



REGIONAL DEVELOPMENT AND LOGISTICS CENTERS: A TURKISH EXPERIENCE

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ABSTACT

Mainly two aims are set for this study, the firstly to give insight about the theories of geographic economics and the second one is to identify the benefits of the establishment of a logistics center to economy by using a case of setting of a trailer park in the border of East Turkey. It is thought that the first aim is realized, however the lack of statistical data of Turkey on the basis of cities, even regions, constituted a very critical constraint to the analysis for the second aim. The analysis is realized by employing the available substitute data and the results of the analysis did not indicate any significant improvement in the economic indicators of the region. The reasoning of the finding may be the type of logistics establishment. A more comprehensive infrastructural investment is required for considerable decline in transportation costs which will, in turn, cause firms and investments to concentrate in the core areas.

Key words:

Geography economics, regional development, location theory

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ÖZET

Temel olarak bu çalışma için iki amaç belirlenmiştir. İlki, coğrafi ekonomi teorilerini incelemek, ikincisi ise, Doğu Anadolu sınır bölgesinde kurulan bir tır parkı örneği kullanılarak, lojistik merkez oluşumlarının ekonomiye katkısını belirlemektir. İlk amaç gerçekleştirilmekle birlikte, Türkiye’de iller ve bölgeler bazında istatistiki bilginin bulunmaması ikinci amaç kapsamındaki analizler için önemli bir kısıt oluşturmuştur. Analiz mevcut veriler üzerinden yapılmış ve bölge ekonomisinde ciddi bir etki tespit edilememiştir. Bu tespitin sebebinin logistic kuruluşun yapısı olabileceği düşünülmektedir. Taşımacılık maliyetlerinin düşmesi ve şirketler ve yatırımların belirli noktalarda odaklanması için daha kapsamlı altyapısal bir yatırımlar gerekmektedir.

Key words:

Coğrafi ekonomi, bölgesel kalkınma, konum teorisi

REGIONAL DEVELOPMENT AND LOGISTICS CENTERS: A TURKISH EXPERIENCE

Regional development has focused on increasing the level of income and employment within a region which pave the way to improving the life quality without impairing the equilibrium of compatibility in broad sense and national level. From a micro perspective, increasing importance of the logistics costs as a means of gathering competitive advantage forced the firms to focus on the decision of concentration or dispersion of production and logistics activities. From a broader macro perspective, the regional development issues have been elaborated on the basis of different regional wealth and welfare positions which are generally measured mainly by Gross Domestic Product (GDP) per capita or growth in per capita GDP (or growth therein). Other statistical measures used consists but not limited to per-capita consumption, domestic and/or foreign trade figures, poverty rates, unemployment rates, labor force participation rates or access to public services all of which are used in United Nations welfare comparisons. The macro approach of geographic economy focuses on the disparities in the living standards of different regions that may create social pressures.

The objective of this study is twofold; firstly it is aimed to introduce the economic geography with its historical development and different theories such as location theory, regional growth theories, local development theories and local development theories. In a world of conflicting pressures of the regional development on one side and decreasing regional economic disparities on another, the emergence of different point of views and theories is not a surprising development. The second aim of this study is determined as to identify the economic effects of the establishment of a logistics center (trailer park) in a border gate in East Turkey on the economic dynamics of the region. However, during the data collection stage of the analysis, unfortunately, it is seen that the statistical data such as GDP, per capita GDP, employment data of Turkey on the basis of cities, even regions, is



not available after 2011. Even the concrete request of relevant data from Turkish Statistics Institution was not responded. This inaccessibility of the regional data should be considered as a critical constraint to elaborate the effects of the establishment of the trailer park on the regional economic indicators. However, the analysis was realized by employing the available data such as corporate tax collection, the number of establishments opened and closed as well as the number of vehicles passing through the border and the exportation realized through the border as the substitutes of the required statistical data.

