ANALYSIS OF INTERPROVINCIAL SERVICE FLOWS FOR THE DETERMINATION OF PROVINCIAL HIERARCHY IN TURKEY

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INTRODUCTION

In this study, the analysis of interprovincial service flows -which is treated as complementary to the analysis of interprovincial commodity flows- will be presented. Thus, the resulting optimum distribution system can formulate the interprovincial, spatial hierarchical pattern. To give the interrelationships as a whole, the analysis will be carried out at the province scale, each province being considered a region.

1. J.R. BOUDEVILLE, An Operational Model of Regional Trade in France, P.P.R.S.A., v.7, 1961, pp.177-187.

The method of Boudeville[1] is resorted to for the computation of service flows. However, a distinction should be made at the begining so that the diversion from Boudeville in the interpretation of results (which aim at the achievement of spatial hierarchial pattern) is justified. A "service" can be defined as a commodity which is consumed where it is produced. Therefore, the calculation of service flows shows the attraction of people to the service-exporting centers, rather than sending services to the places of demand (importing centers). Thus, the places attracted by an exporting center form the influence area of that center.

THE METHOD OF ANALYSIS

Assumptions:

1. The flows analysed will be net movements of services.

2. There are neither net flows between the exporting regions, nor between the importing regions.

3. For each service sector, production is assumed proportional to employment.

4. The consumption of (or the demand for) national services by a region is proportional to its income.

Net exports (supply) and imports (demand) will be calculated for each sector and province in accordance with the formula, below:

2. J.K. BOUDEVILLE, An Operational
Model of Regional Trade in France,
P.P.R.S.A., v.7, 1961, p.179.

$$X_{ij} = E_{ij} \cdot \frac{P_i Y_i}{P_N Y_N} E_{Nj} \qquad\qquad (Eq.1)[2]$$

$i = 1, \ldots, m$
$j = 1, \ldots, n$

m = number of provinces,

n = number of sectors,

X_{ij} = amount of export and import of the $j\underline{th}$ sector in region i,

E_{ij} = region i's employment in sector j,

P_i = population in region i,

P_N = national population,

Y_i = income per capita in region i,

Y_N = national income per capita,

E_{Nj} = national employment in the $j\underline{th}$ sector

The First part of Equation 1 (E_{ij}), is the employment, equivalent of production; and the second part is the equivalent of consumption. As the $P_i Y_i / P_N Y_N$ ratio gives the percentage of each region's per capita income in the national per capita income, each region consumes an amount determined by this percentage from the national output of each sector. Consequently, a positive value of X_{ij} means that region i exports the output of service sector j; and a negative value denotes that there is importation of the output of service sector j by region i.

After the determination of net exports and imports of all regions with respect to all sectors in this manner, the problem is to find out the optimum distribution system.

In order to allocate the exports of exporting regions, taking into account the contacts which result from the proximity of importing or exporting regions, a transportation program, using the interregional (interprovincial) distances, will be constructed.

To find the distribution which minimizes total transportation distance, the system of equations below should be solved:

3. J.R. BOUDEVILLE, An Operational
Model of Regional Trade in France,
P.P.R.S.A., v.7, 1961, p.180.

$$\text{Minimize } T = \sum_i \sum_j d_{ij} x_{ij} \qquad\qquad (Eq.2)[3]$$

i = exporters
j = importers
d_{ij} = distance between the regions i and j.

with constraints:

$\sum_j x_{ij} = X_i$ (a region cannot export more than its capacity will permit)

$\sum_i x_{ij} = M_j$ (the total supplied to a region is equal to its needs)

$x_{ij} \geq 0$ (all deliveries are positive)

This is a classical transportation problem in linear programming.

IMPLEMENTATION OF THE MODEL

DATA COLLECTION :

4. E. TURAK (der.), *İllere ve Sektörlere Göre İşgücü İstatistikleri*, Yayınlanmamış Rapor, D.İ.E., Ankara, 1965.

5. T. BULUTAY ve H. ERSEL, Türkiye Milli Gelirinin İller; İmalat ve Sanayii Gelirinin Ücret ve Kâr Arasında Bölünüşü Üzerine Bir Deneme, *S.B.F. Dergisi*, c.24, n.4, 1969, ss. 245-266.

6. Sector Classification is given in Appendix I.

Employment figures of 1965 for 67 provinces according to 21 service sectors, have been taken from the State Institute of Statistics.[4]

The income levels necessary for the operation of the model, are based on a provincial study done by T. Bulutay.[5] 1965 Population Census Results are used to figure out income per capita values. Lastly, for the formation of distance matrices the 1965 Highway Map is used. Assuming that a single mode of transportation exists, 21 different distance matrices are prepared. The classification of the service sectors is in accordance with the classification of the State Institute of Statistics.[6]

SERVICE FLOWS AND THE OPTIMUM DISTRIBUTION SYSTEM:

Equation 1 has been solved for the 21 service sectors and 67 provinces. Thus, for each sector exporting and importing provinces are separated. These export (supply) and import (demand) values are given in Table 1. The results are also presented by different maps. (Maps 1-21), to show the spatial pattern in which provinces are distributed as exporters and importers.

7. The Computer program is based on the method of: J.DENNIS, A High Speed Computer Technique for the Transportation Problem, *Journal of A.C.M.*, v.5, n.2, 1958, pp.132-153. Computer outputs are reproduced as a supplement to be sent to the interested reader. They can be obtained from the *METU Journal of the Faculty of Architecture*.

The second step is to find out the interprovincial distribution system which is formulated by Equation 2. The optimization program has been solved for each sector.[7]

For a rather compact analysis of the hierarchial pattern, the computer outputs are aggregated according to the sectoral distribution of the number of exporting provinces. (This information is given in Table 2.) For this purpose, the sectors are segregated into four groups. The first group covers sectors which have the smallest number of exporters and the last group includes sectors with the greatest number of exporters. Thus, the exporters of the first group designates the highest and the last group indicates the lowest level of the hierarchial pattern.

LEVELS OF HIERARCHY:

Group One covers the following sectors:

Sector Code	Sector Name
10	Banking, insurance and cooperative services
13	Air transport
15	Shipping and travelling agencies
16	Storage
20	Recreational services

This group consists of service sectors in which the number of exporting provinces is the smallest. The number of exporting provinces varies between 4 and 9. Table 3 which shows the total flows of the five service sectors, is a summary table prepared from the optimum distribution system.

8. Only those provinces in which the shares are greater than 2 % in total, will be discussed.

Table 3 shows that the greatest export value in this group belongs to İstanbul; Ankara is the next; İzmir takes the third place, but compared with the first two, its exports are considerably lower. In the raking of exporters, Adana is the fourth. However, the size of its imports is greater than its exports, in this group. This means that Adana's activities are not diversified. The shares of the four exporters in the total output are as follows:[8]

İstanbul   48.8 %
Ankara   40.5 %
İzmir   5.5 %
Adana   2.2 %

The most important importers are Zonguldak, Kayseri, Kocaeli, Manisa, Urfa, Sivas, Kars and Adana respectively. Zonguldak imports almost 10 percent of the total services, whereas the imports of other provinces vary between 3.5 and 2.4 percent. İstanbul and Ankara do not appear as importers in any of these sectors.

The allocation of the exports of the four main export centers among the importers in space, is better reflected on Map 22. İstanbul dominates the whole country, except for two provinces (Ankara and Yozgat). Ankara, the second important export center, covers Central Anatolia, Black Sea, East and Southeast Anatolia and the Mediterranean Region. The Marmara Region and the west of Aegean are not under Ankara's influence; İzmir is the supplier of the Aegean Region; and Adana is dominant in Southeast Anatolia. It is observed that İzmir and Adana are local centers, whereas İstanbul and Ankara show the characteristics of national centers and are dominant even over the influence areas of the two local centers.

Group Two covers the following sectors:

Sector Code	Sector Name
2	Electricity, water and gas supply
3	Wholesale trade
6	Sales of furniture and fixtures
7	Sales of pharmacies, etc.
8	Sales of machinery and equipment
9	Sales of wood and construction material
12	Sea transportation

In this group, the number of exporting provinces varies between 12 and 17. Therefore, the degree of polarization decreases in this group of activities, when compared with the previous group. The shares of the main exporters according to Table 4, are:

İstanbul   50.5 %
Ankara   14.5 %
İzmir   4.6 %
Hatay   3.9 %
Samsun   2.8 %
İçel   2.6 %

Zonguldak, Ankara, Konya and Adana are the main importers,

respectively. Their shares in the total vary between 5 and 7 percent. İstanbul and İzmir do not import in these sectors. As seen from Map 23, the influence area of İstanbul has been conspiciously shrunk compared with the area of the first group.

Three sprovinces in the Agean, three provinces in the Southeast and one province in the East do not import from İstanbul. However, İstanbul still plays the role of a national center. Ankara exports to regions similar to the provious group, however there is a decrease of five provinces in its influence area. It still is a national center in spite of its smaller share in total exports. Ankara maintains its importance due to the inclusion of sales of furniture, sales of machinery and the wholesale trade in the group.

İzmir's influence area is widened. The Aegean, parts of the Mediterranean, the East and the Southeast Anatolia Regions are under its control.

Inclusion of sea transportation and wholesale trade causes three new centers to appear at the second level of the provincial hierarchy. Samsun is the regional center of Eastern Black Sea and north parts of East Anatolia; Hatay is dominant in four provinces in Southeast Anatolia; İçel serves the Mediterranean and a part of the Middle and the Southeast Anatolian Regions. However, the influence areas of the three subcenters and İzmir are also controlled by the two national centers: Ankara and İstanbul.

Since wholesale trade —one of the sectors of this group— is a classical function of central places, it will be useful to examine it separately for the determination of provincial hierarchies.

Sector 3: Wholesale Trade.

Table 5 and Map 24 are prepared for the analysis of this sector. Instead of dealing with all the provinces that export wholesale service, only exporters having export values greater than 10 percent of the total are shown on the map. Otherwise, influence areas become complicated.

The greatest export values belong to İstanbul and Ankara (35 % and 22 % of the total respectively.) The third largest exporter, Urfa, exports only 6.8 percent of the total. In spite of this large gap in terms of the size of exports between the first two main centers and the following, İstanbul and Ankara do not serve as national centers. (Map 24.)

As far as wholesale exports are considered, İstanbul, Ankara, Urfa, İçel, Gaziantep, Hatay, Erzurum, Diyarbakır, İzmir, Samsun and Bursa are regional centers. Furthermore, the overlapping of influence areas is not as frequent as in the aggregate groups. The influence areas of the regional centers are more precise and norrow. Zonguldak is the main importer and its size of imports is considerably larger than the other importing provinces.

Group Three covers the following sectors:

Sector Code	Sector Name
5	Sales of textiles and footwear
11	Railway transportation
14	Highway transportation

17	Communication services
18	Administrative services
21	Personal services

The number of exporting provinces in these sectors varies
between 24 and 31. The shares of the main exporters (according
to Table 6) are :

Ankara	18.7 %
İstanbul	10.5 %
Gaziantep	5.8 %
Hatay	4.8 %
İzmir	4.6 %
Bursa	4.2 %

Aydın	3.4 %
Diyarbakır	3.3 %
Van	3.2 %
Çanakkale	2.7 %
Tunceli	2.6 %
Eskişehir	2.2 %

According to the distribution system given in Table 6, the
important importing provinces are İstanbul (18.6 %),
Zonguldak (14.1 %), Konya (8.4 %), Kocaeli (4.4 %) and
Kayseri (4.1 %).

On the map (Map 25.), the influence areas of only the first six
export centers are shown. The largest area is served by Ankara,
the importance of which is largely due to the great value of
its exports in the administrative services. The influence of
Ankara spreads over the central and western parts of Turkey,
overlapping with the influence areas of the export centers in
these parts; only the Eastern Anatolia is not under Ankara's
control. Most of the exports of Ankara are consumed by the
three important importers: İstanbul, Zonguldak and Kocaeli.

İstanbul's influence is confined to the North of the Marmara
and the Eastern Black Sea Regions; Kocaeli and Zonguldak are
its main markets. İstanbul's exports are mainly composed of
personal services.

Gaziantep takes the third place because it is mainly the export
center of personal services for Eastern and Southeastern
Anatolia. Of these provinces the largest amounts are consumed
especially by Adana, Konya, Muş and Siirt. Hatay's influence
spreads over the Eastern Anatolia and the provinces in its
neighbourhood which overlap with some parts of the influence
areas of Gaziantep and Ankara. Hatay's most important markets
are Kayseri and Konya.

İzmir is dominant in the Aegean, the Marmara and the Middle
Anatolia Regions. Bursa exports to some provinces in the notrh
part of Turkey.

In this group, the dominance of the national centers has
decreased. The influence areas of the regional centers are not
as compact as in the second group. The number of overlapping
influence areas has increased.

Group Four covers the sectors given below:

Sector Code	Sector Name
1	Construction industry
4	Sales of food products
19	General services

The number of exporting provinces varies between 38 and 44. It means that the activities of the sectors in this group are dispersed within the nation and that they are not highly specialized functions of the centers. These regional centers forming the lowest level of the hierarchy must be great in number.

