

T.C.
TURKISH-GERMAN UNIVERSITY
INSTITUTE OF SOCIAL SCIENCES
BUSINESS MANAGEMENT DEPARTMENT

**EQUITY VALUATION AND ANALYSIS OF COST OF
CAPITAL IN SMALL AND MEDIUM ENTERPRISES;
A CASE REVIEW FROM BIST**

MASTER'S THESIS

Uğur TEMÜR

ADVISOR

Prof. Dr. Ahmet Göksel YÜCEL

İstanbul, June 2022

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(207108004)

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Thesis Advisor : **Prof. Dr. Ahmet Göksel YÜCEL**

Other Jury Members : **Prof. Dr. Burcu ADİLOĞLU**

: **Dr. Çiydem Çatak**

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ÖZET

KÜÇÜK VE ORTA ÖLÇEKLİ İŞLETMELERDE ÖZSERMAYE DEĞERLEMESİ VE SERMAYE MALİYETİNİN ANALİZİ; BORSA İSTANBUL'DAN BİR ÖRNEK İNCELEMESİ

Bu çalışmada, temel olarak kobilere yatırım yapan yatırımcılar ve kobilerin yöneticileri açısından sermaye maliyetinin analizi konusu ile genel olarak öz sermaye değerlemesine yönelik bazı yaklaşımlar irdelenmiştir. Bu nedenle öncelikli olarak kobi tanımı dünyada ve Türkiye’de nasıldır hangi kriterlere göre belirlenmiştir. Kobilerin dünya ekonomisindeki ve Türkiye’deki payı ile genel özellikleri ortaya konmuştur. İlerleyen bölümlerde öz sermaye değerlemesinde öne çıkan ve hem yatırımcılar hem de yöneticiler açısından önem arz eden başlıklar sırasıyla ele alınmıştır. Bu noktada sırasıyla finansal tabloların önemi, finansal analiz yöntemlerinden oran analizi yatay analiz ve yatay analize etki eden enflasyon gibi önemli konular üzerinde durulmuştur. Öz sermaye maliyeti yatırımcılar açısından kritik öneme sahip olması nedeniyle literatürde yer sermaye yapısı ve bileşenlerine yönelik temel teori ve yaklaşımlar ele alınmıştır. Sermaye yapısına etki eden faktörler incelenmiş ve detay bilgiler sunulmuştur. Bu noktada tezin üçüncü bölümünde ise BİST endeksinden seçilen bir firmanın oranları ele alınmış ve örnek firma üzerinde gerçekleşmiş rakamların finansal tablolara ve oran analizine yansımaları irdelenmiştir. Yine sektörde yer alan diğer firmalarla kıyas yapılmış olup nihai olarak yatırımcıların matematiksel hesaplamalar dışında dikkat ettiği noktalar ön plana alınmıştır.

Anahtar Sözcükler: Kobi, Öz Sermaye Maliyeti, Oran analizi

Tarih: 09.06.2022

ABSTRACT

EQUITY VALUATION AND ANALYSIS OF COST OF CAPITAL IN SMALL AND MEDIUM ENTERPRISES; A CASE REVIEW FROM BIST

In this study, the analysis of the cost of capital and some approaches about equity valuation in general, in terms of investors and managers of SMEs, are examined. For this reason, first of all, the definition of SME was determined according to what kind of criteria are valid in the world and in Turkey. The share and general characteristics of SMEs in the world economy and in Turkey were revealed. In the following sections, the headings that stand out in equity valuation and that are important for both investors and managers are addressed respectively. At this point, important issues such as the importance of financial statements, ratio analysis among financial analysis methods, horizontal analysis, and inflation affecting horizontal analysis are emphasized, respectively. Since the cost of equity is of critical importance for investors, basic theories and approaches to capital structure and its components are discussed in the literature. The factors affecting the capital structure were examined and detailed information was presented. At this point, in the third part of the thesis, the ratios of a company selected from the BIST 100 index are discussed and the reflection of the figures realized on the sample company on the financial statements and ratio analysis is examined. Again, comparisons were made with other companies in the sector, and finally, the points that investors paid attention to, apart from mathematical calculations, were highlighted.

Key Words: SME, Cost of Equity, Ratio Analysis

Date: 09.06.2022

LIST OF ABBREVIATIONS

ADB	: Asian Development Bank
ASM	: Asia SME Finance Monitor
D/E	: Debt to Equity
EBIT	: Earnings before Interest and Taxes
EBITDA	: Earnings before Interest Taxes, Depreciation Amortization
EPS	: Earning Per Share
EU	: European Union
EUR	: Currency of European Union
EV	: Enterprise Value
EVA	: Economic Value Added
FMIZP	: Federal Mogul İzmit Piston Corp.
GDP	: Gross Domestic Products
KPI	: Key Performance Indicator
MVA	: Market Value Added
OEM	: Original Equipment Manufacturer
P/CF	: Price to Cash Flow
P/E	: Price Earning

P/L	: Profit/Loss
PPP	: Purchasing Power Parity
ROA	: Return on Assets
ROE	: Return on Equity
ROIC	: Return on Invested Capital
SBA	: Small Business Administration
SME	: Small and Middle Size Enterprise
TIE	: Time Interest Earned
TRY	: Turkish Lira
TUIK	: Statistical Institute Of Turkey

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CHAPTER 1 INTRODUCTION

Financing and investment are two inseparable elements that complete each other. Investors and managers have been seeking the optimum point that satisfy all stakeholders. There are lots of academic studies about it. On the other hand, there is no common sense on it yet. Lots of arguments have been represented by the academicians and finance professionals, big part of arguments have been accepted partially. Nevertheless, still there are lots of opposition arguments against theories.

In terms of investors, time and money is the most important thing, because they are acting to increase the value of their assets. Because of that reason, investors seek to maximize their gaining. Especially, they want to earn money more than the average. As a result of this, they always try to find new methods. First of all, they try to measure the cost of equity and evaluate the capital structure of firms. Cost of equity means the expected return from their investment and it is totally related to the time risk premium. The measure of the cost of equity is not easy. People trying to do this, experienced lots of ways. Financial analysis, ratio analysis valuation methods, and capital structure theories are tried to study in this thesis.

Financing is a crucial point for all firms. For SMEs, it is a vital problem to reach new funds. SMEs are generally agile structures and they can keep pace with the current production and marketing approach. On the other hand, lots of SMEs ignore finance and managerial accounting. As a result of this, lots of SMEs are in trouble reaching new funds. That's resulted in not being able to enter a new market or expand their organization. Financial management and an accurate booking system are of vital importance for SMEs.

CHAPTER 2. DEFINITION AND CLASSIFICATION OF SMEs

2.1 WHAT IS SME

In the changing World, industrialization has affected our lives fundamentally. Since 18-century, industrialization has been going on to spread all over the World. Although big companies dominate the market, a big part of the companies consists of small and middle enterprises. There are lots of ideas about the definition of SMEs. In addition, countries prefer to define SMEs regarding their economic structure. In turkey, it is regulated by the government.

SMEs in Turkey are divided into three main structures in terms of size and employment. Accordingly, companies with less than two hundred and fifty employees and companies with annual sales or balance sheet sizes of less than two hundred and fifty million TL are defined as SMEs (T.C. Resmi Gazete, 2005). The definition of SMEs differs from country to country in terms of economic growth and wealth of nations.

2.1.1 SME CLASSIFICATION IN TURKEY

Turkey has taken the same regulation as an example of the classification structure used in Europe, since it is an EU candidate country. As a result of this, Turkey identifies three types of SMEs. These are Micro, Small and Medium Entities.

a) Micro-enterprise: Businesses that employ less than ten people annually and whose annual net sales revenue or financial balance sheet does not exceed five million Turkish Liras.

b) Small business: Employing less than fifty people per year and annual net sales revenue or businesses whose financial balance sheet does not exceed fifty million Turkish Liras.

c) Medium-sized enterprise: Enterprises that employ less than two hundred and fifty people and whose annual net sales revenue or financial balance sheet does not exceed two hundred and fifty million Turkish Liras. (T.C. Resmi Gazete, 2022).

Table 1. SME Classification in Turkey

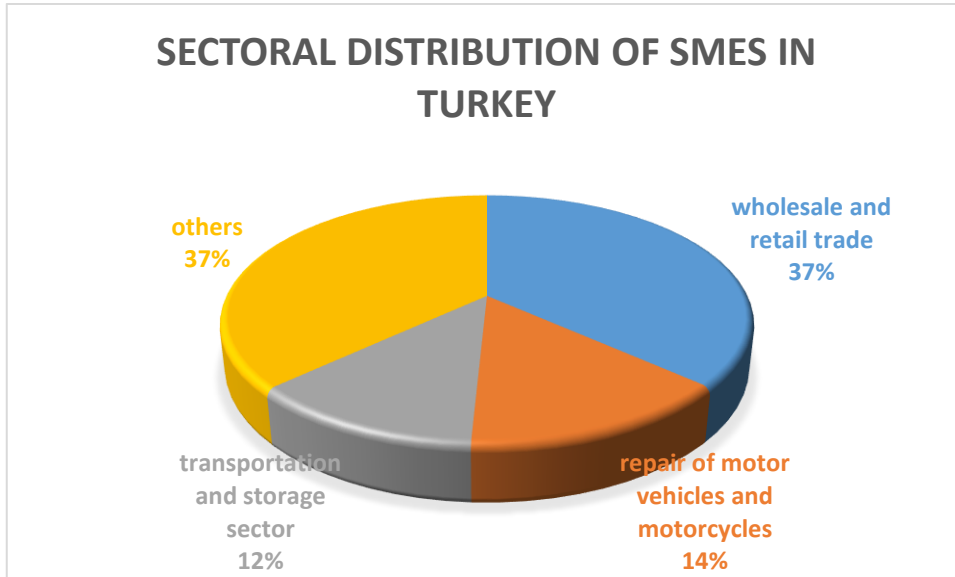
SME CLASSIFICATION IN TURKEY		
SIZE	NUMBER OF EMPLOYEES	FINANCIAL CRITERIA
MICRO-ENTERPRISE	Less than 10	5 million TRY
SMALL ENTERPRISE	Less than 50	50 million TRY
MIDDLE-CLASS ENTERPRISE	Less than 250	250 million TRY

Source: kosgeb.gov.tr (kosgeb, 2021)

2.1.1.1 Sectoral Distribution of SMEs in Turkey

According to the statistical classification of economic activities (NACE Rev.2), SMEs in 2020; 36.6% operated in wholesale and retail trade, repair of motor vehicles and motorcycles, 14.2% operated in the transportation and storage sector, and 12.3% in the manufacturing industry (TUIK, 2021). It shows that SMEs constitute a large part of the Turkish economy. On the contrary, share of manufacturing sectors are so low that the contribution of employment is not as it is planned.

Figure 1. Sectoral Distribution of SMEs in Turkey



Source: Tuik 2021

2.1.2 SME CLASSIFICATION IN THE WORLD

All over the world SMEs have a profound impact and impact on economies. Therefore, this definition and classification is one of the most important points before starting to analyse the structure of SMEs and the problem they face in the market and sectors.