1) Historical Development of Economic Geography

It is a fact that economic activity is not randomly distributed across the space. Indeed the economic activity has been realized in a geographically concentrated manner. The resulted agglomerations are evident in the existence of cities where half of the world's population has been domiciled and also that of industrial regions. The geographical economics has focused on who, why and where of the economic activity by under different approaches of economy. The space and location firstly took place in the economic theories in the framework of geographical economies with the study of Johann von Thünen (1826) who was the founder of the spatial economies. The space was included in the studies of German economists Launhardt (1882), Marshall (1890) and Weber (1909). Those efforts of economics of location paved the way to subsequent theories on regional economics with neoclassical approaches by Perroux, 1950; Myrdal, 1957, Isard, 1956; Alonso, 1964; Muth, 1969; Mills, 1970) in the 1950s and 1960s (vom Hofe and Chen, 2006). Although these studies contributed to the classical models of spatial economics they did not provide a comprehensive, dynamic explanation of *why* and *how* economic activities tended to agglomerate in a specific geographical area (McCann and Sheppard, 2003). They explained the locational concentration by the technical and rational decisions of the representative agents based on classical premises (Boschma and Frenken, 2006). The focus was on the agents' rationality competitive markets and the mobility of factors and the sociological and institutional factors such as the technology, the historical roots of the location process, interdependencies or the importance of local institutions were not considered as determinants (Amin, 1999).

Economics of location created regional science and economic geography which have used other disciplines which surprisingly became theoretically and methodologically divergent by time. The regional science had become a mathematical theory of abstract with equilibrium economic landscapes shaped by the studies of Walter Isard such as *Location and Space Economy and Methods* (1956) of *Regional Analysis* (1960). Economic geography evolved into an empirically oriented subject in which the neoclassical location theory was enriched with inputs from different economical approaches such as Keynesian business cycle, Myrdalian cumulative causation theory and the uneven accumulation of Marx. Since 1980s, economical geography has grown with the ideas from Regulation Theory Schumpeterian models of technological development and institutional economics as well as economic sociology (Martin 1999, 66).

The next group of researchers in the field of geographical economics consists but not limited to P.Krugman, M.Porter, W.B.Arthur R.Barro, X. Sala-i Martin and many of others. Particularly the studies of Krugman such as *Geography and Trade* (1991), *The Self-Organising Economy* (1996) and several articles were aimed to construct theory of economic localization based on increasing returns which is considered to be regional and local concept (Martin 1999, 67). Porter (1990, 1994, 1996) also analyzed geographical clustering of industries that create international competitive advantage for a nation.

2) Theories of Geographic Economy

Under the heading of geographical economics, different sets of theories have emerged location theory, regional growth theories, local development theories and local development theories.

2.1 Location Theory

The main focus of concern is the distribution of activities in space referring to the factors that affect the location of activities. The analysis was focused on the allocation of different portions of territory among different types of production, the dividing of a spatial market among producers, and the functional distribution of activities in space (Capello 2011, 3). The main locational factors determined as the transportation costs and the agglomeration economies. The locational models have different views about the spatial structure of demand and supply. Some of the models interpret the location choices of firms by nearness to raw material markets in order to minimize the transportation costs and to achieve the benefits of agglomeration economies. The pioneers of such models are constructed by Alfred Weber and Melvin Greenhut.

Other researchers such as Lösch and Hotelling analyzed the the division of a spatial market among producers and locational equilibrium which is determined by a logic of profit maximization whereby each producer controls its own market area. The studies of von Thünen with the contributions of Isard (1956), Beckmann (1969) and Wingo (1961) created a monocentric city which became a free-standing school of thought within location theory, where it was labeled 'new urban economics'. In this thought the main focus has been the size and density of cities, and identification of the particular pattern of land costs at differing distances from the city that guarantees achievement of a location equilibrium (Capello 2011, 3). The accessibility to broad and diversified markets for final goods and production factors, to information as well as international infrastructure is considered to be the key determinant of the spatial organization of activities. The model explains the demand for accessibility to central areas, the cost of land in central areas as well as the land rent rates and ends up with the determination that . firms able to locate in more central areas are those able to pay higher rents for those areas.

Regardless of the achievements of the location theory in understanding the geographical



distribution of economic activity, they neglected the other location alternatives: urban or non-urban areas, central or peripheral ones. According to them, cities should be of the same size because of the equilibrium of the urban systems. They failed to explain location choices of several firms and households among alternative urban centers and why in reality there exist numerous cities, of different sizes and performing different functions. The central place theory of Walter Christaller (1933) and the economist August Lösch (1940) filled this gap with the urban hierarchy concept which provides a structure of the underlying economic relations able to account for the existence of diverse territorial agglomerations within a framework of general spatial equilibrium.