According to Table 7, the ranking of the export centers is:

Ankara	20.7 %
Trabzon	5.6 %
Bursa	5.1 %
Diyarbakır	4.4 %
Aydın	3.8 %
Gaziantep	3.4 %
Erzurum	3.0 %
Eskişehir	2.9 %
Isparta	2.9 %
Antalya	2.8 %
Kayseri	2.7 %
Denizli	2.5 %
Malatya	2.4 %

The largest importers are :

İstanbul	28.8 %
Zonguldak	18.9 %
Konya	6.3 %
Adana	5.8 %

The first map of Group Four (Map 26) shows only the influence areas of the somewhat larger export centers. The local centers with lower export values are also shown on this map, but their influence areas are indicated on another map for visual clarity.

Ankara exports construction industry and general services to İstanbul, Konya, Zonguldak, Kastamonu and Çankırı. Trabzon exports large amounts of food sales services and general services, and smaller amounts of construction industry to the Black Sea Region and to İstanbul. Bursa is dominant over İstanbul and Kocaeli in the construction and food sales sectors. Its proximity to these provinces with a high demand makes it a local export center. Diyarbakır serves to Southeastern Anatolia, south of Eastern Anatolia, Eastern Mediterranean and Ankara in construction and general services. Although Ankara is the largest supplier in this group, Diyarbakın and Trabzon have larger influence areas. The map for smaller centers (Map 27) shows local center characteristics. An important observation is that almost all of these small centers export to İstanbul and Konya to meet their considerable high demand.

CONCLUSION

The results obtained from this work can be manipulated further to figure out more rigid and detailed patterns of provincial

hierarchies. However, a model which is based mainly on
employment data and which has strong assumptions concerning
the calculation of flows and the optimization program, forces
the analyst to suffice with the general pattern obtained above.

Some conclusions derived from this analysis can be discussed.
Service activities are generally dense in big centers where
there is diversification of functions, and are carried out at
levels higher than the local needs. It is an expected result
which explains the attraction of big centers.

At high levels of the hierarchy there are a few important
centers dominating the nation. The export shares of these
national centers are large, and their influence areas overlap.
At the lower levels, relatively smaller centers gain importance,
and the number of important export centers increases. Their
shares in total exports decrease and the influence areas
become smaller with less overlap. Thus instead of being national
centers they become local and regional centers.

In wholesale trade, all important export centers are regional
centers. There is almost no interruption among the influence
areas. Although the export shares of İstanbul and Ankara are
large they do not act as national centers in terms of the size
of areas under their control. In spite of the fact that
wholesale trade is one of the sectors defining the second level
of the provincial hierarchy, it behaves more like a lower level
function, since it is one of the traditional functions.

An important result to be mentioned is the status of Zonguldak.
It appears as an important service importer throughout the
analysis. This is due to the fact that Zonguldak's activities
are not yet diversified so as to meet the service neeeds of the
basic industries - iron, steel, and coal. Furthermore, a large
part of the population's service requirements are met by
Ereğli Kömür İşletmeleri (a government institution).

TÜRKİYE'DE İLLERARASI HİZMET AKIMLARI ANALİZİ VE İLLERARASI HİYERARŞİK DÜZENİN SAPTANMASI

ÖZET

Planlamada önemli etkenlerden biri de bölge içi ve bölgelerarası
mal ve hizmet akımlarının saptanmasıdır. Bu çalışmada
bölgelerarası hizmet akımları ele alınarak, bu akımlara göre
belirtilen optimum dağıtım sisteminden bölgelerarası
hiyerarşinin tanımlanmasına çalışılmıştır. İl ölçeğinde
yürütülen analizde J.R. Boudville'in Fransa için geliştirdiği
modelden yararlanılmıştır.

Türkiye'de hizmet sektörlerinin 67 ile göre işgücü
dağılımlarından hareket edilerek her sektördeki üretimin işgücü
ile orantılı olduğu varsayılmıştır. Diğer bir varsayım da, her
ilin hizmet tüketiminin o ilin geliri ile orantılı olarak
belirlenmesidir. Her ilde her sektör için üretim fazlası
ihracat (arz), tüketim fazlası ise ithalat (talep) olarak
değerlendirilmiştir. Böylece belirlenen iller arası hizmet
akımları net hizmet akımlarıdır. Aynı sektörde arz noktaları

(ihraç eden iller) arasında net akımlar olmadığı gibi, talep noktaları (ithal eden iller) arasında da akım yoktur. İllerarası net hizmet akımları ve mesafeler kullanılarak toplam mesafeyi minimize eden bir ulaşım sorunu elde edilmiştir.

Hizmet, üretildiği yerde tüketilen bir mal olarak tanımlandığından; pozitif hizmet akımlar, hizmet ihraç eden merkezlerin bu hizmeti talep noktalarına göndermesi yerine, ihraç merkezlerine insangücü çekimi anlamına kullanılmaktadır. Bu nedenle, ulaşım programının çözümü ile elde edilen illerarası optimum dağıtım sistemi, her hizmet sektörü için ihraç merkezlerinin etki alanlarını belirlemektedir.

Etki alanlarının ve ihracatın büyüklüğü ve özelliklerinden yararlanılarak, illerarası hiyerarşinin saptanmasına çalışılmıştır. Modelin temelde yalnızca işgücü istatistiklerine dayanması ve analiz boyunca yapılan varsayımlar nedeniyle, çalışmadan bazı genel sonuçların elde edilmesi daha uygun bulunmuştur.

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APPENDIX I

SECTOR CLASSIFICATION

1. CONSTRUCTION INDUSTRY

Building Construction : construction of residential buildings, shops, hospitals, schools, offices, institutions.

Non-building Construction : construction of irrigation, dam power projects, roads, hydroelectric and thermal power plants, railway tracks, bridges, airports, shipyards.

2. ELECTRICITY, WATER AND GAS SUPPLY

   Electricity generation, transmission and distribution.

   Gas supply and distribution.

   Water supply and distribution.

   Sewage disposal and sanitary services.

3. WHOLESALE TRADE

   Sales of food, alchoholic beverage and tobacco.

   Sales of agricultural raw materials.

   Sales of fuel and lubricants.

   Sales of textiles and apparels.

   Sales of chemicals and pharmaceuticals.

   Sales of electrical and non-electrical machinery, motor
   vehicles, electronic machines, professional and scientific
   measurement and control instruments.

   Sales of construction materials.

   Sales of paper, printed and published material.

   Services of traders and middlemen.

4. SALES OF FOOD PRODUCTS

   Sales of bakery, grossery, meat, poultry, fish, dried
   fruits, fruits and vegetables, cereal, flour, animal foods,
   milk, cheese, other dairy products, alcohol and tobacco.

5. SALES OF TEXTILES AND WEARING APPARELS INCLUDING FOOTWEAR

6. SALES OF FURNITURE AND FIXTURES

   Sales of wooden furniture.

   Sales of pottery, china, earthenware.

   Sales of metal furniture.

   Sales of radio, refrigerator, washing machine, sewing
   machine, etc.

   Sales of carpet.

7. SALES OF PHARMACEUTICALS, PARFUMES, COSMETICS AND OTHER
   TOILET PREPARATIONS

8. SALES OF TRANSPORTATION EQUIPMENT, AGRICULTURAL MACHINERY
   AND HAND TOOLS

   Sales of trucks, cars, motorcycles, bicycles and their
   spare parts.

   Sales of agricultural machinery, handtools, other machines
   and apparatus (excluding home apparatus) and their spare
   parts.

9. SALES OF WOOD AND CONSTRUCTION MATERIALS

   Sales of plywood and pressed wood.

   Sales of structural and heating equipment and tube, sheet
   iron products.

Sales of glass.

Sales of cement, lime, gypsum, and other structural clay products.

10.BANKING, INSURANCE AND CO-OPERATIVE SERVICES

Insurance companies.

The purchase and sale of real estate.

Banks and credit institutions.

11.RAILWAY TRANSPORTATION

12.SEA, RIVER AND LAKE TRANSPORTATION

13.AIR TRANSPORTATION

14.HIGHWAY TRANSPORTATION

15.SHIPPING AND TRAVELLING AGENCIES AND CARGO STATIONS (Haulage)

16.STORAGE FACILITIES

17.COMMUNICATION SERVICES

18.ADMINISTRATIVE SERVICES

Public administration.

Private administration.

Municipalities.

Village administration.

19.GENERAL SERVICES

Education, health, religious and legal services.

Consulting services for the business (including advertisers).

Chambers of commerce, industry, labour unions and other professional and scientific establishments.

Chemical analysis laboratories.

20.RECREATIONAL SERVICES

Cinemas, studios , film distribution centers.

Theatres, radios, orchestras.

Tennis corts, swimming pools, dansings, sport and wedding saloons.

21.PERSONAL SERVICES

Home services.

Restaurants, cafées, hotels.

Drycleaning and barbershops.

Photograph studios.

Turkish baths.

