

**T.C. KOCAELI UNIVERSITY
INSTITUTE OF SOCIAL SCIENCE
DEPARTMENT OF TOURISM MANAGEMENT
PROGRAM IN TOURISM MANAGEMENT**

**THE IMPACT OF MACROECONOMIC VARIABLES ON
FINANCIAL PERFORMANCE OF TOURISM FIRMS:
CASE OF BORSA ISTANBUL**

(MASTER'S THESIS)

Ndeye Tiguida SARR

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(YÜKSEK LİSANS TEZİ)

Tezi Hazırlayan: Ndeye Tiguida SARR

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ABSTRACT

The tourism industry, being sector, which includes all the activities related to the organization and satisfaction of tourists during their trip, also has a very important role in the national economy of the host country. To measure the stakes of tourism in the economy, microeconomic and macroeconomic factors are elements of analysis. While microeconomics is limited to an individual perspective, macroeconomics extends to a global perspective and treats the Economy as a whole, by focusing on social and economic actors in general. It is in this context that this study focuses on macroeconomic variables to determine the factors that influence the financial performance of tourism firms in Turkey, which is one of the world's major destinations.

The study aims to demonstrate the relationship between macroeconomic variables and the financial performance of tourism firms. Data, from 2011 to 2020 are collected from a sample of 16 companies that represent the tourism sector in Borsa Istanbul. Tobin's Q ratio, Market to Book ratio, Return on Invested Capital, and Return on Assets as the financial performance indicators were dependent variables of the study. Gross Domestic Products (GDP), Inflation, Interest Rates, and Unemployment as macroeconomic indicators were independent variables. Size, Liquidity, Leverage, and Age were control variables of the study.

According to the results, value indicators, which are Tobin's Q ratio and Market to Book ratio, have a statistically significant relationship with Inflation, Interest Rates, and Unemployment. A negative relationship is found between value indicators and Interest rates and a positive relationship between value indicators and Unemployment and Inflation. On the other hand, there is no significant relationship between macroeconomic variables and profit indicators (Return on Invested Capital and Return on Assets). Accordingly, Interest rates negatively affect the financial performance of tourism firms and stand out as a factor that decreases the value.

Keywords: Financial Performance, Macroeconomic Variables, Panel Data, Tobin's Q.

ÖZET

Turistlerin seyahatleri sırasında organizasyonları ve memnuniyetleri ile ilgili tüm faaliyetleri içeren turizm sektörü, ev sahibi ülkenin ulusal ekonomisinde de oldukça önemli bir yere sahiptir. Turizmin ekonomideki payını ölçmek için mikroekonomik ve makroekonomik faktörler analiz unsurlarıdır. Mikroekonomi bireysel bir bakış açısıyla sınırlıyken, makroekonomi küresel bir bakış açısına uzanır ve genel olarak sosyal ve ekonomik aktörlere odaklanarak ekonomiyi bir bütün olarak ele alır. Bu çalışma, dünyanın önemli destinasyonlarından biri olan Türkiye'de turizm firmalarının finansal performansını etkileyen faktörleri belirlemek için makroekonomik değişkenlere odaklanmaktadır.

Çalışma, makroekonomik değişkenler ile turizm firmalarının finansal performansları arasındaki ilişkiyi ortaya koymayı amaçlamaktadır. 2011'den 2020'ye kadar olan veriler, Borsa İstanbul'da turizm sektörünü temsil eden 16 şirketten oluşan bir örneklemden toplanmıştır. Finansal performans göstergeleri olarak Tobin'in Q oranı, Piyasa / Defter oranı, Yatırım Sermayesi Getirisi ve Aktif Getirisi çalışmanın bağımlı değişkenleriydi. Makroekonomik göstergeler olarak Gayri Safi Yurtiçi Hasıla, Enflasyon, Faiz Oranları ve İşsizlik bağımsız değişkenlerdir. Yine, Büyüklük, Likidite, Kaldıraç ve Yaş, çalışmanın kontrol değişkenleridir

Sonuçlara göre Tobin'in Q Oranı ve Piyasa / Defter Değeri Oranı olarak değer göstergeleri Enflasyon, Faiz Oranları ve İşsizlik ile istatistiksel olarak anlamlı bir ilişkiye sahiptir. Değer göstergeleri ile Faiz Oranları arasında negatif, İşsizlik ve Enflasyon arasında pozitif bir ilişki bulunmuştur. Öte yandan, makroekonomik değişkenler ile kâr göstergeleri (Yatırılan Sermayenin Getirisi ve Aktif Karlılığı) arasında anlamlı bir ilişki yoktur. Buna göre faiz oranları turizm firmalarının finansal performansını olumsuz etkilemekte ve değeri düşüren bir unsur olarak öne çıkmaktadır.

Anahtar Kelimeler: Finansal Performans, Makroekonomik Değişkenler, Panel Veri, Tobin Q.

ABBREVIATIONS

ADF	: Augmented Dickey-Fuller
CPI	: Consumer Price Index
CBRT	: Central Bank of the Republic of Turkey
ECM	: Error Correction Mechanism
GDP	: Gross Domestic Product
GNI	: Gross National Income
ISE	: Istanbul Stock Exchange
PPP	: Purchasing Power Parity
NOPAT	: Net Operating Profit After Tax
ROI	: Return on Investment
ROA	: Return on Assets
SVAR	: Structural Vector Autoregression
TSI	: Turkish Statistical Institute (TUIK)
UNWTO	: World Tourism Organization

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INTRODUCTION

Economics can be defined as the social science that studies production, distribution, and consumption of goods and services (Krugman and Wells, 2012: 2). As a social science, it brings together several aspects including two branches which allow to have a thorough understanding, namely macroeconomics and microeconomics, which have different but complementary roles. Macroeconomics studies the global characteristics of an economy, while microeconomics is concerned with the characteristics of each economic agent (Guillaumin, 2020:16).

If macroeconomics has a general dimension, focusing on the functioning of Economy as a whole, not of specific companies but of industry in general, microeconomics has an individual and detailed approach, focusing on the study of economic agents, such as individuals, consumers. To analyze large-scale economic policies such as states or international organizations, macroeconomics is the indispensable element. The rules of macroeconomics are governed by indicators such as GDP (gross domestic product), the rate of unemployment, inflation, savings, international economic policies and export and import policies. They are called macroeconomic aggregates or variables because they have a much broader dimension since they deal with Economy as a whole.

The tourism industry is the economic sector which includes hotels, travel agencies, tourist sites and all activities related to the organization, satisfaction and movement of tourists during their trip. The tourism sector is not only a source of job creation and income for the host country and its inhabitants, but also has a very significant impact on the country's economy. For this reason, it's important to make a global analysis of this sector, being an area that has a considerable contribution to the national economy.

Macroeconomics being the branch that deals with economy in a global way, doing a macroeconomic analysis of tourism companies allows to understand the functioning of the economy in this sector, to study the relationships of the various economic factors in the field of tourism. Thus, in this study, the impact of

macroeconomic variables on the financial performance of tourism companies listed on Borsa Istanbul (the Turkish Stock Exchange) will be analyzed. Turkey is one of the main tourist destinations in the world.

Through the work of macroeconomists, decision-makers can assess the consequences of the various economic policy strategies implemented. This study aims to identify the relationship between the various macroeconomic variables and the financial performance of companies in the tourism sector, but also to contribute to the financial literature.

Our analysis will be performed using panel data analysis method. This study is divided into four chapters. The main points are the theoretical part, the conceptual part, the methodological part and the analytical part which will be discussed. In the theoretical part, the different terms of macroeconomics and tourism will be defined as well as the literature review will be treated. The second part is the conceptual part, talking about the financial performance, the factors that influence it and the indicators and the presentation of Borsa Istanbul. Third Chapter concerns the research methodology, and the fourth chapter is the part of analysis and research results. In the fourth section, details about the results and discussion are given.

FIRST CHAPTER

1. THEORETICAL PART

In this chapter, which is dedicated to the theoretical part, the key concepts of research will be defined.

1.1. DEFINITION OF TERMS

The notions to be defined are those of macroeconomic variables and tourism.

1.1.1. Macroeconomic Variables

The history and definition of macroeconomics, first will be approached, then the main macroeconomic variables.

1.1.1.1. History of Macroeconomics

Before Keynes, economics was defined by Greek thinkers as the art of managing one's home (Becuwe vd, 2016). Historically, among the two forms that economics has taken, microeconomics comes first, followed by macroeconomics. The first macroeconomic vision that emerged was with the advent of the physiocratic movement in the 18th century. Physiocracy born in the late 1750s in France, is a school of economic, political and legal thought, whose founders are the pioneers of economic science and the precursors of economic liberalism still called physiocrats. We then attend a hierarchical representation of the economy through exchanges between agents (Larrère, 1992:710).

“Economic Table” is a work by François Quesnay, doctor of the royal family at the time, which illustrates the representation of the economy based on blood circulation. After a first publication in 1758, the work was taken up and rewritten in 1760 and then in 1766. The “economic table” represented in an abstract way the

different flows of exchanges of production in an economic system (Encyclopædia Universalis, 2022). However, there is a readjustment following philosophical considerations of the physiocrats and historical events that make the representation in this work outdated and no longer used. Another schematic representation of the industrial economy is proposed by Karl Marx, in the 19th century, by conceptualizing the money-commodity-money cycle and the downward trend in the rate of profit (Ghislain, 2018).

At the same time, the precursors of the neoclassical school used marginalist theory to bring together the behaviors of economic agents such as consumers and producers. Marginalism, in economics, is defined as an essential current of liberal analysis, which appeared between 1879 and 1890, considered as an alternative thought to classical thought. It's a moment of rupture, hence the name of the "marginalist revolution". It's in this context that works such as "The Theory of Political Economy" by the Englishman William Stanley Jevons and "the Grundzüge" by Carl Menger, appeared in 1871, later "the Elements of Pure Political Economy" by Léon Walras appeared in two stages between 1874 and 1877. These three are considered as the founders of the "neo-classical school" (Lenfant, 2022). We are witnessing an aggregated microeconomics which is often an approach at the base of some macroeconomic theories. However, there should not be confusion between macroeconomics and this vision of the economy based on individual behavior, because the latter doesn't analyze the economy globally.

John Maynard Keynes (1883-1946), considered as the greatest economist of the 20th century, is recognized as the founding father of macroeconomics and the one who revolutionized economics (Cairncross, 2004). On the other hand, we can't say that Keynes is the inventor of macroeconomics because this theory as a field of research was born during the 1920s and 1930s. However, we can recognize that the works undertaken by Keynes, in the thirties (1930s) triggered an emergence in macroeconomics and allowed to make a systematic distinction between microeconomics and macroeconomics.

His famous work “General Theory of Employment, Interest and Money” (1936) is at the origin of modern macroeconomics. In its theory, microeconomics is oriented to the problems of resource allocation by means of relative prices, while macroeconomics is interested in global production and the level of prices (Potier, 2018).

1.1.1.2. Definition of Macroeconomics

Microeconomics and macroeconomics are the two branches of economics, different but related, as both together help to understand economics in a general way. Although this study is based on macroeconomics, this doesn't exclude in research, to give a definition and to specify microeconomics to better orient the field of research. Microeconomic theory is the branch of economics that has an individual perspective because it studies the behavior of each economic agent, including consumers such as families, businesses, workers (Marchant and William, 2007). The analysis of the laws governing the prices, the quality of the offer and all that can stimulate the needs of each requester, between the consumers and companies offering goods and services enters the field of microeconomics. His area of specialization is people-oriented and more specifically towards how taxes and other government regulations impact the purchasing habit of consumers.

While microeconomics studies individual markets, macroeconomics deals with the wider economy. It studies the way the economy works, as well as the economic strategies and policies implemented by the government in a country. It's interested of society, of economic actors in general and extends to a global perspective (Poulon, 1982).

The word “macro” refers to a wider image, which means that macroeconomics considers all sectors of the economy and even the economic policies of other countries. It allows to study the economic relations and policies of a State in economic matters, applicable to the country. Understanding economic events is considered one of the objects of study of macroeconomics. In addition to that, there is also the improvement of economic policies (monetary and budgetary) because they have remarkable effects on the economy. Inflation and deflation are among the concerns of macroeconomic

research. In the short term, macroeconomics focuses on inequalities, solutions to eliminate them and restore balance, and in the long term, it's interested of growth and its factors.

The long-term performance of an economy can be explained by a country's growth and wealth, its international trade specialization, income inequality in a national economy, internal and external determinants of monetary value, a country's public finances or financial markets. Macroeconomic aggregates such as GDP (gross domestic product), unemployment rate, inflation, savings, international economic policies and export and import policies have a much broader dimension as they all deal aspects that revolve around the economic sector. Moreover, these variables consider all their markets and the interactions between them.

1.1.1.3. Main Macroeconomic Variables

To understand the economic realities of a country compared to others, there are indicators that a country must refer to which are called macroeconomic variables. They are those which allow to understand the economic market, to know the most promising activities and the most vulnerable layers in terms of economy, consequently, to take individual decisions which privilege the citizens of a country and contributing to economic development. It's essential to specify that even if the macroeconomic study is accentuated on the indices of growth and development of a country, in addition to the impact that it has on the government policy, it also influences in a direct way people. There are many macroeconomic variables that provide fundamental information to promote the development of a nation. The main macroeconomic variables that will be defined in this study, are the Gross Domestic Product (GDP), the inflation rate, the unemployment rate, savings, the risk premium, the balance of payments.

1.1.1.3.1. Gross Domestic Product (GDP)

In 1695, Charles D'Avenant developed the first method to measure national income, but the idea came from William Petty (Coyle, 2014). Simon Kuznets invented the Gross Domestic Product (GDP) in 1934 to measure the effect of the Great

Depression on the economy at the time (Kuznets, 1934:5). In 1944, at the end of the Bretton Woods conference, GDP was considered the main tool for measuring a country's national economy (Dickinson, 2012). It allows to know the total value of the annual production generated by the economic actors living inside a territory.

The monetary value of all goods and services produced in a country is determined by this macroeconomic variable. Being one of the major elements of the national accounts, it is through the GDP that we refer to know the internal economic activity of a country. The economic growth rate is measured through the change in GDP. There are two types of GDP, one called nominal GDP and the other real GDP. Nominal GDP considers inflation and price changes from one period to another while real GDP looks at the value of goods and services without worrying about inflation. It should be noted that GDP is different from GNI (gross national income). GNI represents GDP which is added net inflows of factor income from outside the country (Lequiller and Derek, 2006).

The GDP considered as one of the most important macroeconomic variables has some shortcomings. Some researchers have not failed to bring their criticism by considering that in a country having a growing GDP does not necessarily reflect increased social progress within the country. A growth of GDP does'nt mean a high standard of living for the inhabitants nor development of the health and education system (Drèze and Sen, 2013).

1.1.1.3.2. Inflation Rate

An exaggerated circulation of money leads, at some point, to inflation. Consumers, the more they buy goods and services, the more demand becomes greater than supply. This strong consumer demand usually produces higher prices. The increase in the prices of goods and services causes a decrease in the value of money, which gives rise to inflation. Inflation can then be defined as the decrease in the purchase value of a given currency, caused by an increase in the cost prices of goods and services (INSEE, 2018). This has significant consequences because a loss of monetary value has a negative impact on the national economy (households, companies, etc.). The inflation rate is defined as the percentage increase or decrease in

the prices of goods and services over a given period. When the inflation rate is remarkable, there is a decline in purchasing power. Purchasing power is the difference between the evolution of income and the rate of inflation. There is a loss of purchasing power if the rate of inflation is higher than the rate of income growth. Conversely, an increase in purchasing power can be said if the rate of inflation is lower than the rate of income growth.