2.2 Regional Growth Theories

The attempts to explain the economic determinants of development and higher rates of output, greater levels of per capita income, lower unemployment rates, and higher levels of wealth in some regions came from Regional Growth Theories. The first studies conceive growth as resulting from greater demand for locally-produced goods and adopt the typically Keynesian approach that development consists in the growth of output, income and employment. There exist interdependency between production and consumption and consequently increased demand for local goods increases income and employment level. The driving force of economical growth is considered to be mainly the demand and when production exceeds local demand the goods are sold to domestic and international markets. The examples of this determination are widespread, some of which are the textiles of Prato, the glassware of Murano, the cars of Turin, Detroit or Munich, the olive oil of Greek and Turkish regions, the wines of areas in France and Italy (Capello 2011, 4). However, in order to understand the long-term achievements that satisfying the increasing demand may be out of the capacity of the region, the quality and innovation will be elaborated.

In order to address long-term regional growth, a group of researchers focused on identifying the factors affecting the greater export capacity, and therefore the competitiveness, of a local economic system such as low prices, high quality and innovation. All of these attributes can only be achieved through efficient productive processes, effective local industrial system, modern production services and infrastructures, good quality resources, and advanced production technologies as well as social and cultural reinforcers. The *factor endowment* is generally accepted as the source of territorial competitiveness growth from a resource-based perspective. The peculiarities of regional factor endowments and factor productivity cause a local system to differentiate in terms of quality and cost.

The classical and neo-classical regional growth models have two different focus; one of which is the *factor* mobility in determination of the tendency of local economies towards convergence and the other is interregional trade in the framework of relative advantage. The latter proposes that the region exports those that it produces at relatively lower production costs because of the productivities of the factors used to produce the goods. This view may also be interpreted as there is always an automatic mechanism guaranteeing the

existence of some specialization and there is no need for economic policy measures to foster development.

2.3 Local Development Theories

Location theory and regional growth theories considered space as internally homogenous and uniform territorial areas. However, local development theories use a diversified space in terms of economic activities and production factors, demand and sectoral structure by regions. The peculiarities of each region to generate agglomeration and a virtuous circle of development which was the principles of location theories. This approach created a more macroeconomic and macro-territorial approach with a view on the behaviors of the economic actors in terms of location choices, productive and innovative capacity, competitiveness, and relations with the local system and the rest of the world. The local development theories incorporates supply side factors with a long term perspective and used advanced and sophisticated modeling techniques (Dixit and Stiglitz, 1970; Krugman, 1991). They concentrated on the factors affecting the the costs and prices of production processes which may be exogenous to the local context, which originate externally to the area or endogenous elements which arise and develop within the area and enable it to initiate a process of self-propelling development (Capello 2011, 11).

Amongst the exogenous factors used are local presence of a dominant firm, the diffusion of an innovation produced elsewhere, the installation of new infrastructures decided by external authorities. The endogenous factors consist but not limited to entrepreneurial ability and local resources for production (labor and capital), the decision-making capacity of local economic and social actors able to control the development process. In order to organize those factors a local organization is needed to accumulate knowledge, to create economic and social relations which support more efficient and less costly transactions. The regional development is considered to be the product of local productive capacity, competitiveness, and innovativeness. In this framework, the economic growth of a specific region contributes to national economic growth.

In the middle of the 1970s, space is conceived as an economic resource, as an independent production factor as a generator of static and dynamic advantages for firms, and a key determinant of a local production system's competitiveness. The regional growth is realized by local production systems which are efficient and have lower production and transaction costs, as well as higher innovative capacity. The local entrepreneurial ability, local actors generating cumulative knowledge a decision-making capacity which enables local economic and social actors to guide the development process (Capello 2011, 16). In fact, Marshall used the concept of industrial distinct in order to specify the external economies as a source of competitiveness. Becattini used the industrial distinct concept in order to construct the first systematic theory of endogenous development. Neo-Marshallian research proposed that space not only contribute to the productive efficiency but also innovative efficiency through cultural and social climate. The definition of the space was



narrowed to urban space, namely, cities, where the economic development of the entire region is realized.

2.4 Local Growth Theories

The progress in the non-linear mathematics together with its implications in economics to formalize non-linear model of imperfect competition made the increasing returns analyzable as a decisive factor in development after 1980s. The recent local growth theories use advanced mathematical tools and formulate economic analytical models all of which are labeled as “new economic geography school”³ (Capello 2011, 18).