Shoe repair shops, etc.
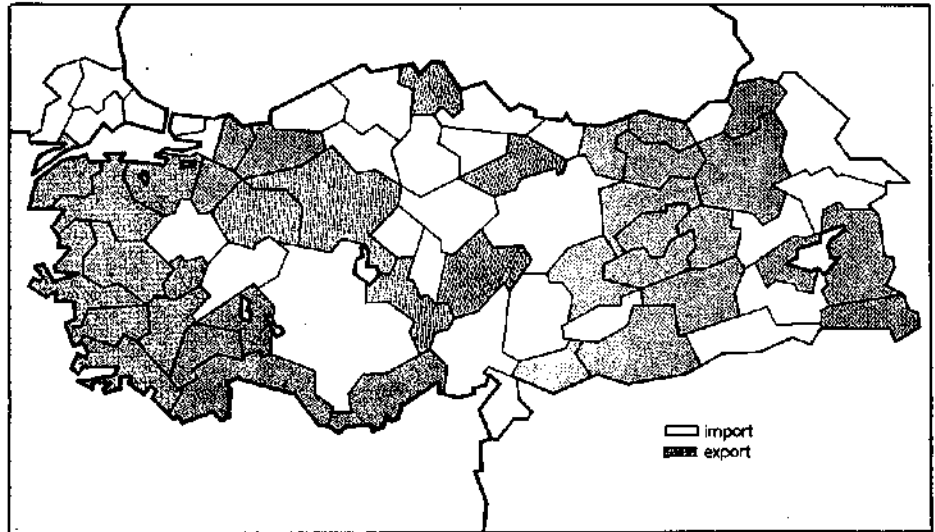
Map 1. Sector 1. Construction Industry
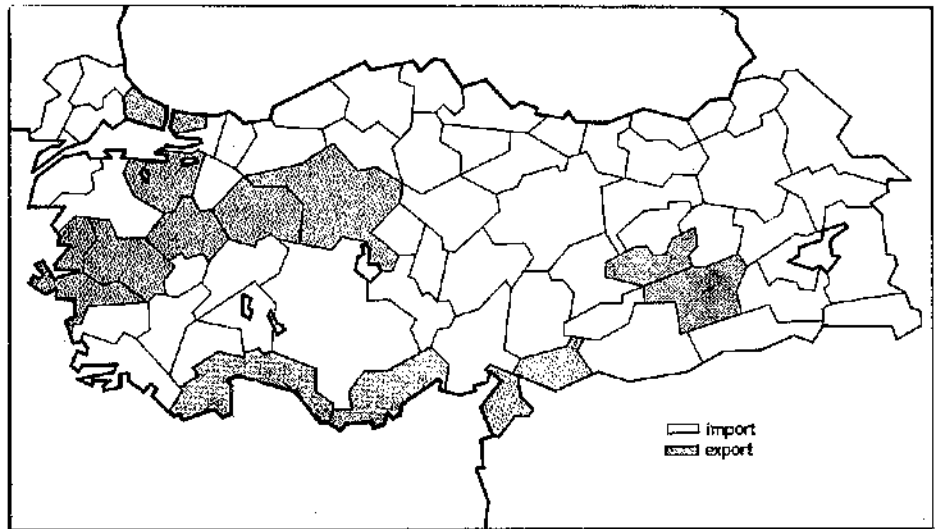
Map 2. Sector 2. Electricity, Water and
          Gas Supply
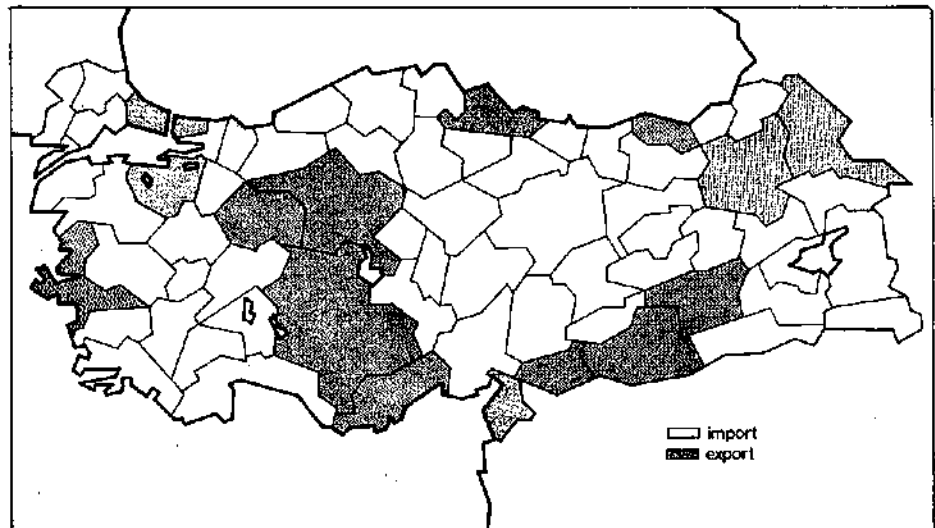
Map 3. Sector 3. Wholesale Trade
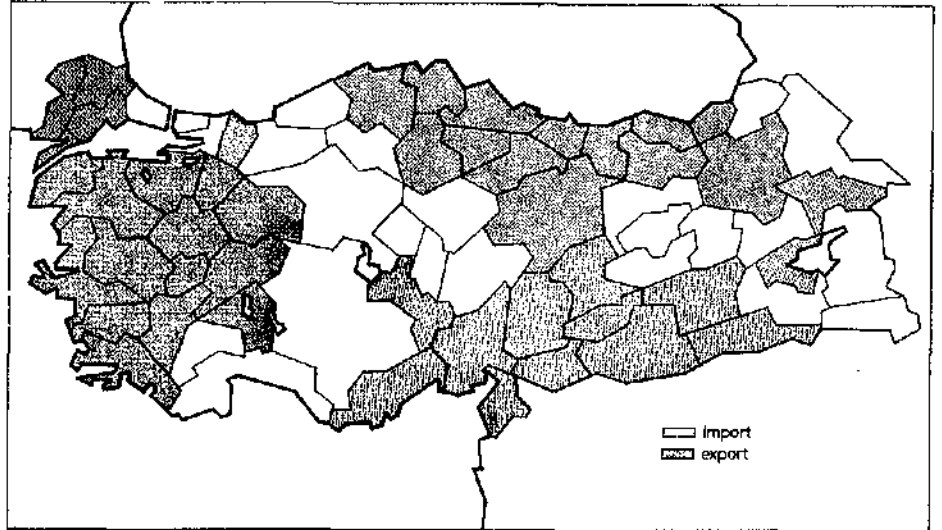
Map 4. Sector 4. Sales of Food Products.
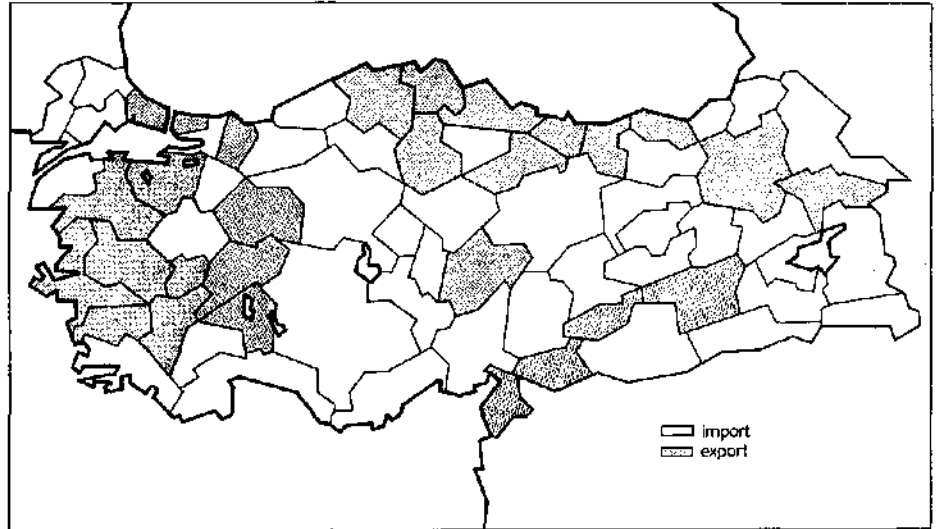
Map 5. Sector 5. Sales of Textiles and
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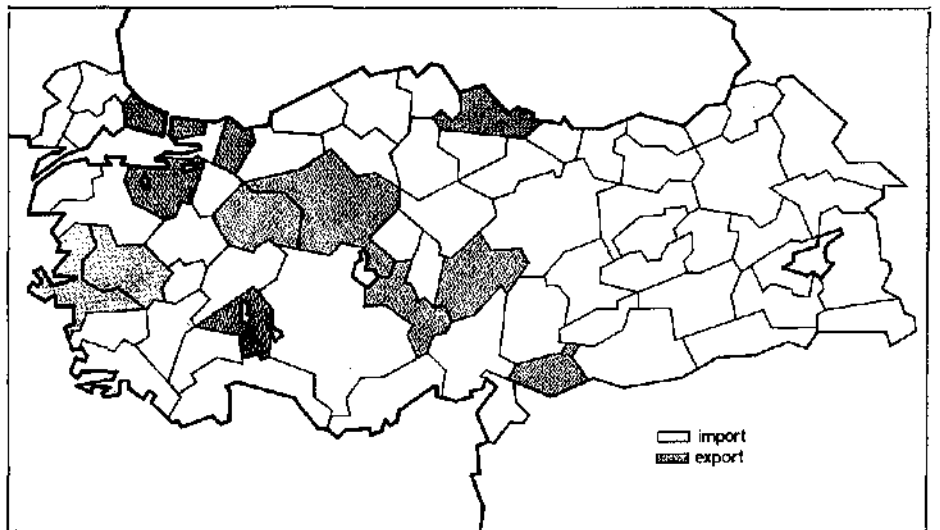
Map 6. Sector 6. Sales of Furniture and
Fixtures
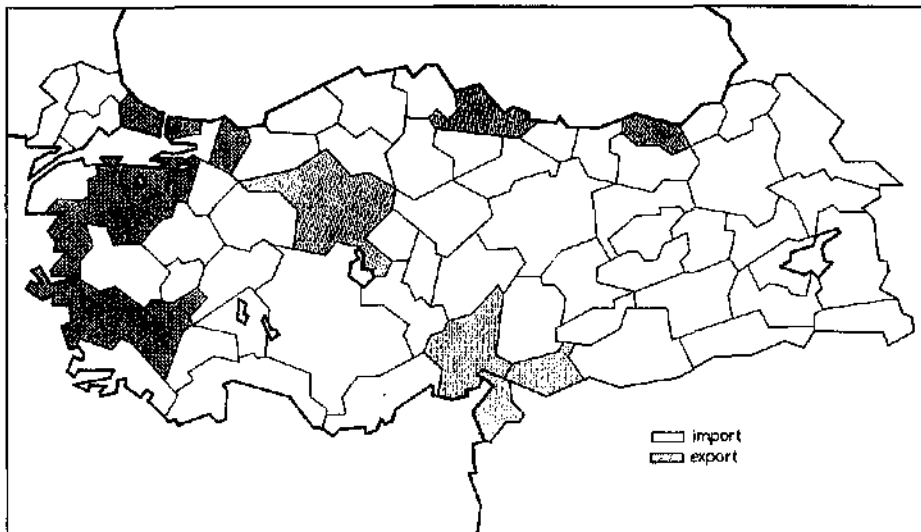
Map 7. Sector 7. Sales of Pharmaceuticals
          and Cosmetics
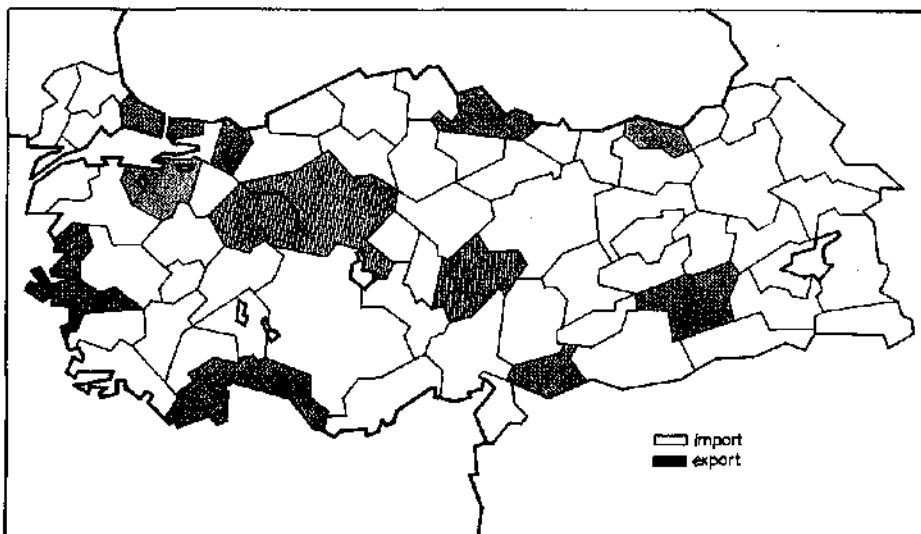
Map 8. Sector 8. Sales of Transportation
          Equipment, Agricultural
          Machinery and Hand Tools
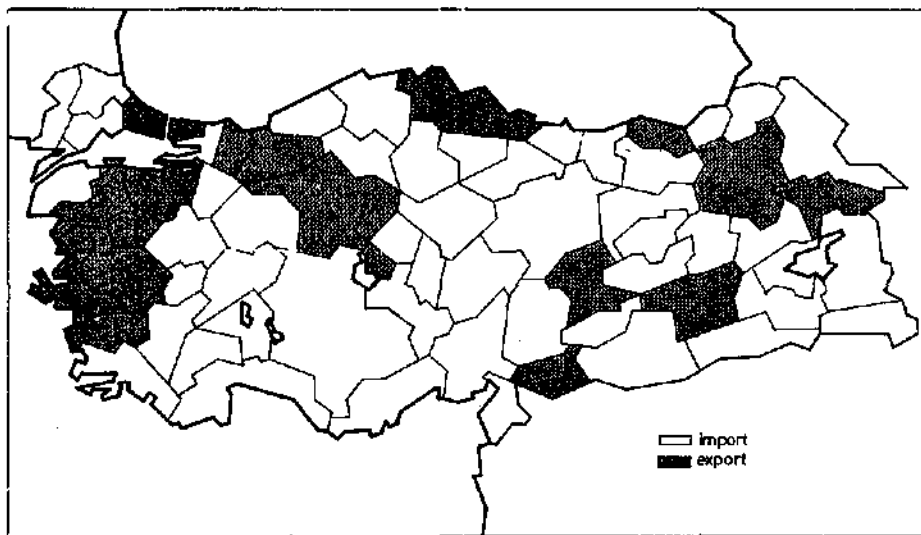
Map 9. Sector 9. Sales of Wood and
          Construction Materials