Generally, countries use two main classification methods first one is the level of employment and the other one is financial magnitude. Financial magnitude is handled in two ways one of them is net annual sales and the other one is balance sheet magnitude (Mecek, 2020).

2.1.2.1 SME Definition in EU

In EU Micro-enterprises are identified as businesses that have less than 10 people and whose annual turnover or annual balance sheet total does not exceed EUR 2 million.

Small Enterprises are identified as businesses that have less than 50, more than 10 people and whose annual turnover or annual balance sheet total does not exceed EUR 10 million.

Medium-sized enterprises are identified as businesses that have less than 250, more than 50 people and either have an annual turnover that does not exceed EUR 50 million, or an annual balance sheet magnitude not exceeding EUR 43 million (European SME Definition User Guide, 2015).

Table 2. SME Classification in EU

SME CLASSIFICATION IN EU			
SME Class	Number of Employees	Annual Sales	Balance Sheet Magnitude
Micro-Enterprise	Less Than 10	Up to 2 Million EUR	Up to 2 Million EUR
Small-sized Enterprise	Less Than 50	Up to 10 Million EUR	Up to 10 Million EUR
Middle-sized Enterprise	Less Than 250	Up to 50 million EUR	Up to 43 Million EUR

Source: (European SME Definition User Guide, 2015).

2.1.2.2 SME Definition in Japan

In Japan, SMEs are classified according to annual sales and the amount of balance sheet size. Additionally, sectoral differentiation is an important point in terms of the classification of SMEs. Generally, Enterprises operating in sectors such as construction, manufacturing and transportation, whose capital amount is less than three hundred million (300 million) yen and whose total number of employees do not exceed 300, are included in the SME category. (The Small And Medium Enterprise Agency, 2013).

Table 3. SME Classification in Japan

SME CLASSIFICATION IN JAPAN		
Sector	Number of Employees	Capital Amount
Manufacturing Industry	Up to 300	Less Than 100 Million Yen
Commerce	Up to 100	Less Than 30 Million Yen
Services	Up to 50	Less Than 10 Million Yen

Source: The Small And Medium Enterprise Agency, 2013

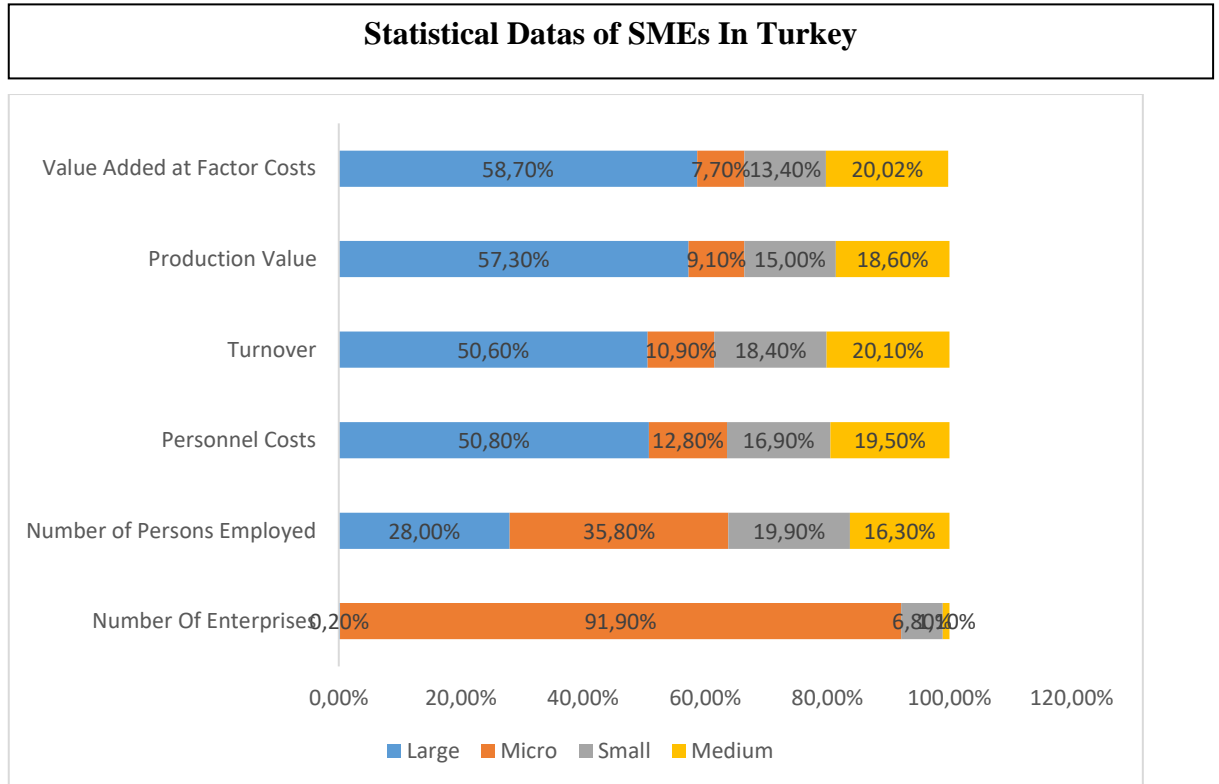
2.1.2.3 SME Definition in the USA

In the USA, the SBA has established the following standards for a small business: 500 employees for most manufacturing and mining industries, and \$7.5 million in average annual receipts for most non-manufacturing industries (U.S Small Business Administration, 2021)

2.1.3 THE POSITION AND THE IMPORTANCE OF SMEs IN THE ECONOMY IN TURKEY

There are currently 3.295.995 active SMEs in Turkey. As of 2020, 3.035.095 of these companies are micro-enterprises, 223,626 small enterprises, and 37,274 medium-sized enterprises (Except programming and broadcasting activities, financial and insurance activities). SMEs constitute 99.75% of the total companies in Turkey. The share of SMEs in employment is around 72%. Besides SMEs in Turkey have % 36 of exports, accounting for 42.7% of production value and 41.3% of value-added with factor cost (TUIK, 2021). It is obviously seen in figure 2. that SMEs are the heart of the Turkish economy both in terms of production and employment.

Figure 2. Statistical Data of SMEs in Turkey

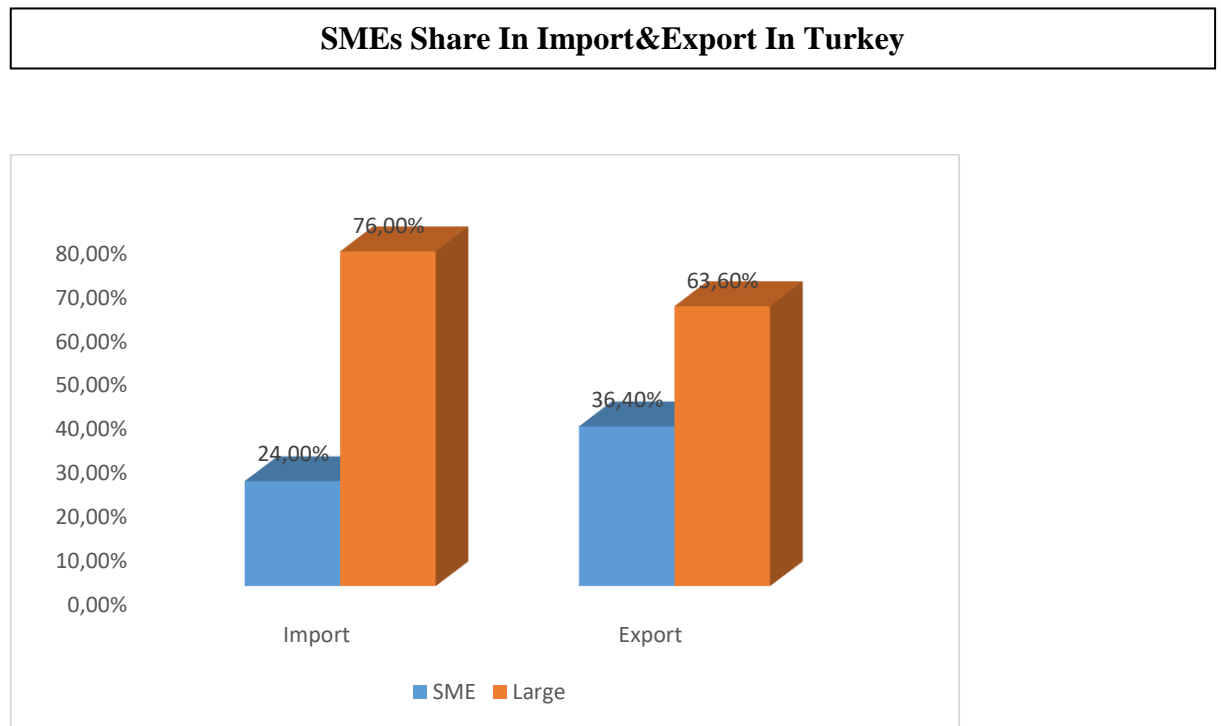


(Source: Tuik, 2021)

2.1.3.1 Share in Import & Export and Investment in Turkey

In Turkey, in figure 3, it can be seen distribution of import and export between SMEs and large Scale Companies. SMEs made 36.4% of total exports and 24% of imports in 2020. In total exports in 2020; while the share of micro-scale enterprises was 3.5%, the share of small-scale enterprises was 13.5% and the share of medium-scale enterprises was 19.4%. The share of large-scale enterprises was 63.6%. According to the main activity of the enterprises, 58.7% of the exports of SMEs were made by the enterprises operating in the commercial sector and 36.6% by the enterprises operating in the industrial sector. In 2020 the share of micro-scale enterprises in total imports was 1.5%, the share of small-scale enterprises was 6.4%, and the share of medium-scale enterprises was 16.2%. The share of large-scale enterprises was 75.9%. According to the main activity of the enterprise, 66.8% of the imports of SMEs were made by the enterprises operating in the commercial sector and 26% by the enterprises operating in the industrial sector (TUİK, 2021).

Figure 3. SMEs Share in Import and Export in Turkey



(Source: Tuik, 2020)

2.1.4 THE POSITION AND THE IMPORTANCE OF SMEs IN THE WORLD ECONOMY

SMEs are strategically important all over the world in terms of both production and employment rates. In 2014 Small businesses created %66 of new jobs and account for %44 of US economic activity (U.S Small Business Administration, 2021). On the other hand, In the EU there are 22,6 million SMEs and they constitute 3,5 trillion dollars in all EU economic activity and they have 83,8 million employees in their bodies. Another important economy is Japan (D.Clark, 2021). When we look at it we can see that nearly the same position in terms of employment ratios and value-added to the whole economy.

