

## The research on the distinguishing features of the international financial centers

Ihsan Erdem Kayral<sup>1</sup> and Mehmet Baha Karan<sup>2</sup>

### Abstract

Although London appeared as the first international financial center on the world, the number of these kind of centers show a notable increase in the recent years. Those centers are regarded as magnetic places for the economic issues and they also serve as important economic centers. In the scope of this work, the definition and criteria for the international financial centers received priority in consideration. Secondly, in order to determine the distinguishing features of the international financial centers, an empirical study on 53 different financial centers, including Istanbul, is performed. The logistic regression analysis is applied for the first 20% of the distinguished group and for the analysis SPSS is used. With a rate of 83%, the locations of the centers' are presumed successfully. A positive relation is determined between the efficiency and strength of the legal rights, as well as the variability of the labor force participation rate, and the centers' being in the first 20% group. The significant variables in the model are regarded broadly and also appraised according to Istanbul's target to be one of the international financial centers.

**JEL classification numbers:** G15, F37, C58

**Keywords:** International financial center, logistic regression, the odds ratio, wald ratio, log probability value

---

<sup>1</sup> The Scientific and Technological Research Council of Turkey (TUBITAK), Ankara, Turkey.

<sup>2</sup> Hacettepe University, Department of Business Administration, Ankara, Turkey.

## 1 Introduction

Britain, being the most powerful country in the 16<sup>th</sup> century and its capital city London's turning into a center for the economic issues, a new concept emerged in the era which is called as "the financial center". London is counted as the first international financial center but there had been many other developed cities as important financial centers till today as well. Generally, those financial centers are located in the most economically powerful countries but small countries like Singapore and Hong Kong are also conspicuous in the last years as rising financial centers. Those cities which are called as financial centers are in a position of giving directions to the world economic movements due to their large volume of trading and variations and as a result of their ability to create new areas for employment and large amounts of incomes, they make great contributions to the countries that they take place in. Although, a lot of researches are being held about these international centers, the first person who named these cities by classifying them according to a theory in his book called as "The World Cities" is Peter Hall in 1966. In his work, Hall defined cities like New York, London and Tokyo as "international cities". Although, he took economical indications into consideration, he did not state those international centers as financial centers. Following this work, many researchers scoped out some analysis in which the financial datas are more significant than the others. Kindleberger (1974) explains the factors that effect the position of these cities to become such centers; Reed (1981 and 1989) prepares a work that serves as a basic study for today's classification for the international financial centers.

In the beginning of 1990s, the analysis and researches started to become more extensive in the sense of today's international financial centers and many important centers are determined according to the works of Friedman (1986) and Sassen (1991 and 1999). Due to the works they did at very close times to one another. Beaverstock, Taylor and Smith (1999) played an important source role for one of the most important international financial center, "Z/Yen and Cooperation of London's Global Financial Centers Index".

Although, there are many number of researchers in their works project the pioneering financial centers, the ones that comprise all the centers are new dated. In the framework of those implied researches above, those centers are analysed according to their easiness to append to the markets, the features that they have in order to be counted as financial markets, financial volume of tradings, professional employments, competitive power, the qualification of the labor force, the quality of living, taxation, legal context and infrastructure. Those works are indexes that are usually published by international firms and they deserve attention because from 2007 on, two times in a year, in the "Global Financial Centers Index - GFCI", Z/Yen and Cooperation of London is considered to be the most detailed one of them. Every year, the scope of the work is gradually developed and many different finance centers are taking place in it with detailed assessments.

In this research, it is aimed to find out the distinctive features of the international financial centers. Those centers are regarded as magnetic market places and create new areas for employment and large amounts of incomes. Istanbul's being one of these worldwide financial centers' is a primary issue in today's government's agenda. First, State Planning Organization and many other institutions are making great efforts and studies in order to fulfill this aim of the state. Defining distinctive features of those international financial centers, it would possible for those kinds of centers which have an aim to be one of them, including Turkey-Istanbul, to better their conditions and factors that they need. The main target of this research is to find out the distinctive features of the important financial centers in the world and to discuss the potentials of Istanbul in this manner. In the second part of the study, the definition and criteria for international financial center is given. In the third part of the research, it is referred to the studies and researches that are made about these centers. In the fourth part, there is an empirical study on these financial centers' distinctive features.

## **2 The definition of international financial centers and the criteria**

Peter Hall (1966) proposed his concept of "Global City Approach" in his book "World Cities" and declared some of the leading cities' economic functions and importance of them. Hall made his research on London, Paris, Randstad, Ruhr, Moscow, New York and Tokyo in that book. According to Hall, those cities are in the center of the global city system of the world. He also studied on the performances of these centers' trading, financial, education, culture, technological and communicative fields too.

Today, when the concept of "World City" or "International City" is mentioned, there are many cities with many aspects of them come to mind. However, there is not a clear definition for "World City" yet but there are many criteria that have been proposed on how and why some cities could be regarded in these parameters and some could not be regarded as such. In a general understanding, it is accepted that those types of cities must provide a large scale of good living conditions for people ranging from education to transportation, entertainment centers to the diversity of business types. Beaverstock, Taylor and Smith (1999) suggested that in order to consider a city as an international center, those places must not only provide the basic needs for people but it must also improve the quality of their lives.

Friedman (1986), made a research on some cities that he considered as "World City" and he proposed that these cities are giving directions to the economics and markets of the world. He declared that those cities are in the middle of the economic facilities in the world and he categorized them according to this idea. He classified New York, London and Tokyo as global financial

centers while classifying Miami, Los Angeles, Frankfurt, Amsterdam and Singapore as “potential financial centers in the future”. He also made his research on more 20 different cities and he classified those cities under the titles of “national centers” and “regional centers”.