Map 10. Sector 10. Banking, Insurance
and Co-operative
Services
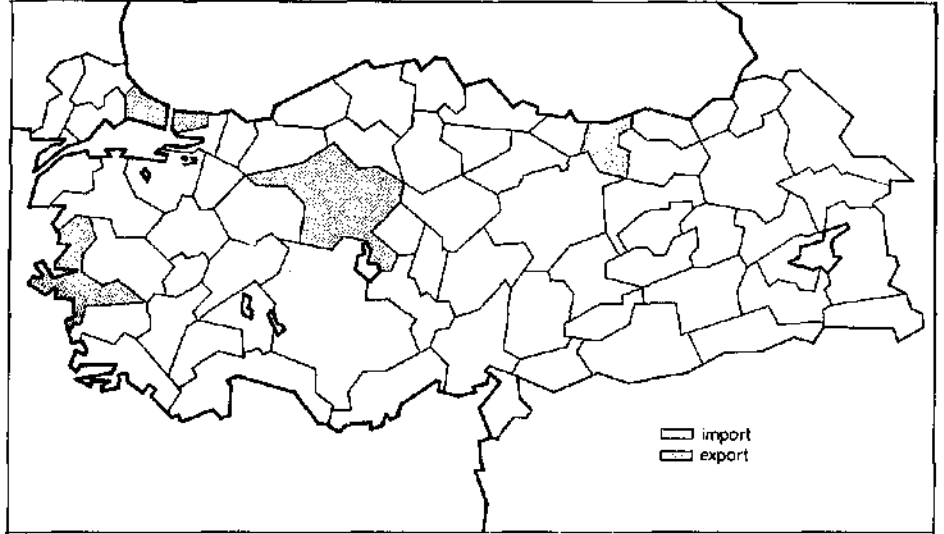
Map 11. Sector 11. Railway Transportation
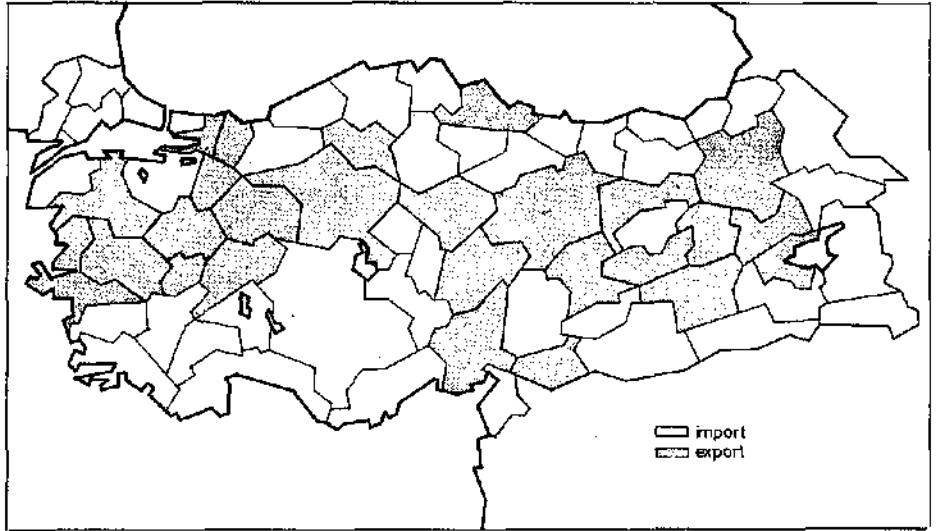
Map 12. Sector 12. Sea, River and Lake
Transportation
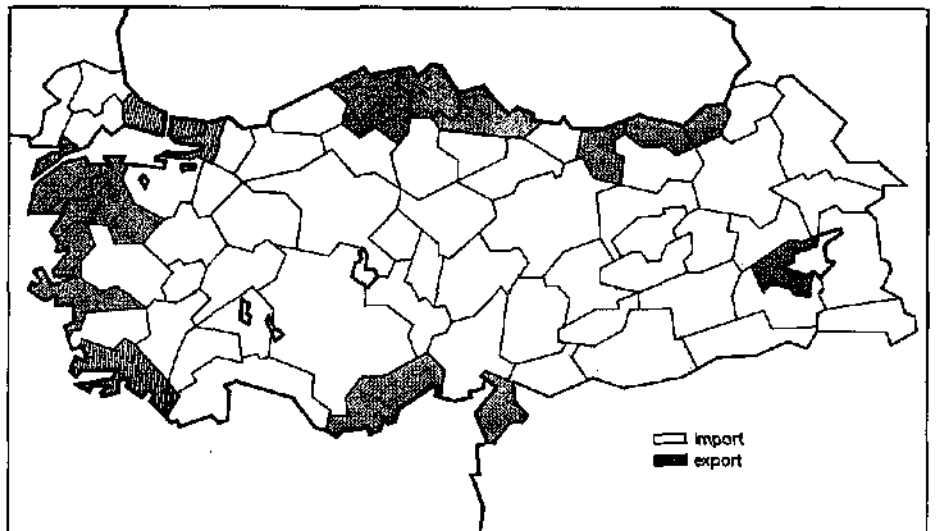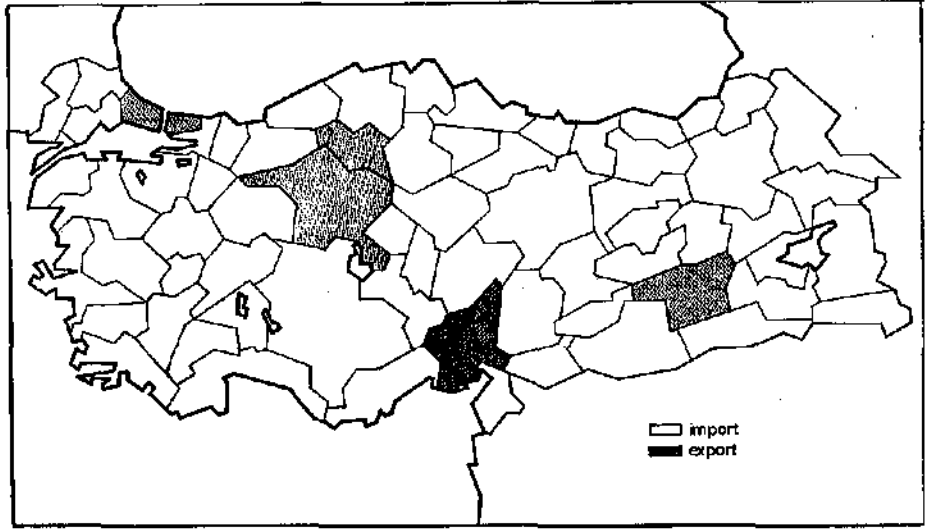
Map 13. Sector 13. Air Transportation
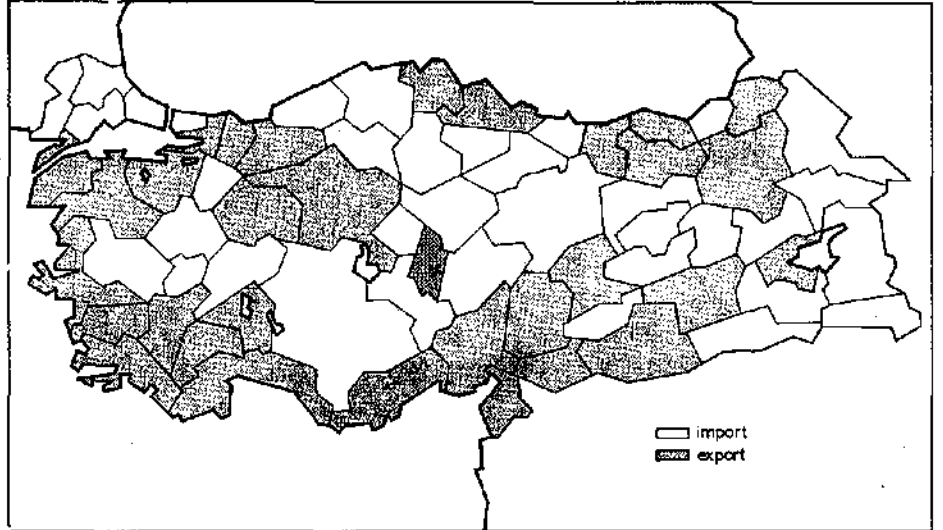
Map 14. Sector 14. Highway Transportation
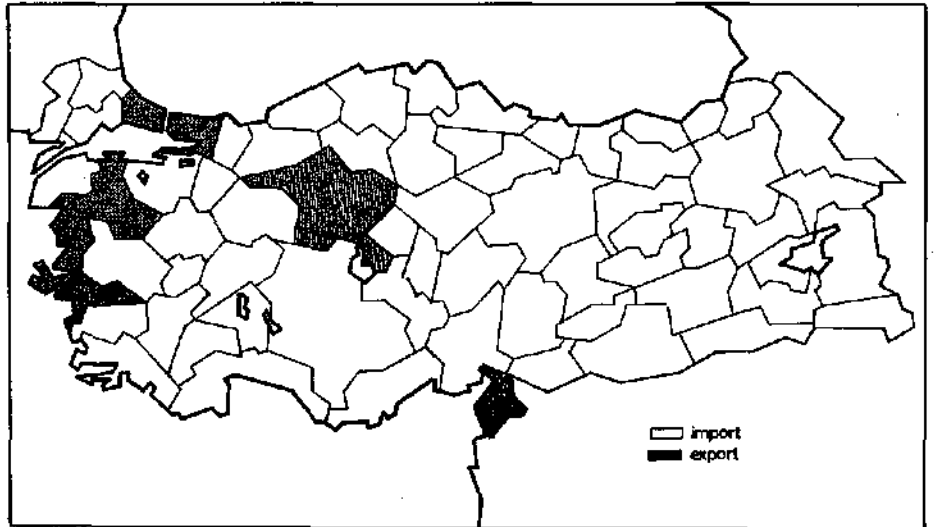
Map 15. Sector 15. Shipping and Travelling
         Agencies and Cargo
         Stations