In 2017 SMEs constitute of %67 percent of employment and %50 percent of value-added products and services. It demonstrates to us that they have crucial roles in all economies all around the world (Eurostat, 2022)

In terms of sustainable growth and sustainable stability in employment, SMEs constitute the lay of the foundation of all countries. Because small enterprises are more agile than big companies and they can easily pace with the latest subject and convert their structure compatible with the market. Beside this, the advantage of their small size, they can produce a small amount of product and get easily into the export market. It affects the economies of countries in lots of different aspects.

2.1.4.1 SMEs' Share in GDP and Employment

“Small and Medium Enterprises (SMEs) play a major role in most economies, particularly in developing countries. SMEs account for the majority of businesses worldwide and are important contributors to job creation and global economic development. They represent about 90% of businesses and more than 50% of employment worldwide. Formal SMEs contribute up to 40% of national income (GDP) in emerging economies” (THE WORLD BANK, 2022).

Not only do emerging markets support SMEs but also developed countries do some kind of incentives and financial support. According to World Bank records between 1998-2003 more than 10 billion US dollars via different support programs were distributed to SMEs (Beck , Demirgüç-Kunt, & Levine, 2005).

All over the world, every country is aware that they have to support SMEs because of they have the biggest power in terms of employment and GDP. In detail, we have to look at some countries SMEs share GDP and employment

2.1.4.2 SMEs' Share in GDP and Employment in the EU

EU economy consists of nearly %99.8 percent of all enterprises in the EU and in 2014, SMEs in the non-financial business sector generated more than EUR 3.7 trillion of value-added (58% of the sector's total value added), and employed almost 90 million people (67% of the sector's total employment) (Muller P. , et al., 2015). Because of the fact that SMEs are an inevitable part of commercial and financial life.

2.1.4.3 SMEs' Share in GDP and Employment in the USA

In the USA, SMEs accounted for %47,17 percent of all employment in the year 2017. It is relatively lower than the EU, on the other hand, it is still too high for a developed country. (U.S. Small Business Administration Office Of Advocacy, 2021). The nearly twenty-seven million small businesses in the United States generate about 50 percent of their GDP. They also have been contributing to growth and vitality in several important areas of economic and socio-economic development (University Of Minnesota Libraries Publishing, 2022).

2.1.4.4 SMEs' Share in GDP and Employment in Asia

Asia has been growing continuously since the Asian financial crisis, and this growth has alleviated poverty and increased the number of middle-income countries in the region. According to a study conducted by the Asian Development Bank in 20 countries, SMEs constitute approximately 62% of all enterprises in ASM countries. According to the data obtained from the same study, 62% of the total employment is provided by SMEs. ASM countries consist of Central Asia, East Asia, South Asia, Southeast Asia, and the Pacific. Meanwhile, the latest data reveal that SMEs contributed an average of 42% of the gross domestic product (GDP) (Yoshino & Taghizadeh-Hesary, 2018)

It can be obviously seen on table 4 that SMEs have a crucial role in the Asian area like other continents and countries. They have a vital role in the economy in terms of the income distribution, economic growth and sustainability, and so on.

Table 4. SME Employment Share, Selected Asian Economies

SME Employment Share, Selected Asian Economies			
Country	SME Employment as a Share of	SME Share (%)	Year
Rep. of Korea	Enterprise employment	87.7	2012
Thailand	Enterprise employment	80.3	2014
Uzbekistan	Total employment	78.2	2016
Bangladesh	Non-agricultural employment	75.0	2014

Cambodia	Enterprise employment	71.8	2014
Japan	Enterprise employment	69.7	2012
PRC	Industry employment	64.7	2011
Philippines	Enterprise employment	63.7	2013
Singapore	Total employment	68.0	2012
Malaysia	Total employment	65.0	2014
Viet Nam	Total employment	46.8	2012
Kazakhstan	Total employment	35.9	2016
Sri Lanka	Total employment	35.0	2013

Source: ADBI Working Paper 911

CHAPTER 3. FINANCIAL ANALYSIS METHODS AND IMPLEMENTATION PROBLEMS IN SMEs

3.1 OVERVIEW OF FINANCIAL ANALYSIS METHODS

Financial analysis is one of the main tools of valuation of the companies or projects. It affects the investment decision directly. As a result of this, when a project is evaluated, investors look for detailed analysis in the financial statement. There are three types of main analysis and there are lots of subtitles that help us to understand the real situation and have an opinion about the real rate of return. The first of one is ratio analysis second is horizontal and the last mechanism is vertical analysis. We are going to mention all of them.

Before that, we have to learn something about the basic main critical financial statements. The Financial Statements of the Company comprises the Balance Sheet which is a picture of the end of the accounting year, the profit and loss account which summarises the activities of the company for the period of the annual report, and cash flow statements (Palat, 2011)

3.1.1 BALANCE SHEET

The balance sheet is the financial statement that shows in detail the assets of a business and the resources it provides. In the balance sheet; Current assets, fixed assets, short-term liabilities, long-term liabilities and shareholders' equity are shown in order. (Samonas, 2015). On the other hand, the balance sheet can change quickly because of not a continuous table it is a discrete table. That's why it cannot give us enough information about the situation of companies.

Table 5. Piece of Balance Sheet of FMIZP

FEDERAL MOGUL İZMİT PİSTON VE PİM ÜRETİM TESİSLERİ A.Ş.

31 ARALIK 2021 VE 2020 TARİHLERİ İTİBARIYLA
FİNANSAL DURUM TABLOLARI
(Tutarlar aksi belirtilmedikçe Türk Lirası ("TL") olarak ifade edilmiştir.)

Dipnotlar	(Bağımsız denetimden geçmiş) 31 Aralık 2021	(Bağımsız denetimden geçmiş) 31 Aralık 2020
Varlıklar		
Dönen varlıklar		
Nakit ve nakit benzerleri	3 39.709.798	35.752.664
Ticari alacaklar	27.269.775	9.266.052
<i>İlişkili taraflardan ticari alacaklar</i>	4 27.206.270	9.258.288
<i>İlişkili olmayan taraflardan ticari alacaklar</i>	5 63.505	7.764
Diğer alacaklar	33.593	88.602
<i>İlişkili olmayan taraflardan diğer alacaklar</i>	6 33.593	88.602
Stoklar	7 16.954.278	10.862.566
Peşin ödenmiş giderler	8 5.339.853	1.017.696
Diğer dönen varlıklar	13 1.898.662	205.570
Toplam dönen varlıklar	91.205.959	57.193.150
Duran varlıklar		
Diğer alacaklar	3.435	3.551
<i>İlişkili olmayan taraflardan diğer alacaklar</i>	6 3.435	3.551
Yatırım amaçlı gayrimenkuller	9 1.459.441	1.630.179
Maddi duran varlıklar	10 19.408.163	10.874.949
Kullanım hakkı varlıkları	451.439	984.957
Ertelenmiş vergi varlığı	21 1.142.333	516.323
Toplam duran varlıklar	22.464.811	14.009.959
Toplam varlıklar	113.670.770	71.203.109

Source Federal-Mogul izmit piston audit report

3.1.2 PROFIT AND LOSS STATEMENT

P/L statement summarises the commercial operation of companies in a given period. The period generally includes one year. The income statement is a cumulative progressive statement. That's why it demonstrates to us all of the operations in a given time. P/L statement has a crucial role in explaining and understanding the business operations of the firm. It has gross sales expenditures, operation costs, and general management costs, in detail. We learn lots of things from p/l statement by comparing other rivals and market average ratios.

Table 6. Profit/Loss Statement of FMIZP

FEDERAL-MOGUL İZMİT PİSTON VE PİM ÜRETİM TESİSLERİ A.Ş.			
1 OCAK - 31 ARALIK 2021 VE 2020 HESAP DÖNEMLERİNE AİT KAR VEYA ZARAR VE DİĞER KAPSAMLI GELİR TABLOLARI			
<small>(Tutarlar aksi belirtilmedikçe Türk Lirası ("TL") olarak ifade edilmiştir.)</small>			
	Dipnotlar	(Bağımsız denetimden geçmiş) 1 Ocak - 31 Aralık 2021	(Bağımsız denetimden geçmiş) 1 Ocak - 31 Aralık 2020
Hasılat	15	187.871.806	87.193.556
Satışların maliyeti (-)	15	(134.949.532)	(60.514.251)
BRÜT KAR		52.922.274	26.679.305
Genel yönetim giderleri (-)	16	(5.530.978)	(3.243.813)
Pazarlama, satış ve dağıtım giderleri (-)	16	(3.028.715)	(1.303.457)
Esas faaliyetlerden diğer gelirler	17	16.801.136	3.872.429
Esas faaliyetlerden diğer giderler (-)	17	(4.032.756)	(279.014)
ESAS FAALİYET KARI		57.130.961	25.725.450
Yatırım faaliyetlerinden gelirler	18	4.761.052	5.142.407
Yatırım faaliyetlerinden giderler (-)	18	-	(109)
FİNANSMAN GELİRİ ÖNCESİ FAALİYET KARI		61.892.013	30.867.748
Finansman gelirleri	19	21.100.778	11.070.712
Finansman giderleri (-)	20	(3.607.714)	(3.374.123)
SÜRDÜRÜLEN FAALİYETLER VERGİ ÖNCESİ KARI		79.385.077	38.564.337
Sürdürülen faaliyetler vergi gideri			
Dönem vergi gideri (-)	21	(13.152.989)	(8.213.690)
Ertelenmiş vergi geliri/(gideri)	21	453.490	179.400
DÖNEM KARI		66.685.578	30.530.047
Kar veya Zararda Yeniden Sınıflandırılmayacaklar			
Tanımlanmış fayda planları yeniden ölçüm (kayıpları)/kazançları	12	(862.599)	(323.648)
Ertelenmiş vergi gideri	21	172.520	71.203
Diğer kapsamlı (gider)/gelir		(690.079)	(252.445)
Toplam kapsamlı gelir		65.995.499	30.277.602
Pay başına kazanç	22	0,0467	0,0214

Source Federal-Mogul izmit piston audit report

3.1.3 CASH FLOW STATEMENT

Cash flow statement provides information on cash inflows and outflows during a period, and additionally helps to complete the P/L statement (Klammer, 2017). Cash flow statement is one of the most important financial statements. This is because the company's solvency also depends on the cash flows provided by the company. Companies can be very profitable, but as long as they cannot generate cash from their operations, they may

always face the risk of not meeting their obligations. For this reason, cash flow, which is more important than profitability and primarily, is an analytical tool used in company valuation and evaluations. (Samonas, 2015). It affect also the valuation of the companies directly. Because the capacity of generating cash from operations is one of the most important subjects that the investors pay attention