The new economic geography theories have been based on several basic elements in order to address the reasoning of the concentration of economic activity in a location and persist over time. These elements are mainly increasing returns to scale, monopolistic competition, transaction costs and the occurrence of external economies which are proposed to shape the locational behavior of the firms and workers. The combination of these elements explains the geographical unevenness of the economic landscape as a situation of equilibrium. The contribution of *the increasing return* element to the model is about the clustering of the economic production in space in order to benefit from the advantages of scale economies (Ascani and friends, 2012, 4). The *monopolistic competition* element together with the existence of increasing returns and scale economies allows for the creation of larger and more efficient facilities when production takes place in one single location⁴. Unlike monopolistic competition, in perfect competition constant or decreasing returns prevent the occurrence of economies of scale so there exists no need for larger facilities located in one area. Instead, production can take place in all locations where consumers are. Another element of new economic geography theories is *transport costs* as included in the value of products. The level of transportation costs determines its dominance in the locational decisions. The last element is *external economies* which underlines reasoning under the concentration of individual industries in some specific locations (Krugman, 1991, p.485). The approach of Marshall about externalities has been employed referring to the labor market pooling with industry-specific skills, availability of specialized intermediates and technological spillover effects. Labor market pooling is beneficial to the workers as well, as the risk of unemployment in a region reduces. Through vertical and horizontal integration, the suppliers of the industry also concentrate. Another factor benefiting from concentration of an industry is technological spillovers by flows of knowledge arising from proximity (Ascani and friends, 2012, 5). However, unlike labor and supplier market externalities, technological spillover effects are more uncertain.

One of the debut models of new economic geography is constructed by Krugman and Venables (1990) in predicting agglomeration in a framework of economic integration. They

3 See Krugman, 1991; Krugman and Venables, 1996) and to the endogenous growth theories (Romer 1986, 1987, 1990; Lucas, 1988; Barro, 1990; Rebelo, 1991; Grossman and Helpman, 1991; Aghion and Howitt, 1992).

4 See Chamberlin (1933), Spence (1976), Lancaster (1979) and in particular Dixit and Stiglitz (1977)

used European 1992 Single Market and the previous Southern enlargement attempts with a model of two-sector and two-country economy where the existence of increasing returns in the imperfectly competitive manufacturing sector encourages firms to concentrate production in a few places. The larger country benefits from a central position with better market access than the smaller one. The level of trade costs is included into the model by influencing the location decisions of firms. Krugman and Venables (1990) provide a helpful explanation of the ambiguous effect that economic integration has on the competitiveness of industry. However the model lacks an explanation about the process of emergence of differences in the production and market structures in two countries. In this regard, Krugman (1991) constructed another similar model allowing for labor migration from one region within a country to the other as a response to market signals which results with the emergence of persistent differences in the economic structure of the industrial core as compared to the agricultural periphery. This is a model of the spontaneous organization of a single country into a manufacturing 'core' and an agricultural 'periphery' (Ascani and friends, 2012, 9). Puga (1996) adopted a similar framework but he considered the possibility for workers to move from one activity to the other. Another model was developed by Venables (1996) who constructed a new economic geography model where the main centripetal force for agglomeration arises from cost and demand linkages between firms.

Krugman and Venables (1995) offered another new economic geography model of vertical linkages which includes just one manufacturing sector producing both intermediate and final goods. They proposed that agglomeration processes may influence the location decisions of firms in the same industry leading to the emergence of specialised industrial districts. Those studies are the building blocks of the new economic geography, empirical research in this area appears much less developed relative to such an extensive body of theoretical work (Redding, 2010).

3) Regional Development and Transportation Costs

3.1 Regional Development

The globalization processes including rapid technological change, enhanced capital mobility and inter-regional competition for investments surprisingly increased the importance of the regions as a center for economic activity. Many countries strategically stimulate regional development in order to ensure economic growth nation wise. In order to capture the framework of regional development both to endogenous growth factors within specific regions and also to the strategic needs of trans-local actors coordinating global production networks (Scott and Storper, 2003).

In this framework, regional development is defined as a dynamic outcome of the complex interaction between territorialized relational networks and global production networks within the context of changing regional governance structures. By definition the focus in regional development is originated from interaction, however, regional institutions and infrastructure is also critical to enhance such such complementarity and coupling effects. The regional



development requires the co-presence of three conditions; the existence of economies of scale and scope within specific regions, the possibility of localization economies within global production networks and the appropriate configurations of ‘regional’ institutions to ‘hold down’ global production networks and unleash regional potential (Coe and friends, 2004).

It is a fact that endogenous factors are necessary, but insufficient, to generate regional growth. In order a region to develop there should exist economies of scale through highly localized concentrations of specific knowledge, skills and expertise. Additionally, the region should capture high value-added activities because of its tendencies towards learning and cooperation to facilitate a broad spectrum of production and entrepreneurial activities. Referring to Table 1, there exist four group of dimensions creating potential for a region to develop. The organizational strength and flexibility of labor are critical to the alignment of the region with the strategic needs of local firms, the technological capacity and the institutional infrastructure to support the concentration of economic activity. The state and its development agencies should act strategically to create industrial districts which have been adressed by the new regionalism theories⁵ regions.