One of the many ways to measure inflation is the CPI (Consumer Price Index). Inflation is a sustained increase in prices which are generally measured by the Consumer Price Index (CPI) (Marchant and Snell, 2007). However, inflation extends into a much wider area than the area of household consumption. This means that this measure remains partial. The calculation method for measuring the inflation rate depends on the country because each country has its own method. However, the calculation mechanism must be well mastered before making comparisons between countries. To analyze the evolution of the inflation rate, it is necessary to look at the trend over one period to another instead of referring to the published figure. This is what makes it possible to determine the acceleration or deceleration of the level of inflation. From one moment to another, if the price increases, then the inflation rate is positive but if the price decreases, then we can say that the inflation rate is negative. If the inflation rate is negative, it is called deflation.

1.1.1.3.3. Unemployment Rate

“Unemployed persons are defined as all persons of working age who did not have a job, engaged in job-seeking activities, during a specified recent period and were currently available for employment given an employment opportunity” (19th International Conference of Labor Statisticians, 2013).

A person who hasn't a job and is looking for one is called unemployed. When we talk about the unemployment rate, we are referring to the percentage of unemployed people in the labor force of a country. The population of working age who works or wants to work represents the labor force. It concerns active people, in other words those who have a job, and the unemployed. The unemployment rate is different from the share of unemployment which represents the number of unemployed people

in relation to the whole of the total population. This indicator can be defined differently from one country to another, but it should be noted that generally the unemployment rate is considered as an economic statistic to make a presentation of the economic situation of a country. In many countries, the “employment survey” is used to calculate the unemployment rate. The unemployment rate is calculated through the active population and not in relation to the total population. To obtain the unemployment rate, we must take the number of inactive citizens (unemployed people of working age who are looking for jobs) divided by the number of active citizens (those who have a job). The unemployment rate is calculated by age, by sex, by region, by nationality, by level of qualification (INSEE, 2016).

1.1.1.3.4. Risk Premium

Talking about a risk premium refers to two different contexts: in the case of investors wishing to invest in shares or risky assets and in the case of employees carrying out a risky job. However, in our study we are interested in the first case, in the case of investors.

A risk premium is a measure of excess return that an investor needs to have compensation for being exposed to an increased level of risk (Gagliardini vd, 2016: 985). The additional income generated, and which is higher than the investment rate and in a risky way is called risk premium. Investors, before investing in a company by buying shares or any financial security, expect it to have a return on investment. They require that the profit that will be generated be greater than that of a risk-free investment.

The expected risky return minus the risk-free return gives the risk premium (Chalamandaris and Rompolis, 2020: 147). In the case of investment for the purchase of a country's debt, the added value generated, and which is claimed by investors is also called the risk premium. It is the surcharge that provides a guarantee to investors following the risk of intervention in the debt. To reduce possible losses as much as possible, in companies, knowing that they are prone to crises and bankruptcies, the risk premium encourages investors to invest their money in risky assets in order to hope for a capital gain. It is a kind of compensation for the investor following risk

taking. And this means that, the higher the risk rate, the greater the risk premium becomes, in order to encourage investors to invest in riskier assets. The evolution of the risk premium depends on the price of a security or the risk rate.

1.1.1.3.5. Trade Balance

Trade balance is the macroeconomic variable that considers imports and exports between one country and others. It is the economic indicator that measures the importance of trade, by tracing the value of imports and exports between a country and other countries. The sales of goods and services produced on the national soil of a country, and which are sold in a foreign country represent exports. Imports are inputs of goods and services purchased from and coming from another country. The difference between exports and imports of goods and services is the trade balance, also called the trade balance (Marchant and Snell, 2007).

Depending on the performance and the international activity of the country, we can sometimes see a surplus or deficit trade balance. When the export of goods and services is greater than the import, there is a trade surplus, hence the name positive or surplus trade balance. In such a case, it can be said that the country exports a lot, and that the economic activity of the country is healthy and competitive. In other cases, this shows that the import rates are low because of its low growth. It could also show that its household and business spending is weak. We can deduce that by analyzing the trade balance of a country, not only must we look at whether it is in surplus or deficit, but also, we must take into consideration the details of all the elements that make it up as well as the figures. However, if the export of goods and services is lower than the import, there is a trade deficit. In this case, we speak of a negative or deficit trade balance.

1.1.1.3.6. Supply and Demand

The concept of “supply and demand” is indispensable in the field of economics because it plays an important role in determining the prices of goods. The quantity of economic goods and services placed on the market by producers or suppliers and intended for sale represents supply. The selling price is determined primarily by the

cost of production and market realities. For the sale of products, the supply must correspond to consumer needs and demand. The quantity of goods and services desired by consumers and who can afford them at a given price represents demand. It is the needs for goods and services of the market in exchange for a price (Bathelot, 2015).

The greater the demand, the more limited the supply of goods and services and therefore the market price rises. However, when there is a large supply of products, which reflects a massive presence of supply, there is an acceleration of competition among producers. This leads to lower prices. The price of products has a significant influence on demand. An increase in price leads to a decrease in demand and vice versa, a decrease in price leads to an increase in demand.

It is important to emphasize that there is a relationship between supply and demand, and both acts directly on the price because when the demand is higher than the supply the price increases and when the demand is lower than the offer, the price decreases. However, if the supply is equal to the demand, we say that there is an equilibrium. In economics, the concept “Equilibrium” is the intersection of supply and demand on a graph. That is, if the supply of goods and services equals the quantity of products demanded by consumers, the market is said to have reached equilibrium for that product. It is the point of exchange where the balance is found between supply and demand (Mankiw and Taylor, 2011).

1.1.1.3.7. Interest Rate

A loan is a contractual agreement made, in which a creditor lends a debtor capital at a fixed rate, and which will be repaid over a given period. When a sum of money is imprinted, the lender is hiring a service because he has deprived himself of consuming it at that precise moment. For the economists of the neoclassical school, “the interest rate is the remuneration of abstinence: whoever lends gives up immediate consumption in order to save.

The interest rate becomes the price of time, the reward of waiting.” At the time of repayment, the loan applicant in addition to the capital, which is the sum borrowed,

he also pays interest. The additional amount of money established by the lender to make a loan represents the interest rate (Marchant and Snell, 2007).

The interest rate, generally materialized as a percentage of the capital, is a kind of remuneration for a loan of money, the rate and terms of repayment of which were defined when the loan contract was concluded. The duration of the loan, the degree of risk and the guarantees offered by the lender generally define the percentage of the interest rate. This variable is one of the most important transmission channels of monetary policy and is used in financial instruments, savings accounts and bonds. For the English economist John Maynard Keynes, “the rate of interest measures the reluctance of holders of money to alienate their right to dispose of it at any time because it leads agents to choose between the holding of liquid assets and their investment consented against payment” (Keynes, 1930).

The money market is central to economic life and the interest rate represents the price of money. This reflects the fundamental role that the interest rate plays in the economy. Similarly, the level of interest rates is also very important. When the level is low, there is an increase in consumption and investment. Therefore, economic agents no longer feel the courage to invest their money because of low remuneration. The financing capacity of the economy becomes weak if there are not many savings. The level of interest rates is determined through these main parameters which are the type of credit granted, the duration of the loan and its terms and the risk incurred. The interest rate is an essential economic variable in economic policy.

1.1.1.3.8. Exchange Rate

The number of units of one currency required to acquire units of another foreign currency refers to the exchange rate. The price at which two countries trade is called the exchange rate. The value of a foreign currency can be higher or lower than that of the local currency. There are two types of exchange rate: nominal exchange rate and real exchange rate.

The rate that allows the currency of one country to be exchanged for that of another country refers to the nominal exchange rate. It is the price between two currencies from different countries. In the context of the nominal exchange rate, if one can buy more units of foreign currency with one unit of local currency, we speak of appreciation of the national currency. However, when less units of currency can be purchased with one unit of national currency, it shows a depreciation of the national currency.

The nominal exchange rate can be determined by the Purchasing Power Parity (PPP) theory. When talking about PPP, the same amount of goods is bought by one unit of a currency in two or more countries. The PPA can be absolute or relative. In absolute PPP, the exchange rate varies, and the currency has the same purchasing power in all countries. If the PPP is relative, the exchange rate between the currencies of two countries indicates a difference in the general price level of these countries. Alongside the nominal exchange rate, there is the real exchange rate which concerns the exchange of goods. The rate that allows domestic goods and services to be exchanged for those of another country refers to the real exchange rate. This is the price between goods from two different countries. The real exchange rate is defined using the nominal exchange rate and the prices of goods in the two countries with different currencies. It is a determining factor in the exports and imports of a country. If domestic goods become cheaper than foreign goods, we speak of a real currency depression (Dufrenot and Yehoue, 2005: 164).

In the short term, the price of a currency is obtained by the meeting of supply and demand. Speaking of currency prices, inflation and deflation have effects on the exchange rate. The foreign exchange market is governed by a set of rules called the foreign exchange regime.

There are two main exchange regimes which are floating exchange rates and fixed exchange rates. In floating exchange rate regimes, central banks do not intervene in the exchange market, but the exchange rate adapts to supply and demand to maintain the equilibrium of the balance of accounts. However, when it comes to fixed exchange rate regimes, central banks, if necessary, intervene in the market to keep prices in

equilibrium. Fixed exchange rates provide monetary stability and control inflation but lead to a loss of independence of monetary policy (Akram vd, 2003: 29).

1.1.1.3.9. Public Expenses

Expenses reflect the act of spending, i.e., the fact of using a sum of money to buy goods or services. When we talk about the public, we are referring to the state. So, the notion of public expenditure is reminiscent of the economic expenditure of public institutions to enable rulers to manage society. Public expenditure can be defined as the money spent by public administrations, passing through the State, local authorities, social security bodies and related bodies whose objective is to acquire resources in order to invest in health, education, transport, employment... for a better quality of life for citizens. These expenses can be divided into three main categories: operating expenses of public services (salaries of civil servants, current expenses for the maintenance of public goods, etc.), redistribution expenses (social benefits, aid and subsidies, etc.) and investment expenditure (construction of public infrastructure, research and development expenditure, etc.). The financing of public expenditure is ensured by public revenue, which concerns social security contributions, taxes paid by employees and employers and, in some cases, loans (Muley, 2016).

Public expenditures being numerous can exceed public revenues. In this case, we speak of a budget deficit. In the event of insufficient accounts, the State may have recourse to loans. This is called public debt. Even if the objective of the State is not to make profits like private companies, however a high public debt can indicate an unhealthy economic situation. "Public expenditure is expenditure made by the government of a country for collective needs and desires, such as pensions, provisions (which include education, health care and housing), security, infrastructure, etc." (Akrani, 2012).

Investing in the most important missions such as education, research, security and infrastructure helps support the economy in a sustainable way. The four phases of public expenditure are commitment, validation, authorization and payment.

1.1.2. Tourism Firms

The term “tourism” refers to the fact of traveling for pleasure outside these usual places of life and not staying there permanently but a temporary residence. It can also indicate the industry or economic sector that includes hotels, travel agencies, tourist locations and all activities related to the organization, satisfaction and movement of tourists during their trip. This last point is the one that interests us the most in our study. But before approaching tourism as an economic activity, we will give its definition as a travel activity.

1.1.2.1. Tourism as a Travel Activity

People have started traveling since ancient times. However, the term “tourism” appeared in 1800 in England designating travelers who visited foreign countries for leisure purposes or any other personal reason but not related to a remunerated activity in the place visited. For some, there is a difference between the term of “visitor” and “tourist”. According to the UNWTO, a visitor is a person who leaves his usual environment for a different destination, the reason for which is not an activity that generates income for the visitor, for a period not exceeding one year. When the visitor spends the night at the place of destination generating costs, he can be considered as a tourist but if it is the opposite, i.e., does not spend the night at the place, he is an excursionist. UNWTO defines “tourist” as “persons who visit and stay outside their usual environment for not more than one consecutive year for leisure, business and other purposes not related to exercise of a remunerated activity within the place visited”.

The World Tourism Organization (UNWTO) defines tourism, through a new conceptual framework for assessing and analyzing the tourism economy produced in 2007 as “A social, cultural and economic phenomenon that involves the movement of people to countries or locations outside of their usual environment for personal or professional or business purposes. These people are called visitors (and can be tourists or excursionists, residents or non-residents) and tourism refers to their activities, some of which involve tourism expenditure”. Neil Leiper (1979) points out that “tourism is the temporary movement of people to destinations outside their normal places of work

and residence, the activities undertaken during their stay in those destinations, and the facilities created to meet their needs ".

There are 3 different tourism models which are internal tourism, inbound tourism and outbound tourism, according to UNWTO. The movements of residents of a country in their own country refer to internal tourism or domestic tourism or for some, national tourism. When visitors leave an external country to come to a receiving country, we speak of inbound tourism. Outbound tourism is defined as the movement of people resident in one country to a foreign country. Inbound tourism and outbound tourism constitute international tourism. Among national and international tourism, according to the purpose of travelers' visits, there are various forms of tourism, the most notable of which are classified into 6 major categories: leisure tourism, cultural tourism, health tourism, sports tourism, business tourism and adventure tourism. These different forms of tourism have given rise to a real economic industry that encompasses all activities and jobs related to it, ranging from planning, organization to the realization of trips.

1.1.2.2. Tourism as an Economic Activity

Traveling from one country to another for tourism, requires a set of organization of ticket reservation, clarification of visa application formalities, stay until return. All activities and economic actors that are related to the sectors of reservation, travel agencies, accommodation, travel guide, transport, crafts, planning and organization of leisure for the smooth running of the tourist's stay refer to the tourism sector. In economics an industry is decreed by a homogeneous product (Nobbs, 1975). This homogeneity of the product leads some to refute the idea that tourism can be an industry.

However, Kaiser and Helber (1978) assert that "tourism is really a collection of industries, businesses, resources and attractions... never materialized." The tourism sector is a source of job creation and income for the host country and its inhabitants. Tourism is very broad in scope and encompasses all service providers for and responding to the wants and needs of visitors. It is a diverse and varied market but with related activities and many intermediate elements. The tourism sector has a significant

impact on the economy of the receiving country.

In the tourism sector, most of the variables used are macroeconomic because they are measured in a broad way, on a large scale that can be national or continental. Data on tourism supply, tourism employment, tourism trade balance, gross product of tourism goods and services can be considered as national indicators to measure the economy of the tourism sector.

According to the UNWTO, the tourist flows indicating the number of international tourist arrivals at the borders represent the measurement tool which makes it possible to compare the visibility and the attractiveness of a destination. The tourism trade balance makes it possible to measure the expenditure made by tourists from abroad and people who have gone on tourism abroad. Tourism receipts that may arise from hotels, restaurants, crafts and any other expenditure, made on the national territory considered as one of the main indicators makes it possible to evaluate the economic performance of the tourism sector in a country. The jobs arising from the tourist activity provide work, therefore contributing to the fight against unemployment.

As an indicator of economic measurement of a country, the tourism sector is very difficult to pin down compared to other sectors, since it encompasses several different industries such as transport, hotels, restaurants, entertainment... The different revenues produced by these industries, classifying them differently complicates national accounting.

1.2. LITERATURE REVIEW

Many studies have focused on the relationship between macroeconomic variables and their impact on tourism. Among the macroeconomic factors, the exchange rate and prices are considered essential variables for analyzing tourism demand. First for the exchange rate, several articles have focused on its relationship with tourism activity.