Table 7. Cash Flow Statement of FMIZP

Dipnotlar	1 Ocak - 31 Aralık 2021	1 Ocak - 31 Aralık 2020
İŞLETME FAALİYETLERİNDEN NAKİT AKIŞLARI	44.244.279	28.905.050
Dönem karı	66.685.578	30.530.047
Dönem net karı mutabakatı ile ilgili düzeltmeler	16.173.107	10.072.474
Vergi gideri ilgili düzeltmeler	21	12.699.499
Amortisman ve itfa gideri ile ilgili düzeltmeler	16	1.779.633
Karşılıklar ile ilgili düzeltmeler		
- Çalışanlara sağlanan faydalara ilişkin karşılıklar ile ilgili düzeltmeler	12	897.217
- Diğer karşılıklar ile ilgili düzeltmeler		542.051
Faiz gelirleri ile ilgili düzeltmeler	19	(45.884)
Faiz giderleri ile ilgili düzeltmeler	20	300.591
Maddi duran varlıkların elden çıkarılmasından kaynaklanan kazançlar ile ilgili düzeltmeler		-
İşletme sermayesindeki gerçekleşen değişimler	(23.868.970)	(3.712.120)
Stoklardaki artışlar ile ilgili düzeltmeler	7	(6.091.712)
Ticari alacaklardaki artışlar ile ilgili düzeltmeler	5	(18.003.723)
Ticari borçlardaki artışlar ile ilgili düzeltmeler	5	5.563.071
Faaliyetlerle ilgili diğer varlıklardaki azalış	13	(1.693.092)
Faaliyetlerle ilgili diğer yükümlülüklerdeki azalış	13	437.422
Faaliyetlerle ilgili diğer alacaklardaki azalış/(artış)	6	55.125
Çalışanlara sağlanan faydalar kapsamında borçlardaki artış	12	186.096
Peşin ödenmiş giderlerdeki artış	8	(4.322.157)
Faaliyetlerden kaynaklanan nakit çıkışları	(14.745.436)	(7.985.351)
Çalışanlara sağlanan faydalara ilişkin karşılıklar kapsamında yapılan ödemeler	12	(404.628)
Vergi ödemeleri		(14.340.808)
YATIRIM FAALİYETLERİNDEN KAYNAKLANAN NAKİT AKIŞLARI	(9.608.590)	(149.648)
Maddi duran varlık alımından kaynaklanan nakit çıkışları	10	(9.608.590)
FİNANSMAN FAALİYETLERİNDEN NAKİT AKIŞLARI	(30.678.555)	(33.034.600)
Ödenen temettüleri	14	(30.104.964)
Alınan faiz	19	45.884
Kira sözleşmelerinden kaynaklanan borç ödemelerine ilişkin nakit çıkışları		(619.475)
NAKİT VE NAKİT BENZERLERİNDEKİ NET ARTIŞ (AZALIŞ)	3.957.134	(4.279.198)
DÖNEM BAŞI NAKİT VE NAKİT BENZERLERİ	3	35.752.664
DÖNEM SONU NAKİT VE NAKİT BENZERLERİ	3	39.709.798

Source: Federal mogul izmit piston audit report

3.2 RATIO ANALYSIS

Another way of avoiding the problems involved in comparing companies of different sizes is to calculate and compare financial ratios (Ross, Westerfield, Jaffe, & Jordan, Corporate Finance, 2016). It helps us to calculate the magnitude of companies and determine the size of projects in terms of different aspects. Because of that reason we should analyse every kind of ratio detailed. Moreover, it affects companies' valuation directly and the cost of equity. When we start to examine the ratios we should divide them into several subtitles. These are

- Liquidity Ratios
- Short term liquidity /long term solvency ratios
- Asset Management ratios
- Profitability ratios
- Market value ratios

3.2.1 LIQUIDITY RATIOS

3.2.1.1 Current Ratio

One of the basic and most known ratio is the current ratio. It demonstrates us ratio of assets that can be converted to the Money and liabilities that must be paid in 12 months. It is important because of the fact that showing capability of the paying liabilities. On the other hand, it is not enough to see the whole aspect. It is calculated:

$\text{Short Term Assets} / \text{Short Term Liabilities}$
--

3.2.1.2 Acid Test Ratio

Acid test ratio demonstrates to us a little bit deeper information about the companies' payment capability. In this calculation, inventories are abandoned and look for the real power of payment. Because inventories cannot be converted to money easily

or they can be deteriorated and lose their fiscal value. Because of that reason, we make this type of calculation. It is calculated as: It is calculated as:

$$\frac{\text{Current assets}-\text{Inventories}}{\text{Current Liabilities}}$$

3.2.1.3 Cash Ratio

The cash ratio shows us the ratio of cash and equivalents to the short-term liabilities. It is not meaningful if it is used on its own. It is calculated as

$$\frac{\text{Cash/Short-Term Liabilities.}}$$

3.2.2 LONG TERM SOLVENCY RATIOS

Long term solvency ratio helps us to understand and get deeper information about assets and equity. At that point, we should clarify the EBIT and EBITDA because it is so crucial that help us to explain some critical ratios. Besides, EBIT has also been seen in a critical tool for the valuations of companies by the investors.

3.2.2.1 Ebit vs Ebitda

EBIT is the main KPI of any companies' in terms of cash flow and profitability getting from its operations. Because of that reasons we should know these two terms. EBIT means earnings before interest and taxes. It shows us the operational profit of any company, on the other hand, EBITDA includes depreciation and amortization by calculating net profit. It helps us to define some kind of the different ratios.

3.2.2.2 Total Debt Ratio

It shows us the proportion of total debt in the total assets. It is an important point in terms of evaluation of e enterprise because the proportion of debt that helps to create total assets is the critical point.

It is calculated as

$$\frac{\text{(Total Assets}-\text{Total Equity})}{\text{Total Assets.}}$$

3.2.2.3 Debt to Equity Ratio

Debt to Equity ratio which is called the D/E ratio. It gives us different kinds of information about the firms. We can see the company's ability of finding outsource finance

3.2.2.4 Times Interest Earned

It is generally called the TIE ratio. It gives some clues about the operational performance of companies. It is calculated as seen

TIE: EBIT/Interest

3.2.2.5 Cash Coverage Ratio

It is a more useful ratio than TIE because it includes depreciation and amortization of companies that do not give rise to cash outflow because of that reason it is more realistic than the TIE ratio. It is calculated as seen

EBITDA/Interest

3.2.3 ASSET MANAGEMENT MEASURES

Asset Management measures are another important point in evaluating companies. It gives us lots of information about companies' operational and financial performance because it includes lots of information about the period cost of holding inventories and the Money collection period.

3.2.3.1 Inventory Turnover

Inventory turnover gives lots of information about both companies and the markets. This ratio is calculated as seen:

Cost of Goods Sold/ ((Beginning Inventory + Closing Inventory)/2)

We can analyse both companies' sales performance and market movements and intentions. If the inventory turnover ratio is high it means we sell our products rapidly. The second, information that we got is whether our product sells well or not in the market.

3.2.3.2 Days' Sales in Inventory

Days' Sales in Inventory is related to the inventory turnover and should analyse, with it. It is calculated as seen

$365/\text{Inventory Turnover}$

3.2.4 PROFITABILITY RATIOS

Profitability ratios examine factors such as income, profit, and cost of a business by using the data of a certain period of time and reveal basic indicators such as profit obtained from operations, return on assets, return on equity, gross profit margin. (Hayes, investopedia, 2022).

Profitability ratios can give us lots of clues about the current situation both firms and economic aspects. On the other hand, profitability ratios are not enough to analyse companies on their own. Stakeholders need some kind of information and ratios in order to compare companies' ratios with other rivals and big companies. At that point market information has crucial importance.

The investors aim to make a profit in the short term. And again, investors naturally expect the return on their invested capital to be high in proportion to the risk they take. As a result, the profitability ratios of the company are important both for measuring the performance of the managers and for measuring whether the expectations of the investors are met. (Wahlen, Baginski, & Bradshaw, 2014).

These ratios are listed below

- Gross profit margin
- Ebitda margin
- Ebit margin
- Net profit margin
- Return on Equity (ROE)
- Return on Assets (ROA)
- Return on invested capital (ROIC)

3.2.4.1 Gross Profit Margin

It shows us the level of profit that is earned from selling a company's products without taking selling and administration costs into consideration. It is calculated as below

Gross Profit / Total Sales

3.2.4.2 EBITDA Margin

EBITDA margin shows us the level of profitability of a company with regard to its operations. The EBITDA margin is calculated by taking the company's earnings before interest, tax, amortization, and depreciation and dividing them by the company's total amount of sales. It is calculated as below

EBITDA/Total Sales

3.2.4.3 EBIT Margin

EBIT is another ratio similar to the EBITDA that takes into account the depreciation expense of the period and compares earnings before interest and taxes (EBIT) to sales. Again this ratio shows level of success of a company's management has been at generating income from the operation of the business. EBIT does not take into consideration depreciation and amortization. It is calculated as below

EBIT/Sales

3.2.4.4 Net Profit Margin

Shows how much profit comes from each TRY of sales. It is calculated as below

Net Profit / Total Sales

3.2.4.5 Return on Equity (ROE)

Return on equity shows us the rate of return on the capital invested by the shareholders in the company. In its simplest form, this ratio, which shows how many units of profit are obtained with 1 unit of equity, has great importance in comparing companies with their competitors and the sector. Besides, this ratio helps us to evaluate the opportunity cost that we give up to invest in other business.

Net Profit/Equity

3.2.4.6 Return on Assets (ROA)

It is a measure of how effectively assets are used to generate a return. ROA is the ratio that shows how much profit a business can generate from each unit of its assets. ROA is also a ratio used to compare the productivity of investments relative to investments that can be made in alternative sectors.

Net profit/Total Assets

3.2.4.7 Return on Invested Capital – RoIC:

RoIC is a measure of how effectively the capital invested in the company (as defined by equity plus any debt) is used to generate a return. RoIC shows the return amount of each TL invested in the company. Sometimes this ratio is called Return on Capital Employed or ROCE. Unlike ROE and ROA, this ratio shows us the rate of return on investment in monetary terms and thus allows us to make a clearer comparison. Investors generally decide by looking at how much profit they got from their investments, regardless of the assets created or the equity. It is an important ratio in investment processes. (Samonas, 2015)

Net Profit / (Owner's Equity + Debt)

3.2.5 MARKET VALUE RATIOS

Valuation ratios measure the quantity of an asset or flow associated with ownership of a specified claim (Analyst Prep, 2021). These kinds of ratios give information about the value level of companies regarding the stock exchange market. Before that, we should identify the market capitalization and enterprise value concepts.

The market capitalization of a public firm is equal to the firm's stock market price per share multiplied by the number of shares outstanding (Ross, Westerfield, Jaffe, & Jordan, Corporate Finance, 2016). It gives us information about the market value of a company in terms of investors' willingness to buy its share.

Enterprise value is a measure of firm value that is closely related to market capitalization. Instead of focusing only on the market value of the issued stocks, it is a measure of how much the company owns by adding the debt amount in the liability of the company to the market value of the stocks and subtracting the cash in the hands of the company. Although it is very close to market capitalization, it covers more detailed calculation which includes debts.