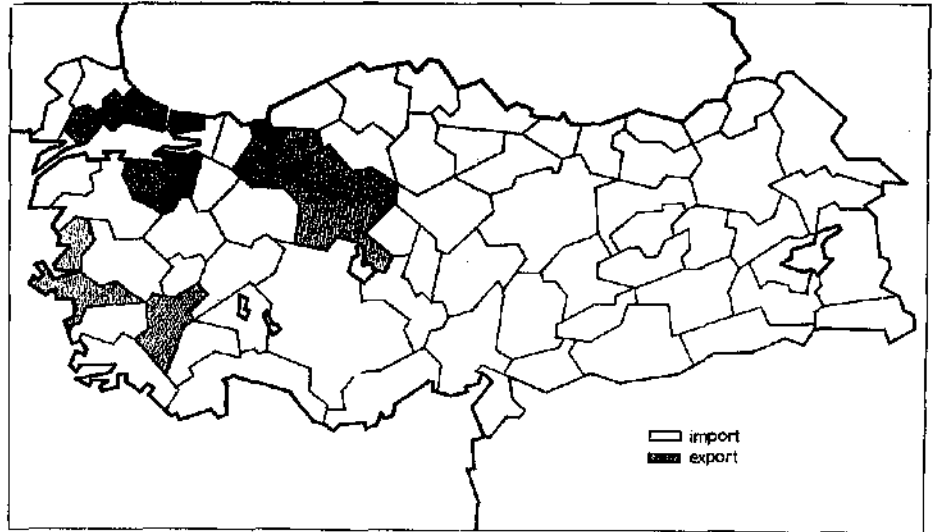
Map 16. Sector 16. Storage Facilities
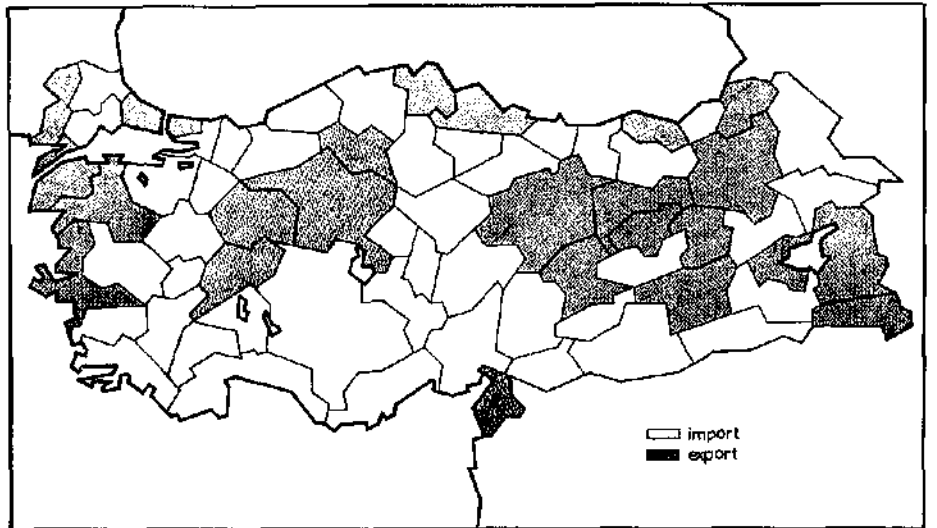
Map 17. Sector 17. Communication Services
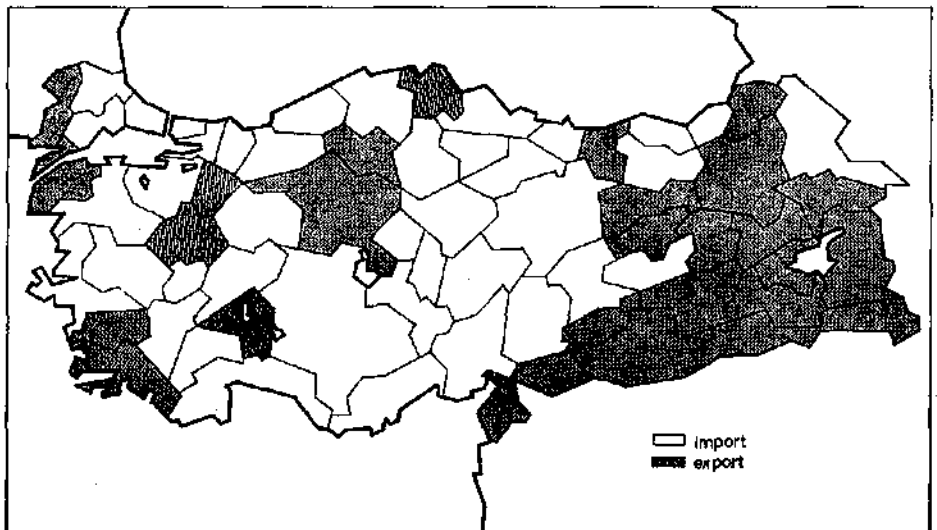
Map 18. Sector 18. Administrative Services
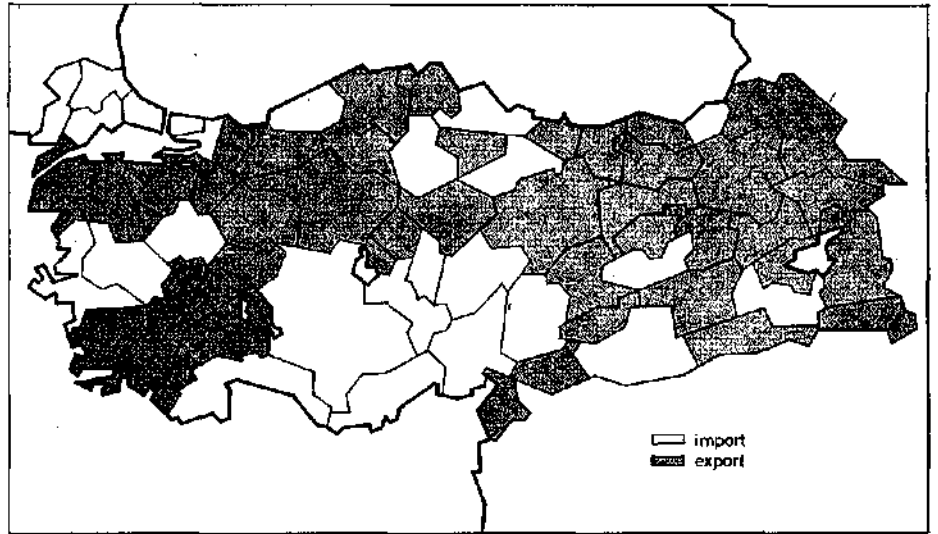
Map 19. Sector 19. General Services
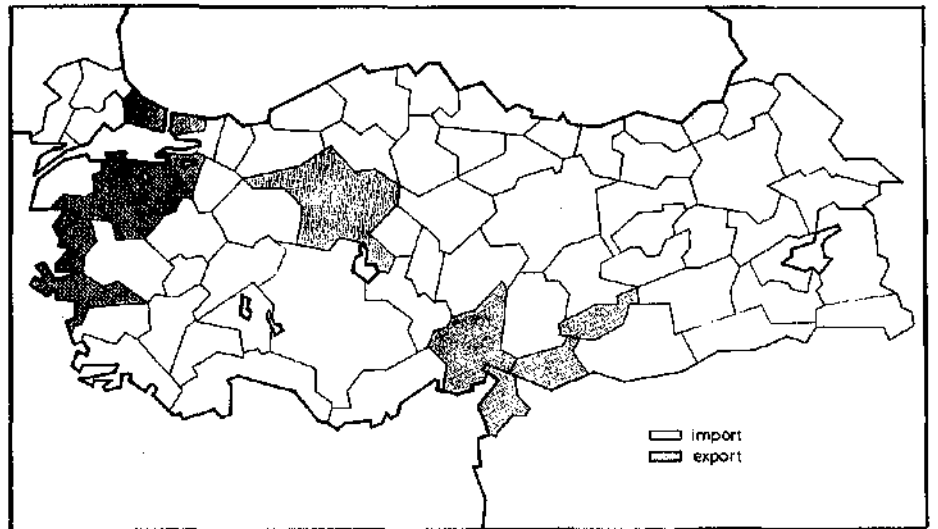
Map 20. Sector 20. Recreational Services
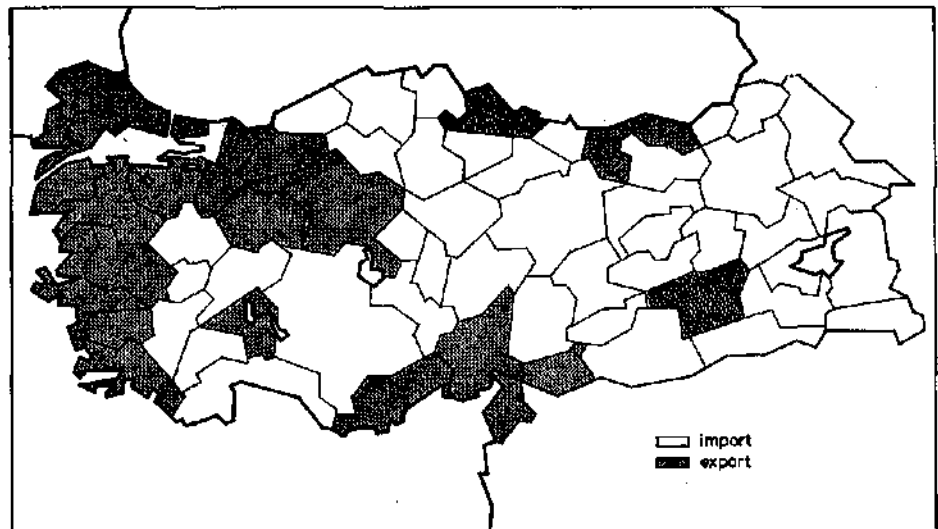
Map 21. Sector 21. Personal Services
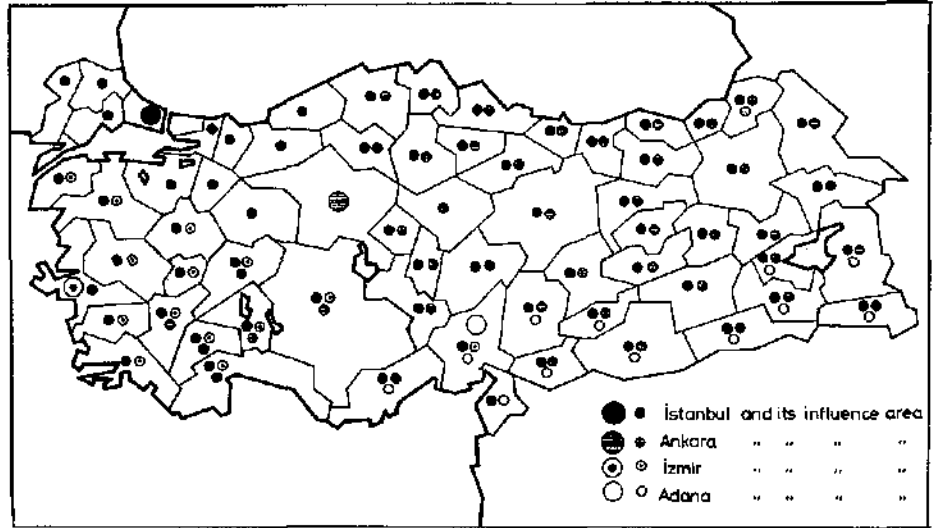
Map 22. Influence areas for sector aggregations.