Cheng vd (2013: 883), in their research investigated the relationship between tourism receipts and tourism expenditures, using vector autoregressive (SVAR) model with data from 1973 to 2007. The objective of this study is to determine the impact of the exchange rate on the US tourism trade balance. According to the results, the authors deduce that the depreciation of the currency leads to a deficit in the trade balance. The exchange rate has considerable effects on export earnings.

Chao vd. (2013), also showed that the exchange rate has a decisive impact on the number of tourists who come to a country, that the depreciation of the currency affects the prices of inbound tourism, more precisely has a negative impact on the income. Along the same lines, De Vita and Kyaw, 2013, who in their studies used data on Turkish tourist arrivals from Germany from 1996 to 2009, explained that exchange rates are important determinants of tourism demand.

Akinboade and Braimoh (2010: 149) analyzed macroeconomic variables together by studying tourism revenues, exchange rates, exports, real GDP levels, with the use of a multivariate VAR model for South African annual data from 1980 to 2005. According to their results, there is unidirectional causality running from tourism income to real income and even on GDP, both in the long and short term.

Authors Balaguer and Cantavella (2010: 877) conducted a study on the impact of tourism revenues on the economic development of Spain, over a long period using quarterly data from 1975 to 1997. In their research model, the GDP, tourism receipts and the exchange rate are included. In their results, they argue that tourism revenue influences economic growth in Spain.

Meurer (2010: 1065) says that “the real exchange rate is taken as an approximation of the relative price of travel in a country”. Thus, it shows the importance of the exchange rate for the level of tourist activity. He also asserts that there is a direct influence of world GDP and exchange rates on the total number of foreign tourists arriving in Brazil. Santana Gallego vd. (2010: 25), in their study tried to analyze the effect of alternative exchange rate regimes on international tourist flows. According to their results, alternative exchange rate regimes are a major factor in

determining tourism income and less flexible exchange rate regimes promote tourist flows.

For Valenca vd. (2015: 737), in their study on the relationship between the exchange rate and tourism receipts or expenditures in Brazil, using monthly data from January 1994 to December 2014, they showed that the exchange rate has a causal relationship with tourism expenditures and revenues. This means that the tourism expenditures of Brazilians residing abroad are more affected by fluctuations in the exchange rate than the tourism revenues that are generated by foreign visitors to Brazil. Box and Cox (1964) and Croes and Vanegas Sr (2004: 879) concluded that for Venezuelan and Aruba tourists, the exchange rate is the most important element.

Lim, Min and McAleer (2008), using the ARIX model to analyze the influence of New Zealand income change from Japanese tourists show that the level of income of the country of departure is related to the factors of arrival some tourists. Lgieri (2006); Hiemstra & Wong (2002); Saayman (2008); Wang (2009); Hussain vd. (2018) affirm that the exchange rate is a variable that explicitly influences tourism demand.

Seo vd. (2009) have also in their research, confirmed that one of the most influential factors in increasing tourism demand in Thailand, the Philippines and Jeju Island is the exchange rate. The exchange rate and stock prices are linked by the portfolio equilibrium effect (Tsai, 2012). In addition to the exchange rate, the price of oil is considered one of the macroeconomic variables that affect stock prices. Assessing oil prices as one factor is important in this review as if production costs rise, stock prices may fall (Broadstock vd., 2012; Nandha & Faff, 2008).

Odhiambo (2011), with the Autoregressive Distributed Lag (ARDL) bounds test approach using data from 1980-2008 in Tanzania explains that the development of tourism leads to an increase in economic growth in the short term. Therefore, the author deduces that there are links between the exchange rate and the development of tourism and between the exchange rate and economic growth.

Koima (2011), in his study on the relationship between the financial performance of multinational companies in Kenya and the volatility of exchange rates finds that the exchange rates of currencies of world state powers have an important influence on the financial performance of companies. multinationals.

Adjasi and Biekpe (2005: 36) analyzed the link between stock market returns and exchange rate movements in African countries using Co integration tests. The results show that exchange rate depreciation influences the increase in exchange rates, stock prices in some countries in the long term, and in the short term the exchange rate depreciations lead to a reduction in stock market returns.

The money supply, a very important variable to explain the fluctuation of stock returns has been the subject of study and many authors have been interested. This is the case of Sprinkel (1964) who analyzed the relationship between the money supply and US stock prices and who concluded that there is a significant impact between these variables. This author asserts that the variation in the money supply can cause a variation in the return on equities. Fama (1981) and Jensen, Mercer and Johnson (1996) support Sprinkel's analysis because, according to them, the increase in the money supply will lead to portfolio rebalancing and upward pressure on stock prices.

Becken (2011) in his work explains how oil and the global tourism industry are closely linked. He says that since the price of oil influences the world economy, therefore inevitably it will have an impact on the tourist activity in a global way. Katircioglu and Altun (2018) shows us that changes in the price of oil affect global economic growth. In this same vein, Blomberg, Hess, & Jackson (2009) abounds, who in their study also confirms that the price of oil is inseparable from tourism. Meo, Chowdhury, Shaikh, Ali and Masood Sheikh (2018) also analyzed the consequences of changes in oil prices and variations in exchange rates in the Pakistani tourism industry. Saayman (2008) in their research used travel cost to approximate the price of oil to assess local and foreign tourism demands.

The cost of living of tourists called the consumer price index (CPI) of the country of destination compared to the country of origin is also considered as a

macroeconomic variable which has been the subject of study (Habibi and Rahim, 2009: 165), (Arsad and Johor, 2010), (Song vd., 2010) and (Abbas and Ibrahim, 2011). According to Dwyer vd. (2000: 50), the price competitiveness of destination countries including travel costs to and from the destination, the cost of accommodation, tourist services and restaurants have an impact on the tourist activity of the host country.

In the study by Morley (1994: 342), where his research is based on the reliability of the CPI as an indicator of tourism prices, the results show that tourism expenditure and the CPI in the host country have a correlation. For Salman vd. (2007: 323), given the importance of price competitiveness in the destination country, the consumer price index has a significant impact on future tourist arrivals. Aspren (1989: 589) in his study, where he empirically analyzes the relationship between the CPI and stock prices, using European countries as a sample concludes that stock prices are positively related to the CPI.

Consumer confidence is also a macroeconomic variable considered by some authors who have conducted studies on this indicator. According to Eppright vd. (1998), negative shocks have negative consequences on consumer confidence such as levels of unemployment which would affect the level of tourist activity. According to Ludvigson (2004), high consumer confidence describes certainty about future economic conditions. This author also adds that consumer confidence is seen as a means of understanding expectations about future income and wealth that could have an impact on future consumption. According to Ludvigson (2004), the confidence indicator is considered the second indicator of the state of the economy.

There is also Matsusaka and Sbordone (1995), through their work illustrates that consumer confidence has a considerable impact on macroeconomic fluctuations. They argue that high consumer confidence in the country of origin includes a decline in the level of precautionary savings and leads to a contribution to an increase in tourist flows from the country of this country of origin.

Li vd.,(2018: 135) find that capital, expenditure, revenue and external economic factors are key determinants of tourism performance. National expenditure and tourist activity are linked, and some authors have taken an interest in this and have been the subject of study. Gharley (2013) examined the causal link between the tourism industry and financial development in Jamaica, with the vector autoregressive (VAR) model and using consumer price index (CPI) data, GDP and tourist arrivals from 1963 to 2008. The author confirms that tourist arrivals and tourist expenditure drive economic growth.

The relationship between the main macroeconomic variables such as GDP growth, the exchange rate and the inflation rate, and tourism activity have been the subject of several studies. Authors like Tang and Abosedra (2016: 679) researched the causality between tourist activity and GDP growth in Lebanon using monthly data from January 1995 to December 2011. In their study, the arrival of tourists, real GDP and exchange rates are considered. They thus concluded that there is a unidirectional causality going from exchange rates to tourist activity, therefore to GDP growth in Lebanon.

The study by Ribeiro vd. (2017: 717) on Brazil, in the Northeast, made it possible to assess the economic impact of national expenditure on local tourism activity. In this study, Ribeiro et al. describe to us that the results conclude that tourism expenditure has a positive influence on the increase in GDP of the Northeast region of Brazil and its effects extend even to other regions of the country.

Dritsakis (2012) researched the same subject in 7 Mediterranean countries (Greece, Turkey, Cyprus, Spain, France, Italy and Tunisia), using the cointegration analysis method, with data on macroeconomic variables such as the Real GDP per capita, real tourism receipts per capita and real effective exchange rate from 1980 to 2007. The results show that tourism development and GDP have a considerable relationship.

Hamao (1988) showed that there is a considerable effect of macroeconomic variables such as industrial production, inflation, risk premium, term structure,

exchange rate, market indices and oil prices on stock market performance. Mukherjee and Naka (1995) also confirm that there is a relationship between the Japanese stock market and variables such as the exchange rate, inflation, money supply, real economic activity, the rate of government bonds at long term.

Islam and Watanapalachaikul (2003) also explains the long-term relationship between macroeconomic variables (interest rates, bond prices, exchange rates, price-earnings ratio, market capitalization and consumer price index) and the performance of the Thai stock market. Omran (2003: 359) used the error correction mechanism (ECM) to analyze the relationship between the real interest rate as a key factor in the performance of the Egyptian stock market, and therefore concluded that the real interest rate has a significant impact on stock market performance.

Maysami vd., (2004: 47) studied the long-term relationship between the stock market in Singapore and macroeconomic variables such as interest rate, inflation, exchange rate, money supply and industrial production. Research infers that inflation, industrial production index, money supply has a positive impact on stock performance in Singapore. As for the short and long-term interest rate, they have both positive and negative relationships with the Singapore stock market. Günsel and Çukur (2007) using the theory of arbitrage prices and making a study on the effect of five variables which are the interest rate, the risk premium, the exchange rate, the money supply and the inflation conclude that these macroeconomic factors have very significant impact on the UK stock market.

Muchiri (2012), in their study where the research is based on the impact of macroeconomic variables on the performance of the Nairobi Securities Exchange in Kenya. The study concludes that money supply and inflation rate have positive effects but do not influence stock prices. However, the interest rate has a negative effect but acts on stock prices. Similarly, the exchange rate also has a significant negative effect on stock market performance.

Wong and Song (2006: 16) through their research analyze the relationship between monthly hotel stock market indices (restaurants, casinos, and hotels) and a set

of macroeconomic variables in the United States with VAR modeling. The result shows that hotel stock market indices follow an autoregressive process.

For Chen vd. (2012: 81) who made a study in which 8 macroeconomic variables including the growth of the discount rate, the growth rate of the money supply, the growth of the unemployment rate, the growth rate of the consumer price index consumption, industrial production, the percentage growth of the yen-dollar exchange rate, the percentage growth of oil prices and the growth rate of total trade would influence the returns of the Japanese hotel stock, by the method of causality of Granger based on the VAR model. Through the results obtained, the observation is that only 3 of these variables, namely the growth of the discount rate, the growth of the unemployment rate and the percentage growth of the price of oil lead to returns on Japanese hotel stocks.

Ender Demir, Zeynep Asli Alici, Chi Keung Marco Lau (2017: 370) in their article “Macro Explanatory Factors of Turkish Tourism Companies' Stock Returns”, using Granger causality procedure analyzed the relationship between return of Borsa Istanbul Tourism Index and 8 macroeconomic variables such as consumer price index, imports, exchange rate, consumer confidence index, oil price, money supply, foreign tourist arrivals and monthly stock market return between 2005 and 2013. The results show that the growth of the consumer confidence index and Granger imports would have a positive impact on the stock market returns of tourism companies. If we consider the structural break in 2007, the consumer confidence index, the exchange rate and the arrivals of foreign tourists would lead to a return on tourist stocks. This result is before the break. However, after the structural break, only the growth of oil prices and imports have significant results. The authors deduce that like studies that have been done on China, Taiwan and the United States, these macroeconomic variables could not explain the returns of the tourism sector also in Turkey. They deduce that other factors other than macroeconomic variables affect the performance of the tourism sector more.

Chen vd. (2005: 243), in their study were interested in the effects of macroeconomic factors and on the influence of non-macroeconomic forces on the

returns of hotel stocks in Taiwan. They conclude that non-macroeconomic variables and a few macroeconomic factors like money supply and unemployment rate have a very strong impact on hotel stock returns in Taiwan.

Chen (2007) analyzed and affirmed the influence of macroeconomic and non-macroeconomic factors on the returns of Chinese hotel stocks. Along the same lines, Chiang and Kee (2009) assessed the effects of macroeconomic and non-macroeconomic variables on the returns of hotel stocks in Singapore. They conclude that the exchange rate has a very significant influence on the returns of Singapore hotel stocks.

Some authors have been interested in the factors that can affect stock market returns. Barrows and Naka (1994: 119), in their research that was among the first articles to focus on the subject, showed that macroeconomic variables influence the stock market returns of the hotel industry in the United States. They deduce that the money supply and domestic consumption have a positive impact on stock market returns, which are negatively influenced by the inflation rate.

Wong and Song (2006: 16), using the vector autoregressive model, also analyzed how macroeconomic variables could predictably explain hotel stock returns in the United States. The study shows that money supply, industrial production and the consumer price index have a weak impact on the forecast of US hotel stock returns.

Chen vd. (2012: 81), using the same autoregressive vector model, analyzed the impact of macroeconomic factors on Japanese hotel industry stock returns. The study shows that the discount rate, the unemployment rate and the price of oil are determining influential variables on the stock returns of the hotel industry in Japan.

By making a literary review of the financial performance of companies, the Tobin Q ratio is a widely used calculation method for analyzing the relationships between variables. Abdallah, Shah and Hassan (2008) studied the impact of business management in Pakistan on financial success using several ratios including the Tobin Q ratio. It is in this sense that Aman and Nguyen (2008) have did a similar study

looking at the relationship between the quality of Japanese business leaders and the share price with the Q ratio. Li, Oum and Zhang (2004) also researched the performance of airlines by the method of calculating the Tobin Q ratio and measures of activities specific to these companies.

Karagülle (1994) made a study on 66 companies in Turkey negotiated in the ISE with the method of Lindenberg and Ross (1981) for the period 1990-1992. These results made it possible to calculate the debts, the profits of the companies and the investments that could be made.

Canbaş, Doğukan and Düzakın (2004), with the approximate calculation method of Tobin Q developed by Chung and Pruitt, made an analysis of the Tobin Q ratios of industrial companies with shares in IMKB, Borsa Istanbul over the period from 1994 to 2003.

By comparing the different calculation methods, the results made it possible to measure the investment and to highlight the differences by comparing these Turkish companies and other developing Asian countries, and other developed countries such as the United States, Germany and Japan. Hirsch and Seaks (2014) did a study on 480 manufacturing industries in the United States and on two other data sets, already used, in which they treated the Tobin Q ratio by regression analysis. The authors used the Box-Cox method to compare other useful forms of a firm's market value equation. The results show that the Tobin Q ratio is significantly efficient in linear forms.

Murat Koçyiğit (2011) made an analysis on the performance of 14 Star Alliance member companies using the CPq ratio like Tobin Q and other financial ratios, for the period of 2005 and 2007. The results show that the large part of these companies had a low Q ratio, therefore less than 1, therefore the companies cannot efficiently use their resources. By comparing the results at the regional level, the activities of the Asia-Pacific region perform better than the others.