Valuation ratios are listed below

- Price/earnings (PE) ratio
- Price/cash flow ratio
- Market to book value ratio
- Enterprise value/EBITDA Ratio

3.2.5.1 PE Ratio

The PE ratio measures how much investors are willing to pay per TRY of current earnings. In other words, it is a ratio that calculates how many years the invested capital will return with the expected return. In emerging markets, the PE ratio is usually around 8. However, high PEs mean that the firm has significant prospects for future growth. However, the lower this ratio, the more willing investors will be to invest. (Ross, Westerfield, Jaffe, & Jordan, Corporate Finance, 2016) It is a significant indicator for the expectation of the future of the companies. It is calculated as below

Price per share/Earnings per share

3.2.5.2 Price/Cash Flow Ratio

The price-to-cash-flow (P/CF) ratio is a stock valuation indicator or multiple that measures the value of a stock's price relative to its operating cash flow per share. The ratio uses operating cash flow (OCF), which adds back non-cash expenses such as depreciation and amortization to net income (Hayes, investopedia, 2022)

It is calculated as below

Share price/Cash flow per share

3.2.5.3 Market-to-Book Value Ratio

Book value per share is an accounting system that reflects past costs. It shows the values of the assets recorded in the asset at the date of their first purchase. Thus, in a loose sense, the market-to-book ratio compares the market value of the firm's investments to their costs. On the other hand, the firm may have experienced an increase in value with the increase in these assets over time. For this reason, the market-book ratio is important in order to see the added value created by the company. A value less than 1 may mean that the firm is not generally successful in creating value for its shareholders. (Ross, Westerfield, Jaffe, & Jordan, Corporate Finance, 2016). It shows us information about the company's level of management indirectly. It is calculated as below

Market value per share/Book value per share

3.2.5.4 EV Ratio

Ev ratio tells us about companies based upon a firm's enterprise value when the goal is to estimate the value of the firm's total Business rather than just focusing on the value of its equity. To form an appropriate multiple, enterprise value is divided by EBITDA.

3.2.6 HORIZONTAL ANALYSIS

The horizontal analysis gives us information about the change in the amount of accounts in terms of nominal value. Because of that reason, it should be used as a percentage. Percentage change is more reasonable because it gives you comparable numbers and ratios. On the other hand in the horizontal analysis, when you make a numerical calculation you have to use some other external ratios like inflation, PPP (purchasing power parity), and percentage change in GDP (gross domestic product) with both local currency and USD (Wahlen, Baginski, & Bradshaw, 2014).

3.2.6.1 Effects of Purchasing Power Parity on Horizontal Analysis

“Purchasing Power Parity (PPP) is a theory of exchange rate determination. It asserts (in the most common form) that the exchange rate change between two currencies over any period is determined by the change in the two countries' relative price levels (Dornbusch, 1985)” In turkey, PPP changes year by year relatively to the EU. In 2018 PPP of Turkey 40, 2019 41, 2020 32. It is obviously seen in table 8 that PPP decreased sharply with respect to the EU. It means that the %28 change in the PPP and also affected to GDP and growth of sales of the companies. As a result of this, while making horizontal analysis growth rate which comes from year to year can change the ratios. To prevent it, the relatively stable currency should be used to analyse financial tables. This is one of the best solutions to prevent the wrong comment and making wrong strategic decisions (TUİK, 2021).

Table 8. Price Level Indices in Europe

Price level indices for actual individual consumption by countries, 2018-2020			
[AB27=100 - EU27=100]			
Countries	Price level indices		
	2018	2019	2020*
Luxembourg	144	147	153
Denmark	143	141	142
Sweden	134	131	139
Ireland	136	137	138
Finland	126	126	128

Austria	117	118	120
Netherlands	117	120	119
Belgium	117	117	117
France	111	110	110
Germany	106	108	109
Euro Area 19(1)	106	106	106
Italy	104	103	103
Spain	97	97	96
Greek Cyprus	92	94	93
Malta	87	87	89
Portugal	86	86	88
Slovenia	86	86	86
Greece	84	84	83
Estonia	80	82	81
Slovakia	77	79	80
Latvia	72	74	72
Czechia	68	70	70
Lithuania	63	65	66
Croatia	66	67	65
Hungary	63	63	58
Poland	56	57	55
Bulgaria	47	49	51
Romania	51	50	50
United Kingdom	122	123	124
Switzerland	169	174	180
Norway	154	153	149
Iceland	175	168	147
Albania	49	51	51
Serbia	50	51	51
Montenegro	52	52	51
North Macedonia	45	45	45
Turkey	40	41	32
Bosnia and Herzegovina	51	52	51

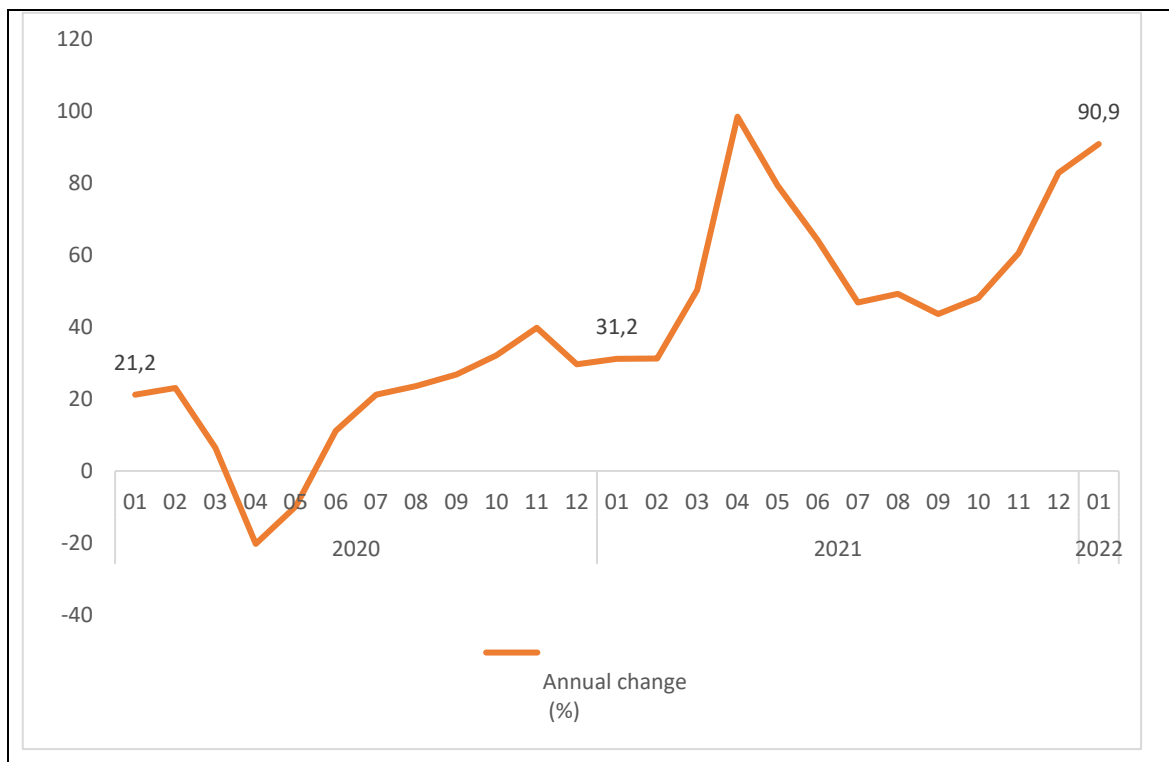
Source: (TUİK, 2021)

3.2.6.2 Effects of Inflation on Horizontal Analysis

Inflation is the continuous increase in the general level of prices. Companies located and produced in countries that have high inflation rates, like Turkey face lots of negative effects in terms of analysing financial ratios. You have to eliminate the inflation effect from the table. On the other hand, you should convert your currency which is used in the financial table another currency that is more stable than the local currency like the USD. It will help you to a get more efficient and meaningful analysis (Altınışik, 2004).

According to Tuik “The turnover index (2015=100) in industry, construction, trade and service sectors increased by 90.9% annually in January 2022. Looking at the sub-details of the total turnover; In January 2022, the annual industry sector turnover index is 106. The 1%, construction turnover index increased by 62.3%, trade turnover index increased by 76.1%, and service turnover index increased by 116.9%. (Tuik, 2022). It means that Companies generally increase their turnover % by 90 percent according to 2020. As it is seen on the graph

Figure 4. Total Turnover Annual Rate of Change

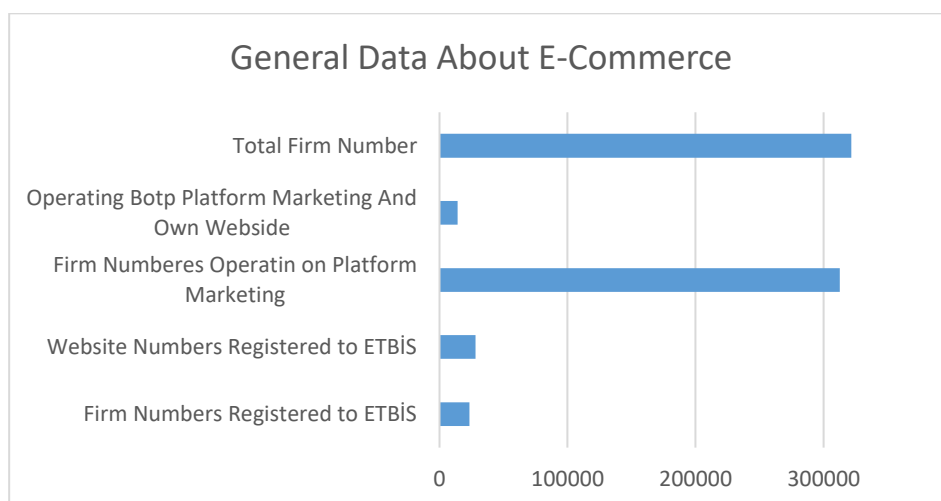


Source: Tuik, 2022

3.2.6.3 Effects of the Change of Market Structure on Horizontal Analysis

Another important point is the market structure and future expectations. The market structure consists of some different variables some of them can be counted as technology, population, and changes in the need of the community. During the pandemic period, the online sales rate has reached %36.5 to %44,5 (TUIK, 2021). It helps companies to access larger markets by using less effort and making companies more agile. Machine learning and online marketing are very popular among the marketing strategies. In turkey, advertising expenditure reached over 7,91 billion TRY. Besides, the main proportion of it, nearly %40 percent, goes to online marketing expenditure (Türkiye Reklamcılar Derneği, 2021). Population is another important point that affects the market structure and market share and sales as well. Young people intend to use the internet in order to investigate products or services. In recent years lots of online marketing companies were established in turkey. In 2021 321.742 online marketing companies operated in platform marketing companies (eticaret.gov.tr, 2022). In 2020 this number was just 256.861. It demonstrates to us how rapidly online marketing grows and affects the attitude of shopping. As a result of this, it affects companies' financial tables and ratios. Consequently, we have to consider these kinds of attitudes while making horizontal analyses.