Map 23. Influence areas for sector aggregations.

Map 24. Influence areas for wholesale trade.

Map 25. Influence areas for sector aggregations.

Map 26. Influence areas for sector aggregations.

Map 27. Influence areas for sector aggregations.

TABLE I. Sectoral and provincial distribution of export-import values

Tablo I.

Provinces \ Sectors	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
ADANA 01	-3044.79	309.06	417.11	136.10	-125.60	-32.70	36.28	-3.01	-13.97	-562.30	409.63	-687.52	384.21	258.79	-33.55	-34.19	-101.15	-1920.48	-1872.09	190.55	79.82
ADIYAMAN 02	-427.75	-77.84	-110.49	101.71	18.97	-10.54	-14.76	-14.07	-30.89	-156.75	-48.27	-98.99	-22.11	-190.53	7.38	-6.41	-22.02	203.43	62.34	30.63	-282.13
AFYON 03	-916.41	-89.19	-2.78	841.69	78.65	-17.74	-16.27	-26.05	-25.69	-340.06	1037.33	-263.52	-8.58	-93.68	-22.19	-12.52	31.29	-76.56	233.50	94.36	-163.15
AGRI 04	-379.55	-72.40	53.17	110.06	0.26	-18.97	-10.21	-18.47	3.78	-148.07	-151.55	-86.57	-18.65	-144.96	-7.98	-5.45	-1.35	342.92	574.01	-47.04	-305.42
AMASYA 05	-860.42	-82.83	134.94	208.42	-63.68	-33.78	-12.07	-33.60	-25.49	-200.08	-177.19	-174.98	-32.94	-105.00	-16.21	-4.07	-54.40	-234.85	146.43	-43.35	-417.17
ANKARA 06	7979.34	1779.92	1672.40	-2872.73	-581.92	253.00	32.59	338.32	343.63	7169.40	1670.40	-2084.94	1183.08	947.43	157.80	19.05	2151.38	15789.88	9412.22	2048.70	957.42
ANTALYA 07	2396.66	15.20	-113.39	-63.24	-48.78	-25.49	-23.52	26.54	-17.22	-273.81	-563.16	-128.60	-21.49	381.77	-1.02	-3.82	-4.23	-379.83	-308.23	-58.81	-392.29
ARTVIN 08	360.63	-44.74	96.16	-61.88	39.04	-14.37	-17.50	-7.76	-12.68	-112.14	-156.80	-21.83	16.93	140.72	-1.09	-5.53	1.46	193.68	684.16	-49.04	-421.71
AYDIN 09	2271.51	-10.63	-134.97	536.09	77.87	-5.73	7.62	-1.47	30.86	-55.47	-104.64	-337.00	-77.03	894.65	-12.70	-6.02	-99.15	942.23	409.46	-50.92	1995.62
BALIKESIR 10	683.82	-28.16	158.77	889.80	77.07	-23.86	15.73	-31.73	17.80	-332.52	96.12	207.80	67.12	608.00	12.89	-6.81	33.69	253.23	383.52	26.94	1260.24
BILECIK 11	137.02	-17.66	-39.05	33.29	-58.02	-11.21	-10.61	-14.87	-18.28	-76.79	620.08	-78.00	-13.07	-10.85	-7.74	-3.29	-1.90	940.02	410.49	-36.98	72.89
BINGOL 12	280.61	-33.07	12.09	-15.63	31.13	-9.98	-6.32	-8.44	-11.86	-52.72	61.35	-31.39	-9.06	-109.19	-3.68	-2.51	11.56	371.67	348.33	23.30	-206.45
BITLIS 13	201.51	-22.70	-19.83	64.83	-6.47	-9.88	10.13	-2.30	-13.94	51.13	272.61	36.09	-11.77	76.93	-4.18	-2.54	15.83	588.28	423.41	-32.52	-71.88
BOLU 14	245.33	-112.69	-150.83	107.23	-19.37	-22.76	-13.72	-4.40	12.93	-258.52	-394.05	-191.48	-48.27	1173.61	-11.81	0.79	-47.46	246.94	483.86	-95.74	5.08
BURDUR 15	331.84	-41.37	-101.53	-59.67	-35.63	-10.97	-6.99	-11.35	-15.63	-111.50	-71.21	-116.29	-25.22	185.38	-6.05	-5.55	-23.44	-71.34	266.33	-38.01	-203.81
BURSA 16	2682.31	61.04	103.76	1079.27	378.88	87.33	19.71	21.96	103.68	-71.83	-1014.59	-310.65	-38.54	1926.53	-7.80	9.25	-72.16	950.18	591.23	26.61	2603.07
CANAKKALE 17	13.86	-65.52	-218.26	458.67	-75.69	-33.11	-14.77	-19.46	-26.74	-297.60	-408.20	285.98	-46.29	216.92	-2.23	-4.50	0.22	2273.80	520.14	-76.00	531.17
CANKIRI 18	-499.35	-69.68	-130.85	88.73	-84.01	-21.23	-14.41	-18.76	-8.70	-136.35	614.32	-114.78	12.35	-181.91	-9.82	-4.39	32.95	92.24	386.17	-76.00	-531.17
CORUM 19	-680.20	-142.42	-118.21	31.53	47.78	-33.36	32.86	-44.60	-57.26	-386.93	-435.08	-247.74	-54.26	-63.81	-18.84	-13.60	-118.64	-506.24	-21.92	-118.54	-684.64
DENIZLI 20	839.01	-115.33	-150.06	639.00	155.93	18.34	0.16	-23.58	-31.22	-102.72	-95.93	-245.65	-52.24	407.82	-12.83	-2.41	-54.56	-86.42	680.08	-88.44	792.32
DIYARBAKIR 21	1779.08	16.16	272.15	669.29	157.76	-33.24	-3.53	22.90	11.99	109.77	142.80	-187.99	7.69	451.41	-12.58	-12.01	120.32	1907.57	1272.50	21.35	1024.61
EDIRNE 22	-178.62	-91.31	-91.72	32.88	-111.40	-39.99	-21.34	-33.00	-23.87	-189.91	-202.29	-209.50	-45.93	73.93	-7.27	-10.84	8.23	460.45	-74.26	-65.96	302.26
ELAZIG 23	1556.04	288.67	-204.68	-256.54	-127.09	-37.33	18.94	-18.64	-39.02	-295.46	274.43	-217.78	-2.46	-379.73	-20.30	-11.54	48.50	-505.63	-229.88	-116.97	781.26
ERZINCAN 24	4.83	-49.49	-135.87	-22.96	-45.54	-17.29	-17.13	-16.54	-26.23	-153.33	396.53	-126.22	-22.24	-151.90	-10.68	-8.66	37.49	87.59	294.81	70.35	603.29
ERZURUM 25	704.28	-17.16	391.86	266.44	68.25	-9.29	-26.70	-0.49	4.63	-234.58	448.00	-241.37	-6.99	-39.57	-19.36	-12.63	171.53	712.38	1601.98	-100.84	-94.23
ESKISEHIR 26	1367.61	89.58	39.19	364.52	34.40	29.11	0.28	4.71	-7.41	-25.83	1336.93	-331.56	-24.09	574.21	-19.30	-7.37	10.01	-365.57	738.89	-53.78	581.10
GAZIANTEP 27	1262.49	110.71	467.26	1221.31	410.05	66.67	29.38	62.54	66.37	-158.13	598.42	-276.37	-51.81	1712.21	-16.90	-14.69	64.65	1649.39	440.48	203.57	2395.95
GIRESUN 28	528.71	-73.37	90.07	416.97	139.57	-12.15	-14.13	-18.58	-6.01	146.83	-261.88	10.76	-32.16	281.35	-8.87	-4.47	-13.90	207.50	746.54	72.76	270.32
GUMUSHANE 29	12.44	-83.20	-108.81	55.12	-102.13	-24.14	-20.79	-21.12	-34.12	-160.20	-194.06	-105.76	23.08	36.24	-10.18	-6.95	-31.37	138.25	224.33	-72.39	570.18
HAKKARI 30	412.31	-29.40	46.96	69.59	-42.19	-5.96	-7.44	-7.54	-11.87	6.83	57.02	-32.25	-7.24	-147.72	-2.94	-2.01	32.31	2342.11	24.75	-20.79	281.68
HATAY 31	-309.18	62.58	404.81	962.08	78.67	-43.20	29.71	-7.14	-5.71	-186.30	-47.85	703.70	-47.47	1311.43	17.83	-12.87	47.56	2983.79	350.75	90.22	1130.55
ISPARTA 32	1174.64	-51.65	-115.30	243.32	121.36	153.49	-13.41	-19.86	-17.46	-114.08	-71.04	-148.44	-29.43	399.43	-0.98	-4.55	-4.04	209.78	1068.31	-41.72	173.64
ICEL 33	1578.85	-44.55	495.58	74.12	-79.77	-38.64	-2.13	-37.32	-39.49	-249.52	-283.06	263.41	-79.56	498.01	-3.76	-3.11	-133.12	-1093.69	-1419.59	-23.78	665.74
ISTANBUL 34	-9510.94	1568.67	2737.26	-6716.64	1400.02	869.43	679.25	503.93	432.72	8397.96	-3568.41	8787.03	1033.05	-2048.77	483.75	512.64	403.70	-15804.27	-8032.12	2268.84	10319.29
IZMIR 35	1159.69	254.78	240.62	250.89	631.73	221.46	157.67	118.08	186.64	706.00	34.34	448.12	-46.45	511.97	200.54	96.39	157.03	-2816.54	-2225.79	427.02	4485.77
KARS 36	-1388.66	-224.78	28.23	186.32	278.71	-72.53	-51.10	-48.98	-38.59	-436.46	-54.95	-288.14	-65.23	-1085.83	-22.88	-16.36	-96.90	654.75	144.85	-160.05	-1719.81
KASTAMONU 37	-617.14	-46.28	185.13	157.38	0.45	-29.80	-22.20	-18.76	-17.47	-199.20	-336.57	360.47	-38.98	863.73	-9.45	-7.92	-0.29	-102.16	664.82	-58.19	-955.74
KAYSERI 38	2341.84	-102.99	-285.62	93.00	138.89	91.59	8.47	12.23	-7.79	-538.91	170.92	-430.73	-79.67	-648.63	-30.06	-16.36	-219.51	1492.56	-728.95	235.69	-2125.29
KIRKLARELI 39	-994.53	-53.28	119.11	171.59	-82.44	-32.92	24.06	-8.64	9.35	-191.38	-64.32	-39.29	-43.82	-35.63	-14.79	-12.15	-58.87	361.81	-9.67	-44.19	219.55
KIRSEHIR 40	-59.64	-0.28	-104.18	133.88	-65.44	-12.00	-19.46	-7.79	-18.18	-134.26	-184.26	-110.65	-25.73	-41.23	-10.44	-7.13	-36.12	139.46	151.09	-24.70	-483.11
KOCAELI 41	-1114.61	-193.48	-104.17	816.78	382.32	-70.20	-24.08	55.30	-45.61	-567.27	529.70	546.94	-41.46	-779.95	5.46	-16.64	-81.18	-1974.38	-1999.98	-201.56	-1800.82
KONYA 42	-1899.43	-553.03	36.71	911.53	224.30	-55.79	-76.25	-91.47	41.44	-1333.44	-539.87	-902.82	-188.40	-1059.30	-61.79	-52.23	-349.45	3738.25	-2487.34	-480.66	-3815.78
KUTAHYA 43	-484.56	370.03	-296.64	64.52	-26.50	-20.18	-26.28	-35.03	-47.52	-221.94	393.87	-249.88	56.64	-326.47	-12.40	-15.98	-101.49	376.78	-226.72	-51.45	-573.67
MALATYA 44	1087.21	-85.85	48.19	391.24	-1.00	-21.47	-16.16	-25.80	6.02	-235.39	1177.93	211.38	15.78	61.13	-16.80	-12.52	18.10	1.55	596.44	83.86	-74.35
MANISA 45	299.54	188.06	-214.77	505.96	204.34	114.35	-20.55	-11.18	64.21	-365.67	31.33	-538.45	117.07	-273.78	-34.96	-16.12	-203.99	-1583.11	-853.57	-212.64	897.23
MARAS 46	-901.81	-105.28	-191.22	264.98	-4.13	-47.20	-15.17	-25.80	-34.41	-346.93	-161.36	208.09	-47.82	94.00	-13.41	-9.26	-100.82	-480.69	-77.75	-47.43	429.47
MARDIN 47	-721.10	-92.63	151.33	383.26	44.94	-43.01	-31.24	-23.77	-35.76	-313.93	-55.55	167.73	-40.11	-44.59	-13.28	-11.12	-36.11	3515.81	361.52	-100.95	-494.73
MUGLA 48	1021.55	-83.85	187.23	362.24	14.56	-23.94	8.08	8.66	-25.88	-192.53	-342.44	58.65	-39.84	414.89	-12.80	-9.15	11.93	194.56	269.56	-91.24	406.83
MUS 49	-323.56	-69.55	-75.64	123.58	-27.68	-23.35	-14.94	-1.19	-18.20	-126.67	9.32	80.09	-18.42	-242.21	-7.48	-5.11	26.13	315.46	108.01	-57.66	559.91
NEVSEHIR 50	-505.39	-66.36	-134.18	186.12	-110.99	-23.58	-16.80	-11.19	-18.11	-153.28	-193.12	133.48	-26.95	163.84	-12.16	-8.30	-58.04	-228.27	1.04	-73.75	654.74
NIGDE 51	140.18	-142.20	136.61	27.06	-141.78	0.65	-23.29	-36.02	-46.76	-354.36	-6.89	229.96	52.74	-283.44	-20.22	-12.18	-98.19	437.08	-121.60	-118.12	1000.38
ORDU 52	859.04	-82.60	196.94	403.92	44.62	-35.61	-14.05	-27.61	-33.24	-134.64	-337.42	-75.89	-40.83	-15.97	-15.39	-11.88	-62.68	-346.91	430.40	-87.67	-415.15
RIZE 53	-146.30	-93.37	-134.05	0.50	-94.54	-29.99	-12.57	-32.12	-19.47	-264.52	-324.66	263.20	-42.37	-25.42	-10.20	-8.75	-85.69	645.49	-41.81	-123.00	-587.52
SAKARYA 54	270.97	-9.06	-6.99	357.74	43.31	5.85	3.19	44.41	111.04	-191.18	389.92	-183.52	-49.13	841.16	-13.01	-14.39	-32.81	291.07	364.55	66.76	458.60
SAMSUN 55	-418.85	-107.57	202.05	733.18	359.49	101.77	142.79	30.62	26.57	-192.23	126.90	337.73	-44.70	499.83	-26.01	-9.59	-22.80	-389.48	-17.01	8.13	530.56
SIIRT 56	-1228.47	-128.96	209.36	235.59	-221.95	-31.77	-33.61	-37.16	-39.95	-355.41	-171.22	177.67	-24.44	845.68	-15.82	-11.49	-53.76	1396.89	-428.79	-121.69	1289.36
SINOP 57	37.58	-31.17	38.11	226.56	36.18	-9.41	-12.10	-16.39	-3.79	-92.16	-166.33	82.21	-20.49	222.96	-7.73	-1.96	0.83	144.68	504.62	-46.61	282.10
SIVAS 58	-1491.95	-131.29	-187.48	128.62	-141.79	-60.46	-43.27	-36.22	-57.43	-427.82	1729.94	311.87	-42.23	-494.59	-25.32	-18.03	71.65	-599.82	293.93	-199.43	-1347.65
TEKIRDAG 59	-717.18	-41.26	-26.98	155.43	-105.05	-27.25	-11.65	-3.26	-0.98	-234.82	-75.52	-44.51	-35.34	-20.07	-13.81	-5.15	-63.55	-460.42	-144.72	-26.17	234.57
TOKAT 60	520.39	-51.98	-122.56	204.21	21.85	-30.52	-22.87	-6.46	-29.66	-374.45	-151.38	259.13	-56.17	-446.12	-24.43	-12.68	-79.20	-561.09	-239.10	-86.69	618.96
TRABZON 61	1930.44	65.30	2.77	1221.59	138.83	-3.16	5.52	24.77	9.75	15.52	-444.94	202.56	-31.87	653.14	-14.09	-11.77	52.79	93.58	1576.11	-86.69	185.61
TUNCELI 62	455.41	-28.04	-67.75	-31.41	-45.67	-8.36	-10.39	-4.53	-10.57	-57.10	-61.03	-43.04	-10.11	-158.80	-4.10	-2.80	-19.13	3065.22	566.16	-19.13	-110.50
URFA 63	212.10	-142.97	559.79	711.74	-10.51	-62.13	-32.68	-15.51	-66.14	-482.23	-270.30	273.32	-54.90	359.32	-21.53	-6.44	-148.79	667.94	1119.51	-149.19	-234.87
USAK 64	177.17	-26.22	-74.15	44.73	-10.32	-17.65	-6.85	-13.15	-4.02	-58.62	-298.08	-100.34	-23.19	-173.18	-3.41	-5.43	-21.36	-25.06	-398.15	-58.05	-5.21
VAN 65	931.38	-95.60	6.91	-97.66	-72.92	-29.15	22.90	-22.28	7.09	-184.21	-200.35	-116.26	-9.11	-163.13	-10.41	-6.79	81.78	3681.90	250.28	-67.19	-508.13
YOZGAT 66	-1524.13	-180.23	57.45	-110.03	-136.56	-52.68	-39.21	-32.82	-35.28	-313.17	99.90	202.61	-41.91	-595.93	-13.64	-11.73	56.74	450.84	145.82	-128.64	-1014.74
ZONGULDAK 67	-6648.70	-63.81	1371.88	2712.64	984.69	191.00	140.63	-170.25	-195.28	-1574.76	-454.36	80.79	-190.99	-3728.81	42.78	48.17	-528.01	4720.79	6575.89	499.25	-5835.25

TABLE II. Sectoral distribution of the number of exporters and importers

Sector Code	Sector Name	No. of Exporters	No. of Importers
1	Construction industry	38	29
2	Electricity, gas and water supply	13	54
3	Wholesale trade	16	51
4	Sales of food products	44	23
5	Sales of textiles	28	29
6	Sales of furniture	12	55
7	Sales of pharmacies, etc.	13	54
8	Sales of machines and motors	12	55
9	Sales of wood and construction materials	17	50
10	Insurance, banking and credit services	4	63
11	Railway transportation	26	41
12	Sea, river, lake transportation	15	52
13	Air transportation	5	62
14	Highway transportation	31	36
15	Travelling agencies	6	61
16	Storage facilities	7	60
17	Communication services	24	43
18	Administrative services	28	39
19	General services	43	24
20	Recreational services	9	58
21	Personal services	26	41

TABLE III. Group 1 : Aggregation of banking, air transport, shipping, storage and recreational services.