Erkan Alsu (2019) did research where he looked at the importance of Tobin Q ratios of food companies that are part of Borsa Istanbul, in terms of financial

investments with the data from 2005 to 2016. The results show a significant difference between the Tobin Q ratios during the 2008 crisis and the 3 years following it and that there was no significant change between the other years. This study allows investors to have a clear vision of the companies operating in the food sector that are performing and their evolution over the years.



SECOND CHAPTER

2. CONCEPTUAL PART

In this chapter, details about financial performance are given.

2.1. FINANCIAL PERFORMANCE

The internal and external influencing factors and performance indicators are listed as follows.

2.1.1. Definition of the Concept of Performance

The concept of Performance is a term that has several meanings. In the French language, performance was used to refer to the sporting results of an athlete, around the 19th century. In the 20th century, this notion underwent an evolution and indicated the result of an action, success and achievement. However, in the English language, performance is not only the result but also involves the action of realizing.

According to Bourguignon (1995:62), the performance “contains at the same time the action, the result and possibly its exceptional success”. Bourguignon defines it “as the achievement of organizational objectives, whatever the nature and variety of these objectives. This achievement can be understood in the strict sense (result, outcome) or in the broad sense of the process that leads to the result” (Bourguignon, 1995:33).

Performance can be defined as the degree of achievement of the objectives, plans or programs that an organization has set itself, according to Salem and Charles (2003: 376). It refers to the level of achievement achieved by an individual, team, organization or process (EFQM, 2003). For Dwight (1999), performance can mean the level at which an objective is achieved. However, according to Venkatraman and

Ramanujam (1986), performance is the time test of any strategy.

The word “performance” is kind of a nosy word in that it seems to mean very different things to different people. So, we use it quite freely, apparently understanding its meaning, but often using it to cover up a lack of shared understanding (Otley, 2001). Despite the many definitions, Otley (2001) considers that performance should only be used in corporate and public sector contexts. For him too, performance is not limited only to effectiveness and efficiency to define the concept of performance. There is also a third element which is the economy. He finds that performance is described by the three “E” together which are effectiveness, efficiency and economy.

Bessire (1999), agrees with Otley (2001) by pointing out that the performance criteria lead to the same three “E” of Otley employed in the public sector. Bourguignon (1997) identified three main meanings of performance. The first as success “performance does not exist by itself; it is a function of representations of success, which vary according to the companies, according to the actors”; the second as the result of an action; the third as an action or process and not just a result unaccompanied by action, as Baird (1986) points out, “performance is not a result that appears at a given time”. It is a term that “describes an assessed contribution to the achievement of organizational goals” (Hoffmann, 1999).

In business, performance can be defined as the level or degree of achievement of results in relation to the resources allocated and the efforts made. Performance is understood as the ability of a company to achieve objectives, i.e., meet expectations, and is therefore influenced by the results in the broader sense, but also by the corresponding objective (Grüning 2002).

Performance is the consequence of the efforts and means deployed by the company. It reflects the vision, strategy and objectives of the company. There are different angles from which the performance of a business can be measured. In this case, the performance is determined in different aspects such as commercial, financial and organizational. Effectiveness and efficiency are the basic terms that determine financial performance.

Mallot Jean Louis And Jean Charles in their book entitled “The essentials of management control”, say that “financial performance is an association of effectiveness and efficiency which consists for a company in obtaining results within the framework defined objectives and efficiency corresponds to the best management of resources and capacities in relation to the results” (Mallot and Jean, 1998: 182).

Although there are several definitions of performance, there are certain common characteristics defined by Lebas, which are found in any definition related to performance. It's the performance or carrying out of an activity for a specific purpose; achievement of a result; comparison of a result against an internal or external reference; the ability to perform or perform; the application of the concepts of continuous improvement for the purpose of competition; measure by a number or a communicable expression.

Performance is a complex interrelation between seven performance criteria: efficiency, effectiveness, quality, productivity, quality of working life, innovation and profitability/fiscal capacity (Rolstadas, 1998). Performance is therefore mainly specified by a multidimensional set of criteria. The source of performance is the action of actors in business processes (Krause, 2005). Performance refers to measuring the results achieved and the desired results. Performance can be understood as the degree of satisfaction (Wettstein, 2002).

To understand the meaning of financial performance, it is important to detect the factors that influence it. Thus, we can distinguish internal factors and external factors having effects on the results and likely to determine the financial performance of a company.

2.1.2. Factors Influencing Financial Performance

To talk about financial performance, there are internal elements within the company that are essential. But leaders cannot limit themselves to these internal factors, the external environment is also of paramount importance and has an impact on the performance of the company, hence the name of external factors.

2.1.2.1. Internal Factors

Among the internal factors that determine the performance of a company, we can cite the profile of the manager, corporate governance, accounting management and the social climate.

Business leaders play an important role in the success of a business. Employees are supposed to unfold the strategies put in place by the leaders with fixed objectives. The success or failure of the company engages the responsibility of the manager. This is what makes the profit of the manager very important, due to his career, his experiences and his skills. Leaders differ greatly in their personalities, strengths, weaknesses, values and beliefs (Drucker, 1967), and their attributes impact firm performance (Kaplan vd., 2010), (Bennendsen vd., 2008); (Graham vd. 2009); (Gabaix and Landier, 2008). The choice of the profile of the entrepreneur is an essential element for the operation and survival of the company. There is a strong influence of the diploma (Kimberly and Evansiko, 1981) and the type of training of the leader (Steensma and Beverly, 1998), (Barker and Mueller, 2002) on the level of performance of the 'business.

Corporate governance processes are designed as systems for regulating the behavior of company managers and defining the rules of the managerial game (Charreaux, 2004). To manage a company well, stakeholders such as shareholders, management and control bodies must be regulated and organized to have a fair balance and transparency. Thus, corporate governance is put in place to take on this task, which is the management of stakeholders. It is a term introduced in the 1980s by the World Bank. Corporate governance makes it possible to independently control and ensure the proper implementation of procedures and decisions made efficiently for a successful company. In this corporate governance, the directors, the shareholders find their accounts there since the shares are managed and controlled.

Bhagat S. and Black B. (2000) emphasize that the independence of the board of directors is a guarantee of financial performance. According to Hermalin B. E. and Weisbach M. S. (2001), “the more there are external directors in the board of directors,

the better the decisions taken and consequently, the better the performance of the firm will be”. The objective of corporate governance is to give a good organizational image of the structure in order to gain the confidence of investors, analysts and the markets. Through this governance, the value of the company can be assessed through its transparency and the balance of power.

General accounting, management accounting, budget management, financial management and management control are the elements that define the accounting and financial management of a company. To assess a company's assets or to collect essential financial information on which top management will base itself to make strategic decisions for the company's activity, accounting management is the preferred measurement tool. It allows the optimization of cash management, cost analysis for the profitability of the company. Accounting management can be considered as a factor of the company's financial performance. “Several Small and Medium Enterprises (SMEs) traditionally suffer from a lack of management tools” according to certain studies (Holmes and Nicholls, 1988), (Mc Mahon and Holmes, 1991); (Colot and Michel, 1996). A company, small, medium or large as much as its size may be, needs to have an accounting management in order to determine the profitability of products or services and to identify the performing elements. A lack of management tools contributes to the financial difficulties and the bankruptcy of some of these companies (Keasy and Watson, 1991), (Graham, 1994). Accounting management is considered an influential element in the financial performance of a company.

The social climate can be defined as the degree of satisfaction of the employees in the company and in relation to the managerial direction. Employees are an essential element in the activity of the company; therefore, their social climate is very important and plays a key role in their productivity.

According to Mouqla (1991), “the organizational climate has a direct effect on the satisfaction and performance of individuals”. A company should be a place where employees will feel professional but not dehumanized. A livable social climate must be cultivated so that employees are committed, more motivated in order to give their best to have efficiency in the work and ensure the follow-up and the sustainability of

the company. The better the social climate, the more productive the employees. This productivity in the work is an element that influences the returns of the company. Therefore, the social climate is a determining factor in the financial performance of the company.

2.1.2.2. External Factors

Some elements are outside the structure but are related to the business and are considered external factors that have some influence on the financial performance of an organization. We can cite the degree of customer satisfaction as well as the business climate.

According to Ittner & Larcker (1996), “there is a very strong link between the level of customer satisfaction of a company and its stock market performance”. The customer is a determining element of the company, and their satisfaction has an impact on its profitability. “Increasing the level of customer satisfaction allows the company to increase its future profitability” (Claes Fornell, University of Michigan 1992). The satisfied customer leads to loyalty to the company and could make it acquire new customers thanks to the recommendations, which makes it possible to increase sales and consequently the turnover of the company. “Customer satisfaction is commonly seen as an index of the general health and future earnings of a company, and is therefore useful information for shareholders, investors, consumers, etc.” (Fornell, 1992, Kaplan, 1998: 79, Kaplan and Norton 2002, Vandermerwe, 2000).

Customer satisfaction enables customer loyalty, the acquisition of new customers at lower costs and "pricing power" (anglo-saxon term which means the effect of a change in the price of a company's product on the requested quantity of this product). Satisfied customers do not need to look elsewhere. If the company provides its customers with the products or services they need, they will remain loyal to them. Customer loyalty allows the company to keep its current customers and sell its production. When current customers are satisfied, they are the ambassadors of the company thanks to their recommendations. Due to this, the company not only wins new customers, but also reduces the costs allocated by the structure for customer acquisition. Pricing power makes the difference between a business that succeeds and

a business that fails. This is important because increasing prices allows the company to overcome the effects of inflation and rising costs. Customer satisfaction is a determining factor for the performance of the company.

The business climate is very important and is an element to be considered to determine the performance of a company. Dethier vd. (2008), showed from a recent literature review that an environment conducive to business leads to economic growth by increasing investment and business productivity. Being considered as the conceptual space in which a company evolves, the business climate contains different factors, whether economic, legal, socio-demographic, technological, environmental, political... All these factors are considered in the decisions and in the the development of the company's activity.

2.1.3. Financial Performance Indicators

A company, to ensure its survival, needs to be efficient in order to exist in an environment where competition is heavy. Thus, financial performance can be defined as the survival of the company or its ability to achieve its objectives (Calori vd., 1994). To assess the financial health of a company, it has indicators that measure financial performance. We can cite some of the most important that we will try to develop below: turnover, rate of return, cash flow, payment period for customers and suppliers.

2.1.3.1. Turnover

All the sales of products or services generated by a company are called turnover. It is the sum of all sales made and tax-free issued during an accounting year. According to INSEE, “the turnover of a company represents the amount of its business (excluding taxes) in the exercise of its current professional activity”.

The turnover can be established by month, by quarter or by year which is the most frequent. It is different from realized profit, which is defined as the difference between income and expenses. A company can make a big turnover when it has not made a profit. The turnover makes it possible to follow the evolution of its activity from one period to another, to evaluate the performance of the sales and to estimate

the economic value and its positioning in which the company evolves.

Turnover is calculated by multiplying the selling price by the quantity of products or services sold. Knowing its turnover and its evolution allows you to have an idea of the expenses related to it.

2.1.3.2. Rate of Return

The commercial, social and financial performance taken together makes it possible to assess the overall performance of a company. In our study, financial performance is the aspect that interests us the most. For the survival of the company, it needs financing either by the activity of the company (self-financing) or by money from outside. The objective of the company is to make this investment profitable, to make it profitable. Profitability can be defined as the ability of a business to make a profit. The rate of return gives an overview of the economic and financial profitability of the company. It is an economic and accounting term used to assess the quality of an investment. The profitability ratio is an indicator that measures the impact of the capital invested on the profits generated.

Financial profitability and economic profitability are two indicators of the financial performance of the company but concerning different aspects. Financial profitability measures the return on equity, in order to know the ability of the company to remunerate the partners. It is the “ratio of the profits a company makes to the capital it has invested to generate them. For Porter, it is the most adequate measure of the success of a company, because it allows to see how efficiently a company uses its resources to create economic value. Magretta (2012: 223).

To keep current partners and attract the most investors, this is the indicator to maximize. This ratio is of most interest to shareholders because they are the contributors of capital. If the financial profitability of the company exceeds the objectives set by the partners, it will be easy to obtain the funds necessary to finance its activity. The financial rate of return is calculated by dividing the net income by the amount of shareholders' equity. Equity is the difference between total assets and the amount of liabilities. They represent the contributions of the shareholders added to the

reserves generated by the company.

Economic profitability, on the other hand, concerns managers. It measures the profitability of the company in general without distinguishing between the origin of the money invested, which may be the company's equity or a contracted debt. It is only interested in the return on capital employed, i.e., to see the ability to generate profits from the investment. The economic rate of return is a ratio obtained by dividing the operating profit after tax by the capital invested, which corresponds to the value of gross fixed assets plus the value of the financing requirement (or working capital) linked to the operating cycle.

The amounts of economic profitability and financial profitability can be identical if the company is not indebted. However, in the opposite case where the company is indebted, the amounts may be different. Even if debt is risky, it is an effective way to obtain high financial profitability if poor economic profitability.

2.1.3.3. Treasury

In business, having enough cash means having available money capable of financing the activities of the business. The term “cash” refers to the difference between available assets and short-term debts. In other words, these are the sums that can be immediately mobilized by a company. Considered one of the most important indicators to measure the financial health of the company, the cash flow is the result of the difference between the working capital and the working capital requirement.

For a good management of the company, cash flow is an important element to take into consideration. Through this indicator, managers can have an overview of the future of the company in relation to the objectives set as well as the feasibility of the company's activity. So that the company can meet its commitments on time and prevent financial difficulties that could arise, it must ensure that it has good cash management. Poor cash management can lead to difficulties for the company, which can go so far as to cause its bankruptcy. To prevent cash flow problems, a budget and forecast should be kept tracking movements (Sanders and Helen, 2018).

The difference between working capital and working capital requirements, in accounting, is called cash. If it is positive, the working capital is greater than the company's working capital requirement. If it is negative, the company must find solutions to finance short-term activities. Cash flow can be improved by reducing working capital requirements. Controlling your working capital requirement means being able to act on payment terms to suppliers and customers.

2.1.3.4. Return on Investment

The “Return on investment” model was invented in 1919 by the American chemical group Du Pont de Nemours and Co. and is at the head of the Du Pont scheme, and therefore represents the central pivot of the oldest profitability model in the world. It is one of the most important indicators of the economic sector. Referring to DuPont's economic model, the return on investment makes it possible to evaluate the profit generated by a company based on the amount invested.

It can also be called the rate of return. Return on investment defines return on equity which measures a company's ability to create profits from its equity and return on assets which measures profit before interest and total capital. The return on investment represents the profitability of the invested capital. This is the indicator that measures the amount of money gained or lost compared to the amount previously put into an investment. Return on investment (ROI) is a financial measure that has long been used in the business world to monitor performance (Wheelen & Hunter, 2004).

It is the financial ratio, often expressed as a percentage, which makes it possible to determine the return on invested capital. For a good management of the company, the return on investment is an essential indicator which makes it possible to evaluate the profits or losses over a given and well-defined period. Any entrepreneur before embarking on an investment for a project will use a business plan and a financial forecast. This will make it possible to study the profits that could result from it, considering the expected net profit, the need for working capital, the availability of cash.

“To calculate return on investment, the benefit (return) of an investment is divided by the cost of the investment; the result is expressed as a percentage or a ratio” (Investopedia, 2015). It is a simplified calculation that is not complicated and allows you to have a quick overview of the profitability of the investment. The return on investment can also be obtained by multiplying the operating margin rate by the capital turnover rate. The way to calculate a return on investment depends on the sector of activity in which the company operates. Although it is simple, however it lacks efficiency to know the risk incurred by the investment and the fact of not taking inflation into account for long-term projects. ROI assesses decisions made in the past and is not reliable for evaluating future projects. It does not consider the risks associated with investments and external influencing factors.