Table 1 : Local and Non-local Dimensions of Regional Development

Dimensions	Local manifestations	Non-local forms
Firms	Indigenous SMEs Industrial clusters Intra-regional markets Venture capitalists	Global corporations Entrepreneurial subsidiaries Distant global markets Decentralized business and financial networks Global production networks
Labour	Skilled and unskilled workers Permanent migrants	Skilled experts and technologists Transient migrants Transnational business elites
Technology	Spillover effects Tacit knowledge Infrastructure and assets	Global standards and practices Intra-firm R&D activities Technological licensing Strategic alliances
Institutions	Conventions and norms Growth coalitions Local authorities Development agencies	Labour and trade unions Business associations National agencies and authorities Inter-institutional alliances Supranational and international organizations

Source: Coe and friends, 2004, 471

5 Major theorists in the field of new regionalism include but not limited to Barry Buzan, Morten Bøås, Richard Falk, Andrew Gamble, Björn Hettne, Helge Hveem, Bob Jessop, Marianne Marchand, Percy Mistry, Iver Neumann, Anthony Payne, Timothy Shaw and Diana Tussie who develop their own distinctive theoretical perspectives, spanning new regionalism and world order approaches along with regional governance, liberal institutionalism and neoclassical development regionalism.

3.2 Transportation Costs

Krugman and the other reserachers in the field specified an inverted-U-shaped curve to indicate the relationship between transport costs and regional economic concentration (Krugman, 1991, 1991b, Combes and Lafourcade, 2001 and Thisse, 2009) meaning that if transportation costs are sufficiently high, interregional shipping of manufacturing goods is discouraged and production remains dispersed in proximity to their markets. As shipping costs fall because of transport development combined with increasing returns, both labour and capital are encouraged to concentrate in core regions that benefit from agglomerative economies and larger market sizes. This approach have critical implications for the developing countries as the transport development is supposed to pave the way for the regional inequality as the concentration/agglomeration in (Krugman,1991 and Mossay, 2006). However, despite the theoretical efforts to specify the relationship between transport costs and regional economic concentration/agglomeration, there exist few emprical studies. Faini, Giannini and Galli (1993) show that the transport investment causes rising regional gaps in Italy, Glaeser (1997) proposed that falling transport costs in the US can explain the decreasing share of manufacturing jobs in city-core areas. Combes and Lafourcade (2001), by using experience of France, determined that the diminishing transportation costs reinforces agglomeration at a regional level.

4) A Turkish Experience of Logistics Center

Referring to the findings of the geographical economics, some sort of institutional support from national or regional governmental institutions and/or development agencies is required in order to realize regional economical development. It is also a fact that logistics has assumed a very prominent role to ensure economic growth and to facilitate international trade and is the key service offerings required in the business environment today and a driver of growth. Logistics is not only serves for the physical movement of goods but it has to be efficient in the facilitation of the movement through documents processing, coordination, monitoring and financing activities with the infrastructure, systems and the stakeholder development.

For the realization of the regional development, the logistic infrastructure developed and/or promoted by the public governance bodies is crucial for especially under-developed regions. The lessons from the economic achievements of the established logistics infrastructure may motivate the stake holders to take action in other regions as well. In such a framework, the case of the establishment of a logistic infrastructure in the form of a *trailer park* in the east region of Turkey, namely Gürbulak Border, will be evaluated in order to determine the economic and trade related achievements.

The daily average use of the vehicles in Gürbulak border is given in Table 2 below. Connecting the roads to Iran, Gürbulak, is the third border after Kapıkule and Habur in terms of transaction volume of trailer transit⁶.

6 http://kudaka.org.tr/ekler/f3e04-kuzeydoguanadolu_bolgesi_sinir_kapilari_sorunlari.pdf



Table 2: The Vehicle and Passenger Transit in Gürbulak Border

TRAILER		BUS		AUTOMOBILE		TOTAL VEHICLE		PASSANGER	
Entry	Exit	Entry	Exit	Entry	Exit	Entry	Exit	Entry	Exit
220	270	38	36	81	69	339	375	2.523	2.186

4.1 Regional Economic Situation

Gürbulak border combines Turkey and Iran, but also gives way to Gurcistan, Armenia and Nahcivan. Ağrı, Ardahan, Iğdır and Kars are located in the region which together is labeled as 'Serhat Region'. The region is specified as the crossing border of Turkey to Caucasia, Middle Asia and China. A considerable portion of the transportation of goods from Turkey to Iran and Middle Asia has been realized through Gürbulak border.

