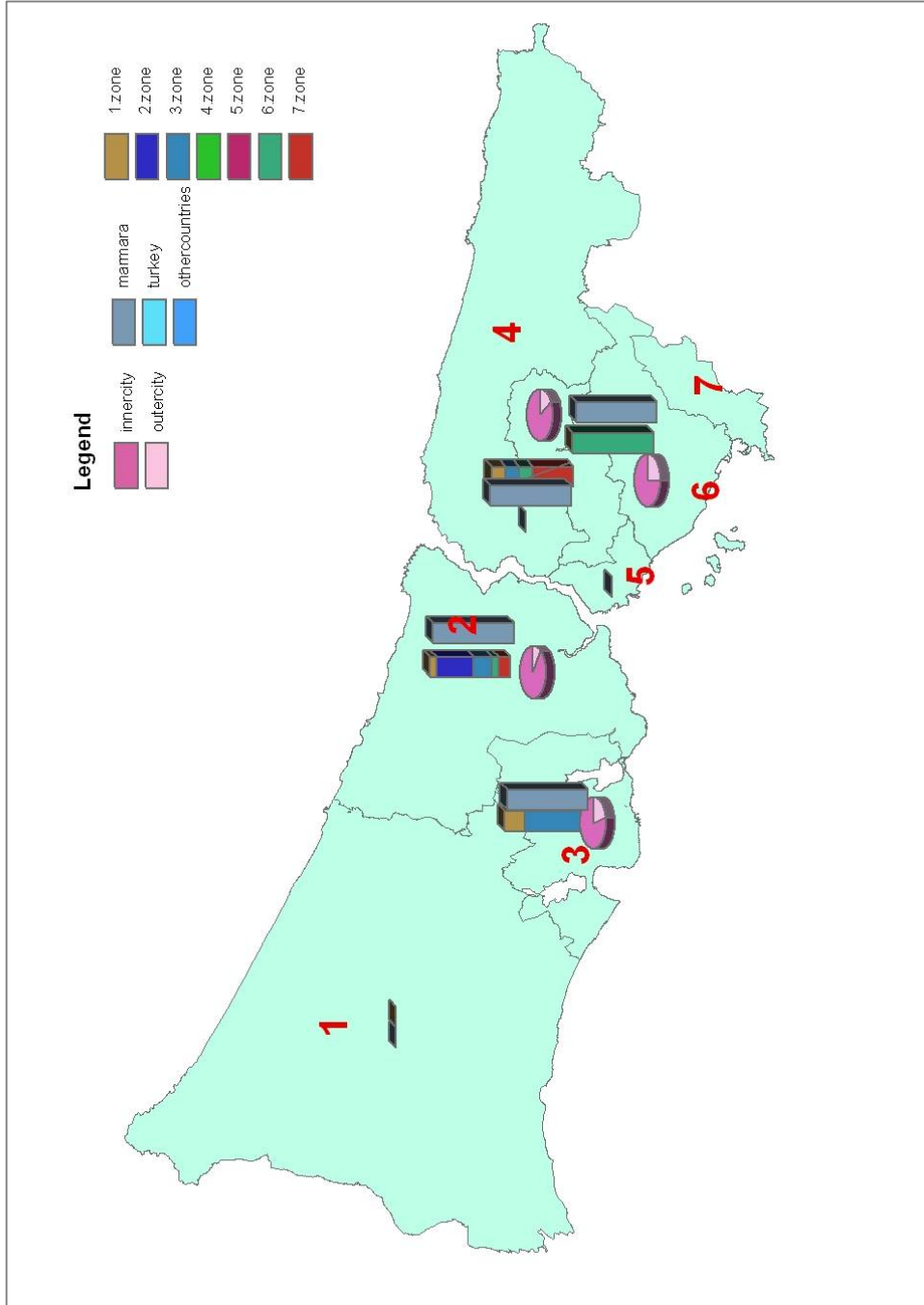


Figure 60: Innercity and outercity destinations of “electric” sector

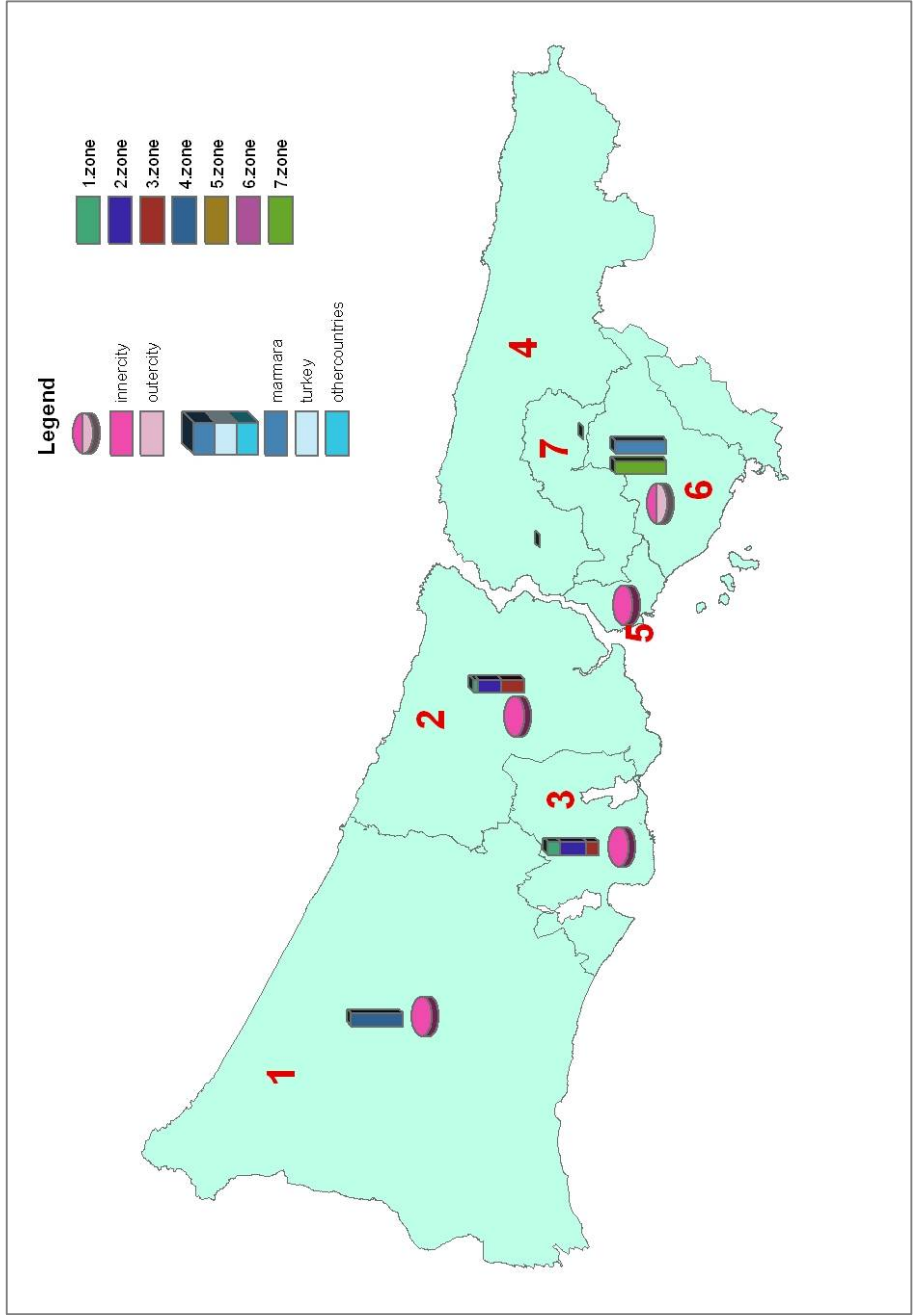


Figure 61: Innercity and outercity destinations of “food” sector