Importing \ Exporting	ADANA 01	ADIYAMAN 02	ANKARA 06	BALIKESİR 10	BOLU 14	BURSA 16	ÇANKIRI 18	DENİZLİ 20	DİYARBAKIR 21	GAZİANTEP 27	GİRESUN 28	HATAY 31	İSTANBUL 34	İZMİR 35	KOCAELİ 41	TEKİRDAĞ 59	TOTAL
ADANA 01	><		579										34	17			630
ADIYAMAN 02	22	><	164										6				192
AFYON 03			9			27							407	35			478
AĞRI 04			165										60				225
AMASYA 05			233										63				296
ANKARA 06			><														—
ANTALYA 07			13					2					341	3			359
ARTVİN 08			52								77		56				185
AYDIN 09													77	125			202
BALIKESİR 10				><									400	7			407
BİLECİK 11													138				138
BİNGÖL 12			89										3				92
BİTLİS 13	12		67							21			3				103
BOLU 14					><								415				415
BURDUR 15			25										150	12			187
BURSA 16				8		><							111				119
ÇANAKKALE 17													391	2		5	398
ÇANKIRI 18			136				><						90				226
ÇORUM 19			560										33				593
DENİZLİ 20			122					><					11	193			256
DİYARBAKIR 21			123						><	21			12				156
EDİRNE 22													320				320
ELAZIĞ 23			434										12				446
ERZİNCAN 24			175										90				265
ERZURUM 25			302										73				375
ESKİŞEHİR 26							7						123				130
GAZİANTEP 27	52		175							><			15				242
GİRESUN 28			32								><		86				118
GÜMÜŞHANE 29			225										17				272
HAKKARİ 30	3		28										63				94
HATAY 31	47											><	199				246
ISPARTA 32			29										156	6			191
İÇEL 33	104		4										253				361
İSTANBUL 34													><				—
İZMİR 35													46	><			46
KARS 36			225								70		405				700
KASTAMONU 37			27				12						274				313
KAYSERİ 38			346										555				901
KIRKLARELİ 39													306				306
KIRŞEHİR 40			61										141				202
KOCAELİ 41													827		><		827
KONYA 42			669			2							1356	89			2116
KÜTAHYA 43				5									346	7			358
MALATYA 44			349										15				346
MANİSA 45				16									117	614			747
MARAŞ 46	93		347									15	9				464
MARDİN 47	40		314							101			24				479
MUĞLA 48													40	306			346
MUŞ 49		12	191										18				221
NEVŞEHİR 50			254										20				274
NİĞDE 51			525										32				557
ORDU 52			176										115				291
RİZE 53			307										142				449
SAKARYA 54													334				334
SAMSUN 55			237										44				281
SİİRT 56	138		355					8					27				528
SİNOP 57			20										144		5		169
SİVAS 58			669										43				712
TEKİRDAĞ 59													310			><	310
TOKAT 60			436										37				473
TRABZON 61			48										113				161
TUNCELİ 62		19	67										7				93
URFA 63	55		483							61		93	22				714
UŞAK 64				11									122	8			141
VAN 65	9		257		1								10				227
YOZGAT 66			513														513
ZONGULDAK 67													2356				2356
T O T A L	575	31	10428	40	1	36	12	2	8	204	147	108	12559	1424	5	5	25735

Table IV. 2

No	Province
23	ELAZIĞ
24	ERZİNCAN
25	ERZURUM
26	ESKİŞEHİR
27	GAZİANTEP
28	GİRESUN
29	GÜMÜŞHANE
30	HAKKARİ
31	HATAY
32	ISPARTA

Table IV. 3

No	Province
33	İÇEL
34	İSTANBUL
35	İZMİR
36	KARS
37	KASTAMONU
38	KAYSERİ
39	KIRKLARELİ
40	KIRŞEHİR
41	KOCAELİ
42	KONYA
43	KÜTAHYA
44	MALATYA
45	MANİSA
46	MARAŞ
47	MARDİN
48	MUĞLA
49	MUŞ
50	NEVŞEHİR
51	NİĞDE

Table IV. 4

No	Province
52	ORDU
53	RİZE
54	SAKARYA
55	SAMSUN
56	SİİRT
57	SİNOP
58	SİVAS
59	TEKİRDAĞ
60	TOKAT
61	TRABZON
62	TUNCELİ
63	URFA
64	UŞAK
65	VAN
66	YOZGAT
67	ZONGULDAK

TABLE IV. Group 2 : Aggregation of electricity, wholesale trade, furniture, pharmasie, machinery, wood sales, and sea transportation

Panel 1 — Importers 01–13

Exporters \ Importers	No	ADANA 01	ADIYAMAN 02	AFYON 03	AĞRI 04	AMASYA 05	ANKARA 06	ANTALYA 07	ARTVİN 08	AYDIN 09	BALIKESİR 10	BİLECİK 11	BİNGÖL 12	BİTLİS 13
ADANA	01		15											
ADIYAMAN	02													
AFYON	03													
AĞRI	04													
AMASYA	05													
ANKARA	06	299	134	3	46	135						15	55	47
ANTALYA	07	3												
ARTVİN	08													
AYDIN	09					15			'					
BALIKESİR	10													
BİLECİK	11													
BİNGÖL	12													
BİTLİS	13													
BOLU	14													
BURDUR	15													
BURSA	16	42		36						81	23	47		
ÇANAKKALE	17							121						
ÇANKIRI	18													
ÇORUM	19													
DENİZLİ	20						1							
DİYARBAKIR	21													
EDİRNE	22													
ELAZIĞ	23													
ERZINCAN	24													
ERZURUM	25									68				
ESKİŞEHİR	26			3										2
GAZİANTEP	27		110											
GİRESUN	28									11				
GÜMÜŞHANE	29													
HAKKARİ	30													
HATAY	31	405												
ISPARTA	32					25								
İÇEL	33	235						113						
İSTANBUL	34	478	99	269	60	188	2085	129		45	168	128	45	10
İZMİR	35			16						252				
KARS	36									28				
KASTAMONU	37					175								
KAYSERİ	38													
KIRKLARELİ	39													
KIRŞEHİR	40													
KOCAELİ	41													
KONYA	42													
KÜTAHYA	43			89										
MALATYA	44													
MANİSA	45	1		26				2			52			
MARAŞ	46													
MARDİN	47							59						
MUĞLA	48													
MUŞ	49													
NEVŞEHİR	50													
NİĞDE	51	1												
ORDU	52													
RİZE	53									11				
SAKARYA	54				3									
SAMSUN	55				92			52						
SİİRT	56													
SİNOP	57				5									
SİVAS	58													
TEKİRDAĞ	59													
TOKAT	60													
TRABZON	61									1				
TUNCELİ	62													
URFA	63												12	20
UŞAK	64													
VAN	65													
YOZGAT	66													
ZONGULDAK	67													
TOTAL		1464	358	442	206	498	2085	275	275	454	243	190	112	79

Panel 2 — Importers 14–32

Exporters \ Importers	No	BOLU 14	BURDUR 15	BURSA 16	ÇANAKKALE 17	ÇANKIRI 18	ÇORUM 19	DENİZLİ 20	DİYARBAKIR 21	EDİRNE 22	ELAZIĞ 23	ERZINCAN 24	ERZURUM 25	ESKİŞEHİR 26	GAZİANTEP 27	GİRESUN 28	GÜMÜŞHANE 29	HAKKARİ 30	HATAY 31	ISPARTA 32
ADANA	01																			
ADIYAMAN	02																			
AFYON	03																			
AĞRI	04																46			
AMASYA	05																			
ANKARA	06		113			150	260	150	33	33	95	17		17		82	83	51	36	78
ANTALYA	07		15																	
ARTVİN	08																			
AYDIN	09		16																	
BALIKESİR	10																			
BİLECİK	11																			
BİNGÖL	12																			
BİTLİS	13																			
BOLU	14																			
BURDUR	15																			
BURSA	16	4												8					6	
ÇANAKKALE	17																			
ÇANKIRI	18																			
ÇORUM	19																			
DENİZLİ	20																			
DİYARBAKIR	21						1										21			
EDİRNE	22																			
ELAZIĞ	23																			
ERZINCAN	24																			
ERZURUM	25											109					81			
ESKİŞEHİR	26																			
GAZİANTEP	27						44													
GİRESUN	28																			
GÜMÜŞHANE	29																			
HAKKARİ	30																			
HATAY	31														276					
ISPARTA	32		11															14		
İÇEL	33																			
İSTANBUL	34	492	116	311	218	229	314	246	192	478	237	110	28	332		73	52	47		168
İZMİR	35		7		160			83												
KARS	36																			
KASTAMONU	37											126								
KAYSERİ	38																			
KIRKLARELİ	39																			
KIRŞEHİR	40																			
KOCAELİ	41																			
KONYA	42																			
KÜTAHYA	43																			
MALATYA	44																			
MANİSA	45		26					105												
MARAŞ	46																			
MARDİN	47																			
MUĞLA	48																			
MUŞ	49																			
NEVŞEHİR	50																			
NİĞDE	51																			
ORDU	52																			
RİZE	53																			
SAKARYA	54	-					57													
SAMSUN	55																121	33		
SİİRT	56																			
SİNOP	57																4			
SİVAS	58																			
TEKİRDAĞ	59																			
TOKAT	60																			
TRABZON	61												167				6			
TUNCELİ	62																			
URFA	63										205						55	1		
UŞAK	64																			
VAN	65																			
YOZGAT	66																			
ZONGULDAK	67																			
TOTAL		496	304	311	378	379	676	584	225	511	537	389	295	340	276	214	398	145	56	365

Panel 3 — Importers 33–38

Exporters \ Importers	No	İÇEL 33	İSTANBUL 34	İZMİR 35	KARS 36	KASTAMONU 37	KAYSERİ 38
ADANA	01	1					
ADIYAMAN	02						
AFYON	03						
AĞRI	04						
AMASYA	05						
ANKARA	06				37	185	279
ANTALYA	07						
ARTVİN	08						
AYDIN	09						
BALIKESİR	10						
BİLECİK	11						
BİNGÖL	12						
BİTLİS	13						
BOLU	14						
BURDUR	15						
BURSA	16	40					
ÇANAKKALE	17						
ÇANKIRI	18						
ÇORUM	19						
DENİZLİ	20						
DİYARBAKIR	21						
EDİRNE	22						
ELAZIĞ	23						
ERZINCAN	24						
ERZURUM	25				5		
ESKİŞEHİR	26	29					
GAZİANTEP	27					19	
GİRESUN	28						
GÜMÜŞHANE	29						
HAKKARİ	30						
HATAY	31						
ISPARTA	32						
İÇEL	33						
İSTANBUL	34	1			325	115	439
İZMİR	35	9					30
KARS	36						
KASTAMONU	37						
KAYSERİ	38				12		
KIRKLARELİ	39						
KIRŞEHİR	40						
KOCAELİ	41						
KONYA	42						37
KÜTAHYA	43						
MALATYA	44						
MANİSA	45						52
MARAŞ	46						
MARDİN	47						
MUĞLA	48						
MUŞ	49						
NEVŞEHİR	50						
NİĞDE	51						
ORDU	52						
RİZE	53				252		
SAKARYA	54						
SAMSUN	55				58		
SİİRT	56						
SİNOP	57						
SİVAS	58						
TEKİRDAĞ	59						
TOKAT	60						
TRABZON	61				36		
TUNCELİ	62						
URFA	63						
UŞAK	64						
VAN	65						
YOZGAT	66						
ZONGULDAK	67						
TOTAL		80	/	/	725	319	836

Table IV. 2

Table VI. 2

No	Province
23	ELAZIĞ
24	ERZİNCAN
25	ERZURUM
26	ESKİŞEHİR
27	GAZİANTEP
28	GİRESUN
29	GÜMÜŞHANE
30	HAKKARİ
31	HATAY
32	ISPARTA

Table VI. 3

No	Province
33	İÇEL
34	İSTANBUL
35	İZMİR
36	KARS
37	KASTAMONU
38	KAYSERİ
39	KIRKLARELİ
40	KIRŞEHİR
41	KOCAELİ
42	KONYA
43	KÜTAHYA
44	MALATYA
45	MANİSA
46	MARAŞ
47	MARDİN
48	MUĞLA
49	MUŞ
50	NEVŞEHİR
51	NİĞDE

Table VI. 4

No	Province
52	ORDU
53	RİZE
54	SAKARYA
55	SAMSUN
56	SİİRT
57	SİNOP
58	SİVAS
59	TEKİRDAĞ
60	TOKAT
61	TRABZON
62	TUNCELİ
63	URFA
64	UŞAK
65	VAN
66	YOZGAT
67	ZONGULDAK

Table — columns 01–13

	ADANA 01	ADIYAMAN 02	AFYON 03	AĞRI 04	AMASYA 05	ANKARA 06	ANTALYA 07	ARTVİN 08	AYDIN 09	BALIKESİR 10	BİLECİK 11	BİNGÖL 12	BİTLİS 13
ADANA 01		80					127						
ADIYAMAN 02													
AFYON 03							289		109				
AĞRI 04													
AMASYA 05													
ANKARA 06	101				54			45					
ANTALYA 07													
ARTVİN 08													
AYDIN 09			94				49						
BALIKESİR 10											58		
BİLECİK 11												27	
BİNGÖL 12				2									
BİTLİS 13				77									
BOLU 14													
BURDUR 15													
BURSA 16						221							
ÇANAKKALE 17							410		232				
ÇANKIRI 18													
ÇORUM 19													
DENİZLİ 20													
DİYARBAKIR 21				290			12						
EDİRNE 22													
ELAZIĞ 23													
ERZİNCAN 24													
ERZURUM 25				151			157						
ESKİŞEHİR 26						34						11	
GAZİANTEP 27	634	97		26		151							78
GİRESUN 28													
GÜMÜŞHANE 29													
HAKKARİ 30													
HATAY 31	79												
ISPARTA 32	5												
İÇEL 33		202										179	
İSTANBUL 34					305	127					2		
İZMİR 35			163			150			50				
KARS 36													
KASTAMONU 37													
KAYSERİ 38													
KIRKLARELİ 39													
KIRŞEHİR 40													
KOCAELİ 41													
KONYA 42													
KÜTAHYA 43									21				
MALATYA 44		66											
MANİSA 45						177							
MARAŞ 46		94											
MARDİN 47	1328						380					31	
MUĞLA 48							392						
MUŞ 49													
NEVŞEHİR 50													
NİĞDE 51													
ORDU 52									39				
RİZE 53													
SAKARYA 54													
SAMSUN 55						169							
SİİRT 56													
SİNOP 57													
SİVAS 58		4				177							
TEKİRDAĞ 59													
TOKAT 60													
TRABZON 61													
TUNCELİ 62						235							
URFA 63			77	42								109	
UŞAK 64													
VAN 65													
YOZGAT 66													
ZONGULDAK 67													
T O T A L	2147	543	334	603	1052	582	1388	618	204	253	71	346	78