Figure 5. General Data About E-Commerce



Source: (eticaret.gov.tr)

3.2.7 FUNCTIONALITY OF FINANCIAL ANALYSIS AND EFFICIENCY OF FINANCIAL STATEMENTS IN SMEs

Financial analysis is one of the fundamental systematics in terms of valuation firms. First of all, it helps to analyse and understand the specific position of companies. It also gives us further information about strategic management applications that c level management applies. Beside this, we can analyse past years' actions about the sales investments marketing strategies, and cost management vs. these kinds of information absolutely help the valuation of the company and give detailed feedback to the investors when they decide to invest their money in the assets. On the other hand, there are some reserves in terms of future aspects.

Financial analysis commonly evaluates past performance hence we just predict the future by using past data. Commonly it gives rise to misinterpretation of the future aspects of both market structure and company strategies. Additionally, although financial statement analysis helps us to understand companies, mostly market structure affects the investment decision and risk perception. In 2008 earthquake in global markets affected lots of companies. While they were trying to reach funds, financial statements have no effect on the investor's decisions. Everyone converted to cash. For instance, in turkey, as of 05.08.2008 BİST 100 index demonstrated 43.300 basepoints and when we came to the 20.11.2008 BİST 100 demonstrated us 21753 base point. It came down % by 49,7 (yahoo Finance, 2022) only in three months. As a result of this, it shows us behavioural finance affects investors' decisions more than financial analysis, moreover we can say that financial analysis is a piece of assistive equipment in terms of evaluating companies.

Table 9. BIST 100 Index Change

BİST 100 INDEX CHANGE		
Date	Open	Close
Nov 20, 2008	21.327	21.228
Nov 19, 2008	23.517	21.929
Nov 18, 2008	23.768	23.495
Nov 17, 2008	25.302	24.046

Nov 14, 2008	25.545	25.425
Nov 13, 2008	24.501	25.100
Nov 12, 2008	26.079	25.342
Nov 11, 2008	26.312	25.889
Nov 10, 2008	27.120	26.797
Nov 07, 2008	27.243	26.648
Nov 06, 2008	27.202	27.373
Nov 05, 2008	29.363	27.855
Nov 04, 2008	28.074	29.343
Nov 03, 2008	28.131	27.987
Aug 04, 2008	42.813	43.259
Aug 01, 2008	41.913	42.984
Jul 31, 2008	43.207	42.200

Source: yahoofinance.com

CHAPTER 4. CAPITAL STRUCTURE ANALYSIS

4.1 WHAT IS CAPITAL STRUCTURE

Capital structure is a structure that shows how much equity and how much debt firms use while creating their assets. Equity is relatively more expensive than debt. Because while the equity contribution is provided, the partners expect to get a return at the rate of the risk they take, which leads to an increase in costs. In debt use, the costs are fixed and lower thanks to the tax shield. (CFA Institute, 2022). Capital structure analysis is a periodic evaluation of all components of the debt and equity financing used by a business. Before that, we should explain the components of capital structure how we use it and why we use it.

4.1.1 CAPITAL STRUCTURE ANALYSIS IN SMEs

Capital structure refers to the specific mix of debt and equity used to finance a company's assets and operations. From a corporate perspective, equity represents a more expensive, permanent source of capital with greater financial flexibility. Debt, on the other hand, represents a cheaper, finite-to-maturity capital source that legally obligates the company to fix, promised cash outflows with the need to refinance at some future date at an unknown cost (CFA Institute, 2022). Capital structure analysis is a periodic evaluation of all components of the debt and equity financing used by a business. Before that, we should explain the components of capital structure how we use it and why we use it.

4.1.2 COMPONENTS OF CAPITAL STRUCTURE

All investors should and have to calculate return before investing in any business. In the Evaluation process of any company, capital structure affects return directly.

Because of that, the cost of capital and capital structure has an important part of it. Two main components are included in it. Debt Capital and Equity Capital

4.1.3 TYPES OF CAPITAL STRUCTURE

4.1.3.1 Equity Capital

Equity capital mainly is the money invested while establishing a company or founding materials that include buildings, vehicles, and so on. There are three main parts of it first one is capital and another one is retained earnings. Retained earnings are the amount remaining after the dividend payment made to the partners from the profits obtained from the operations of a business during the financial year. Retained earnings are retained within the company for operations that will add value to the business, such as future investments, expansion of operations. (Tofler, 2022).

4.1.3.2 Debt Capital

Debt in the capital structure of the company refers to the money borrowed by the business. As a result of the use of foreign resources, the amount of interest to be paid by the company is deducted from tax, so debt capital financing is considered a cheaper source than equity. Tax-deductible expenses affect the return of equity that is invested in companies' positive way because when companies borrowed money from financial markets, they deduct taxes from revenue. As a result of this, the cost of debt decreases by the rate of corporate tax paid. Net cost occurs when the tax paid is deducted from the interest amount. In turkey corporate tax rate is %22 if you borrowed 1 million TRY at the rate of %20 percent from financial markets for one year, it costs the company as calculated

$1.000.000 * 0,20 * 1 = 200.000$ TRY gross interest cost,

Net cost is; $200.000 - (200.000 * 0,22) = 156.000$ TRY and which equals %15,6 and the company can get a financial advantage by using debt capital. This is called a tax shield. According to Modigliani and Miller, inefficient capital markets where there is no tax element, the market value of the firm is independent of the firm's capital structure. Therefore, Modigliani and Miller argue that optimal capital structure cannot be achieved

in firms (Demirhan, 2009). After that, in 1963 they revised the theory and claim that because of the fact that tax advantages companies should have borrowed %100 debt capital in order to achieve maximum return. As a result of this, they argue that companies can achieve optimal capital structure just only borrowing (Modigliani & Miller, Corporate Income Taxes And The Cost Of Capital: A Correction, 1963)

4.1.4 CAPITAL STRUCTURE THEORIES

From a financial perspective, capital structure theories try to investigate the effects of capital structure on the valuation of the firm. There are lots of types of theories that are admitted for both finance professionals and academicians. Contemporary approaches start with Modigliani and miller's theory which is called the M-M theory. M-M model emphasizes market efficiency, after that, we explain the trade-off theory agency cost theory pecking order theory. On the other hand, Classical capital structure theory starts with the net income approach, net operating income approach,

4.1.4.1 Net Income Approach

Classical capital structure theories relate between firm value and capital structure. David Durand (1952) claims that while firms increase the level of debt leverage, they can increase the firm value by using a tax shield (Van Horne & McDonald, Dividend Policy And New Equity Financing., 1971). In this approach, under all circumstances, the debt cost is less than the equity cost. As a result of this, the more debt level gets the more firm value because of the diminishing cost of capital. On the other hand, some academicians are against this approach because they claim that whenever a firm raises its debt level, its risk premium increases. Besides whenever the leverage of firms increases, equity owners want to get a much more rate of return relative to the previous leverage level. As consequence, increasing risk premium eradicates the advantage of debt leverage. The final score is the sum of zero games.

4.1.4.2 Net Operating Income Approach

After the net income approach, some averse ideas occur. They claim that, when a firm has a more debt level and leverage, its risk premium increases too. Furthermore,

because of increasing debt and the risky position of the firm, investors and equity owners seek to get more returns. As a result, gaining from debt leverage is eradicated because of the risky position of the company. Consequently, the cost of capital and value of firms does not depend on the debt leverage level of the firm.

4.1.4.3 Modigliani-Miller Theory

Franco Modigliani and Merton millers (1958) claim that the value of the firm and capital structure is irrelevant. In other words, there is not important how to finance the company whether internal or external. According to Modigliani and Miller irrelevance between firm value and capital structure, depends on some definite conditions which are listed below (Otluoğlu & Seval, 2017)

- Firms and individuals do not pay taxes on their income, they are exempt from tax.
- Buying and selling transactions are carried out without any cost, there are no intermediary costs.
- Firms do not face the cost of financial distress (bankruptcy).
- Firms and investors can obtain debt with the same borrowing cost.
- Information in the market symmetrically reaches companies and individuals, all investors and managers have the same information about the future investment opportunities of the companies.
- Earnings before interest and taxes (EBITDA- EBIT) are unaffected by the use of debt.

Although these conditions are not realistic, MM theory gives us pieces of information and new ideas to us in terms of optimal capital structure. Modigliani and miller added taxes to the theory (1963) and this time they claimed because of the tax shield companies which has %100 debt or the capital have the optimal capital structure. After that, some new theories are opposed to the theory. Although impossible conditions, MM theory is accepted ceteris paribus of the capital structure theory.

4.1.4.4 Trade-Off Theory

The trade-off theory of capital structure says that corporate leverage is determined by balancing debt's tax-saving benefits against bankruptcy's dead-weight costs.

(Campbell & Kelly, 1994). According to the theory each firm has an optimum capital structure. While firms will be able to increase the value of the firm by increasing their indebtedness level, thanks to the tax savings of debt, the positive effect of the tax shield will decrease and disappear with the effect of increasing indebtedness level, financial distress, and agency costs. In other words, up to a certain level of indebtedness, tax savings on the debt will exceed financial distress and agency costs (Campbell & Kelly, 1994). However, due to increased indebtedness and financial risk, the marginal benefit of tax savings will decrease, the marginal cost of financial distress and agency costs will increase, and these costs will outweigh the positive effect of the tax shield.

According to the balancing theory, the target borrowing amount, which expresses the optimum capital structure, differs in terms of sectors, firms, and periods. Firms with a consistently high income, high investment in fixed assets, and the ability to save may also have a high target Debt/Equity ratio. However, on the contrary, the target Debt/Equity ratio of companies with risky income, low fixed asset investment, and low profit should also be low (Brealey, Myers, & Allen, Principles Of Corporate Finance, 2017). If firms exceed their target Debt/Equity ratio, the cost of financial distress and agency costs will destroy the value they provide in tax savings (Van Horne & Wachowicz Jr., Fundamentals Of Financial Management, 2008).

4.1.4.5 Agency Theory

Agency cost is defined as the conflict of interest between firm owners and managers, and between lenders and managers. Investors mostly delegate their rights to the professionals. On the other hand, managers who are in charge of the decision-making process in the name of investors sometimes work for just their benefit. As a result of this, to prevent this negative effect, investors pay more money for benefits for the professionals (Jensen & Meckling, Theory Of The Firm: Managerial Behavior, Agency Costs And Ownership Structure., 1976)

Managers in the firms have to maximize the value of the company by considering all the interest groups like investors workers vendors customers etc. On the other hand, managers can use their managerial ability and position for their interests. While managers do not receive all of the company's income, they will be seen as responsible for the failure if their investments fail. In this case, managers may try to maximize their income instead

of thinking about the value of the firm. The optimum debt and equity composition for the firm is the point at which the firm value maximizes and the marginal benefit of debt balances the marginal cost of debt (Jensen, Agency Cost Of Free Cash Flow, Corporate Finance And Takeovers,, 1986).

In turkey, when we analyse the market we can easily see that nearly %95 percent of firms are family company (Bigpara, 2017). Because of that agency cost, the theory doesn't suitable for Turkish markets.