Although, there are many studies on this issue, there is not a common definition for “international city” or “international financial center” on which all the experts reach a consensus. It is also presumed that there is not a practical advantage of making such a definition. As a matter of fact, to make a definition for the the “crowding out” economics, it would cause to overlook the main principles for the international financial trading. However, there are also some studies searching the criteria for a city to be regarded as an international financial center or not that resemble the ones made about how to define a global or international city is. (The Association of Capital Market Intermediary Institutions of Turkey, 2007, pp.2-3).

Table 1: The Features of Financial Centers

• Political ve economical stability	• The cost of making a business
• The capacity of financial services market	• Competitive financial environment
• The number of expertised workers	• The potential for creating a financial income
• The availability for professional services	• A comparatively advantageous taxation system
• The size of local market	• Appropriate politics for marketing
• Large scaled markets	• The geographical position of the center
• The prestige and profile of the center	• Regulative institutions responsible for organization
• Activity of legal regulations	• High standarts for international life style
• An internationally normative legal environment	• The availability for reaching the supportive services
• Easiness for building and governing a business in global scales	• Infrastructure for sufficent communication and transportation

McKinsey (2004) explained the criteria for a region to be regarded as a financial center in his research. Z/Yen Limited and Cooperation of London made a

study on the potentialities of London as a financial center in 2005 and categorized the cities according to the importance of them by first by declaring the criteria for being a financial center in the Global Financial Centers Index in 2007. This group publishes an updated index in March and September every year. Cushman-Wakefield (2005) made a similar research on the European centers. In the Mastercard Worldwide Centers of Commerce Index (2008) those centers are also grouped and many different indications were taken into consideration. Economic stability, the conditions for living, the ease of doing business and knowledge creation and information flow is some of these indications. There are some differences in the criteria for classifying the centers but the basic criteria for regarding a city as an international financial center in the Table 1 shows the common features for defining a city as such or not.

Each one of those features must be counted as important issues while defining an international financial center. The stressed features as a whole contribute much to the indications that reflect the institutional and public understandings for an international financial center published by worldwide organizations and institutions. However, it must be remembered that those centers show unique features of their own too.

### **3 The researches about the financial centers**

As we have mentioned above, there is not a common definition for “international financial center” yet. However, there are some similarities about the approaches for the features how those centers should be. In the economics literature, there are some studies that foregrounds to determine the international centers and the position of them. In these studies, the centers are detected all together. In some other studies, a trading center is taken into consideration alone and detected whether this place could be regarded as a financial center or not.

In the scope of this part, first of all the studies that analyzed the centers all together is given place. McKenzie (1927) thought about the cities on the world in the frame of a system and suggested that the system could grow dynamically when there was no idea about global city concept yet.

Peter Hall, proposed his concept of “global city” in his book *World Cities* that published in 1966. That concept stresses on some cities’ economic functions and importance of them for the world. Following to Hall (1966), Friedman (1986) and Sassen (1991) suggested that some cities like London, New York and Tokyo show similar international features and control the world economics. Another similar study was carried out by Alderson and Beckfield (2004), they reached similar results too.

Kindleberger (1974) detected how the financial centers are occurred in a historical background through Bretton Woods System dating from 1870s to the decadence of it in the beginnings of 1970s in a framework of trying to explain the reasons and factors of why these centers emerged. Reed (1981), made a similar

research between the period of 1900-1980s and established a basic work for all the classifications of international financial centers by concluding that London, New York and Tokyo should be regarded as the most important financial centers of the world. Reed (1989) detecting the interest rates and political economics in another study, reached a point that the most powerful centers were London and New York.

Sassen (1999) studied on the financial centers and the developments of economics in a periodical approach in his work "Global Financial Centers". According to Sassen, the most important financial centers were London and New York. Frankfurt, Hong Kong and Tokyo followed those cities. Sassen also suggested that however there was a steady progress in the economics of Singapore and Sydney, those two cities would never be able to reach the level of sources of Tokyo and/or the expertism of Hong Kong. Beaverstock, Taylor and Smith (1999) made another similar research and they searched for 122 cities, 55 centers classifying them under the titles of "alpha, beta and gamma cities". While classifying those cities, accounting, legal procedures and recognition datas were taken into consideration. The centers were graded between 0-12 like this: Alpha: (10 cities that got a grade between 10 and up), Beta (10 cities that got a grade between 7-9) and Gamma (35 cities that got a grade between 4-6). Istanbul was accepted as a Gamma city with a grade of 4 points.

Kaufman (2001) studied on the emerging economies and international financial centers. In his work, he dealt with the potential benefits and costs of being an international financial center, its cost and the features that a financial center would have.

Deloitte (2008), in their work "The Changing Vision of the Financial Centers" proposed the cities that are not regarded as international financial centers yet but carry a potential to reach the level of these important cities in the near future. They used the expression of "the effective international financial region" for a number of approximately 40 cities including Istanbul. And competitiveness elements for those effective regions are united under 15 different titles. In those elements, the main competitive element was stated as the strength and effectiveness of legal rights.

After mentioning the studies that held these centers within a total framework, in the second step the works that consider the centers one by one is given place.

Roberts (2008) considered the place of London due to the developments in Britain in the scope of world economics. First of all he declared how London appeared as the first financial center and how it kept its place adapting to the everlasting new economic conditions for a long time.

Schenk (2002) stated that through the end of the 1970s, transparency and effectiveness of the financial services started to rise and Hong Kong, expertising in the carrying the banking business became a leading name in the world of economics.