Ağrı and its towns where the Gürbulak border has been located is an under-developed region because of low level of industrial investments as consequences of low raw material flow and severe climate conditions. The regional economy has been based on agriculture but mainly stockbreeding. Even the limited number of industrial investments are related with stockbreeding such as Doğubeyazıt Feed Factory and Ağrı Sugar Factory.

4.2 Services Provided in Gürbulak Trailer Park

As a highly busy border, sometimes The Gürbulak Train Park was put into operation in July 2014 to provide the following services:

- Arrival – exit services
- Access to custom services
- Access to telecommunication
- Security services
- Open and closed parking distinct
- Loading- unloading areas to be used in emergency cases,
- Scales and steelyards,
- Accommodation services (hotel, café etc.)
- Office
- Health care
- Training

4.2 Economic Impact of Establishment of Logistics Infrastructure

It is a fact that the economic activity in a region near a border highly depends on the transportation and logistics activities especially if the relevant region has some deficiencies in terms of natural resources and industrialization level, as in the case of the region (TRA2) consisting Ağrı, Kars, Ardahan and Iğdır. In this regard, any improvement in the quality of

the services given in a border for the transit vehicles and passengers, not only contributes the satisfaction of the people passing the border as driver or passenger but also to the economic activity spectrum and income per capita in the region.

However, the critical constraint of this analysis is the unavailability of the basic statistics such as Gross Domestic Product (GDP) , GDP per capita, economic growth rate by region and cities especially after 2011. Consequently, in order to measure the effect of the establishment of a logistics trailer park in Gürbulak border on the economic development of the region two sets of available information were determined which are corporate tax collection and the number of establishments established and liquidated.

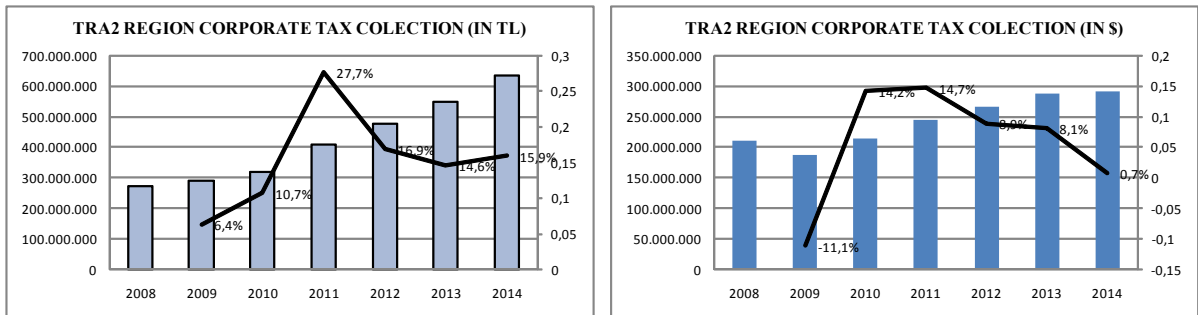


FIGURE 1: CORPORATE TAX COLLECTION IN TL AND USD TERMS 2008-2014

As a proxy measure to economic development Figure 1 shows the corporate tax collection in the region. In the left hand side the amounts are in TL and shows an increase of %15,6 in 2014 the year in which Gürbulak trail park was opened. This development can be interpreted as possible positive effect of the new logistic center but referring to the right side graph which gives the tax collection in USD terms (converted by using average annual USD rate) there occurred even decline (-0,7%) in 2014. Consequently, it can be said that the effects on the economic potential is unclear.

The other data used as a proxy for economic growth is determined as the number of establishments opened and liquidated. It is thought that if the new logistics center reinforces the economic activity this will be reflected on the new establishments in the form of firm and cooperatives. Figure 2 shows the number of new establishments and the liquidated ones and it is seen that after Jun 2014, there is no clear positive trend in the number establishments, even the number of liquidation increases after October 2014 till February 2015.