4.1.4.6 Pecking Order Theory

The theory is put forward by Donaldson (1961) for the first time. After that Myers (1984) added new pieces of information and improved the theory. According to Myers, there is no optimum capital structure in terms of firm value maximization and the level of debt. It is not a targeted level of indebtedness but the hierarchy among resources that matters when creating resources for firms. Myers defined the financing hierarchy, as firms' preference for internal resources instead of external resources and debt instead of equity (Myers, Capital Structure Puzzle, 1984).

According to the pecking order theory, the asymmetric information concept is vital in terms of the decision-making process. Managers could have more information relatively the equity owners. Managers who know the market value of the company which is under the real value, don't want to issue new common stocks. Instead of it, they try to get into more debt.

Additionally, the finance hierarchy theory states that there is a negative relationship between firm size and borrowing. Because as the business grows, the organizational structure of the business becomes more complex and the problems arising from information asymmetry lead to higher costs. In these enterprises, it is difficult for the enterprise to benefit from external funding sources (Gülşen & Ülkütaş, 2012).

4.1.5 FACTORS THAT AFFECT THE CAPITAL STRUCTURE

There are some factors that affect the capital structure of the company. These are kind of different variables that depends on internal and external reasons. It consists of

Firms asset's structure, profitability, Firm size, taxes and tax shields, Growth Opportunities, funding cost, operational risks,

4.1.5.1 Firms' Assets Structure (Tangibility of Assets)

Firms' asset structure is a vital subject for the companies in terms of calculating and evaluating the equity and investment. Companies create value by operating different and unique jobs and as a result of this companies achieve value maximization. By creating value companies also have different valuable things like trademark brand-name and goodwill. These are called intangible assets and of course, these are necessities for long-term achievements in the company. On the other hand, companies need some kind of assets that help to produce a product like land production process and buildings, and so on. This is also important even mostly more important than the intangible assets in terms of sustainability. Besides this when a company needs debt, creditors look for tangible assets as collateral. That's companies need to gain tangible assets. Additionally, it is seen as an insurance policy by the creditors and is seen as reliable collateral for the company. In the literature, tangible assets are measured by the ratio of fixed assets over total assets (Jensen and Meckling, 1976). Additionally, because of the being reliable collateral, tangible assets help firms to create leverage.

4.1.5.2 Profitability

There are many academic research, argue that there is a strong relationship between profits and the level of debt that firms have. The pecking order theory also confirms that firms with high profits have a lower debt ratio. In detail, companies with high profits use their retained earnings as a source of financing and keep their debt levels low. On the other hand, investors seek to get more dividends than investing again and again. As a result of this while identifying the mixture of capital structure, profitability has a crucial role. At that point, we have to analyse return on assets (ROA) and Return on Equity (ROE), in emerging markets there is a quite strong negative relationship between assets and profitability. ROA is a ratio that measures how much profit firms make with a unit of assets. Durukan (1997) make and research and he found out that in turkey ROA has a negative effect on capital structure and debt leverage level.

4.1.5.3 Firm Growth Opportunities

Firm growth opportunities lead to more financing needs in terms of companies. As a result, it affects the company's capital structure and funding strategies. Fast-growing firms will have more investment opportunities than slow-growing firms (Myers, Determinants Of Corporate Borrowing, 1977). Since fast-growing companies will have the power to generate cash, it is expected that they will prefer to use the necessary cash from internal sources for new investment opportunities and have a low indebtedness rate (Myers & Majluf, Corporate Financing And Investment Decisions When FirmsHave Information That Investors Do Not Have, 1984).

Beside this, investors tend to invest in companies that have relatively growth potential because each investor calculates the future return of the investment. As a result, growing companies and markets attract more funds. In terms of behavioral finance, in the growing emerging markets investors can bear more risk position in order to get more returns as a result of this we can say that volatility of emerging markets have much more than developed countries and markets.

4.1.5.4 The Risk Level of Firm

The risk profile of a firm is believed to be an important determinant of the firm's capital structure. Firms with high risk are seen as having lower borrowing potential. Even if they reach the potential fund they have to bear a high-risk premium for the new fund. Because of this, in the literature is assumed this kind of high risky firm tends to use internal financing ways. In emerging markets especially in Turkey, risk appetite is so high and firms in turkey do not have enough professional management because they are family firms. In SMEs equity is so weak that the leverage they have is nearly totally bigger than equity. That's why the collateral structure has a crucial role and as a consequence, owners try to have properties. Because they know that it is a safe way and short way of getting funds easily.

4.1.6 EFFECTS OF THE COST OF EQUITY ON SMEs' ACCESS TO FINANCE

The cost of equity affects the firm's value and achievement of the new funds. Because of tax shields, and non-tax shields like amortization and depreciation, capital structure has a crucial role in the firm's value. In the next step, valuable firms reach funds easily, especially in the emerging markets, funded firms have a great chance to improve their firms and getting more market share or open their doors to the export market. It makes a snowball effect and they are getting bigger and bigger relatively to their rivals.

Because lots of SMEs are family firms, they do not have professional management and they cannot decide on professionally. They don't make a long-term strategic plan and implementation rules or main law of the family. Because generally, they are not long-lived firms, they just try to save the days.

As we mentioned just above, the effects of the capital structure and the cost of equity on SMEs' access to finance are as below shortly

- SMEs are seen as risky firms and pay high-risk premiums
- They cannot calculate the cost of equity and the effect of firm value
- They generally make short term plans
- In the bullish economies they try to expand their business and market share
- They try to finance their investments by credit because they don't have a savings culture in the firm.

For all these reasons SMEs have trouble reaching funds and often miss new business opportunities. Especially in Turkey only way to finance their companies, getting a property as collateral.

CHAPTER 5. CASE STUDY FROM BIST

5.1 FMIZP

In this section, we are going to analyze a Firm whose common stocks have been issued BİST 100 for a long time. The Firm is Federal-Mogul İzmit Piston and Pin Production Facilities Corporation. According to Turkish Law, we choose this firm because it is accepted as SME. Their Annual Sales are 187.871.806 TRY which is under the restrictions of annual sales and when we look at the balance sheet magnitude, it is again under the 250.000.000 TRY. Moreover, the employee number is 59 which is under the restrictions of employee level. After that, the firm is abbreviated as FMIZP. Another reason for choosing FMIZP is to be closed the manipulative action by doing manipulators.

First of all, we analyse FMIZP in terms of financial ratios that are included liquidity, profitability, solvency, and market value. After that, we use valuation methods in terms of Asset-based, market-based, and revenue-based including DCF and IRR which help us to make some assumptions about the firm.

Our target is to determine the exact value of the company and foresee both the investors' and managers' attitudes before investing and managing a company. Because of that, we examine all ratios on both sides. Finally, we compare the all results with the exact value which occurred in the market.

5.2 FINANCIAL ANALYSIS OF THE FIRM

5.2.1 LIQUIDTY RATIOS

We start with the basic liquidity ratios. It helps us to clarify the ability to create funds from their assets. FMIZP has a great magnitude of current ratio that is very high according to the general market. When we look deep into the financial statement for the

year 2021, FMIZP has a small number of short-term liabilities with regard to the current assets. In general, the Current ratio is desired to be above 2.

Current Ratio is =	$\frac{\text{Short Term Assets}}{\text{Short Term Liabilities}}$	= 5,16
Short Term Assets =		91.205.959
Short Term Liabilities =		17.647.287

After that, we analyse the more liquid structure of the FMIZP by using an acid test ratio. The acid test ratio gives us information about the firm in case of a liquidity crisis. We deduct the stocks from current assets in order to calculate liquidity. It is desired above 1

Acid Test Ratio is =	$\frac{\text{Short Term Assets}-\text{Inventories}}{\text{Short Term Liabilities}}$	= 4,20
Short Term Assets- Inventories =		91.205.959-16.954.278 = 74.251.681
Short Term Liabilities =		17.647.287

The next and last liquidity ratio is the cash ratio. The cash ratio is the most liquid one. Because it only consists of cash and equivalents.it helps us to determine whether the company is mandated to pay its debt as soon as possible. It is desired above 0,20. FMIZP is eleven times better than the desired ratios.

Cash Ratio is =	$\frac{\text{Cash and Equivalents}}{\text{Short Term Liabilities}}$	= 2,25
Cash and Equivalents	=	39.709.798
Short Term Liabilities	=	17.647.287

5.2.2 SOLVENCY AND DEBT RATIOS

Solvency ratios are related to the payment of debts and it gives some clues about the firm whether is in good condition or not. The first one is the total debt ratio and it is a kind of leverage ratio it does not have a specific number, however, it is desired below 1 in general.

$$\text{Total Debt Ratio is} = \frac{\text{Total Liabilities}}{\text{Total Assets}} = 0,18$$

$$\text{Total Assests} = 113.670.770$$

$$\text{Total Liabilities} = 20.485.405$$

The second one is the Debt to Equity ratio which is called the D/E ratio. It gives us different kinds of information about the firms. We can see the company's ability of finding outsource finance. FMIZP has a 0,219 ratio and this is so low. If you look at the only debt to equity ratio we can say that FMIZP can get five times more debt and they can expand their business by using outsourcing finance.

$$\text{Debt to Equity Ratio is} = \frac{\text{Total Liabilities}}{\text{Total Equity}} = 0,219$$

$$\text{Total Equity} = 93.185.365$$

$$\text{Total Liabilities} = 20.485.405$$

TIE ratio is another solvency ratio that tries to determine how many times the firm can earn interest from its operation during the fiscal period. It doesn't have an exact number for it. It depends on the sector that which the firm operates. On the other hand, in Turkey, it is desired above 2. FMIZP has a great percentage in terms of TIE.

$$\text{TIE Ratio is} = \frac{\text{EBIT}}{\text{Interest}} = 22$$

$$\text{EBIT} = 79.385.077$$

$$\text{Interest} = 3.607.714$$

The Cash Coverage Ratio is similar to TIE but it adds the non-cash outflow like depreciation and amortization. It measures more effectively than TIE.

The Cash Coverage Ratio is =	$\frac{EBITDA}{Interest} = 22,37$
EBITDA =	79.385.077+1.337.137=
Interest =	3.607.714

5.2.3 PROFITABILITY RATIOS

Profitability is one of the main crucial points in terms of both identifying the value of firms and the cost of equity. Moreover, it affects the willingness of investing in the firms. In this part, we use some kinds of ratios and their effects on the value of the firm. Also, we use this ratio to evaluate the firms according to Economic Value Added (EVA) in the next section

5.2.3.1 Gross Profit Margin

It shows us the level of profit that is earned from selling a company's products without taking selling and administration costs into consideration. FMIZP's gross profit margin is %28,18 which means that FMIZP can create a profit of nearly 1/3 of the total sales.

Gross Profit Margin Is =	$\frac{Gross Profit}{Total Sales} = \%28,16$
Gross Profit =	52.922.274
Total Sales =	187.871.806

5.2.3.2 Ebitda Margin

It determines level of profitability of a company with regard to its operations. The EBITDA margin is calculated by taking the company's earnings before interest, tax,

amortization, and depreciation and dividing them by the company's total amount of sales.