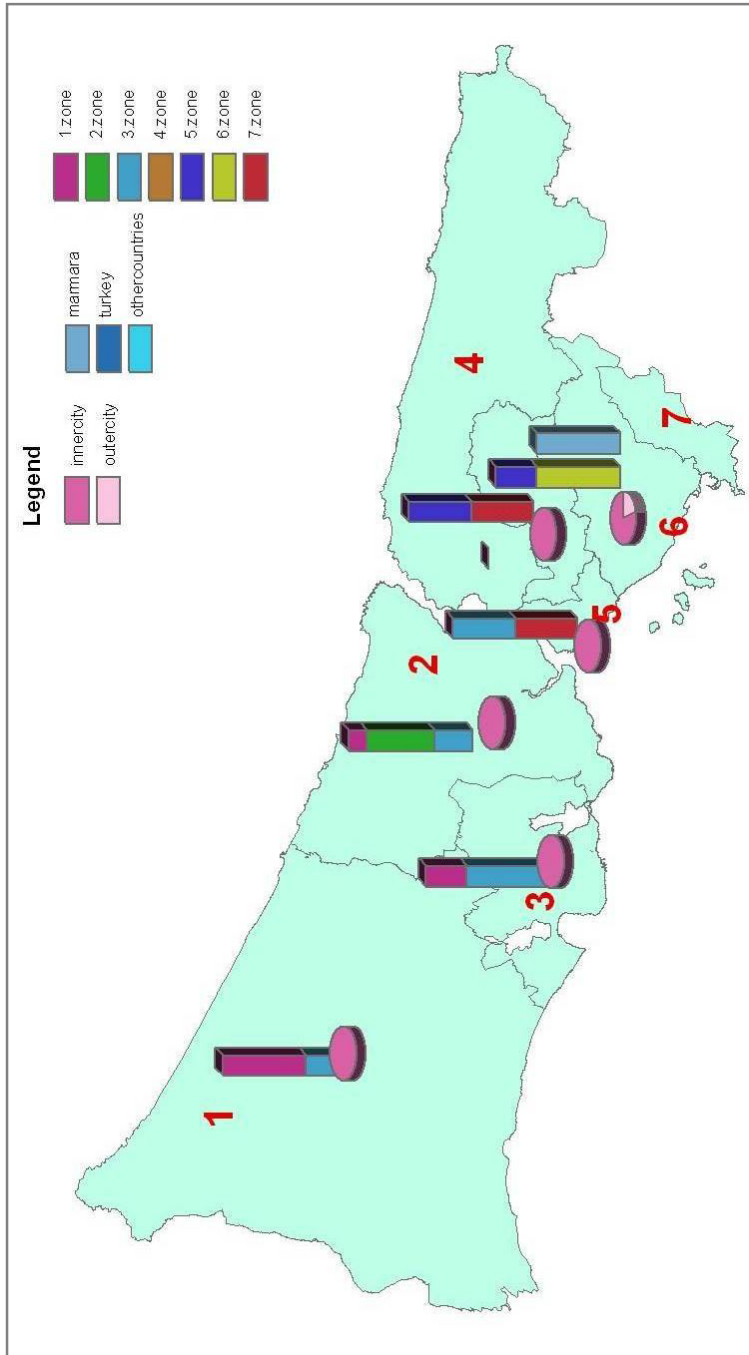


Figure 62: Innercity and outercity destinations of “paper” sector

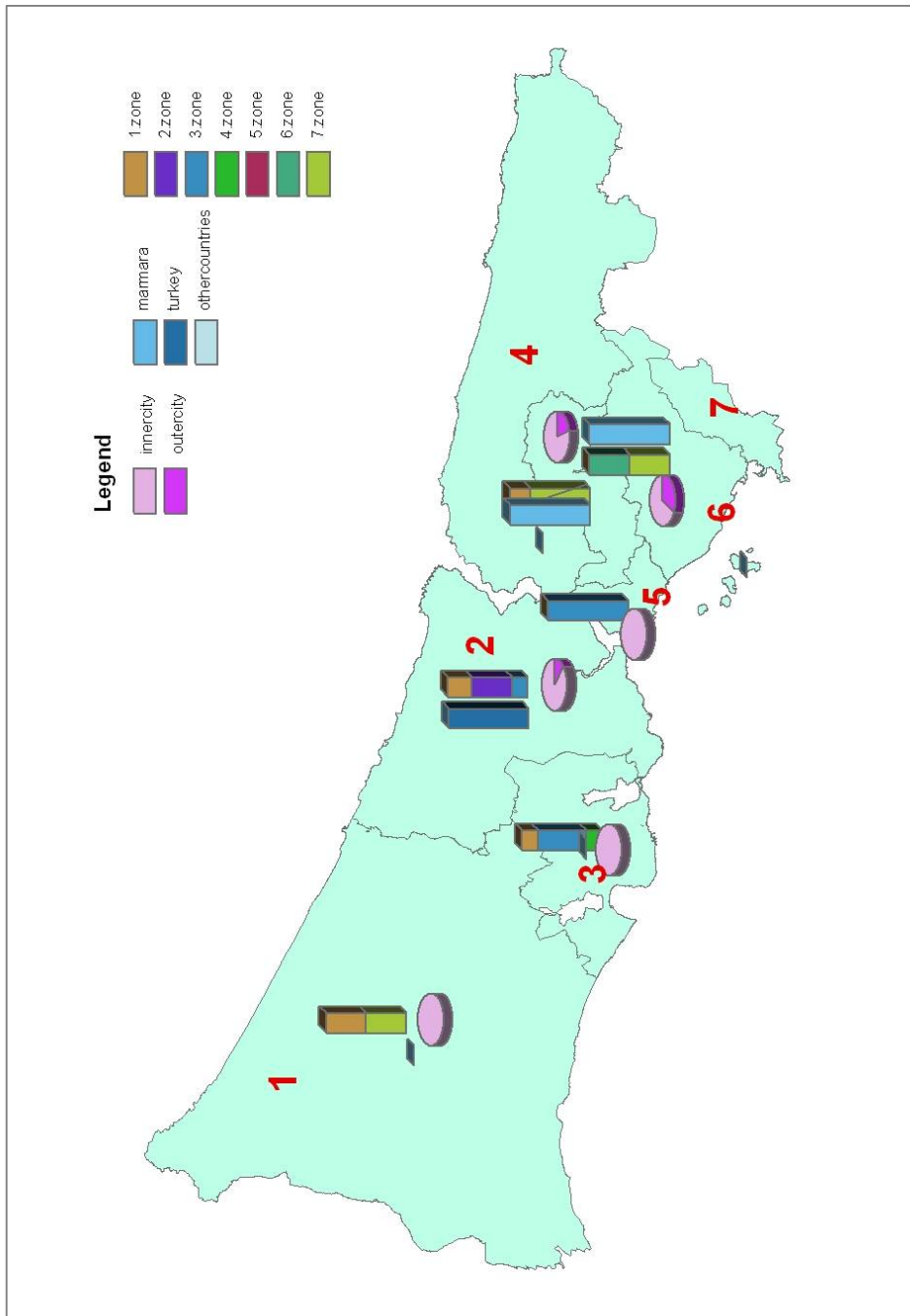


Figure 63: Innercity and outercity destinations of “chemicals” sector