Seade (2009), made a research about the East Asian financial centers on the world and exposed that first of all Hong Kong and following it, Tokyo, Shanghai and Singapore are in a level that, they are almost reaching their most powerful competitors, London and New York.

Giap (2009), studied on the progress of Singapore during the historical process and appraised its rise in the Asia. The common point in which these researches reach is that they all accept that in order to compete with London and New York, the cities that serve as centers for important international firms; those potentially rising centers must always be in a stable position of development.

According to Shirai (2009) and Kawai (2009), although Japan could be counted as one of the most economically powerful countries on the world, but it had no the ability to use it's potential at it's best. Especially, the last steps in 1980s that were taken in order to improve the Japan Economy for better resulted well. However, the capital city of the country, Tokyo dropped behind of New York and London. The reason for Tokyo's being behind New York was it's insatisfactory trading volume and the reason for being behind London was due to the less number of international process when compared to the Britain's capital.

In their works Mingqi (2009) and Bhattacharya (2010) took attention to the Chinese governments' politics on economics dating the beginning of 1990s and Shanghai's turning out to be a leading city in the beginnings of 2000s.

In Turkey, there are limited number of articles or resarches that treat the potential of Istanbul as a finance center. The researches are nationwide works that involve the whole country and not many are specialized on Istanbul. That is the reason why in these researches, although Istanbul is the most important financial center of the country, there are not many detailed studies about it's position and potentials for the growth of country's economics. However, especially the government's insistence on Istanbul's being a regional financial center bring along some important operations with itself in the last years.

The Association of Capital Market Intermediary Institutions of Turkey (2007) made a research titled as "Global Financial Centers and Istanbul" that could be accepted as the first important study in this field. In the report, the most significant centers are surveyed and general information about the position of Istanbul among these centers is given.

The research named as "Research on the Potential of Istanbul to be an International Financial Center" (2009) is the second report of those kind made spesifically on Istanbul. The report is prepared by Deloitte for The Banks Association of Turkey before the "Strategy Document" which is arranged in order to make clear the steps that should be taken in order to convert Istanbul to a considerable international financial center. In the report, the global and domestic developments in the field of financial services are given place so that they show the position of Istanbul and the key performance indicators in a reciprocal work including the competitors of the city. In the study, besides Istanbul, cities and countries like London, Moscow, Dublin, Madrid, Israel and Singapore are detected.

Following that study which was prepared for The Banks Association of Turkey, the research for exposing the State Planning Organization objectives titled as “The Strategies of International Istanbul Financial Center (IFC) and Action Plan” is completed in October 2009. In the plan, it is declared that Istanbul could be a regional center in the near future and an international financial center in the midterm.

## **4 Research on the distinctive features of the international financial centers**

This study aims to put forth the variables that distinguish the financial centers.

### **4.1 Variables**

In this study, after the 2008 world economic crisis, the main financial centers that struggled with the serious problems but still managed to survive as important centers from 57 different centers from 37 different countries with different significance degrees are used. The centers are listed according to their significance degree. In order to determine the ranking, Z/Yen and Cooperation of London’s Global Financial Center Index dated September 2010 is used in which making business, easiness for making business and market access, the features of being a business center, the volume of trading, professional services, competitive force, the quality of the labor force, the quality of life, taxation, legislative frame and infrastructure features are foregrounded.

In the scope of the report, 75 centers are included but 22 centers are out of analysis due to their off-shore features. Also it is declared that the first ten centers in the study show international financial center features. Also, the distinctive features of the centers in the top 10 of the list are foregrounded. In this study, the main elements that should be evaluated in order to fulfill the target of IFC Strategy and Action Plan, aiming Istanbul to be one of the international financial centers is problematized.

In Table 2, these centers are shown and used in order to compose the dependent variables.

By distinguishing the first 20% group consisting the first ten centers show the variables, however in the analysis that is made in order to compose the independent variables, besides Z/Yen and Cooperation of Londons’ reports, some very important international institutions studies like Mastercard Worldwide Centers of Commerce Index, International Trade Centers Index Study, Mercer HR, CB Richard Ellis Reports and Deloitte’s researches are also taken into consideration. Following these studies, the structure of the labor, physical and technological

infrastructure, transparency, income and etc. a total of 42 variables are also used as the distinctive features that help to determine the distinctive features of a financial center. By looking at the correlations of these variables, the number of variables decreased to a number of 22. The independent variables that take place in the analysis are shown in the summary form in Table 3.

Table 2: Financial Centers

1-10	11-20	21-30	31-40	41-50	51-53
New York	Frankfurt	Seoul	Milan	Prague	St. Petersburg
London	Toronto	Montreal	Sao Paulo	Bangkok	Budapest
Hong Kong	Boston	Munich	Copenhagen	Jakarta	Athens
Singapore	Shenzhen	Dubai	Vienna	Lisbon	
Tokyo	San Francisco	Dublin	Kuala Lumpur	Buenos Aires	
Shanghai	Beijing	Osaka	Rome	Manila	
Chicago	Washington D.C.	Amsterdam	Mexico City	Warsaw	
Zurich	Paris	Stockholm	Rio de Janeiro	Moscow	
Geneva	Vancouver	Madrid	Johannesburg	Riyadh	
Sydney	Melbourne	Brussels	Mumbai	Istanbul	

The first % 20 of the group consists of the top ten centers

At this level of our research, the independent variables are shown with their abbreviations in the process of trying to compose a model with explanations in Table 3.