2.1.3.5. Payment Deadlines for Customers and Suppliers

The payment period corresponds to the duration provided for in a contract between the delivery or invoicing of a good or service by the supplier or service provider, and payment by the customer. To avoid a lag between cash inflows and outflows and the cash flow encountering liquidity difficulties, settlement deadlines must be harmonized. The payment terms granted to customers and those granted by suppliers to the company must be adjusted so that they do not affect the business of the company.

The credit settlement period is the indicator that allows the company to know its ability to release resources in the short term for the conduct of its activities. It has an impact on cash because it provides cash inflows. Thanks to this indicator, the managers of the company can have an overview of the debt dates and therefore know the working capital requirement of the company. It is important to specify the dates of collection by the customers because this makes it possible to arrange the cash flow by adjusting it to the period of payment of the debts that the company owes to the suppliers.

The payment period represents the indicator which makes it possible to establish the period over which the suppliers grant a credit to the company to carry out its activities. Knowing how to manage the payment period for credits granted by the

supplier has an impact on the financing of the company. If the period is not very short, the treasury can delay its cash outflows while waiting for it to have inflows. However, if the deadline for paying suppliers is short and those granted to the customer are longer, this can lead to cash flow difficulties.

The company being both customer and supplier, benefits from payment terms from its suppliers and therefore cannot not grant it to its customers. This is a very common practice in the market and is even a means for customer loyalty. However, it would be interesting to harmonize them and that there is not too much lag between the inflows and the outflows of money to maintain the company in its efficiency. Payment terms have effects on the financial performance of the company.

2.2. PRESENTATION OF BORSA ISTANBUL

Borsa Istanbul is the name given to the Istanbul Stock Exchange. Being the framework where our study is delimited, we will evoke its history, its birth and its functioning to have a clear outline concerning our sampling.

2.2.1. History and Evolution of Borsa Istanbul

After the Crimean War, European investors wanted higher returns in the vast Ottoman markets, and they turned to Dersaadet Exchange. "Dersaadet Securities Exchange" considered as the first securities market under the Ottoman Empire was created in 1866. After the birth of the Turkish republic, we witness the creation of a new law for the promulgation of new capital markets called "İstanbul Securities and Foreign Exchange Bourse" in 1929 (Batten, Fetherston & Szilagyi, 2004).

The Stock Exchange is a success and has enabled the financing of new companies in the country. However, crises like the Great Depression of 1929 and World War II that affected the whole world shook up the business world in Turkey. After decades, for a reconstruction of the economy, the number of joint-stock companies has multiplied. Equity funds are open to the public and demand from both individual and institutional investors is growing. In 1980, the Turkish capital market experienced a marked improvement. In 1981, the "Capital Market Law" was

promulgated.

For proper management of Turkish security markets, advice capable of reliably informing the public, creating adequate conditions for the functioning of the capital market and the expansion of the stock market and to oversee and ensure transparency was set up in 1982 as the Capital Market Board. A new decree was issued in October 1983 for the establishment of a stock exchange in Turkey. The Capital Market Board is the main regulatory body that oversees and regulates the Turkish securities market. For compliance with the rules, the Turkish capital market must be governed by legal and institutional regulations. In this perspective, on October 19, 1984, the council enacts a new law called "Capital Market Law". On December 18, 1985, the new regulations governing the rules and regulations of the stock market are adopted and on December 26 of the same official date of inauguration of the "new stock exchange of Turkey" (Turkey's new stock exchange) Its new name is "Istanbul Stock Exchange" (Chambers, 2006).

The Istanbul Stock Exchange (IMKB) was opened in 1986 and marked the beginning of equity investment in Turkey. It has 320 national companies and brings together all the companies established on Turkish territory. It represents the only Turkish company, which performs established foreign exchange transactions to ensure the trading of stocks, bonds and bills, revenue sharing certificates, private sector bonds, foreign securities and certificates real estate as well as international securities. In 1989, IMKB started giving investment opportunities to foreigners and the year 1993 marked the advent of computerized trading. It continues its activities as a public entity until 2013, when a new law on the capital market was enacted. Now, Istanbul Stock Exchange (IMKB), Istanbul Gold Exchange (IGE) and Turkish Derivatives Exchange (TurkDEx) merge and become a single entity called Borsa Istanbul (BIST). It is a joint-stock company and operates for profit (Canbaş & Doğukanlı, 2017).

2.2.2. Organization and Functioning of Borsa Istanbul

BIST, the abbreviation given to indicate Borsa Istanbul, refers to the Istanbul Stock Exchange. Founded in 1866, under the name of Dersaadet Securities Exchange and located in Istanbul, Borsa Istanbul becomes an incorporated company on April 03,

2013, hence the date of its operation on April 05, 2013, BIST replaces the former Istanbul Stock Exchange, IMKB (İstanbul Menkul Kıymetler Borsası). The consolidation of the IMKB (İstanbul Menkul Kıymetler Borsası) the former Stock Exchange of Turkey, the Istanbul Gold Exchange (İstanbul Altın Borsası, İAB) and the Turkey Derivatives Exchange (Vadeli İşlem Opsiyon Borsası, VOB Vadeli İşlem Opsiyon Borsası, VOB) together form Borsa Istanbul. With the slogan “worth investing”, the board of directors is chaired by Himmet Karadağ. Government of Turkey shares with 49% are for sale. Borsa Istanbul is the only institution where Turkey's stock market transactions are carried out (First Istanbul New Stock Exchange, Hürriyet Daily News, 2013).

To measure the price and yield performance of the group of stocks traded on Borsa Istanbul, the stock market indices BIST 30, BIST 50 and BIST 100 have been created. The BIST index is a very important and very common term in the stock market.

The BIST 30 is the index that measures the stock performance of the 30 companies that have the highest trading volume and market value. XU030 is the trading code for the BIST 30. Through this index, investors can make gains at low risk if it is in the long term. The stocks in the BIST 30 index are also included in the BIST 50 indices and BIST 100 indices.

The index that covers the stocks of 50 companies determined by considering market values and trading volumes is the BIST 50. Its trading code is XU050. The BIST 50 index includes the companies of the BIST 30 index, therefore the same conditions required for the BIST 30 are obligatorily included in the conditions of the BIST 50 index. This index makes it possible to measure the actions of the 50 companies included in the BIST 100 index and which have the highest market value and trading volume. The BIST 50 index, in the long term, gives a profitable follow-up to investments.

The BIST 100 is the indicator that measures the performance of the top 100 stocks in terms of market and trading volume in Borsa Istanbul. The BIST 100 index

trading code is XU100. It is the index targeted by large investors and is the most popular on the Turkish Stock Exchange. This index helps to determine the situation of Borsa Istanbul because the value of the shares of these 100 companies indicates the overall performance of the stock market.

The title represents the capital of the company. When talking about shares, these are valuable documents used by capital companies to determine their shares and partnerships. It is the Financial Markets Council (CMB) that gives the authorization to issue shares. Four groups of shares are distinguished which are: Group A shares (shares worth TL 30 million or more in actual circulation), Group B shares (shares worth between TL 10 and 30 million of TL in actual circulation), Group C shares (shares of less than \$10 million in actual circulation) and Group D shares (shares traded on the emerging company market, the free trading platform, the market for transactions with qualified investors or the holding market). Currently, BIST encompasses four different markets such as equity market (stocks of listed companies in different industries are traded), debt securities market (organized market for fixed income securities and repo-reverse repo are traded), the derivatives market (single stock futures and options, index futures and options, currency futures and options, precious metals, commodities and energy are traded) and precious metals and diamonds markets (Borsa İstanbul, 2019).

THIRD CHAPTER

3. METHODOLOGICAL PART

In this chapter of the research, it will be given in detail the different points of the methodology that is used.

3.1. IMPORTANCE OF STUDY

Macroeconomics is the study of the elements that includes the economy globally, in general. Every company evolves in a general environment, with general characteristics of the economy and society that can influence it. These are factors that have an impact on the company. We talk about macro-environment which through the factors that determine it, we can find the economic factors that interest the most in this research. Before investing in emerging markets, investors always look to macroeconomic factors. This is essential in order to understand the economic environment of the company.

Macroeconomic indicators can influence the choices of investors by analyzing the probable areas of risk. Macroeconomics is important in that it allows us to study the entire economic system (national income, savings and investment, employment, supply and demand, price level) and to establish policies in order to achieve and maintain economic growth. Because of it, new policies can be implemented to control inflation and deflation. Through the macroeconomic environment, solutions can be proposed to deal with the problems causing the trade balance deficit.

To understand the economic issues of the sector in which a company operates, it's easier to study the macroeconomic elements than to analyze the companies in detail. Therefore, to better explain the activity, challenges and prospects of the tourism sector, macroeconomic aspects play a key role. Tourism in Turkey is one of the most important sectors of activity and contributes positively to the economic activity of the

country. Turkey is one of the countries that receive the most tourists in the world, hence its ranking among the 10 leading countries in world tourism.

According to document, “Turizm Verileri”, published on the website of the Ministry of Tourism in 2000, this is country which was ranked 20th in the world among the countries that welcome the most tourists and 14th for tourism income respectively passed to the 7th place and 9th place, in 2009. In 2011, according to the UNWTO (World Tourism Organization), Turkey is ranked 4th country of tourist destination in Europe and 6th on the world level and this until 2014.

However, the years 2015 and 2016 saw the tourism sector enter a decline in the number of its visitors, due to threats of violent attacks prompted by political instability in the country. In 2017, there was a recovery in the sector thanks to strategies initiated by the government. During 2018 and 2019, the sector's activities were going well until 2020, when the world was plunged into a health crisis that disrupted all sectors. Tourism will have to resist against the COVID 19 pandemic.

From 2011 to 2020, the tourism sector in Turkey had to confront many situations. These events would have had repercussions on the economy. Companies that represent the tourism sector on the Istanbul Stock Exchange will provide a precise idea of tourism in Turkey.

In our study, which focuses on the tourism sector, the research problem is to analyze the various macroeconomic variables and their impact on the performance of tourism companies listed on the Istanbul Stock Exchange, from 2011 to 2020. Importance of this research is to answer to this question: What relationship have between macroeconomic variables and the financial performance of tourism firms?

3.2. OBJECTIVES OF STUDY

The main objective is to analyze the effects of macroeconomic variables on the financial performance of companies, representing the tourism sector on the Istanbul Stock Exchange. The other objective of this study is also to contribute to the financial literature.

3.3. HYPOTHESIS OF STUDY

We can cite 5 research hypotheses which, after our analysis, we will confirm or invalidate.

H₁: There is a relationship between GDP growth and financial performance.

H₂: There is a relationship between the inflation rate and financial performance.

H₃: There is a relationship between the exchange rate and financial performance

H₄: There is a relationship between the unemployment rate and financial performance

H₅: There is no a relationship between loan interest rate and financial performance.

3.4. SAMPLING

For doing a study on tourism firms, all companies can't be studied, it is necessary to focus on a sample. Our sampling is based on tourism companies listed on the Istanbul Stock Exchange called "Borsa Istanbul". The factors affecting financial performance are examined by testing 16 companies, with 160 observations from 2011 to 2020. Therefore, the companies that will be analyzed in this study are:

- ✓ Altinyunus Çesme Turistik Tesisleri A.Ş.
- ✓ Avrasya Petrol ve Turistik Tesisler Yatırımlar A.Ş.
- ✓ Etiler Gıda ve Ticari Yatırımlar Sanayi ve Ticaret A.Ş.
- ✓ Kuştur Kuşadası Turizm Endüstrisi A.Ş.
- ✓ Marmaris Altinyunus Turistik Tesisleri A.Ş.
- ✓ Martı Otel İşletmeleri A.Ş.
- ✓ Merit Turizm Yatırım ve İşletme A.Ş.
- ✓ Metemtur Otelcilik ve Turizm İşletmeleri A.Ş.
- ✓ Petrokent Turizm A.Ş.

- ✓ Ulaşlar Turizm Yatırımları ve Dayanıklı Tüketim Malları Ticaret Pazarlama A.Ş.
- ✓ Tek-art İnşaat Ticaret Turizm Sanayi ve Yatırımlar A.Ş.
- ✓ Ütopya Turizm İnşaat İşletmecilik A.Ş.
- ✓ Mepet Metro Petrol ve Tesisleri A.Ş.
- ✓ Net Holding A.Ş.
- ✓ Flap Kongre Toplantı Hizmetleri Otomotiv ve Turizm A.Ş.
- ✓ Lokman Hekim Sağlık Turizm Eğitim Hizmetleri ve İnşaat Taahhüt A.Ş.

3.5. DATA COLLECTION TOOLS

Data for the model variables were obtained from the financial tables and audit reports of the companies considered for the study. The financial tables of the companies were consulted via the official website of the "Public Disclosure Platform" (www.kap.org.tr). The macroeconomic variables were obtained from the data published by the Turkish Statistical Institute (TUIK) and the Central Bank of the Republic of Turkey (CBRT). Explanations of all variables are presented in Table 1.

Tablo 1. Variables and Proxies

Varname	Variables	Proxies
(Q)	Firm Value 1	Natural Logarithm of Tobin's Q
(MB)	Firm Value 2	Market to Book Ratio
(ROIC)	Profitability 1	Return On Invested Capital
(ROA)	Profitability 2	Net Profit / Total Equity
(LEV)	Leverage	Total Debt / Total Assets
(SIZE)	Size	Natural logarithm of Total Assets
(LIQ)	Liquidity	Current Assets/Short Term Dept
(ETO)	Efficiency	Equity Turnover
(AGE)	Maturity	Natural Logarithm of Firm Age
(GDP)	Macroeconomic Factor 1	Gross Domestic Products
(IR)	Macroeconomic Factor 2	Interest Rate of Loans
(INF)	Macroeconomic Factor 3	Inflation Rate
(UNE)	Macroeconomic Factor 4	Unemployment Rate
(CUR)	Macroeconomic Factor 5	Natural Log. of Av. €/\$.-TL

		Rate
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***, ** and * are statistically significant at %1, %5 and %10 levels.

3.6. ANALYSIS MODEL

Our research approach is to prove or to disprove facts. The quantitative method is the most appropriate because our data collected is statistical data.

3.7. DEPENDENT VARIABLES

The dependent variables used in this research are financial ratios such as the Tobin Q ratio, Market to Book, Return on Invested Capital, Return on Assets which are performance indicators.

3.7.1. Tobin Q ratio

There are several methods that can be used to measure business performance. Among them, there is the Tobin's Q ratio which is a ratio proposed by James Tobin in 1969. It is a widely used method and has been the subject of study in several research. Tobin's Q has been used as an indicator of firm value in previous studies since it allows the analysis of various firms of different sizes.

For some authors (Lee and Tomkins, 1999:20), the Tobin Q ratio is based on the ratio of the market value of the company's financial rights to the replacement value of the company's assets. To solve some problems related to the denominator and sometimes to the numerator and to facilitate the calculation, certain authors like Chung and Pruitt (1994), Lindenberg and Ross (1981), Lee and Tomkins (1999) made methods of calculation of ratio Tobin Q in replacing certain elements of the denominator or numerator.