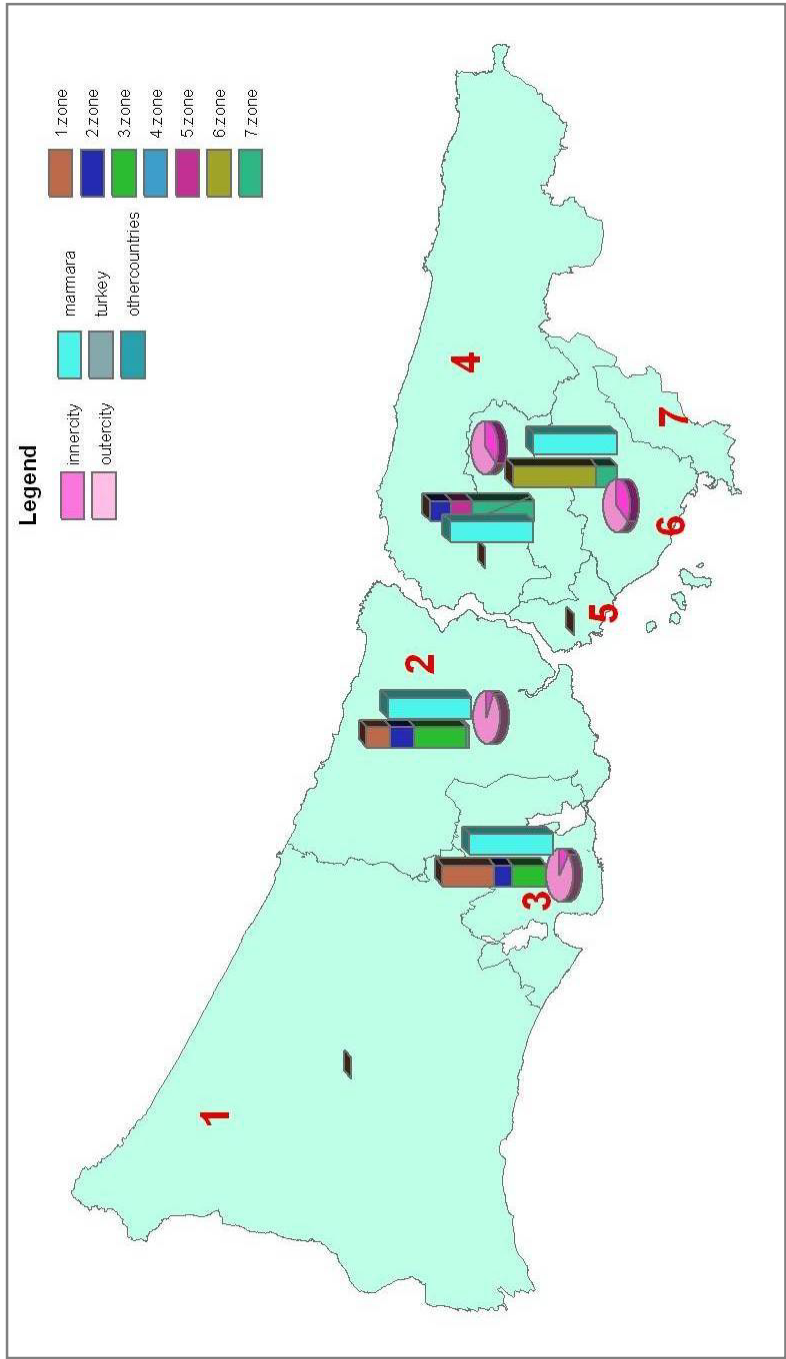


Figure 64: Innercity and outercity destinations of “mechine” sector

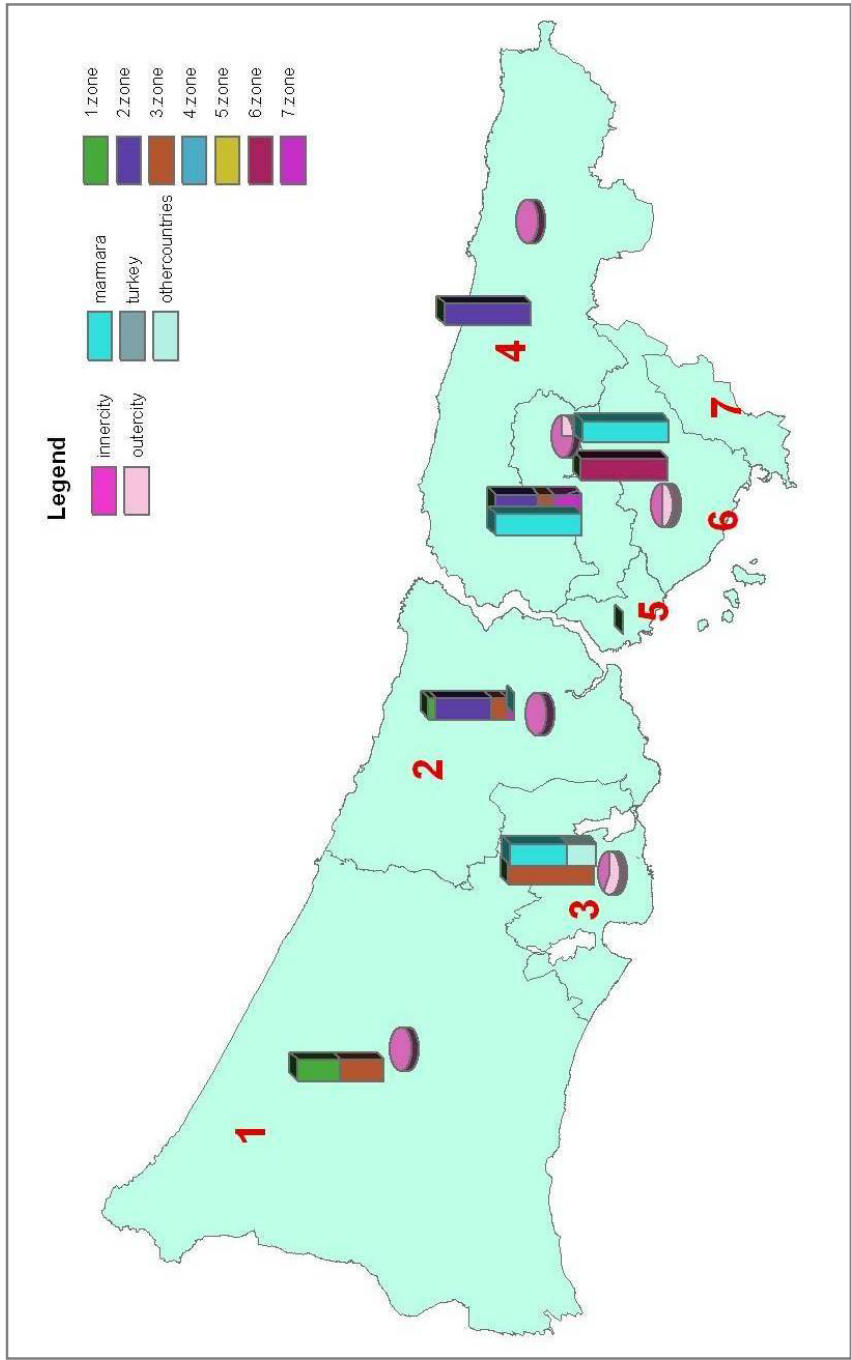


Figure 65: Innercity and outercity destinations of “non-metal” sector