The continents on which these centers take place; the position of being a capital city or not and whether they are historical places or not are taken as dummy variables in the model. So, each of the centers is shown with the number 1 (one) on the continent it exists and 0 (zero) on the continents that it does not exist. By this way, it is aimed to determine the continents that the centers are more extensively seen according to the groups that they belong to. Although, the number of central cities are more in Europe, Asia, consisting of 4 major centers at the top 20 % group stands in the first place.

If the financial center is the capital city of any country, it is shown with number 1 (one) and if it is not a capital, it is shown with 0 (zero). The capital city of any country -although there are some practical differences among them-, is the central city where the governmental decisions are taken. In the five groups that are modelled, it is detected how many of them are capital cities of some countries. According to this study, it is aimed to reach a point that shows whether a center's being a capital city effects the condition of that city to be in the list of the first

20% group. In the same way, these cities historical features are shown with number 1 (one) and 0 (zero).

Table 3: Independent Variables

<b>Variables</b>	<b>Abbrev. for Variables</b>	<b>Variables</b>	<b>Abbrev. for Variables</b>
Being in Europe	EUROPE	Inflation	INFLATION
Being in Asia	ASIA	Strength of Legal Rights	LEGAL RIGHTS
Being in Africa	AFRICA	Taxation Rate (% Profit)	TAX
Being in America	AMERICA	Labor Force Participation Rate	LABOR FORCE
Being in Oceania	OCEANIA	The Rate of The Population Encompassed by Mobile Telephone Network	MOBILE
Being a Capital City	CAPITAL CITY	Number of Tourists	TOURIST
Being Historical	HISTORICAL	Center GDP / Country GDP	GDP
Profundity of Credits	CREDIT	Trading Services (% GDP)	TRADING
Corporate Income Tax	CORPORATE TAX	Density of Population per Square Kilometer	POPULATION
Asphalt Roads	ASPHALT	The Cost of Offices	OFFICE
Export of Services / Import of Services	SERVICE	The Expense on Health Services (% GDP)	HEALTH

One of the most important obligations for being a significant financial center is the feeling of safety that people feel for this center to be counted as one of the most important provisions. Especially, as Britain and some countries which have lands overseas, accept and practice the principle that economic growth is considered to be a result of using labor-capital factors extensively and inventions of new sources and external trade business makes a great contribution to the creation of financial markets that happen to be the reason for economical growth process. Besides all, those well-established countries also lay the foundations of multinational firms. Since those firms are supraterritorial in their nature, their assessments are seriously taken into consideration all over the world. While

building such a structure worldwide, the most powerful country led the pioneering role. In the analysis of the present structure, those companies play great roles for solving the conflicts too. In order to include this subject in our analysis, the profundity of credits and strength of legal rights are also given place as variables in the research.

The profundity of credits is a kind of variable that helps to evaluate the measure of credits, the accessibility for credits, the credits' registrations that are provided by the state or private sector. In our research, the centers that take place in the weakest countries are defined with 0 (zero) and the ones that take place in the strongest ones are defined with 6 (six). The data for the strength of legal procedures variables are composed in a similar method with the variables of the profundity of credits. The only difference is the measure of the strength of legal rights is between 0 (zero) and 10 (ten).

In the globalization process of the world, communication is one of the most important tools for it. Besides the improving technology, every kind of information steadily moves from one place to another. Moving from this point, one of the most important elements of technological infrastructure, the rate of the population encompassed by mobile telephone network stated as another parameter.

In the important financial centers, the transportation is as important as the communication tools. One of the most important transportation tools is the highway routes. We must mention here that the encompassment of the public highways is as important as the constitution of the roads. The roads' being in good position for the transportation techniques mean a lot for the trading facilities (including financial markets) any country. Moving from this point, a parameter showing the percentage of the asphalt roads in the detecting countries are also added to the analysis.

Besides the communication and transportation services, it is thought that the structure of services is important for a financial center too. In the scope of the services, insurance trade, transportation, travelling, copyrights, the cost for licences, personal communication, construction industry, finance, information and state services occupy an important place in these fields. In the scope of parameters, the total rate of imports and the total rate of exports for all the services and employments' are compared mutually for the financial centers where they exist on the world. According to this, the ratio's being more than 1 (one) means that the service export is higher than that of service import. Although this is a demanded condition, without taking consideration of the other statements in the country's balance of payments, it is not be possible to make a clear expression about it.

Inflation is explained as the risings in the general level of prices of goods and services in a period of time. However today, the self administrative structure of the central banks of the countries and the politics that they follow according to the inflation rates resulted in the parameter's meaning change into a new dimension which means that the parameter does not mean only stable risings in

the prices any longer as in its general definition and turns out to be one of the most significant indicators for economy. That is why the rates of the inflation of the countries on which the financial centers exist is added in the analysis as variable.

Generally, the vast international investments are made by the institutionalized, large-scaled firms. This causes the regime of taxation to become more important for the firms to make investments in a foreign country. London, which is regarded as one of the most important financial centers is criticized for its taxation regime many times. In our research, we included two parameters that reflect the financial center's country's taxation regimes. Since it is important for the firms' investments decisions, the countries' corporation income taxes are also included in the form of parameters to the scale.

The main target of any investor is getting maximum profit with a minimum income. Moving from this point, the second parameter that consists the subject of taxation is determined as the total taxation rate in the total profit of the countries that these centers take place. In order to get this maximum profit out of the price of investment is a quite important indicator for the investors. The demand of the investors is to pay the least rated tax for their profits.

Labor Force Participation Rate is the proportion of the total number of employed ones and the ones looking for a job actively to the sum of active population between the ages of 15-64. The rise in the rate of this parameter means the increase of any economic facilities and the decrease in the rate means that a large amount of working population is out of the economic facilities. In this research, in order to contribute to the economic activities of the centers, this rate is used as a parameter.