Chung and Pruitt used a method of calculating the Tobin Q ratio, which is the approximate Q ratio called CPq, easier and faster and developed from the approximate Q ratio of Lindenberg and Ross (1981). For this ratio (CPq), it's doesn't need to calculate the market value of the debt and the preferred shares, likewise the

replacement value of the assets is approximately the book value of these assets (Lee and Tomkins 1999:23).

Through the calculation of the Tobin Q ratio, if the ratio is greater than 1, it shows that the resources of the company are used efficiently and that the company increases its investment which can lead to growth and an increase in share company market. On the other hand, if the result of the ratio is less than 1, this explains that the resources of the company are not used efficiently so the company can stop or reduce its investments. This doesn't mean that the company haven't insufficient but limited resources and can lead to low profitability. Through this report, the company can use the Tobin Q ratio to make decisions about investments.

3.7.2. Market to Book

Market to Book ratio compares the market value and the book value of a company. The calculation consists of making the ratio between the market value and the book value.

$$\text{Market to Book} = \text{Market Value} / \text{Book Value}$$

When the ratio is less than 1 reflects an undervaluation of the company. However, when the ratio is greater than 1, the company is overvalued, in this case the book values must be dynamic.

3.7.3. Return On Invested Capital

To measure the return on invested capital, the ROIC is the appropriate performance indicator. Return on invested capital (ROIC), allows to measure of the profitability and value-creating potential of companies relative to the amount of capital invested by shareholders and other debtholders (Fernandes, 2014: 36).

$$\text{ROIC} = \text{NOPAT} / \text{Invested Capital} \text{ (NOPAT: Net Operating Profit After Tax)}$$

This indicator shows the profits generated from the invested capital which

allow to compare the performance and the creation of value of the company.

3.7.4. Return On Assets

To measure the profitability of a company's assets in generating revenue, the formula is to divide Net Income by Average Total Assets (Susan vd., 2008: 209). Return on Assets (ROA) ratio allows to evaluate the financial health of companies.

$$\text{ROA} = \text{Net Income} / \text{Average Total Assets}$$

3.8. ANALYSIS METHODS AND TEST

3.8.1. Panel Data Regression Models

To be able to analyze the data collected, we will use Panel data regression methods.

Panel data are defined as data that combine several observations over time for the same statistical individual (Cameron and Trivedi, 2005: 697). They are also called longitudinal data. Panel data has an individual and at the same time temporal dimension. A panel is balanced when it has the same number of observations for all individuals. However, he is unbalanced when observations for some individuals suffer from shortcomings (Régis Bourbonnais, 2018).

There is much more advantage to using longitudinal datasets in economic research than if conventional cross-sectional or time series data were used (e.g., Hsiao, 1985a, 1995, 2000). Panel data gives the researcher the opportunity to analyze more important economic questions than one could do with cross-sectional and time-series data sets. In this case, the researcher is much free in the choice of data points which make it possible to reduce the collinearity between the explanatory variables but also to improve the efficiency of the econometric estimates (Cheng Hsiao, 2003).

The situation often arises in financial modeling where the data includes both time series and cross-sectional elements, and such a data set is called “panel data” or

“longitudinal data”. A data panel will embody information in both time and space. It is important to note that a panel retains the same individuals or objects and measures a certain amount about them over time (O. Akpinar and G. Akpinar, 2021).

In the regression models, there are two types, namely the models with “fixed effects” and the models with “random effects”. It's called a fixed effect when there is no hypothesis about its relationship with other variables. However, this relationship must be modeled in the context of a random effect (Trognon, 2003).

3.8.1.1. Fixed Effects Model

To analyze the impact of time-varying variables, fixed effects models (covariance models, interior estimator, individual dummy variable model, least squares dummy variable model, etc.) are the most appropriate. Every entity has its own characteristics that are unique to it and that could influence the predictor variables. It's the fixed effect that determines the relationship between the predictor variables and the outcome variables within an entity.

By doing the analysis using the fixed effect, it could be that something negatively affects the outcome variables, therefore it must be controlled, hence the importance of the hypothesis of the correlation between the term of entity error and predictor variables. To assess the net effect of the predictor variables on the outcome variable, the fixed effect must remove the effect of time-invariant characteristics which also must not be correlated with other individual characteristics. The fixed effect is not appropriate if all the time the error terms and the constant are correlated with the others. They should not be correlated. If this is the case, the inferences could be wrong and to model this relationship, it will be necessary to resort to random effects (Oscar Torres-Reyna, 2007).

3.8.1.2. Random Effects Models

For the random-effects model, which is different from the fixed-effect model, the variation between features should be random and uncorrelated with the predictor variable or variables included in the model. "...The crucial distinction between fixed

and random effects is whether the unobserved individual effect incorporates elements that are correlated with the model's regressors, not whether those effects are stochastic or not" (Green, 2008: 183). Random effects can be used if differences between features could influence the dependent variable. With random effects, invariant variables can be included over time. The invariant variables could serve as explanatory variables because the random effects consider that the error term of the entity is uncorrelated with the predictor variables (Oscar Torres-Reyna, 2007).

3.8.2. Hausmann Test

Initiated by James Durbin (1954), De-Min Wu (1973) and Jerry A. Hausman (1978), the Hausman specification test, also called Durbin-Wu-Hausman test or more simply Hausman test, can be defined as a statistical hypothesis test used in econometrics (Nakamura, vd., 1981).

The Hausman test is an augmented regression test for endogeneity. It makes it possible to detect endogenous regressors, i.e., the predictive variables in a regression model. In the analysis of panel data, thanks to the Hausman test, it is possible to choose between a fixed effects model in the context of an alternative hypothesis or a random effects model for a null hypothesis. The Durbin-Wu-Hausman test makes it possible to make the comparison between an estimator that is consistent and efficient under the null hypothesis but not convergent under the alternative hypothesis and an estimator that is consistent under the null hypothesis and the alternative hypothesis (Stephanie Glen).

3.8.3. Unit Root Test

"Unit root tests are tests of stationarity in a time series" (Stephanie Glen). The first research on unit roots were initiated by Quah (1992, 1994), to propose asymptotically normal tests and by Breitung and Mayer (1994). Following the research published by Levin & Lin (1992, 1993), unit root tests on panel data have become more popular and widely used (Maddala and Shaowen, 1999).

We could define a unit root as an autoregressive process of which 1 is a valid

root of the characteristic polynomial equation, considering Chan's paper. "In the case of an AR (1) process if $|\phi_1| = 1$ there will be a unit root, however the focus is usually on $\phi_1 = 1$; when $\phi_1 = -1$, even though the variance is not constant the process will exhibit an oscillatory behavior as the sign is reversed in every step, which we would argue is a less pathological case than when $\phi_1 = 1$. Consider the unit root $x_t = x_{t-1} + \varepsilon_t$; this is an integrated I(1) process which can be turned into a stationary process via first differences: $\Delta(x_t) = \varepsilon_t$. As detailed in Chan" (Herranz, 2017). The process is causal and stationary if the absolute value of all polynomial roots characteristic of the process is greater than 1 (Herranz, 2017).



FOURTH CHAPTER

4. ANALYTICAL PART

In this chapter of the research, it will be given in detail results of analysis.

4.1. DATA ANALYSIS AND RESULTS

In this study, Tobin's Q is calculated as follows.

$$Q = \frac{(\text{BV of TA} - \text{BV of Eq.} + \text{MV of Eq.})}{\text{Total Assets}} \quad (1)$$

Where BV of TA is the book value of total assets, BV of Eq. is the book value of equity and the MV of Eq. is the market value of equity.

Tobin's Q ratio and Market to Book Ratio are used as dependent variables representing the value of models 1 and 2. Return on investment and return on assets were used as dependent variables representing the profitability of models 3 and 4. The following models were composed for the study.

Model 1

$$Q_i = \alpha + \beta_1 LEV_{1it} + \beta_2 SIZE_{2it} + \beta_3 LIQ_{3it} + \beta_4 ETO_{4it} + \beta_5 AGE_{5it} + \beta_6 GDP_{6it} \\ + \beta_7 IR_{7it} + \beta_8 UNE_{8it} + \beta_9 INF_{9it} + \beta_{10} CUR_{10it} + \varepsilon_i \quad (2)$$

Model 2

$$MB_i = \alpha + \beta_1 LEV_{1it} + \beta_2 SIZE_{2it} + \beta_3 LIQ_{3it} + \beta_4 ETO_{4it} + \beta_5 AGE_{5it} + \beta_6 GDP_{6it} \\ + \beta_7 IR_{7it} + \beta_8 UNE_{8it} + \beta_9 INF_{9it} + \beta_{10} CUR_{10it} + \varepsilon_i \quad (3)$$

Model 3

$$ROIC_i = \alpha + \beta_1 LEV_{1it} + \beta_2 SIZE_{2it} + \beta_3 LIQ_{3it} + \beta_4 ETO_{4it} + \beta_5 AGE_{5it} + \beta_6 GDP_{6it} + \beta_7 IR_{7it} + \beta_8 UNE_{8it} + \beta_9 INF_{9it} + \beta_{10} CUR_{10it} + \varepsilon_i \quad (4)$$

Model 4

$$ROA_i = \alpha + \beta_1 LEV_{1it} + \beta_2 SIZE_{2it} + \beta_3 LIQ_{3it} + \beta_4 ETO_{4it} + \beta_5 AGE_{5it} + \beta_6 GDP_{6it} + \beta_7 IR_{7it} + \beta_8 UNE_{8it} + \beta_9 INF_{9it} + \beta_{10} CUR_{10it} + \varepsilon_i \quad (5)$$

GDP growth should have a positive impact on financial performance. The loan interest rate should have a negative impact on financial performance. Nevertheless, there is no clear forecast of the effects of unemployment, inflation and currency.

4.1.1. Results of Correlation Matrix

Table 2. Correlation Matrix

	Q	MB	ROIC	ROA	LEV	SIZE	LIQ	EFF	MAT	GDP	IR	UNE	INF	CUR
Q	1	,761**	-,149	-,077	-,129	-,322**	,326**	-,101	-,176*	,015	-,171*	,066	,022	,037
		,000	,052	,317	,093	,000	,000	,191	,022	,843	,026	,390	,775	,634
MB	,761**	1	-,150	-,076	-,062	-,188*	,183*	,039	-,138	,002	-,035	,192*	,123	,070
	,000		,051	,322	,423	,014	,017	,615	,073	,975	,647	,012	,110	,361
ROIC	-,149	-,150	1	,860**	-,063	-,045	,105	,281**	,178*	,035	,073	-,034	,014	-,007
	,052	,051		,000	,414	,562	,174	,000	,020	,648	,345	,664	,858	,924
ROA	-,077	-,076	,860**	1	-,292**	-,042	,247**	,109	,128	,031	,027	-,007	,013	,061
	,317	,322	,000		,000	,583	,001	,155	,095	,689	,724	,933	,868	,426
LEV	-,129	-,062	-,063	-,292**	1	,207**	-,369**	,404**	,173*	,061	,164*	,127	,051	,092
	,093	,423	,414	,000		,007	,000	,000	,024	,430	,033	,098	,509	,233
SIZE	-,322**	-,188*	-,045	-,042	,207**	1	-,232**	-,046	,416**	,015	,190*	,167*	,210**	,169*
	,000	,014	,562	,583	,007		,002	,554	,000	,846	,013	,030	,006	,028
LIQ	,326**	,183*	,105	,247**	-,369**	-,232**	1	-,209**	,043	,017	-,027	,022	-,028	,227**
	,000	,017	,174	,001	,000	,002		,006	,577	,825	,731	,780	,717	,003
EFF	-,101	,039	,281**	,109	,404**	-,046	-,209**	1	-,113	,014	,210**	,173*	,096	-,032
	,191	,615	,000	,155	,000	,554	,006		,142	,851	,006	,024	,212	,675

Table 2. Correlation Matrix (Continuation)

MAT	-,176*	-,138	,178*	,128	,173*	,416**	,043	-,113	1	,024	,160*	,170*	,111	,156*
	,022	,073	,020	,095	,024	,000	,577	,142		,756	,037	,026	,151	,042
GDP	,015	,002	,035	,031	,061	,015	,017	,014	,024	1	,242**	,038	,169*	,123
	,843	,975	,648	,689	,430	,846	,825	,851	,756		,001	,622	,028	,110
IR	-,171*	-,035	,073	,027	,164*	,190*	-,027	,210**	,160*	,242**	1	,263**	,603**	,386**
	,026	,647	,345	,724	,033	,013	,731	,006	,037	,001		,001	,000	,000
UNE	,066	,192*	-,034	-,007	,127	,167*	,022	,173*	,170*	,038	,263**	1	,235**	,263**
	,390	,012	,664	,933	,098	,030	,780	,024	,026	,622	,001		,002	,001
INF	,022	,123	,014	,013	,051	,210**	-,028	,096	,111	,169*	,603**	,235**	1	-,090
	,775	,110	,858	,868	,509	,006	,717	,212	,151	,028	,000	,002		,245
CUR	,037	,070	-,007	,061	,092	,169*	,227**	-,032	,156*	,123	,386**	,263**	-,090	1
	,634	,361	,924	,426	,233	,028	,003	,675	,042	,110	,000	,001	,245	

Table 2 that we have here shows the correlation matrix between two variables. It is a bivariate analysis method and is used to cross 2 variables to detect a relationship between them.

According to the correlation matrix, there is a strong linear relationship first between the dependent variables, namely the value and profitability indicators. The Tobin Q ratio and the Market to Book have a strong positive correlation at 76% and the same between the ROIC and the ROA at the percentage of 86%.

Then, for the relationship between the dependent variables and the independent variables, we find that the unemployment rate has a linear relationship with the Market to Book ratio at 19%. On the other hand, the interest rate has a negative relationship with the Tobin Q ratio (-1%). There is no correlation between these two variables.

For control variables, there is a positive linear relationship between liquidity and value indicators, namely the Tobin Q ratio (32%) and Market to Book (18%) and also with the profitability indicator such as ROA (24%). For the ROIC, it is correlated with the variables of efficiency (28%) and maturity (17%). For the LEV and SIZE variables, there is no positive relationship, neither with the value indicators nor with the profitability indicators.

4.1.2. Results of Panel Data Analyses

The results of the panel data analysis are presented as follows.

4.1.2.1. Regression Analyses for Value Models

Tablo 3. Results of Regression Analyses (Value Models)

Independent Variables	Dependent Variables	
	Financial Performance (Firm Value)	
	Model 1 (Q)	Model 2 (MB)
C	3.942374 (2.215941)	12.85758 (1.478868)
Leverage	0.773420*** (2.625275)	1.217253 (0.845493)
Size	-0.339281*** (-3.249566)	-1.203360** (-2.358473)
Liquidity	0.034255* (1.817242)	0.066667 (0.723710)
Efficiency	-0.026286 (-0.407833)	0.812498** (2.579568)
Maturity	0.635855*** (3.130978)	2.773846*** (2.794950)
GDP	0.947470 (0.699141)	1.389230 (0.234522)
IR	-6.494144*** (-4.176338)	-26.44303*** (-3.479804)
UNE	3.401135** (1.995910)	19.62870** (2.357102)
INF	4.287415*** (2.739585)	20.12768*** (2.631799)
CUR	0.072854 (1.315246)	0.479955* (1.773057)
Observation	160	160
R²	0.530638	0.397863
Adjusted R²	0.443070	0.285524
F -statistics	6.059748	3.541624
P-value	0.000000	0.000000
Durbin Watson -statistics	1.868544	1.888838

***, ** and * are statistically significant at %1, %5 and %10 levels.

A common assumption in many time series models is that the data is stationary.