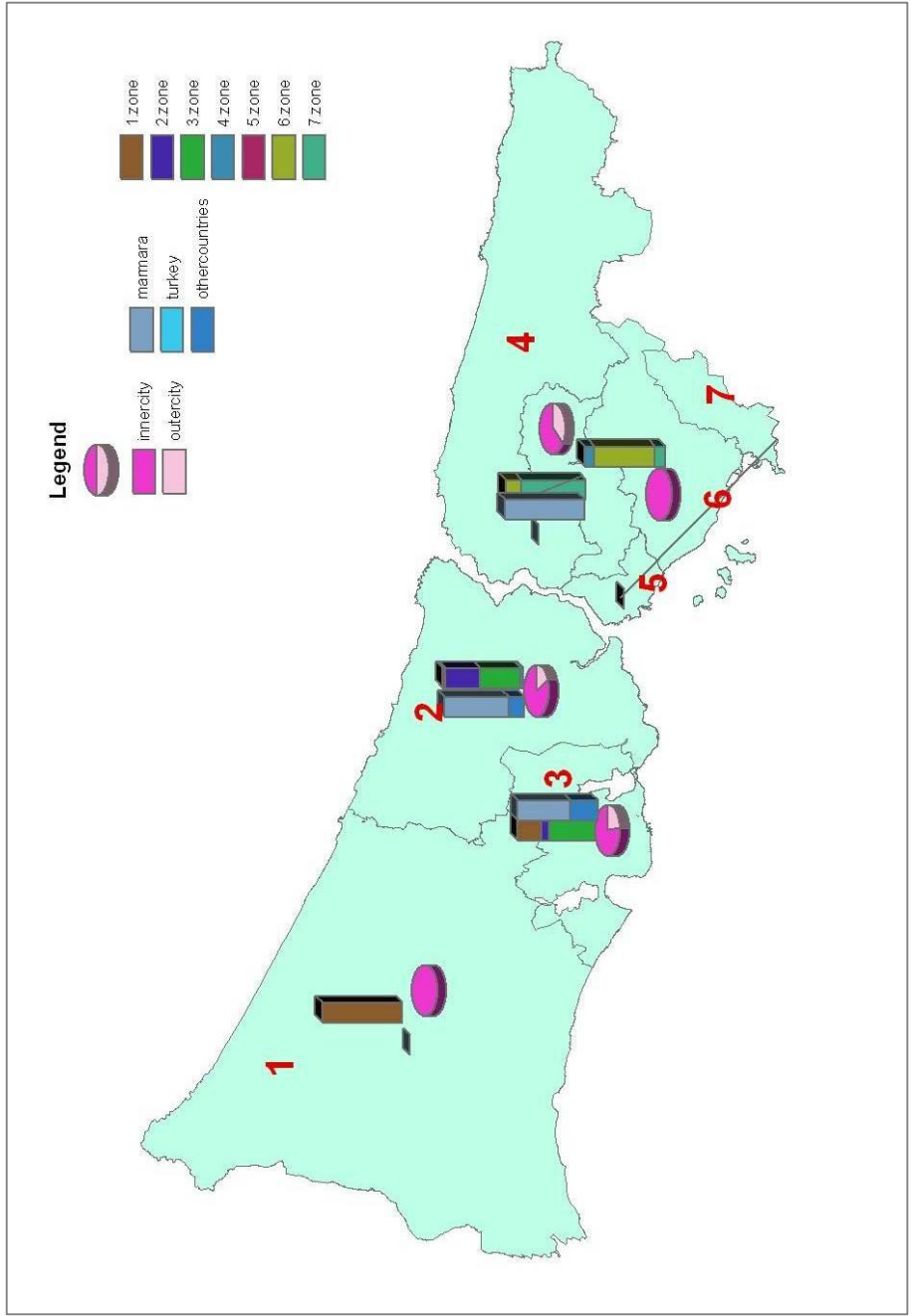


Figure 66: Innercity and outercity destinations of “plastic” sector

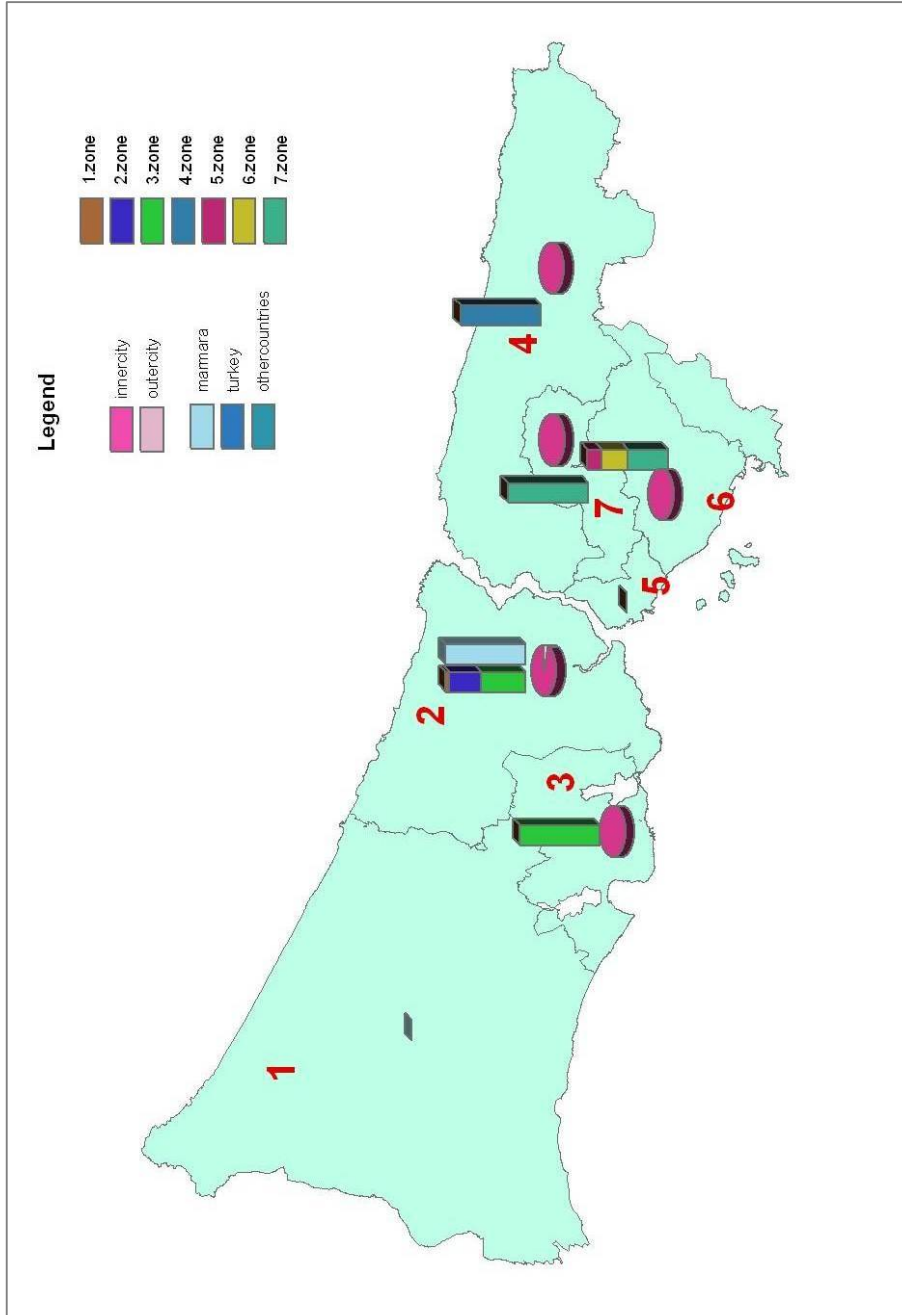


Figure 67: Innercity and outercity destinations of “non-classified” sector