In the process of globalization, the distances between the countries become shorter and multinational firms are the pioneering forces in this structure. In the touristic journeys, not only holiday and cultural tourism is targeted but also business journeys are also very important for the travellers. That is the reason for using the centers' number of tourists as a variable in our study.

While the cities become magnetic centers for some reasons, it is observed that the prices in the real estates are also increasing in those centers. One of the reasons for this rise is the city's becoming a financial center. When the rise in the real estates happen, generally the cost for offices are expected to show a rising tendency in parallel to this. In order to interpret this expectation truly, the office costs are used as variables too.

Instead of considering the population of the centers directly,  $\text{km}^2/\text{the population of the city}$  parameter is used. By this way, a better comparison between the centers are aimed to be done.

A country's Gross Domestic Product (GDP) is regarded as an influential factor since it helps to retain the amount of the country's economy and per capita income while considering any country's economy as a parameter. As our research is a center based analysis, instead of using Gross Domestic Product (GDP), the

gross domestic product rate of the center to the country's product rate is used as a variable.

Trading services is the sum of export trading services and import trading services. In a general framework, the centers where the financial services are in a developing process, it is observed that this trade business occupies an important place in the gross domestic product. In the first financial centers, it is established that insurance facilities and secondary market operations appeared parallel to the development in the trading facilities. Moving from this point on, while identifying the rate of those centers' contributions to the GDP, the rate of the trading services is specified as a separate parameter.

The advanced level of health services is also very important for the centers' liveability features. In the scope of the health services' expenses, public and private sector's total consumption is included. Those expenses include the health services, family planning and nutrition activities and the contributions for health services as a whole. In this context, the rates of health services' expenses in these centers' to the country's total health services is shown as a parameter in our research.

The data of City Mayors is used for the variables of being a historical city, the number of tourists and density of population per square kilometer. For the office costs variables CB Richard Ellis' data is used. PwC is used for the variables of the center GDP/country GDP and the data of the central banks' of the related countries for the inflation rates. For composing the other independent variables, The World Bank's data is used.

## 4.2 Methodology

Before we put forward the results of the model we have composed, it is preferred to give general information about our methodology. Logistic regression analysis is a regression analysis basically but it also carries the property of being a distinctive analysis technique. In the logistic regression, the independent variables being discrete or continuous data do not influence the prediction method of the model or the features of the predicated parameters. Because of this, the independent variables in the model could both be discrete or continuous data in their nature.

In the empirical study's scope, the first 20 % group is distinguished by using logistic regression analysis. In the first group, the centers are the first ten centers that we have already determined to study on. These 10 centers are more important than the rest of the centers and they are regarded as international financial centers.

While making analysis about these centers, the targets of the cities in the need of becoming an important financial center starting from Istanbul is taken into consideration. These centers are aiming to be a regional center in the near future and an internationally accepted one taking place in the first 20 % group in the long term. That is the reason for while the dependent variables were being composed,

the centers in the first 20 % group and the other centers were divided into two other parts in the study. If the city takes place in the first 20 % group, it is marked with number 1 (one) and if vice versa it takes a value of 0 (zero). By this way, it will be possible to determine the centers distinctive features and the degree of prediction of the first 20 % group and the other centers.

While determining the independent variables, the method in the below is applied as: During the determination of the process for the variables, forward selection method is used. In the scope of this method, variables contributing meaningfully to the logistic regression mode is determined. The variables that have no meaningful contributions to the variables are thrown out of the analysis and analysis is proceeded by the rest of the variables. By using the method mentioned above, the independent variables included in the model is shown in the descriptive statistics in Table 4.

Table 4: Descriptive Statistics

Variables	Variable Abbrev.	Avg.	S. Deviation	Min.	Max.	Mod	Median
Strength of Legal Rights	LEGAL RIGHTS	6.26	2.23	3	10	3	7
Labor Force Participation Rate	LABOR	57.14	7.53	41.1	75.9	59.2	57.8

### 4.3 Results

Before the models are composed, the relations between the variables are determined. It is found that the coefficient correlation values between the variables that are used in the model is between a range of bigger than  $-0.5$  and smaller than  $0.5$  values. In this circumstance, it may be predicated that there is not a multicollinearity problem between the parameters. Before the model is analysed, Hosmer Lemeshow Statistic which is for checking up on the goodness of fit the model is detected and in a degree of 95% the hypothesis is not rejected. After completing all the primary conditions for the logistic regression analysis, the step for the analysis is taken and in the model of logistic regression arranged by forward selection method, two steps are formed in order to distinguish the first 20% group to reach the best predicted results.

Due to the logistic regression results' variables coefficient numbers that take place in Table 5, dependent variables and forward selection method, the relations direction between the variables that are included in the model could be detected. The coefficient's being a positive value means that variables and dependent variables are in the same way and if the variables are negative, it comes to mean

that the independent variables are in a negative direction with the dependent variables.

Wald values is composed by taking place in the values of the parameters in the third column are proportionated with coefficient's standart deviations and the result is squared. The Odd Ratios is a value that must be multiplied by a one/unit entity increase when the dependent variable is declared as 1 (one). In the condition of the coefficient number's being significant, an odds ratio which is bigger than 1 (one) shows that the relevant value is an efficient factor.

First, in the scope of the study, the results of the regression analysis about the distinction of the first 20% group's is placed. In order to choose such a way aims to show the potentials of Istanbul to become one of the centers in the first 20% group. The results of the logistic regression analysis is shown in Table 5.