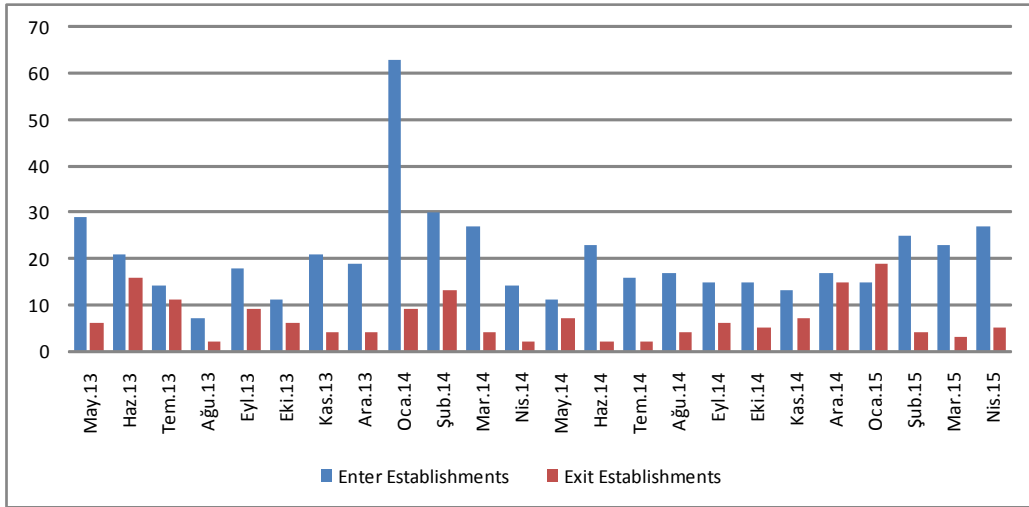


FIGURE 2: THE NUMBER OF ENTRY AND EXIT OF ESTABLISHMENTS IN TRA2 REGION

The number of Turkish and foreign vehicles passing through Gürbulak border in the period between January 2013-March 2015 is given in Figure 4 together with the relevant trend lines. It is seen that after there is positive trend in the number of Turkish vehicles passage and a negative one that of the foreign vehicles. However, the opening of the trailer park has no clear effect on the number of vehicles passing.

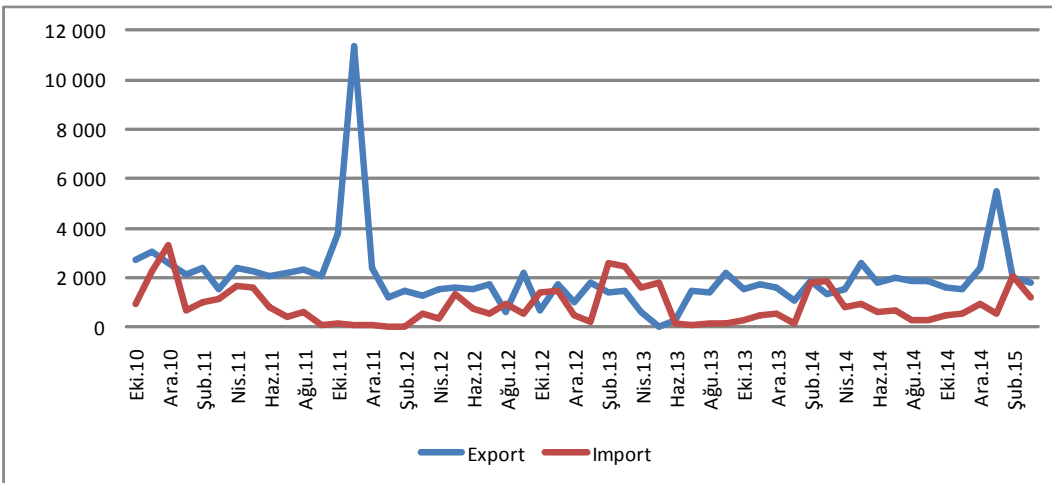


FIGURE 3: MONTHLY EXPORT & IMPORT FROM TRA2 REGION

Figure 3 shows the monthly export and import volume passing through Gürbulak border in USD terms. The monthly average of exports and imports in the period between October 2010-March 2015 is 2.013\$ and 882\$ respectively. It is seen from the Figure 3 that except January 2015, there occurred no considerable increase in the volume of foreign trade passing through Gürbulak border after the opening of the trailer park in June 2014.