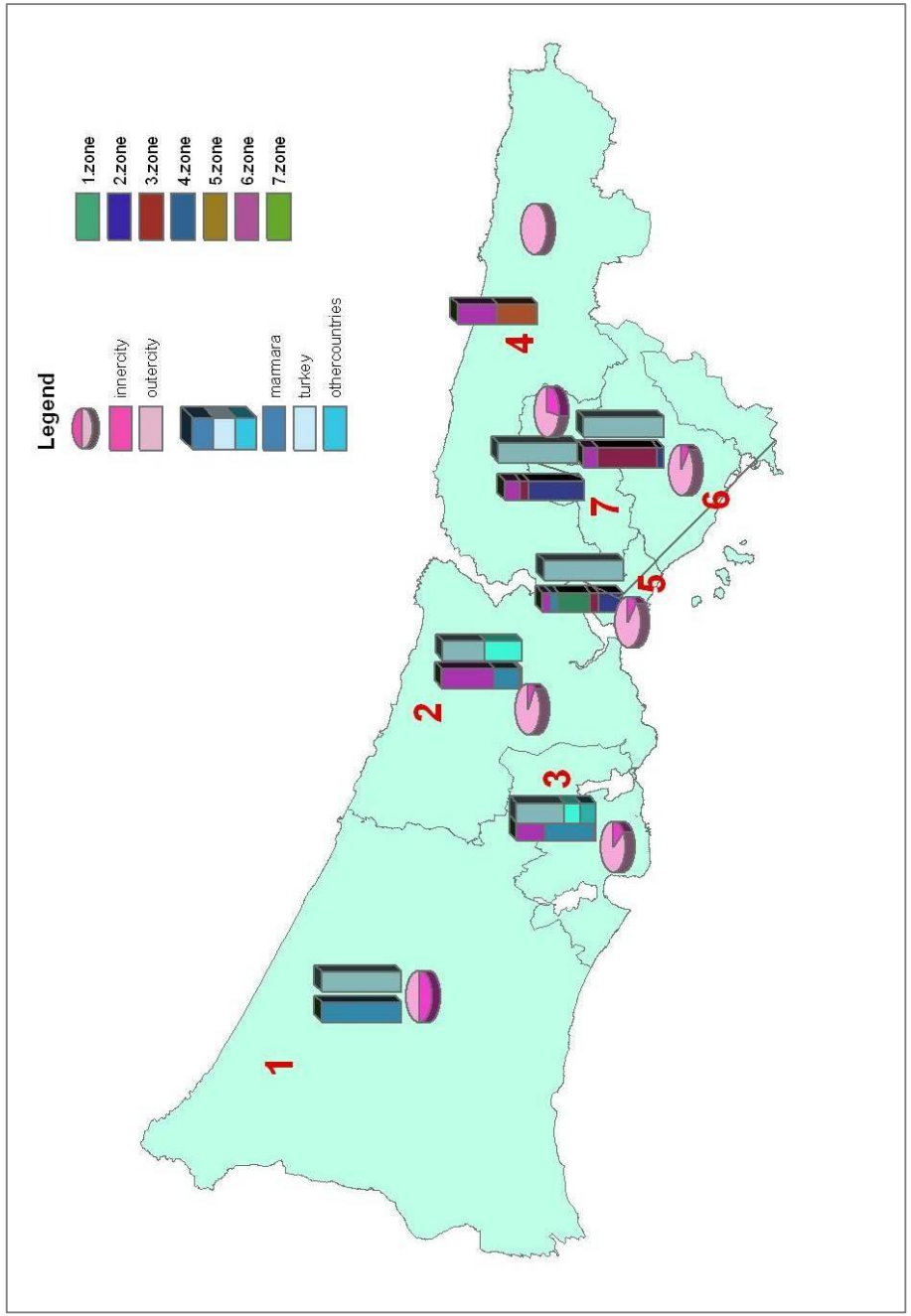


Figure 68: Innercity and outercity destinations of “textile” sector

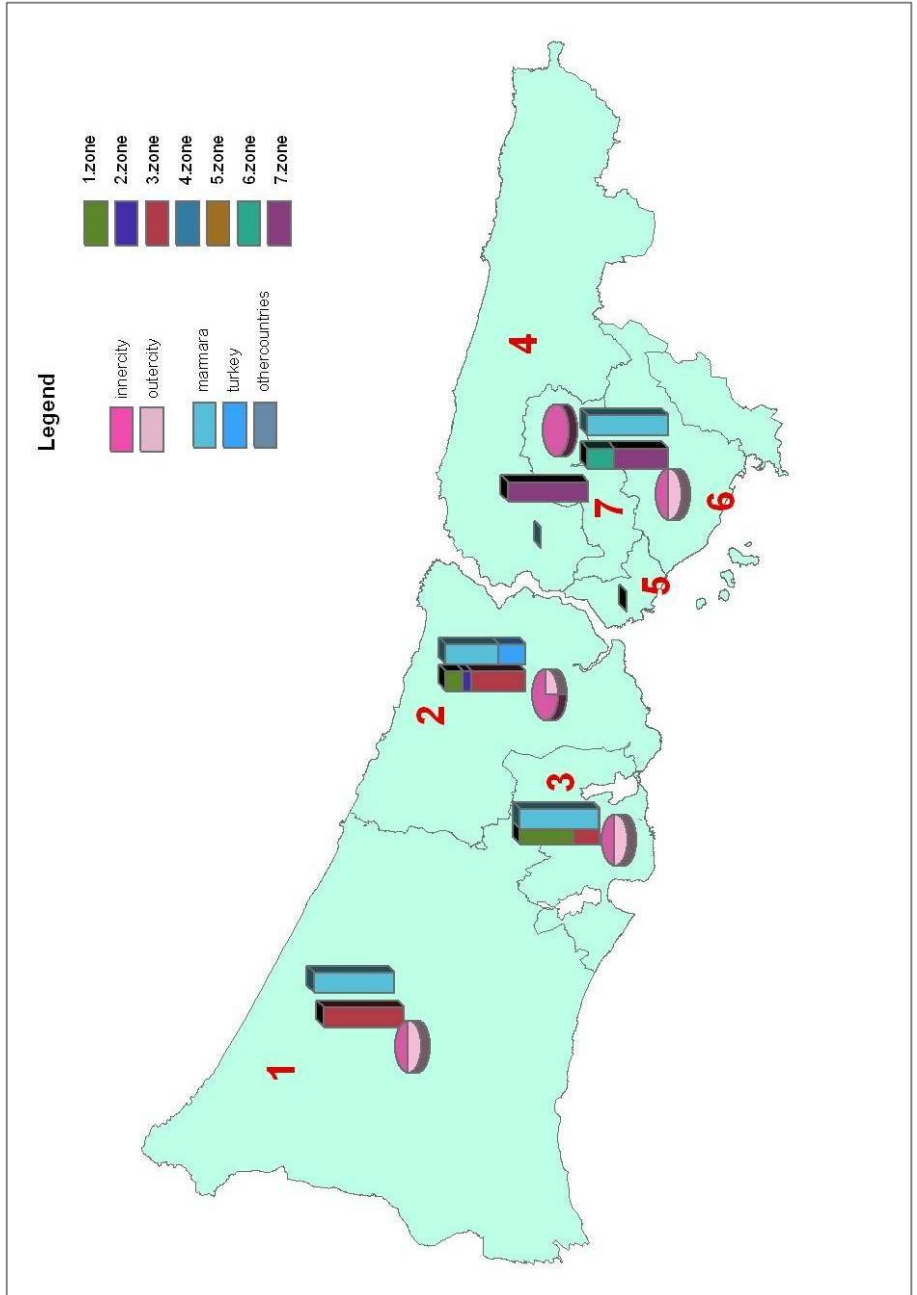


Figure 69: Innercity and outercity