Table 5: The Results of Logistic Regression Analysis for Distinguishing the Centers in the First 20% Group

Variables		Coefficient	Standart Deviation	Wald	p value	Odds Ratio
Step 2	LEGAL RIGHTS	0.97	0.34	7.96	0.005*	2.63
	LABOR	0.15	0,08	3.51	0.061** *	1.16
	Constant	-17.37	6.6	6.92	0.009*	0

Hosmer Lemeshow Statistics Test shows a chi-square distrubition and it is founded as 2.56.

\*→ statistical significance at the 1 % level

\*\*\*→ statistical significance at the 10 % level

When the results are detected there is a positive and significant relation between the labor force participation rate and strength of legal rights variables and the position of a center's being in the first 20 % group.

When the strength of legal rights variable's odd rate is quiet above the value of 1 (one), the labor force participation rate variable's odd rate is found close to the value of 1 (one) in the centers. According to these results, in this model, the strength of legal rights variable has a more important factor on the dependent variable when it is compared to the labor force participation rate variable.

After the factors that effect the cities for being in the first 20% group are exposed, the success for our model constituted for the predication of the centers' future potentials to be in and out of the first 20% group cities is shown in Table 6. Being in the first 20% group is shown with 1 (one) and the cities that do not take place in the first 20% group is shown with 0 (zero).

Table 6: The Prediction Table for Distinguishing the Centers in the First 20% Group’s Analysis

	Observation		Prediction		
			Other Centers	The Centers in the First 20 % group	Success Rate
Step 2	The centers in the first 20% group	1	1	9	90
	Other Centers	0	35	8	81.4
	Total Success Rate				83

Cutoff value is taken as 0.5.

The predictions that are made by the forward selection method, the prediction for the first 20% group is succeeded to a percentage of 90% and this percentage is around 81.4% for the other centers’. The total prediction percentage for the models is found as 83%.

After the explanations about the percentages of the predictions, the factors that effect the financial centers are evaluated. In this scope, there are general explanations about the financial centers and some dissertations on Istanbul’s potential and position for being an important financial center according to the variables in the future. Especially, there are explanations on two subjects: first of all explanations are made for the less effective variable “Labor Force Participation Rate” and next for the most important factor retained as “Strength of Legal Rights” variable.

“Labor Force Participation Rate” is the proportion of the population ages 15 and older that is economically active. If this rate is high, it means that there is an increase in the economic activities. On the contrast, low rate means a decrease in the economic facilities and a fall in the number of population taking place in the economically active population. The referred variable shows a positive relation with the dependent variable in model. According to this result, it may be expected that the “Labor Force Participation Rate” rate would be higher in more important financial centers. If the rates for “Labor Force Participation Rate” in the first 20% group and the rest of the centers out of the first group are compared, there appears to be difference about 3%. Although the rate of the difference does not seem to be a great amount quantitatively, the number of the expertised personnel in the financial centers lead the centers to show a higher rate for the “Labor Force Participation Rate” and that reason causes this variable to turn into an important factor. At this point, it may be suggested that the centers targetting for being an international financial center must increase the number of expertised and

appropriate personnel to match the need to increase the rate of the Labor Force Participation Rate.

If these variables are realized in Istanbul specifically, it is observed that the rate for the “Labor Force Participation Rate” is lower than that of the international financial centers in general. However, when the statistics are detected, it may be proposed that the most important reason for being unable to increase the rate for “Labor Force Participation Rate” depends on the women’s participation in the labor force being too low. In the specific conditions for Turkey’s aim for being one of the leading figures among the important financial centers, it may be predicted that primarily the participation rate of women in the labor force must be promoted.

Comparing to the labor force participation rate variable, strength of legal rights variable has a higher odds value and it is defined as the major factor for influencing a financial center according to our study.

The referred variable makes it possible to determine the degree of legal safety which protect the financial affairs and according to this feature the easiness to reach the present credits in these centers and the solutions for the possible financial conflicts in the countries in which these cities take place in. So, it is expected that the variable of the strength of legal rights in the first 20% group should carry a more significant and efficient value compared to the other centers. If the average values for these centers are detected, the first 20% group is close to 8.3 and it is 5.79 for the rest of the other 43 centers that fulfill our expectations about the centers.

According to this information, in a possible discrepancy, important financial centers are more likely to take active roles in the solution for these kind of conflicts due to the strength legal structures that they have. For international scaled investors, this property carries a great importance. As a result of this, in decisions for new investments, these companies apply for international institutions or organizations that are known for their objectivity and independence. International law firms that take place in these cities contribute in a serious way for the cities’ survival as global financial centers too. Those firms are working in order to solve financial conflicts quickly and effectively. The ability to work in such a way depends on the countries’ legal infrastructure. Although these firms show international features, if we take them as trading companies, it must be remembered that they would prefer to work in centers that present better working conditions and more profit for them. So, it is an expected result that those firms generally prefer to work in developed countries with deeper financial markets compared to the emerging ones.

According to these explanations, the centers in the first 20% group are all regarded as developed countries because of their high standarts of the Gross domestic products per capita values except for the city of Shanghai in China. It is observed that the values of this center is close to the centers that do not take place in the first 20% group.

The study prepared by Deloitte (2008) titled “The Changing Visions in the Financial Centers”, the important competitive elements are determined as politic stability, geographical location, a proper environment for the effectiveness and strength of legal rights, the conditions of the regulative institutions and financial positions of a center. In the scope of the study, it is stressed that those elements are hard to change and to get developed. In these elements, the main element that creates a competitive superiority over others is founded as the proper effectiveness of legal rights in the country. It is also stated that in a country where there is an effective legal system that works properly in order to solve any possible financial conflicts in a center results in the international investments’ attraction and create an environment for superiority of competition compared to the other centers. The results that have been reached during our study contribute to this research.