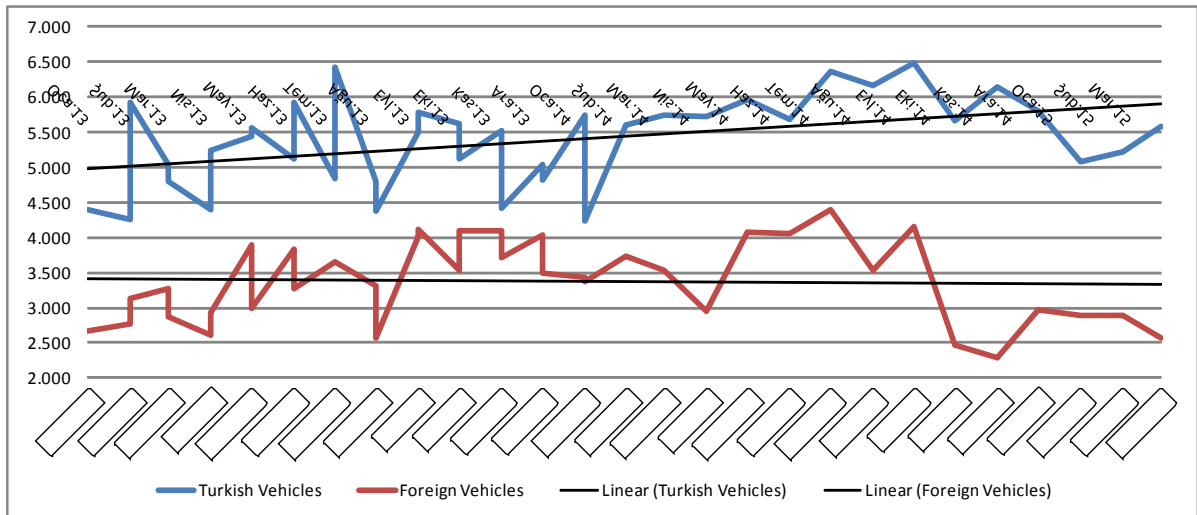


FIGURE 4: THE NUMBER OF VEHICLES PASSING GÜRBULAK BORDER (2013-2015)

The underlying reasoning of opening a trailer park was originally determined as lowering the queue for passage. However, the quantitative analysis given above, under the constraint of available statistics, did not reveal the positive effects on regional development. In fact, the ultimate effect of such a logistics center is thought to be decline in waiting time in the border, however such a data on border basis is not available. A qualitative analysis made on the indications of sector representatives on media shows that the queue of trailers to pass the border is still long but the reasoning lies in the approaches of Iranian side.

5) Conclusion

Despite the micro and macroeconomic understandings formulate a system which is stateless, it is fact that real economic activities take place in local, regional, national and global geographies. Moreover, the spatial organization of economy has a crucial role on the economical functions, on the performance of the firms and welfare of the individuals. The fact of differentiated welfare across regions, even cities, is also by product of peculiar economic resources of the specific regions including but not limited to the availability of raw materials, qualified labor force, transportation infrastructure, institutional conditions etc.

Economics of location created regional science and economic geography which have used other disciplines which surprisingly became theoretically and methodologically divergent by time. Theories of Geographic Economic started with Locational Theory which was focused on the allocation of different portions of territory among different types of production, the dividing of a spatial market among producers, and the functional distribution of activities in space and used the transportation costs and the agglomeration economies as the determinant factors. The Regional Growth Theories which proposes interdependency between production and consumption and consequently explain the increased income and employment level by the increased demand for local goods. Local Development Theories addresses the peculiarities of each region to generate agglomeration and a virtuous circle



of development. Finally, the progress in the non-linear mathematics together with its implications in economics to formalize non-linear model of imperfect competition contributed to the development of the Local Growth Theories which uses several basic elements such as increasing returns to scale, monopolistic competition, transaction costs and the occurrence of external economies which are proposed to shape the locational behavior of the firms and workers.

Mainly two aims are set for this study, the first one was to give insight about the geographic economics by means of historical development and included theories. The second one is determined as to identify the benefits of the establishment of a logistics center to economy by using a case of setting of a trailer park in East Turkey. It is thought that the first aim is realized, however the lack of statistical data such as GDP, per capita GDP, employment data of Turkey on the basis of cities, even regions constituted a very critical constraint to the analysis for the second aim. The analysis is realized by employing the available data such as corporate tax collection, the number of establishments opened and closed as well as the number of vehicles passing through the border and the exportation realized through the border as the substitutes of the required statistical data. The results of the analysis did not indicate any significant improvement in the economic indicators of the region. Apart from the statistical constraints and referring to the geographic economy understanding, the reasoning of the finding may be the type of logistics establishment. A more comprehensive and massive infrastructural investment is required for considerable decline in transportation costs which will, in turn, cause firms and investments to concentrate in the core areas, leading to rising core-periphery/rural–urban gaps.

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