destinations of “transportation” sector

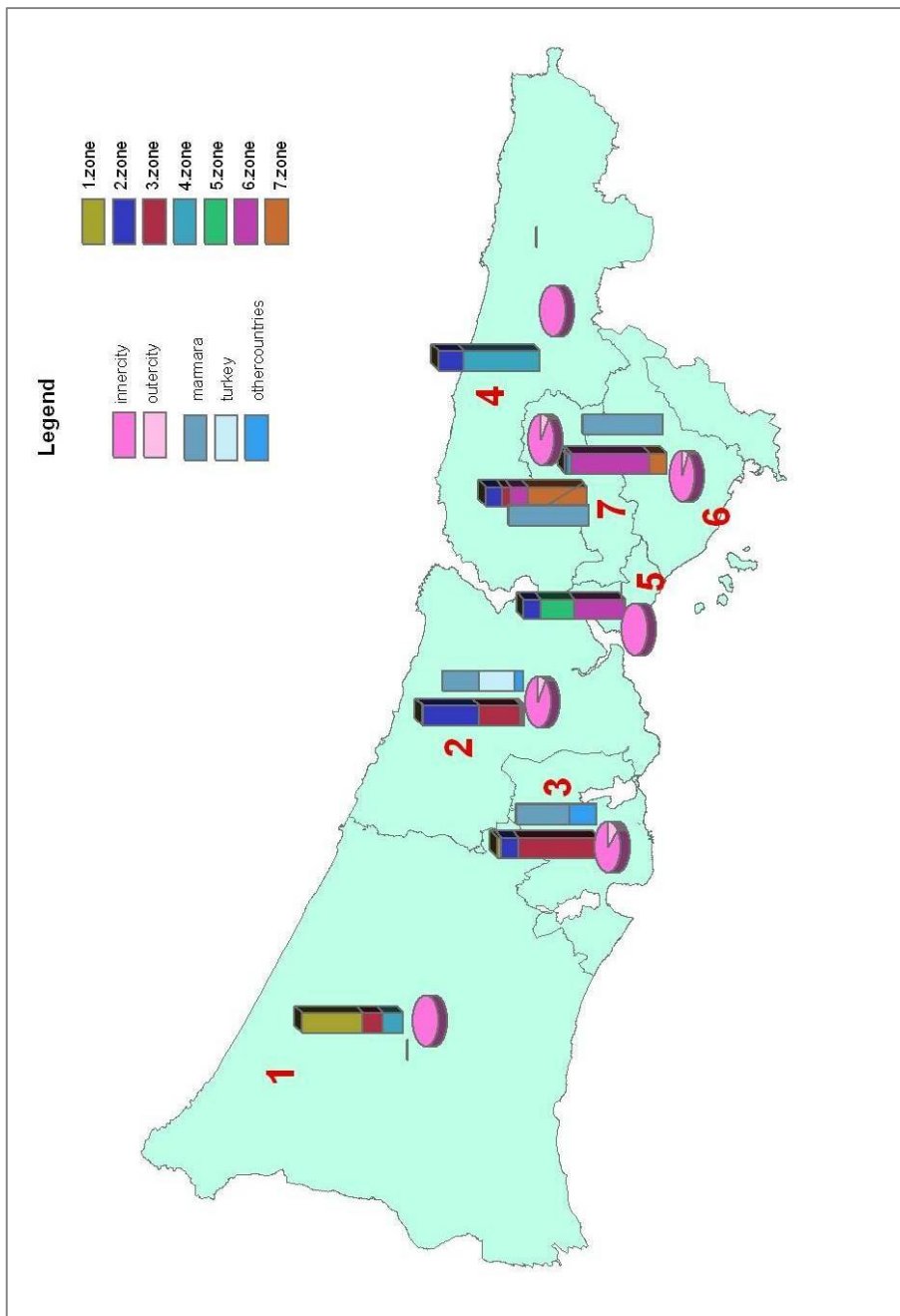


Figure 70: Innercity and outercity destinations of 1-9 sized firm

APPENDIX B

ORIGIN DESTINATION RELATIONS DUE TO FIRM SIZES