We think that according to these variables, the assessments for target of Istanbul’s becoming an important financial center is quiet important. According to the assesments about Istanbul could not be done independent from the Turkish legal constitution. That is why the assessments are done with considering all these matters. Information about the qualifications and matters that are planned in order to improve the present conditions and legal structure are included in the recent years’ researches.

The legal system of Turkey has gone under significant changes due to the country’s attempts for the membership to EU which is dating the year of 2001. In contrast to all of these positive developments or progress, the judges could not be selected and appointed from the experienced ones which is an inappropriate act according to many modern judicial systems.

The present conditions prevent advanced financial applications in this type of legislative system. Only 3 of the best 100 international law firms are active in Turkey with a number of 34 personnel in total. The most professional law experts are in Istanbul to a percentage of 40%. In Istanbul, the experts that could serve in an international level is almost 500 and the number of the financial centers that serve as an international center is below 100. The total number of law experts are more than 20.000 (twenty thousand) in Istanbul, so it could be suggested that the number of international law experts are very low and limited.

Due to the limited number of experts in law and legislative system, it may be said that our legislation system is not capable of solving possible financial conflict that could occur. As we have just mentioned above, the main element for creating superiority in the field of economic competitiveness is depended on constructing strength legal mechanisms that help to solve any legal conflicts quickly. In order to solve such kinds of problems, In the IFC Strategy (2009, pp. 5-7), it is explained that arbitration is obligatory and according to this International Arbitration Law is enacted. After completing the works on this subject, an independent and autonomous arbitration institution will be established in Istanbul. This arbitration institution is aimed to be in an international level for the matters of costs, effective date of legal decisions and quickness. The Arbitration Laws of

Turkey will be united with International Arbitration Laws and by this way one common arbitration act will be consisted. It will also be possible to serve as mediator corporations in the arbitration institution that will be established in Istanbul. By this way, it will be possible to solve some conflicts in a short time without entering for long legislation process with a quick manner.

Another step that is taken in order to strengthen the infrastructure for Istanbul's being an international financial center is about the matters that help to solve the financial conflicts quickly and actively in a short time or term. In this scope, another Specialized Court will not be established. Instead of this, one of the present courts will be appointed to expertise in this field. The appointed court is aimed to overcome with the financial and data processing crimes besides its duty to solve conflicts between the parties.

In order to make easy to solve the conflicts by the courts, there is also a new agenda for a study to include different and helpful sentences for the court solutions than the general orders of the law. In this scope, first of all the features of the expertised personnel, their selection, responsibilities and the formation of the lists are being argued in addition to the scope of the reports of the experts and the features for the period that the reports should be prepared according to the scope of the Civil Procedure Code is on the agenda.

There is not a systematic study in order to increase the labor force participation rate yet. However, it is a promising progress that the governmental force considers the determination that states the strength legal right's importance is more primary for the aim of Istanbul's being an international financial center. However, these matters should be effectuated and implemented as soon as possible.

## 5 Conclusion

As the civilization is separated from the agricultural tradition and the foundations for the industrialization started to be laid, modern terms the process of urbanization started too. The big scaled cities started to become important economic centers and in the second half of the 16th century, London, the capital city of Britain emerged as the first and most powerful financial center of the world at those times. Although London comes next to New York in the volume of economic operations, it still serves as one of the most important financial centers' today. A center which is not at the top of the volume of financial operations list and still keeps its place for responding the demands of an inventor means a great deal for the rest of the centers.

There are many studies on the international centers and international financial centers but there are not certain definitions to define these two terms yet. However, there seems to be a convention on the features to define a trading center and these features are mentioned in the scope of our research. Beaverstock, Taylor and Smith (1999) suggested that in order to consider a city as an international

center, those places must provide the basic needs for people but it must also improve the quality of their lives.

There is an empirical study on the 53 differentiated centers in the scope of our research. Using the SPSS Programme, 53 centers are listed in the degrees of their financial significance. Among these centers, in order to detect the factors that influence the first 20% group centers, logistic regression analysis is applied.

In the scope of our analysis, the variables for causing the centers to be in each one of the groups are determined at first. A positive relation between the labor force participation rate and the centers' being in the first 20% group is found. In the same way, a positive and meaningful relation between the strength of legal rights and the centers' being in the first 20% group is found. In the scope of our analysis, there is a high degree of proof in our predictions about the centers. In the analysis of the separation for first 20% group, our prediction rate reached a rate of 83%.

At the end of the quantitative part of the study, there are determinations about the significant variables. And at this part of the research about the determinations of the variables, there are explanations for Istanbul's aim and the present conditions of its variables in order to be one of the international financial centers.

According to this, the labor force participation rate which means the employed ones and the unemployed ones looking for a job's rate to the active population's rate is increased, it means that the financial and economic facilities are in a rising position and that would contribute a lot to turn city a respectful international financial center. It is also stated that in the case of Istanbul, if the rate of the participation of women in the labor force would increase, then the rate for the participation of labor force would increase totally.

The strength of legal rights variable is a positive and significant variable and as it has a high odds value, it is determined as the most influential factor on the dependent variables for the sake of being accepted as an international financial center. If the legal rights are effective in a center, it means that in such a country, the financial operations are under the safety of laws; there are not problems for availability of the present credits and in case there exist some financial, economic or legal conflicts, they would easily apply to the legal institutions for solutions. It is a confirming property that verifies the information that the effectiveness of legal institutions is quite important for the safety of powerful financial centers.