A stationary process has the property that the mean, variance, and autocorrelation structure do not change over time. Stationarity tests are used to check whether a series is stationary or not. According to the Augmented Dickey-Fuller (ADF) test, the null hypothesis is that the series has a unit root and is therefore not stationary. In the study, the ADF unit root tests were performed, and it was concluded that the series were stationary.

R-squared values of 0.53 for Model 1 and 0.39 for Model 2 are shown in Table 5. This indicates the aggregate explanatory power of the estimated model. The adjusted R-squared explains 92% of the variations in the dependent variables in Model 1.

Durbin Watson's test examines the likelihood of autocorrelation between series. According to Table 3, none of the models has any autocorrelation problem. Additionally, the F statistic shows the overall significance of the model. The models are statistically significant at the 1% level. The results in Table 3 reveal that the effects of interest rate, unemployment, and inflation on firm value are significant relationships at the 1% level in both models.

For model 1 and 2, Tobin Q and Market to Book which represent dependent variables, the correlation with the independent variables such as the unemployment rate, the inflation rate is greater than 1. This explains a positive relationship. It's the same case for the Gross Domestic Product (GDP) and the exchange rate, where their correlation with models 1 and 2 is between 0 and 1. However, concerning the interest rate, the correlation with Tobin Q and Market to Book is less than 1. This mean there is a negative relationship.

According to the results of the control variables, while the size coefficients are significantly negative, the maturity coefficients are significantly positive in both models. The results concerning the effect of the other variables on the value of the firm are not stable.

4.1.2.2. Regression Analysis for Profitability Models

Tablo 4. Results of Regression Analyses (Profitability Models)

Independent Variables	Dependent Variables	
	Financial Performance (Profitability)	
	Model 3 (ROIC)	Model 4 (ROA)
C	-0.206870 (-0.892510)	-0.098635 (-0.586930)
Leverage	-0.141724** (-2.294452)	-0.247621*** (-4.775132)
Size	0.007564 (0.553026)	-0.000118 (-0.012818)
Liquidity	0.004218 (1.001064)	0.006272 (1.632216)
Efficiency	0.076347*** (5.260309)	0.056629*** (4.290841)
Maturity	0.044201 (1.554988)	0.054317*** (2.857061)
GDP	0.182334 (0.587001)	0.212320 (0.6603041)
IR	0.073230 0.188901)	-0.192032 (-0.450433)
UNE	-0.722080 (-1.702322)	-0.476437 (-1.010853)
INF	-0.188875 (-0.508346)	0.096503 (0.237575)
CUR	-0.001094 (-0.079651)	0.013210 (1.315246)
Observation	160	160
R²	0.191086	0.226405
Adjusted R²	0.136797	0.174486
F -statistics	4.360719	4.360719
P-value	0.000340	0.000023
Durbin Watson -statistics	2.099253	2.066940

***, ** and * are statistically significant at %1, %5 and %10 levels.

Table 4 reveals that none of the models have autocorrelation problems. The models are statistically significant at the 1% level. Model adjusted R-squared values are determined at 14% and 17%.

The correlation between the independent variable, the Gross Domestic Product (GDP) and the dependent variables ROIC and ROA, which are indicators of financial performance, is between 0 and 1. There is a positive relationship between these variables. The correlation between interest rate and ROIC is positive while its correlation with ROA is negative. The correlation between the unemployment rate and the financial performance variables like ROIC and ROA is negative. For inflation and exchange rates, the correlation with the dependent variable ROIC is negative because it is less than 0, while with the variable ROA it is greater than 1, therefore positive.

According to the results, while the leverage coefficients are significantly negative, the efficiency coefficients are significantly positive in both models. Nevertheless, there is no significant relationship between macroeconomic variables and corporate profitability.

4.1.3. Results of Unit Root Tests

Unit root test is a method that tests whether a variable has a unit root or is not stationary. In Table 5, we find that all the variables are stationary because the P value is less than 5%. Also, the process does not have a unit root.

Table 5. Results of Unit Root Tests

Variables	Levin, Lin ve Chu	IPS W-stat	ADF -Fisher
Q	-885.273	-369.633	76.5546
	0.0000	0.0001	0.0000
MB	-857.107	-465.279	89.5199
	0.0000	0.0000	0.0000
ROIC	-806.525	-424.455	76.7168
	0.0000	0.0000	0.0000
ROA	-765.007	-332.483	66.4667
	0.0004	0.0003	0.0004
LEV	-875.368	-363.326	72.5897
	0.0000	0.0001	0.0001
SIZE	-971.031	-461.666	85.5082
	0.0000	0.0000	0.0000
LIQ	-557.775	-215.791	50.4553
	0.0000	0.0155	0.0201
EFF	-530.321	-119.944	71.2816
	0.0000	0.0000	0.0001

Table 5. Results of Unit Root Tests (Continuation)

MAT	-269.803	-996.098	281.007
	0.0000	0.0000	0.0000
GDP	-927.543	-517.010	85.7317
	0.0000	0.0000	0.0000
IR	-166.123	-861.279	137.404
	0.0000	0.0000	0.0000
UNE	-433.553	-240.045	57.6476
	0.0000	0.0082	0.0036
INF	-137.992	-703.625	115.910
	0.0000	0.0000	0.0000
CUR	-117.531	-609.980	107.308
	0.0000	0.0000	0.0000

4.1.4. Results of Hausmann Tests

Two different estimators for the parameters of a panel data regression model are discussed by Hausmann. Specifically, it is well known that "random effects" and "fixed effects" panel estimators are consistent under the assumption that the model is correctly specified and that the regressors are independent of "individual-specific effects".

It is often said that the random effects model is more appropriate when the features in the sample can be considered to have been randomly selected from the population, but a fixed effects model is more plausible when the features in the sample constitute the entire population (for example, when the sample includes all stocks traded on a particular exchange).

However, the random effects approach has a major drawback which stems from the fact that it is valid only when the composite error term is decorrelated from all the explanatory variables. If they are uncorrelated, a random effects approach can be used; otherwise, the fixed model is preferable.

Hausmann's test was performed on the models to determine the appropriate model. The test results are shown in Table 6.

Tablo 6. Results of Hausmann Tests

Models	Test Statistics	Panel Estimators
Model 1	32.511833 (0.0003)***	Fixed Effects
Model 2	32.217198 (0.0004)***	Fixed Effects
Model 3	10.450841 (0.4019)	Random Effects
Model 4	15.752320 (0.1069)	Random Effects

***, ** and * are statistically significant at %1, %5 and %10 levels

The p-values of the tests are less than 5%, indicating that the random-effects model is not suitable and that the fixed-effects specification is preferred. Panel data analyzes were performed using the fixed-effects model for Model 1 and Model 2.

For Model 3 and Model 4, the random-effects specification was preferred because p-values were greater than 5 %.

In the compound value models of Model 1 and Model 2, generally significant effects of macroeconomic variables on financial performance were found. Since it was not possible to gather meaningful results from the GDP variable in the value models, sufficient evidence could not be obtained. Negative and significant results were obtained regarding debt interest rates. This result shows that interest rates on debt have a negative effect on the value of the firm. This result is consistent with previous studies. On the other hand, the variables of unemployment and inflation have positive effects on the value of the company. The results obtained in previous studies concerning these variables are not stable. Whereas the increase in domestic inflation might lead to an increase in the value of companies based on TL (Turkish currency).

In model 2, the effect of the exchange rate variable on the value of the firm is significantly positive. Although the results are weak, the positive effect of the exchange rate on the value of the company corresponds to the expectation.

It was determined that the size variable, which is one of the control variables applied as part of the independent variables of firm value, has significantly negative effects on financial performance, and that the maturity variable has significantly positive effects. The negative effect of the size variable can be seen because large

tourism enterprises cannot benefit sufficiently from economies of scale. However, it can be said that maturity has positive effects on the firm value of companies. These significant effects of the control variables generally correspond to the results of other studies in the literature.

In the profitability models composed of model 3 and model 4, significant results could not be obtained concerning the macroeconomic variables. From this perspective, he could not find sufficient evidence to assess the effect of macroeconomic variables on profitability in the sample of tourism businesses. It has been observed that leverage, efficiency and maturity, which are control variables, have significant effects on financial performance. We see that the leverage effect has negative effects and that other variables have positive effects. Results are consistent with previous studies.

4.2. DISCUSSIONS

According to the results obtained, there are macroeconomic variables that are positively related to the financial performance of companies. Among these factors, we can cite the independent variables such as GDP which is one of the most important, the rate of inflation, unemployment and control variables like liquidity, maturity and efficiency.

Goods and services produced in a country by companies in the primary, secondary and tertiary sectors represent the GDP. A company in good financial health has the capacity to increase its production. The more companies produce, the more GDP growth there is. This means that we cannot say that there is an absence of a relationship between the financial performance of companies and GDP. Firms' production increase in the tourism sector has a positive impact on the country's gross domestic product. This is confirmed in the results obtained.

The rate of inflation is also very important in the macroeconomic environment. The decrease in the value of a currency within a country has a direct impact on companies established on the national territory. The exchange rate which represents the value of a currency, converted from a currency A to a quote B is also linked to

financial health because a decrease or an increase in the value of a currency could increase or decrease the value of the other. In Turkey, the increase in the exchange rate of the Euro or the dollar impacts on the value of companies in TL currency, which offers services in exchange with these foreign currencies. We can just take the example of medical tourism agencies that offer services, in exchange with the euro or dollar currency, their cash flow in TL increases. This means that the company will be more efficient.

Unemployment rate has a positive impact on financial performance, according to the results obtained. This could be explained by the fact that the recruiting company strengthens its human resources at the same time helping to reduce the unemployment rate. As well, limiting recruitment can also help the company reduce its payroll and avoid certain expenses.

The results showed that liquidity also has a positive relationship on financial performance. A company that has strong liquidity can pay its debts without the functioning of the company being hindered. This means that the company is financially stable enough to ensure financial cash flow stability to continue to operate and to do their activities.

Maturity designates the acquisition of a certain amount of experience and the ability to overcome trials. The results showed that maturity has a positive impact on the financial performance of companies. A mature company that has gone through several steps and hardships has enough experience which allow it to optimize and stabilize production, which therefore contributes to increased financial performance.

Efficiency has a positive influence on a company's performance, according to our research. An efficient company which, to ensure its economic profitability, uses the means at its disposal to obtain a satisfactory result, in the short term.

These macroeconomic variables contribute positively to financial performance and the economic profitability of tourism companies. Besides these variables that influence positively, there are also variables that have negative impact on financial

performance. Among this, there is the interest rate. The interest rate on debts is a macroeconomic variable that has a negative relationship on the financial performance of companies. A company financially stable wouldn't need to have debts. A debt reinforces the company's cash flow if it does not hold enough liquidity for expenses. On the other hand, these debts are granted based on interest to be paid by company upon repayment, added to the amount to be refunded.

The results show that size and leverage have a negative impact on firm performance. A company as large as it doesn't necessarily indicate that it is performance. However, a small or medium-sized business could be considered much more profitable. This means that the size effect has no impact on business performance. The leverage effect, which consists of strengthening the company's profitability by contracting debt, is considered a variable that has no impact on performance. Incurring debt can help the company finance its activities. However, even if the company makes a profit, the fact that it still has debts to repay makes it impossible to speak of performance.

CONCLUSION

In this research, the objective was to determine the relationship between macroeconomic variables and the financial performance of tourism enterprises. Our framework of study was the tourism sector in Turkey. 16 tourism companies listed in Borsa İstanbul were examined by applying multivariate models for the period from 2011 to 2020.

To carry out the analysis, there are dependent and independent variables. The dependent variables that represent financial performance are the Q ratio, Market to Book Ratio, Return on Investment and Return on Assets. The independent variables are macroeconomic variables such as gross domestic product, inflation rate, interest rate, unemployment rate, exchange rate. There is also control variables like leverage and size effects, liquidity, efficiency, maturity. The analysis methods that are used are the Hausman test, regressions on panel data, the correlation matrix, unit root tests.

The regression analysis of the panel data shows that the independent variables which represent the macroeconomic variables such as the exchange rate, the unemployment rate and the inflation rate have a positive impact on the dependent variables representing the financial performance indicators like the Tobin Q ratio and the Market to Book. GDP is positive but is less than 1, so there are no significant results on the Tobin Q ratio. On the other hand, the interest rate has a negative impact on these ratios indicating financial performance. GDP and interest rate have a positive impact on ROIC, while the relationship is negative with unemployment, inflation and exchange rates. For the 4th financial performance indicator, while GDP, inflation and exchange rates have a positive impact on ROA, the interest rate and the unemployment rate have a positive impact.

For unit root tests, we find that all variables are stationary because the P value is less than 5%.

In summary, the macroeconomic variables, namely GDP, inflation rate, liquidity, unemployment rate, maturity and efficiency each have a positive relationship with financial performance. This means that these variables have an impact on the financial health of tourism businesses. The loan interest rate also has a negative effect on the company's profitability.

In the study, 5 hypotheses were identified and verified. All assumptions were confirmed.

This study allowed us to understand the macroeconomics and to know the factors that could influence or impact the performance of the company. Macroeconomic variables are the indicators that measure the profitability of a company. Tourism businesses play a very important role in the national economy of a country. Turkey, being a country that welcomes many tourists each year, the companies that are in the sector have an important contribution to the economy of the host country. Therefore, knowing how to detect the factors that have a positive impact on profitability is an excellent way to implement strategies.

As any scientific research, there are always limits. Because the study covers companies from an entire sector, means that the results are generalized and the analyzes are not made particularly and specifically. This explains why the analyzes are not thorough.

In future studies, examining the effects of macroeconomic variables on financial performance in a sample of different sectors will contribute to the literature.

BIBLIOGRAPHY

1.Kitaplar

- Becuwe, Stéphane, Sabine Ferrand-Nagel and Peter Greaney (2016), “Économie contemporaine”, Nathan Sup, ISSN 0985-9985.
- Bourbonnais Régis, (2018) “Économétrie”. Dunod, « Éco Sup », pages 371 to 387, ISBN : 9782100773459. DOI : 10.3917/dunod.bourb.2018.01. URL : <https://www.cairn.info/econometrie--9782100773459.htm>.
- Brooks, Chris (2008) “Introductory Econometrics for Finance”, 2’nd Edition, New York: Cambridge University Press: www.cambridge.org/9780521873062.
- Cairncross, Alec (2004). "Keynes, John Maynard, Baron Keynes (1883–1946)", Oxford Dictionary of National Biography (Online Ed.). Oxford University Press. doi:10.1093/ref:odnb/34310.
- Deleplace, Ghislain (2018) « Histoire de la pensée économique » - 3rd ed., Dunod, 28 mars 2018, 560 pages (ISBN 978-2-10-077318-3),[archive]
- Drèze, Jean, Amartya Sen (2013). “An Uncertain Glory: India and its Contradictions”. Princeton: Princeton University Press. ISBN 9781400848775.
- Fernandes, Nuno (2014). “Finance for Executives: A Practical Guide for Managers.”, NPV Publishing; 1st edition, 350 pages.
- Guillaumin, Cyriac (2020). “La macroéconomie : définition et concepts fondamentaux”, in Macroéconomie, OPENBOOK, Dunod, Chapitre 1, Page16-55.
- Keynes, John Maynard (1930), “A Treatise on Money”, The Collected writings of J.M. Keynes, vol V & VI, Cambridge University Press. <http://tankona.free.fr/keynescw5.pdf>.
- Krugman, Paul and Robin Wells (2012). “Economics”, W.H.Freeman & Co Ltd; 3rd revised international ed édition, 1200 pages. ISBN 978-1464128738.
- Larrère, Catherine (1992). « L'Invention de l'économie au XVIIIe siècle : Du droit naturel à la physiocratie », In : Droit et société, n°22, Transformations de l’État et changements juridiques : l'exemple de l'Amérique Latine. p. 710.
- Lequiller, François and Derek Blades (2014), “Understanding National Accounts”, Second Edition, OECD Publishing. <http://dx.doi.org/10.1787/9789264214637-en>.
- Mallot, Jean louis and Jean Charles (1998), “The essentials of management control”, organization edition, Paris, P182.