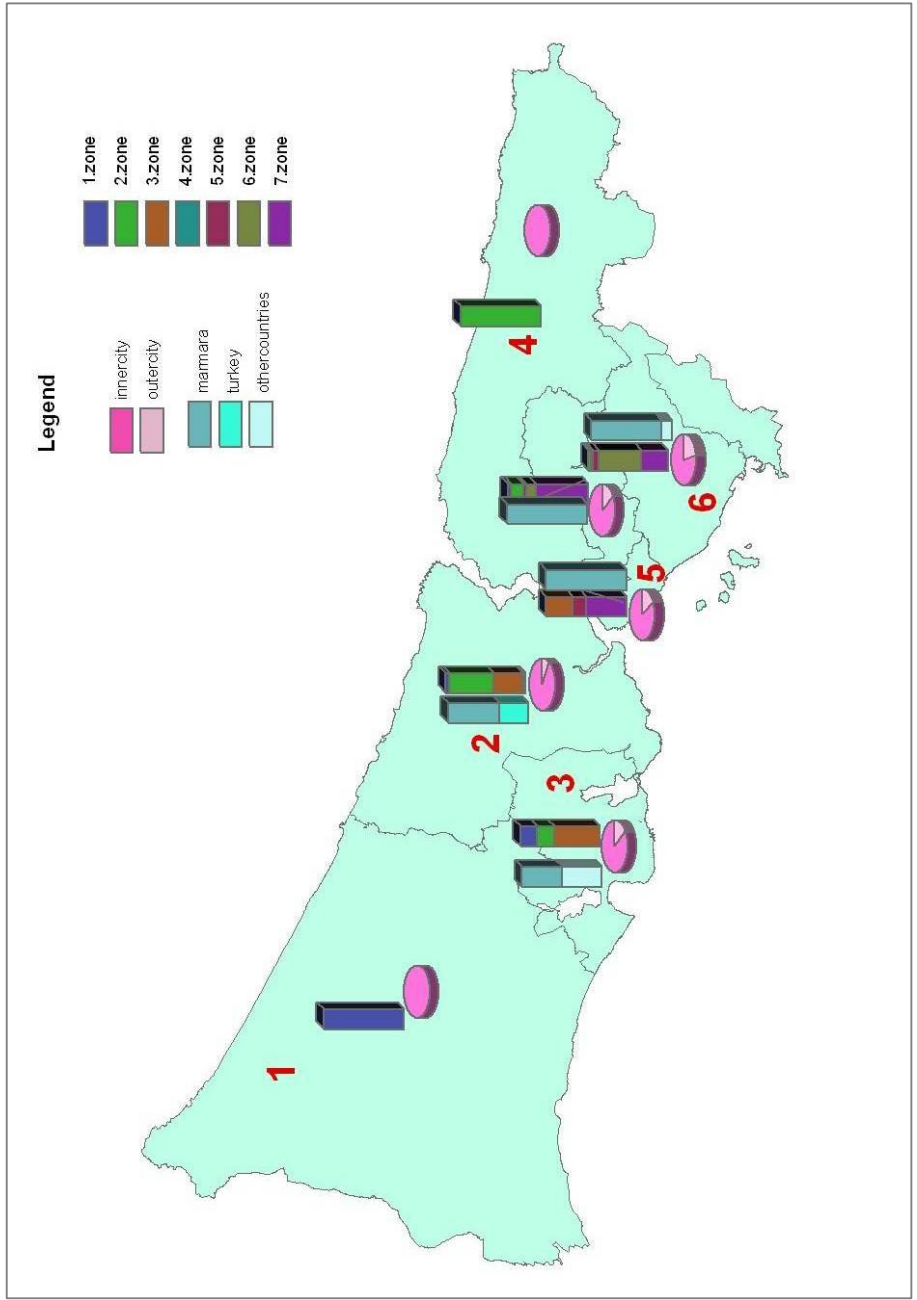


Figure 71: Innercity and outercity destinations of 10-24 sized firms

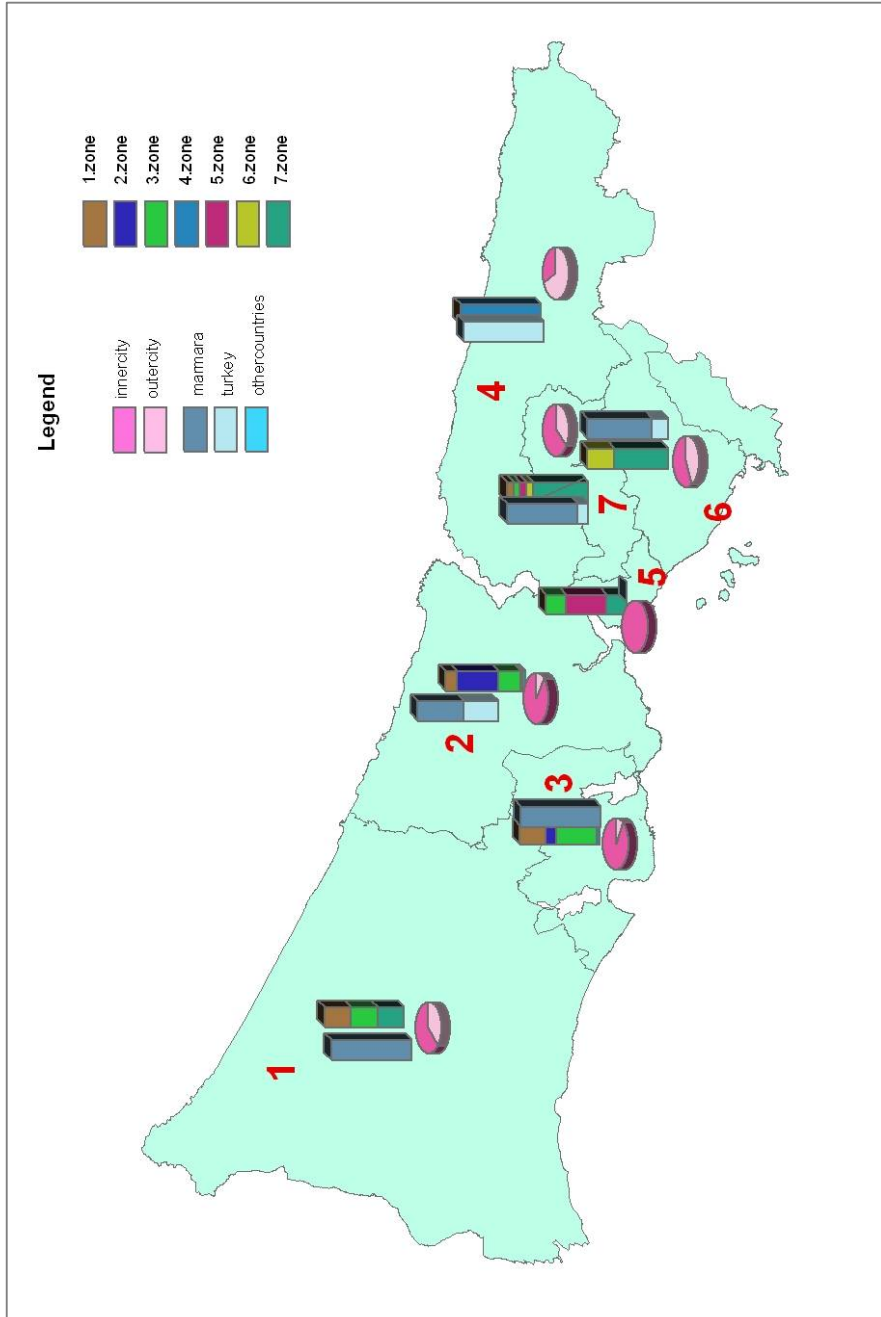


Figure 72: Innercity and outcity destinations of 25-49 sized firms