The variable is taken as an important factor in the plans to turn Istanbul an international financial center for the works done for developing the legal structure and it is mentioned urgently in our study. It is also underlined in our article that the plans should be completed and activated in the soonest time since they are crucial for Istanbul to become one of the international financial centers in the near future.

Today, the analysis about the international financial centers and the centers planning to be in this scale in the near future are increasing. Especially the

international foundations' studies whose opportunities are incomparably better than that of personal studies are contributing regularly to determine the present conditions since the beginning of the 2000s. In our scope of the research, all of the titles that we put forth consideration have to the qualities to be a subject of separate researches. That is why this dynamic process must be watched properly and supported by academic studies.

## References

- [1] A.S. Alderson ve J. Beckfield, Power and Position in the World City System, *American Journal of Sociology*, **109**(4), (2004), 811-851.
- [2] J.V. Beaverstock, P.G. Taylor and R.G. Smith, A Roster of World Cities, *Cities*, **16**(6), (1999), 445-458.
- [3] A.K. Bhattacharya, The Power Of China's Checkbook: Is Shanghai Going To Be An International Financial Center?, *Northeast Decision Sciences Institute Proceedings (Conference Presentation)*, (2010), 63-66.
- [4] C.B. Richard Ellis Global Research and Consulting, Global Office Market View: Rents, USA, *CBRE, Report*, (2010).
- [5] Corporation of London, *Centre for the Study of Financial Innovation, Sizing up the City - London's Ranking as a Financial Centre*, 2003.
- [6] Cushman & Wakefield, *European Cities Monitor 2005*, 2005.
- [7] State Planning Organization, The Strategies of International Istanbul Finance Center and Action Plan, 2009.
- [8] Deloitte, The Changing Vision of the Financial Centers, 2008.
- [9] J. Friedman, The World City Hypothesis, *Development and Change*, **4**, (1986), 12-50.
- [10] T.K. Giap, *Singapore as A Leading International Financial Centre Vision, Strategies, Roadmap and Progress*, Korea, Institute of Southeast Asian Studies, pp. 99-129, 2009.
- [11] P. Hall, *World Cities*, New York: McGraw-Hill, 1966.
- [12] G. Kaufman, Emerging Economies and International Financial Centers, *Review of Pacific Basin Financial Markets and Policies*, **4**(4), (2001), 365-677.
- [13] M. Kawai, *Can Tokyo Become A Global Finance Center?*, Korea, Institute of Southeast Asian Studies, pp. 179-191, 2009.
- [14] C.P. Kindleberger, *The Formation of Financial Centers: A Study in Comparative Economic History*, *Princeton Studies in International Finance*, **36**, New Jersey, Princeton University Press, 1974.
- [15] Mastercard, *Mastercard Worldwide Centers of Commerce Index*, 2008.
- [16] Mercer, *Quality of Living Survey*, 2010.
- [17] R. McKenzie, The Concept of Dominance and World-Organization, *American Journal of Sociology*, **33**, (1927), 28-42.
- [18] McKinsey & Company, *What Makes A City A Financial Hub?*, 2004.

- [19] X. Mingqi, Building the Shanghai International Financial Centre Strategic Target, Challenges and Opportunities, Korea, Institute of Southeast Asian Studies, pp. 231-244, 2009.
- [20] H.C. Reed, *The Preeminence of International Financial Centers*, New York, Praeger, 1981.
- [21] H.C. Reed, *Financial Centre Hegemony, Interest Rates and the Global Political Economy*, International Banking and Financial Centres, Kluiver Academic Press, pp. 247-268, 1989.
- [22] R. Roberts, *The City: A Guide to London's Global Financial Centre*, London, *The Economist*, (2008).
- [23] S. Sassen, *The Global City: New York, Tokyo and London*, New Jersey, Princeton University Press, 1991.
- [24] S. Sassen, Global Financial Centers, *Foreign Affairs*, **78**(1), (1999), 75-87.
- [25] J. Seade, Hong Kong and East Asia's Financial Centres and Global Competition, Korea, Institute of Southeast Asian Studies, pp. 62-98, 2009.
- [26] C.R. Schenk, Banks and the Emergence of Hong Kong as An International Financial Center, *Journal of International Financial Markets, Institutions and Money*, **12**, (2002), 321-340.
- [27] S. Shirai, Promoting Tokyo as An International Financial Centre, Korea, Institute of Southeast Asian Studies, pp. 130-178, 2009.
- [28] The Banks Association of Turkey, Research on the Potential of Istanbul to Be An International Financial Center, 2009.
- [29] The Association of Capital Market Intermediary Institutions of Turkey, *Global Financial Centers and Istanbul*, Istanbul: The Association of Capital Market Intermediary Institutions of Turkey, 2007.
- [30] Z/Yen Limited and Cooperation of London, The Competitive Position of London as A Global Financial Centre, 2005.
- [31] Z/Yen Limited and Cooperation of London, Global Financial Centres Index-1, 2007.
- [32] Z/Yen Limited and Cooperation of London, Global Financial Centres Index-2, 2007.
- [33] Z/Yen Limited and Cooperation of London, Global Financial Centres Index-3, 2008.
- [34] Z/Yen Limited and Cooperation of London, Global Financial Centres Index-4, 2008.
- [35] Z/Yen Limited and Cooperation of London, Global Financial Centres Index-5, 2009.
- [36] Z/Yen Limited and Cooperation of London, Global Financial Centres Index-6, 2009.
- [37] Z/Yen Limited and Cooperation of London, "Global Financial Centres Index-7, 2010.
- [38] Z/Yen Limited and Cooperation of London, Global Financial Centres Index-8, 2010.