Mankiw, Gregory and Mark P. Taylor. (2011). “Economics, Cengage Learning”; 2nd edition.

Martinet, Alain-Charles and Ahmed Silem (2003), « Lexique de gestion », 6th ed Paris, p 376.

Needles, Belverd E., Marian Powers and Susan V. Crosson (2008) “Principles of accounting, 12th Edition”. Boston, MA : Houghton Mifflin, p. 209. ISBN 0-618-73661-1.

Poulon, Frédéric (1982) “Macroéconomie approfondie - Équilibre, déséquilibre, circuit”, Connaissances économiques, Edition Cujas, ISBN 2-254-82719-7.

Potier, Jean-Pierre (2018), “J. M. Keynes et la macroéconomie : Les grands thèmes”, SES-ENS. <http://ses.ens-lyon.fr/articles/j-m-keynes-et-la-macroeconomie-les-grands-themes>.

2.Makaleler, Bildiriler, Diğer Basılı Yayınlar

Adjasi Charles Komla Delali, Nicholas Biekpe and Kofi A. Osei (2011), “Stock prices and exchange rate dynamics in selected African countries: a bivariate analysis”, African Journal of Economic and Management Studies, Emerald Group Publishing, vol. 2(2), pages 143-164. DOI:10.1108/20400701111165623.

Akinboade, Oludele A. and Lydia A. Braimoh (2010) “Development In South Africa: A Granger Causality Test”, International Journal of Tourism Research, 12(2), pp.149–163. <https://doi.org/10.1002/jtr.743>.

Asprem, Mads (1989), “Stock Prices, Asset Portfolios and Macroeconomic Variables in Ten European Countries”, Journal of Banking and Finance, Volume 13, Issues 4–5, Pages:589–612. [https://doi.org/10.1016/0378-4266\(89\)90032-0](https://doi.org/10.1016/0378-4266(89)90032-0).

Balaguer, Jacint and Manuel Cantavella-Jorda (2010), “Tourism as A Long-Run Economic Growth Factor: The Spanish Case”, Applied Economics, 34(7), pp.877–884.

Barrows, Clayton W. and Atsuyuki Naka (1994), “Use of Macroeconomic Variables to Evaluate Selected Hospitality Stock Returns in the U.S”, International Journal of Hospitality Management, 13 (2), pp.119–128. DOI: 10.1016/0278-4319(94)90033-7.

Bourguignon, Annick (2000). “Performance et contrôle de gestion.” In: Bernard Colasse (ed.). Encyclopédie de comptabilité, contrôle de gestion et audit. 1st ed. Economica, pp. 931-941. <https://faculty.essec.edu/research/fr-performance-et-controle-de-gestion/>.

Chalamandaris, George; Rompolis, Leonidas S. Rompolis (2021), « Recovering the market risk premium from higher-order moment risks». European Financial

Management, European Financial Management Association, vol. 27(1), pages 147-186. Doi:10.1111/eufm.12287.

Chen, Ming-Hsiang, Jerome Agrusa, Dennis Krumwiede and Hsin-Jung Lu (2012), “Macroeconomic Influences On Japanese Hotel Stock Returns”. *Journal of Hospitality Marketing & Management*, Volume 21, Issue 1, Pages:81-99. <https://doi.org/10.1080/19368623.2011.611731>.

Chen, Ming-Hsiang, Woo Gon Kim and Hyun Jeong Kim (2005), “The Impact of Macroeconomic and Non-Macroeconomic Forces on Hotel Stock Returns”, *Hospitality Management*, 24, Pages: 243–258. Doi:10.1016/j.ijhm.2004.06.008.

Cheng, Ka Ming, Hyeongwoo Kim, and Henry Thompson (2013), “The Exchange Rate and US Tourism Trade, 1973-2007”, *Tourism Economics*, Volume: 19 issue: 4, pages: 883-896. <https://doi.org/10.5367/te.2013.0227>.

Chung, Kee H. and Stephen W. Pruitt (1994), “A Simple Approximation of Tobin’s Q”, *Financial Management*, Vol. 23, No. 3, Venture Capital Special Issue (Autumn, 1994), pp. 70-74. <https://doi.org/10.2307/3665623>.

Croes, Robertico R. and Manuel Vanegas Sr. (2004), “An Econometric Study of Tourist Arrivals in Aruba and Its Implications”, *Tourism Management*, Volume 26, Issue 6, Pages: 879-890. <https://doi.org/10.1016/j.tourman.2004.04.007>.

De Vita, Glauco, and Khine S. Kyaw (2013), “Role of The Exchange Rate in Tourism Demand”, *Annals of Tourism Research*, Vol 43: Pages 624-627. [10.1016/j.annals.2013.07.011](https://doi.org/10.1016/j.annals.2013.07.011).

Demir, Ender, Zeynep Asli Alici, and Marco Chi Keung Lau (2017), “Macro Explanatory Factors of Turkish Tourism Companies’ Stock Returns” *Asia Pacific Journal of Tourism Research*, 22 (4), pp. 370-380. ISSN 1094-1665, <http://dx.doi.org/10.1080/10941665.2016.1271814>.

Dufrénot, Gilles and Yehoue, Etienne Baba (2005). « Real Exchange Rate Misalignment: A Panel Co-Integration and Common Factor Analysis ». IMF Working Paper No. 05/164, Available at SSRN: <https://ssrn.com/abstract=888033>.

Dwyer, Larry, Peter Forsyth, and Prasada Rao (2000), “Price Competitiveness of Package Tourism: Beyond the Big Mac Approach”, *Asia Pacific Journal of Tourism Research*, Vol 5(2), pp. 50-56. DOI: 10.1080/10941660008722072.

Gagliardini, Patrick, Elisa Ossola and Olivier Scaillet (2016). « Time-Varying Risk Premium in Large Cross-Sectional Equity Data Sets ». *Econometrica*, volume 84, Issue 3, page 985-1046. doi:10.3982/ECTA11069.

Habibi, Fateh and Khalid Abdul Rahim (2009), “A Bound Test Approach to Cointegration of Tourism Demand”, *American Journal of Applied Sciences* 6 (11): 1924-1931. ISSN 1546-9239.

<https://doi.org/10.3844/ajassp.2009.1924.1931>.

- Hailu, Suadiq Mehammed and Gamze VURAL (2020), "Testing The Weak Form Market Efficiency Of Borsa Istanbul: An Empirical Evidence From Turkish Banking Sector Stocks", *Journal of Economics, Finance and Accounting – JEFA*, Vol.7(3), p.236-249. DOI: 10.17261/Pressacademia.2020.1291.
- Islam, Sardar M. N. and Sethapong Watanapalachaikul (2003), "Time Series Financial Econometrics of The Thai Stock Market: A Multivariate Error Correction and Valuation Model", *Global Finance*, Volume 10, Issue 5, Pages: 90-127. <http://blake.montclair.edu/~cibconf/conference/DATA/Theme2/Australia2.pdf>.
- Jang, SooCheong, Billy Bai, Gong-Soog Hong and Joseph T.O'Leary (2004), "Understanding Travel Expenditure Patterns: A Study of Japanese Pleasure Travelers to the United States by Income Level", *Tourism Management*, Volume 25, Issue 3, Pages: 331-341. [https://doi.org/10.1016/s0261-5177\(03\)00141-9](https://doi.org/10.1016/s0261-5177(03)00141-9).
- Kuznets, Simon (1934), "National Income, 1929–1932". 73rd US Congress, 2d session, Senate document no. 124, page 5-7. <https://fraser.stlouisfed.org/title/971>.
- LEBAS, Michel J. (1995), "Measurement of the overall performance of companies", *French Review of Accounting*, Ed. Economica, Paris, p33.
- Li, Kevin X, Mengjie Jin and Wenming Shi (2018). "Tourism as an Important Impetus to Promoting Economic Growth: A Critical Review" *Tourism Management Perspectives*, Vol 26(1), Pages 135-142. <https://doi.org/10.1016/j.tmp.2017.10.002>.
- Marchant, Mary A. and William M. Snell (2007), "Macroeconomics and International Policy Terms" (PDF). University of Kentucky. Archived (PDF) from the original on 2007-03-18. Retrieved 2007-05-04. <http://www2.ca.uky.edu/agcomm/pubs/aec/aec75/aec75.pdf>.
- Maysami, Ramin Cooper, Lee Chuin Howe and Mohamad Atkin Hamzah (2004), "Relationship between Macroeconomic Variables and Stock Market Indices: Cointegration Evidence from Stock Exchange of Singapore's All-S Sector Indices" *Jurnal Pengurusan*, 24(2004), Pages: 47-77. DOI:10.17576/pengurusan-2005-24-03.
- Meurer, Roberto (2010), "Research Note: International Travel: The Relationship between Exchange Rate, World GDP, Revenues and the Number of Travelers to Brazil" *Tourism Economics*, Volume: 16 issue: 4, Pages:1065–1072. <https://doi.org/10.5367/te.2010.0011>.
- Morley, Clive L. (1994) "The Use of CPI for Tourism Prices in Demand Modeling", *Tourism Management*, Volume 15, Issue 5, Pages 342-346. [https://doi.org/10.1016/0261-5177\(94\)90088-4](https://doi.org/10.1016/0261-5177(94)90088-4).

- Omran, Mohammed (2003), “Time Series Analysis of the Impact of Real Interest Rates on Stock Market Activity and Liquidity in Egypt: Co-Integration and Error Correction Model Approach”, *INTERNATIONAL JOURNAL OF BUSINESS*, 8(3), pp.359-374. SSRN: <https://ssrn.com/abstract=420248>.
- Q. Farooq Akram; Kari-Mette Brunvatne; Raymond Lokshall (2003). « Real equilibrium exchange rates ». *Norges Bank Occasional NR 31*, Chapter 3, Pp 29-50. https://norges-bank.brage.unit.no/norges-bank-xmlui/bitstream/handle/11250/2506330/skriftserie_31.pdf?sequence=1.
- Resatoglu, Nil Gonsel and Sadık Çukur (2007), “The Effects of Macroeconomic Factors on the London Stock Returns: A Sectoral Approach”, *International Research Journal of Finance and Economics*, 10 (10). https://www.researchgate.net/publication/272162558_The_Effects_of_Macroeconomic_Factors_on_the_London_Stock_Returns_A_Sectoral_Approach.
- Ribeiro, Luiz Carlos De Santana, Emerson Olivier Vieira da Silva, José Roberto de Lima Andrade and Kenia Barreiro de Souza (2017), “Tourism and Regional Development in the Brazilian Northeast”, *Tourism Economics*, 23(3), Pages 717–727. DOI:10.1177/1354816616652752.
- Salman A. Khalik, Ghazi Shukur and Marie-Louise von Bergmann-Winberg (2007). “Comparison of Econometric Modeling of Demand for Domestic and International Tourism: Swedish Data”, *Current Issues in Tourism* 10(4), pp. 323-342.
- Santana-Gallego, Maria, Francisco J. Ledesma-Rodríguez and Jorge V. Pérez-Rodríguez (2010), “Exchange rate regimes and tourism”. *Tourism Economics* 16(1): Pages. 25–43. <https://doi.org/10.5367/000000010790872015>.
- Tang, Chor Foon and Salah Abosedra (2016) “Tourism and Growth in Lebanon: New Evidence from Bootstrap Simulation and Rolling Causality Approaches”, *Empirical Economics*, Springer, vol. 50(2), pp.679–696. DOI: 10.1007/s00181-015-0944-9.
- Trognon, Alain (2003). “l'économétrie des panels en perspective”, *Review of political economy: Dalloz*, Vol. 113, No 6, | pages 727 à 748, ISSN 0373-2630 - DOI 10.3917/redp.136.0727.
- Valença, Marília Nunes, André de Souza Melo, Marcos Felipe Falcão Sobral and Maria Gilca Pinto Xavier (2015), “Relação entre a Taxa de Câmbio e o Setor de Turismo: Análise por Vetores Autorregressivos”: “Relationship between the Exchange Rate and the Tourism Sector: Analysis by Vector Autoregression” *Revista Turismo - Visão E Ação - Eletrônica* 17(3): pp. 737–757. DOI:10.14210/rtva.v17n3.p737-757.
- Wang, Yu-Shan (2009), “The Impact Of Crisis Events and Macroeconomic Activity On Taiwan’s International Inbound Tourism Demand”, *Tourism Management*, Volume 30, Issue 1, Pages: 75-82.

<https://doi.org/10.1016/j.tourman.2008.04.010>.

Wattanakuljarus, Anan and Ian Coxhead (2008). "Is Tourism-Based Development Good For the Poor? A General Equilibrium Analysis for Thailand", *Journal of Policy Modeling*, 30(6), pp. 929-955. DOI:10.1016/j.jpolmod.2008.02.006.

Wong, Kevin K. F and Haiyan Song (2006), "Do Macroeconomic Variables Contain Any Useful Information for Predicting Growths in Hospitality Stock Indices?" *Journal of Hospitality & Tourism Research*, Volume: 30 issue: 1, Pages: 16-33. <https://doi.org/10.1177/1096348005284267>.

3. Elektronik Kaynaklar

Akrani, Gaurav (2012). "Meaning of Public Expenditure". Retrieved 15 February 2012 by Wikipedia. <http://kalyan-city.blogspot.in/2011/02/what-is-public-expenditure-meaning-and.html>.

Bertrand Bathelot (2015), Glossary : "Distribution / Marché". <https://www.definitions-marketing.com/definition/demande/>.

Coyle, Diane (6th April 2014). "Warfare and the Invention of GDP". *The Globalist*. Retrieved 1 August 2015. <https://www.theglobalist.com/warfare-and-the-invention-of-gdp/>.

Definition of Inflation by INSEE » [archive] (2016), on insee.fr, 13 octobre 2016 (15 may 2018).

Definition of Unemployment rate par l'INSEE » [archive] (2016), sur insee.fr, 13 octobre 2016.

Elizabeth, Dickinson (25 April 2012) "GDP: a brief history". *ForeignPolicy.com*. <https://foreignpolicy.com/2011/01/03/gdp-a-brief-history/>.

Encyclopædia Universalis, « TABLEAU ÉCONOMIQUE » [archive] (2022), sur *Encyclopædia Universalis* (18 march 2022).

LENFANT, Jean-Sébastien (2022), « ÉCONOMIE (Histoire de la pensée économique) - Marginalisme », *Encyclopædia Universalis* [en ligne], consulted on 22 may 2022. URL: <https://www.universalis.fr/encyclopedie/economie-histoire-de-la-pensee-economique-marginalisme/>.

Muley, Ritika (2016). « Dépenses publiques: causes, principes et importance». Discussion about Economy. Consulted on 2021-04-25. <https://dictionary.tn/depenses-publiques/>.

"Resolution concerning statistics of work, employment and labor underutilization", adopted by the 19th International Conference of Labor Statisticians, Geneva, October 2013. https://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/normativeinstrument/wcms_230304.pdf.

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