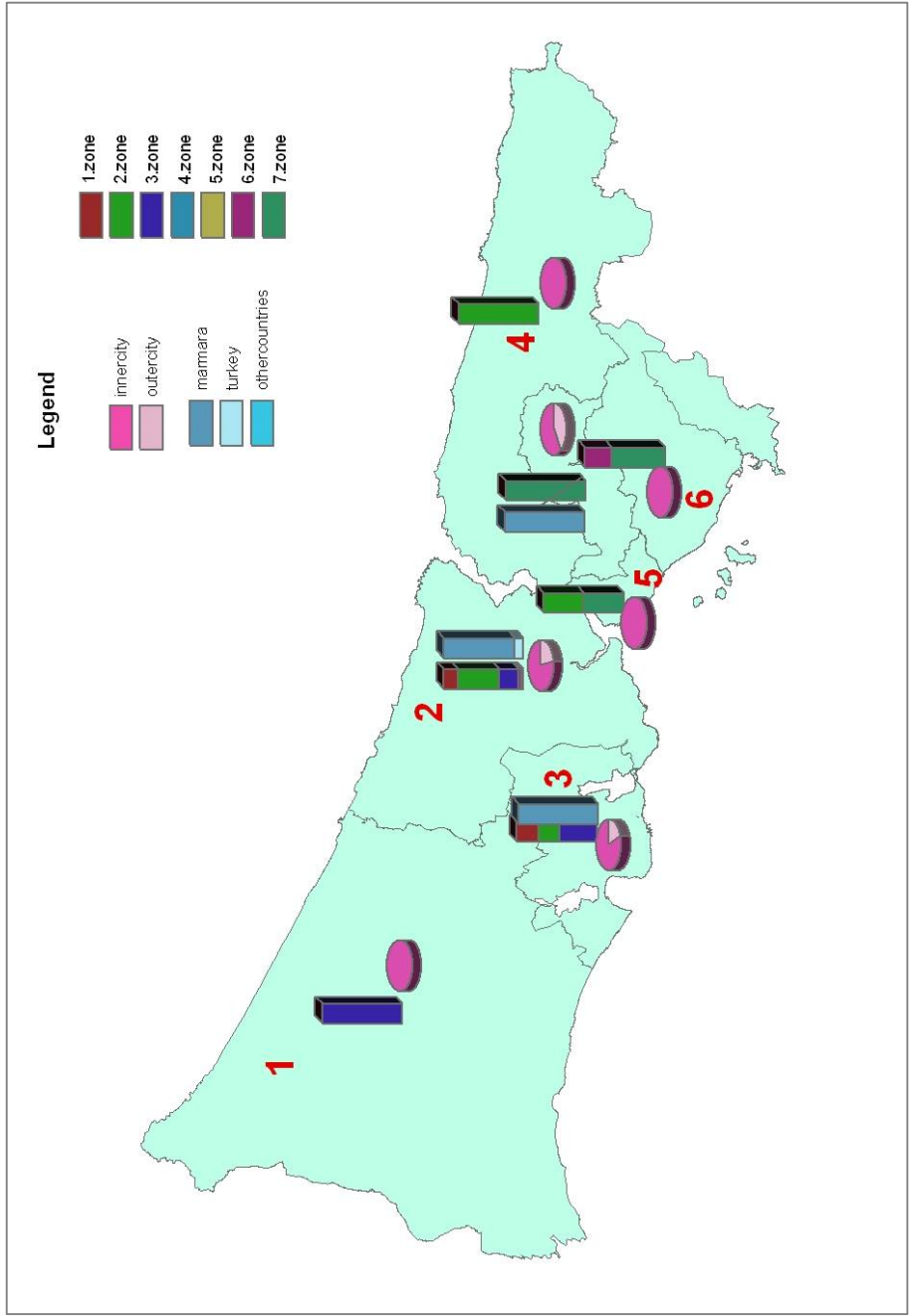


Figure 73: innercity and outercity destinations of 50-49 sized firms

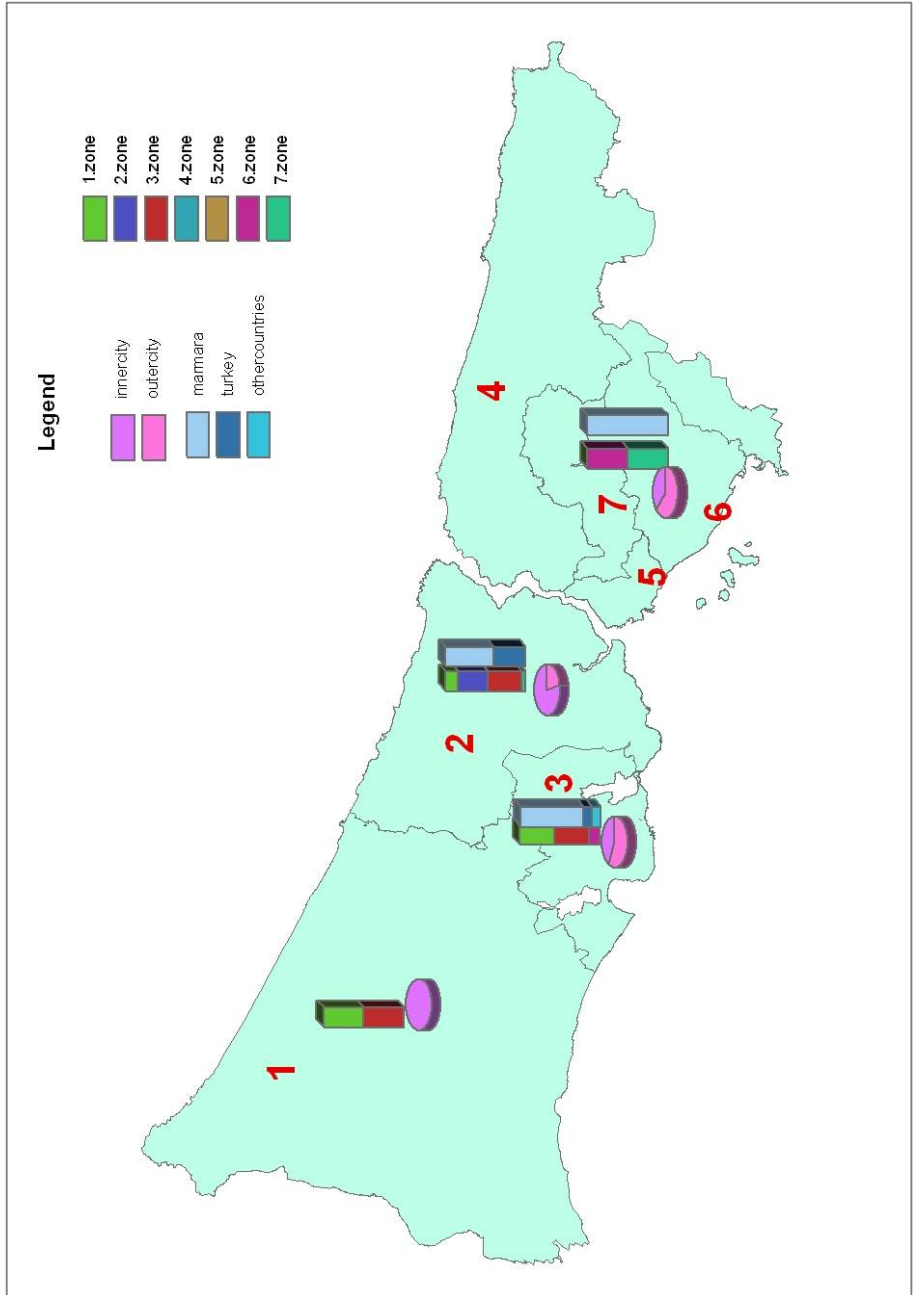


Figure 74: Innercity and outercity destinations of 100+ sized firms