Table — columns 14–32

	BOLU 14	BURDUR 15	BURSA 16	ÇANAKKALE 17	ÇANKIRI 18	ÇORUM 19	DENİZLİ 20	DİYARBAKIR 21	EDİRNE 22	ELAZIĞ 23	ERZİNCAN 24	ERZURUM 25	ESKİŞEHİR 26	GAZİANTEP 27	GİRESUN 28	GÜMÜŞHANE 29	HAKKARİ 30	HATAY 31	ISPARTA 32
ADANA 01																			
ADIYAMAN 02										19									
AFYON 03	94	259				96													71
AĞRI 04																			
AMASYA 05																			
ANKARA 06	341					177	55								65				4
ANTALYA 07																			
ARTVİN 08																			
AYDIN 09		14			182														
BALIKESİR 10	19		96																
BİLECİK 11		940				46													
BİNGÖL 12																			
BİTLİS 13																			
BOLU 14														5					
BURDUR 15																			
BURSA 16							47				212	89				187			
ÇANAKKALE 17										74	234								
ÇANKIRI 18																			
ÇORUM 19							1												
DENİZLİ 20																			
DİYARBAKIR 21	170									173						148			
EDİRNE 22																			
ELAZIĞ 23																			
ERZİNCAN 24										33					65				
ERZURUM 25		756				581			202						27				
ESKİŞEHİR 26										157								324	48
GAZİANTEP 27																			
GİRESUN 28																			
GÜMÜŞHANE 29																			
HAKKARİ 30										333			366						
HATAY 31										951	152								
ISPARTA 32	71						86			100									
İÇEL 33																			
İSTANBUL 34			72		531														
İZMİR 35	211		76						111										
KARS 36																			
KASTAMONU 37																			
KAYSERİ 38																			
KIRKLARELİ 39																			
KIRŞEHİR 40																			
KOCAELİ 41																			
KONYA 42																			
KÜTAHYA 43						281													
MALATYA 44							8			61						194			
MANİSA 45			31																
MARAŞ 46																			
MARDİN 47																			
MUĞLA 48		15																	
MUŞ 49	77	10																	
NEVŞEHİR 50																			
NİĞDE 51																			
ORDU 52										6									
RİZE 53																			
SAKARYA 54															383				
SAMSUN 55						64					40				102				
SİİRT 56																			
SİNOP 57					36														
SİVAS 58						427									262				
TEKİRDAĞ 59										157									
TOKAT 60																			
TRABZON 61															14				
TUNCELİ 62						506				16						77			
URFA 63																			
UŞAK 64																			
VAN 65																			
YOZGAT 66																			
ZONGULDAK 67	100																		
T O T A L	707	405	2037	484	797	1809	237	/	387	1843	801	94	366	65	276	1035	529	48	75

Table — columns 33–36

	İÇEL 33	İSTANBUL 34	İZMİR 35	KARS 36
ADANA 01	283			
ADIYAMAN 02				
AFYON 03				
AĞRI 04				343
AMASYA 05				
ANKARA 06	133	14447		
ANTALYA 07				
ARTVİN 08				142
AYDIN 09			942	
BALIKESİR 10		577		
BİLECİK 11		620		
BİNGÖL 12		372		
BİTLİS 13		588		
BOLU 14				
BURDUR 15				
BURSA 16		1147		
ÇANAKKALE 17		87	1680	
ÇANKIRI 18		706		
ÇORUM 19				
DENİZLİ 20				
DİYARBAKIR 21				
EDİRNE 22				
ELAZIĞ 23				
ERZİNCAN 24				
ERZURUM 25				259
ESKİŞEHİR 26		379		
GAZİANTEP 27				
GİRESUN 28		140		
GÜMÜŞHANE 29		36		
HAKKARİ 30		312		
HATAY 31		900		
ISPARTA 32		241		
İÇEL 33	8			
İSTANBUL 34		1720		
İZMİR 35	72	238		
KARS 36				
KASTAMONU 37				
KAYSERİ 38				
KIRKLARELİ 39				
KIRŞEHİR 40				
KOCAELİ 41		530		
KONYA 42				
KÜTAHYA 43		113		
MALATYA 44				
MANİSA 45				
MARAŞ 46				
MARDİN 47	1094			
MUĞLA 48			195	
MUŞ 49				
NEVŞEHİR 50				
NİĞDE 51				
ORDU 52				
RİZE 53				
SAKARYA 54		390		
SAMSUN 55				27
SİİRT 56				
SİNOP 57		43		
SİVAS 58				
TEKİRDAĞ 59				
TOKAT 60				
TRABZON 61		672		
TUNCELİ 62				
URFA 63		284		
UŞAK 64				
VAN 65				
YOZGAT 66				
ZONGULDAK 67				
T O T A L	1590	21421	2817	3892

Table VI. 2

TABLE V. The optimum distribution system in wholesale trade among the important centers

Exporters / Importers	04	ANKARA 06	BURSA 16	DIYARBAKIR 21	ERZURUM 25	ESKİŞEHİR 26	GAZİANTEP 27	HATAY 31	İÇEL 33	İSTANBUL 34	İZMİR 35	KARS 36	KONYA 42	SAMSUN 55	TARBZON 61	URFA 63		TOTAL
ADANA 01								405	12									417
ADIYAMAN 02							110											110
AFYON 03		3																3
AĞRI 04																		
AMASYA 05		135																135
ANKARA 06																		
ANTALYA 07									113									113
ARTVİN 08					68							28						96
AYDIN 09			81								54							135
BALIKESİR 10			23							136								159
BİLECİK 11										39								39
BİNGÖL 12																12		12
BİTLİS 13																20		20
BOLU 14										151								151
BURDUR 15		102																102
BURSA 16																		
ÇANAKKALE 17										218								218
ÇANKIRI 18		131																131
ÇORUM 19		118																118
DENİZLİ 20		150																150
DIYARBAKIR 21																		
EDİRNE 22										92								92
ELAZIĞ 23																205		205
ERZİNCAN 24					81											55		136
ERZURUM 25																		
ESKİŞEHİR 26																		
GAZİANTEP 27																		
GİRESUN 28		82												5	3			90
GÜMÜŞHANE 29					109													109
HAKKARİ 30	46															1		47
HATAY 31																		
ISPARTA 32		78											37					115
İÇEL 33																		
İSTANBUL 34																		
İZMİR 35																		
KARS 36																		
KASTAMONU 37		185																185
KAYSERİ 38		186							100									286
KIRKLARELİ 39										119								119
KIRŞEHİR 40		104																104
KOCAELİ 41										104								104
KONYA 42																		
KÜTAHYA 43						39				258								297
MALATYA 44							48											48
MANİSA 45										215								215
MARAŞ 46							191											191
MARDİN 47																151		151
MUĞLA 48											187							187
MUŞ 49																76		76
NEVŞEHİR 50									134									134
NİĞDE 51									137									137
ORDU 52														197				197
RİZE 53					134													134
SAKARYA 54										7								7
SAMSUN 55																		
SİİRT 56				209														209
SİNOP 57		38																38
SİVAS 58		69					118											187
TEKİRDAĞ 59										27								27
TOKAT 60		123																123
TRABZON 61																		
TUNCELİ 62				63												5		68
URFA 63																		
UŞAK 64										74								74
VAN 65	7																	7
YOZGAT 66		57																57
ZONGULDAK 67		111								1261								1372
T O P L A M	53	1672	104	272	392	39	467	405	496	2701	241	28	37	202	3	525		7637

No	Province
24	ERZİNCAN
25	ERZURUM
26	ESKİŞEHİR
27	GAZİANTEP
28	GİRESUN
29	GÜMÜŞHANE
30	HAKKARİ
31	HATAY
32	ISPARTA
33	İÇEL
34	İSTANBUL
35	İZMİR
36	KARS
37	KASTAMONU
38	KAYSERİ
39	KIRKLARELİ
40	KIRŞEHİR
41	KOCAELİ
42	KONYA
43	KÜTAHYA
44	MALATYA
45	MANİSA
46	MARAŞ
47	MARDİN
48	MUĞLA
49	MUŞ
50	NEVŞEHİR
51	NİĞDE
52	ORDU
53	RİZE
54	SAKARYA
55	SAMSUN
56	SİİRT
57	SİNOP
58	SİVAS
59	TEKİRDAĞ
60	TOKAT
61	TRABZON
62	TUNCELİ
63	URFA
64	UŞAK
65	VAN
66	YOZGAT
67	ZONGULDAK

TABLE VII. Group 4 : Aggregation of construction industry, food sales and general services

	01 ADANA	02 ADIYAMAN	03 AFYON	04 AĞRI	05 AMASYA	06 ANKARA	07 ANTALYA	08 ARTVİN	09 AYDIN	10 BALIKESİR	11 BİLECİK	12 BİNGÖL	13 BİTLİS	14 BOLU	15 BURDUR	16 BURSA	17 ÇANAKKALE	18 ÇANKIRI	19 ÇORUM	20 DENİZLİ	21 DİYARBAKIR	22 EDİRNE	23 ELAZIĞ	24 ERZİNCAN	25 ERZURUM	26 ESKİŞEHİR	27 GAZİANTEP	28 GİRESUN	29 GÜMÜŞHANE	30 HAKKARİ	31 HATAY	32 ISPARTA	33 İÇEL	34 İSTANBUL	35 İZMİR	36 KARS
01 ADANA	62																																			
02 ADIYAMAN																																				
03 AFYON																																				
04 AĞRI																																				
05 AMASYA																																				
06 ANKARA	136 / 102													51				89 / 499	22				220										124 / 4648		842	12
07 ANTALYA																																	2105 / 890 / 168	409		361
08 ARTVİN	77																																245			
09 AYDIN																																	3761 / 250 / 386	1957		
10 BALIKESİR																																				
11 BİLECİK																					74		10										153			
12 BİNGÖL						266																	257										639 / 608	33		
13 BİTLİS	338																																1295	878		
14 BOLU																																	989	1957		
15 BURDUR																																	440			
16 BURSA																																	65			
17 ÇANAKKALE																																	172			
18 ÇANKIRI																																				
19 ÇORUM						32							16	55					411					23							309		351	1295		
20 DENİZLİ	839					254									60				253	257																
21 DİYARBAKIR	161						105											179															362	1185	270	
22 EDİRNE																																				
23 ELAZIĞ					5	962													16															416		
24 ERZİNCAN																																				
25 ERZURUM	150					383		62																												
26 ESKİŞEHİR					12	118																														
27 GAZİANTEP	953																																334			253
28 GİRESUN																																				
29 GÜMÜŞHANE																																				
30 HAKKARİ																																				
31 HATAY																																				
32 ISPARTA	1579																																			
33 İÇEL																																				
34 İSTANBUL						265	5																										1185			
35 İZMİR																																				
36 KARS																																				
37 KASTAMONU																																				
38 KAYSERİ																																				
39 KIRKLARELİ																																	619			
40 KIRŞEHİR																																				
41 KOCAELİ																																				
42 KONYA	428																																834			619
43 KÜTAHYA	536																																			
44 MALATYA																																	114	1559		71
45 MANİSA																																				
46 MARAŞ																																				
47 MARDİN																																				
48 MUĞLA																																				
49 MUŞ																																				
50 NEVŞEHİR	108																																			
51 NİĞDE	140															1																	51			
52 ORDU																																				
53 RİZE																																				
54 SAKARYA																																				
55 SAMSUN																																				
56 SİİRT																																				
57 SİNOP						19																											110			138
58 SİVAS					520	73																														
59 TEKİRDAĞ																																	490			
60 TOKAT					205																															
61 TRABZON	376																																			
62 TUNCELİ	212																																114			71
63 URFA																																				
64 UŞAK			380			642																									70			69		
65 VAN	244																																			233
66 YOZGAT																																				
67 ZONGULDAK																																				
TOTAL	4917	428	916	380	860	2873	371	62					16	56	60			588	702			253	487	23							70	309	1420	24815	2226 / 1575	617

Table VII. 2