EBITDA Margin	=	$\frac{EBITDA}{Total\ Sales}$	= %27,5
EBITDA	=	51.777,707	
Total Sales	=	187.871.806	

5.2.3.3 Net Profit Margin

Shows how much profit comes from each TRY of sales. It also gives a little bit of detailed information about the operation of the firm. We can predict the level of companies' proficiency in all departments by using this ratio. When we look at the Net profit margin of FMIZP we can see that it is higher than gross profit and it is related to the recycling of residual metal sawdust. Even it is a great clue of professional management.

Net Profit Margin	=	$\frac{Net\ Profit}{Total\ Sales}$	= %35,49
Net Profit	=	66.685.578	
Total Sales	=	187.871.806	

5.2.3.4 ROE

It demonstrates the rate of return of the funds invested by the shareholders in the company. As an owner or shareholder, this is one of the most important ratios as it shows the hard fact about the company – whether it is making enough of a profit to compensate for the risk of being a shareholder. It is one of the most common measurements ratio using the cost of equity. In general, it is desired to equal to risk-free rate by the investors. As a

result, it is one of the most important ratios. When we look at the FMIZP, it has a great amount of ROE.

ROE	=	$\frac{Net\ Profit}{Equity} = \% 70,82$
Net Profit	=	65.995.499
Equity	=	93.185.365

5.2.3.5 ROA

ROA gives us information about how the assets are used while profiting from production. It is seen whether the investments are productive or not. In general, it is compared to the mean of the market. It is meaningless on its own. FMIZP has a great amount of ROA again.

ROA	=	$\frac{Net\ Profit}{Assets} = \% 58$
Net Profit	=	65.995.499
Equity	=	113.670.770

5.2.3.6 RoIC

Roic is another measurement that is important according to the investors. It demonstrates to us whether the capital that is invested in the firm has a higher return or not about risk-free rate.

RoIC	=	$\frac{Net\ Profit}{Owners'\ Equity+Debt} = \% 70,82$
Net Profit	=	65.995.499
Equity	=	93.185.365

5.2.4 VALUATION AND GROWTH RATIOS

Valuation ratios help us to determine how much money we should invest in the firm. In this table mainly P/E ratios which means that if we invest in the firm how many years do we need to earn our equity. Besides this, EV/EBITDA shows us the pure structure of the firms in terms of their productivity and profitability. These kind of ratios can be used as a valuation process. Each investors tend to use different formulas and ratios. Furthermore each ratio can give rise to different conclusion.

For instance Price to Earnings Ratio (P/E) is a one of the fundamental indicator in terms of investors. Because they want to get their money as soon as possible. On the other hand, when we look at the annual ebitda growth rate %105 is a great number with regard to annual inflation ratio.

Table 10. Detailed Ratio Analysis of FMIZP

DETAILED RATIO ANALYSIS OF FMIZP					
	2022/03	2021/12	2021/09	2021/06	2021/03
FINANCIAL RATIOS					
VALUATION RATIOS					
Enterprise Value	1,61	1,59	1,44	1,39	2,07
EV/book value	30,04	17,08	23,97	26,94	53
EV/EBITDA	29.75	34.49	32.21	35.63	78.43
EV/Net Sales	7,24	8,47	8,52	9,79	20.42
EV/Operational Income	30.79	35.88	33.62	37.12	83.27
Price/Cash Flow	20.25	23.81	32.45	31.75	57.95
P/E Ratio	20.73	24.45	33.84	32.91	60.53
Earnings Per Share	5,49	4,67	3,06	3,02	2,42
Market Cap.	1,62	1,63	1,48	1,42	2,09
Market Cap/Total Assets	20.25	14.34	19.89	20.30	37.04
Market to book value	30.21	17.50	24.52	27.47	53.45
GROWTH RATIOS					
Asset Growth Rate %	42.28	59.64	22.75	51.25	20.64
Operating Profit Growth Rate Annual (%)	110.90	100.45	145.02	75.53	-9.66
EBITDA Growth Annual (%)	105.60	94.85	134.16	69.51	-9.18
Net Profit Growth (%) (Annual)	127.13	118.43	45.88	55.83	8,82
Net Sales Growth (%) (YoY)	119.86	115.47	130.66	56.31	-9.81
Equity Growth (%)	37.61	62.64	29.21	33.17	11,92

Source: Finnet 2000 (Osmnalı Menkul Değerler, 2022)

5.2.5 EVA AND MVA

Economic value added was commercially developed in 1982 by the corporate advisory team of Joel Stern (Grant, 2003)(the foundation of economic value-added p 2). We can briefly say that EVA measures the residual profitability of the companies. Before the millennium finance professionals and investors look deep into the only accounting profit. After that, they found out that creating wealth is an important point for both investors and managers. For instance, a company can create a profit even, they can pay taxes but more important thing is to create profit more than the cost of equity (Sipahi, 2005)It can be seen as the same as the internal rate of return, partially it is true but on the other hand, EVA represents a totally financial measurement system for companies, and this kind of measurement system is used in every single part of the company and provides to use a common objective measurement system.

In general EVA is calculated by using some accounting terms as seen below

$$\text{EVA} = \text{EBITDA} - \text{Cost of Equity}$$

When we look into the EVA we should analyse the MVA which stands for Market value-added. MVA is the calculated as seen below

$$\text{MVA} = \text{Firm Value} - \text{Total Equity}$$

WE can calculate the EVA and MVA easily by using formulas that we mentioned above. At that point we got the ratio of cost of equity as the weighted average weekly repo rate which is annual average %17,75 for the year of 2021. Additionally we use the FMIZP financial statement of the year 2021 and finnet 2000 data by calculating the EBITDA and Firm Value.

Table 11. EVA and MVA Calculation of FMIZP

EBITDA	EBITDA = 51.7 MIO TRY
Total Equity	Total Equity = 93.2 MIO TRY
EVA	$EVA = 51,7 - (93,2 * 0,1775) \Rightarrow 35,15$ MIO TRY
Firm Value	Firm Value = 1.590 MIO TRY
MVA	$MVA = 1590 - 93,2 = 1496,8$ MIO TRY

EVA and MVA are some of the strong evidence that shows a firms reliability by the investors especially MVA is created by the investors that willingness to buy shares. Beside this EVA demonstrates that efficiency of company production management process.

CHAPTER 6. CONCLUSION

In this study, we try to analyse the systematic structure of firm valuation and cost of equity. By doing this, first of all we identified the SME means both in Turkey and the World. Besides the importance of SME emphasized at the beginning of the thesis.

SMEs are so agile that adapt to the change in the market these are the positive part of them. On the other hand, financial management is too weak to analyse their position. As a result of this they are in trouble to reach funds and again it is a big trouble to make their enterprise bigger than now.

In this thesis analyse SMEs 3 different ways first of all we handle the financial statements in terms of measuring the strength of give information to the investors and effects on investment decision. Literally we examine two main financial statement and Cash flow table.

Second, we determine the ratio analysis methods and how they are calculated. Generally we handle the financial ratios that shows the capability of pay back of debt and sustaining the operation of company. After that Valuation ratios are handled. We include valuation ratios because it is important for the investors especially investing in the financial markets. Another step is to determine the capital structure and its components. We explained general capital structure theories by handling negative and positive sides. By using this we mentioned the effects of inflation on the horizontal analysis and what should be done.

Third step consist of calculation of general ratios of the company that we choose as an SME from İstanbul Stock Exchange Market of which name is Federal Mogul İzmit Piston A.Ş. Abbreviation is FMIZP. There are reason of choosing FMIZP. First of all it is an industrial company, it has been operating in Turkey more than 60 years and still going on. Furthermore it is suitable for the rule of being SME in accordance with Turkish Laws. Additionally it is quoted in İstanbul Stock Exchange Market and it has a corporate

governance respectively the other companies. We concluded our study by using all this kind of information and analyse in terms of the cost of equity.

6.1 EFFECTS OF FINANCIAL STATEMENT ANALYSIS ON THE COST OF EQUITY

The balance sheet is both the basic and the main financial table for all companies. It includes lots of information about it. For FMIZP it is the same as other companies and when we look at it deeply we can see some critical point in it that directly affects the valuation of FMIZP. Tangible assets are shown 19.408.143 TRY on the balance sheet and its share is %17 percent of total assets. On the other hand, when we check out the explanatory notes in the independent inspection report insurance policy equals 358.542.926 TRY which means 18 times bigger than the book value. Even it is 3 times bigger than total assets. It is an attractive point in terms of investors because it is more useful for getting debt easier than other companies. It affects directly the credibility of the firm. Furthermore, if it is re-evaluated by expertise, total assets reach 452.805.553 TRY.

Although the balance sheet has crucial information about the firms, it shows us the past performance and data of it. So it is not useful for the valuation firms and determining the cost of equity.

Secondly, when we look at the income statement we can again analyse the last year's data. Absolutely it shows us lots of critical information. On the other hand, it is not enough explanatory statement.

6.2 EFFECTS OF RATIO ANALYSIS ON THE COST OF EQUITY

Ratio analysis is another important point of valuation of firms and evaluating cost of equity, Again, this is not an analysis method that can be used alone. How the financial ratios are interpreted in terms of cost of equity. Step by step we explained its effects on it.

Liquidity ratios show us the level of capability of paying the debt in unusual circumstances. FMIZP has totally high liquidity ratios. Additionally, when we look at the debt and solvency ratios the same position can be seen easily because of high liquidity and low debt ratios. For instance, FMIZP debt to equity ratio equals 0,29 and it is desired 1.00. It means that it can find new funds and expand its operation five times. Literally, investors love this position because high cash in hand and low debt affects the enterprise value in positive way

Profitability ratios are other essential analysing methods for both investors and managers. At that point, EBITDA is a crucial role in evaluating the cost of equity. Because every investor looks for companies that gain profits purely from their operations. It is essential for sustainability. Because of this, EBITDA is the first step while decision-making about investment. After that ROE and ROA are required to analyse because these two ratios give us clues about the ratio of net profit to equity and asset. In other words, it shows us how much money the company earned for each TRY we invested and how much money did the company earn for each TRY concerning total assets. It is a general measurement of return for investors and stakeholders. FMIZP has %27,5 EBITDA margin and %70.28 ROE, %58 ROA margin these are tremendous margins. Absolutely these ratios attract investors.

After liquidity and profitability, we came to the valuation ratios. These kinds of ratios can vary from quarter to quarter. Even day by day it can change. Because of that, it is commonly used by traders operating in Stock Exchange Markets. Nevertheless, they are useful measurement tools to see the structure of firms and help to understand firms' position compared to the other companies. These ratios start with respectively Enterprise Value P/E ratios EPS ratio and market to book value. These kinds of ratios are lightning our pathways to understand where the firm is positioned relative to other sector companies. FMIZP 4,67 TRY EPS and 24,45 P/E ratio in the year of 2021/12 on the other hand if we look at the other companies in Automotive OEM companies they have generally high P/E ratios.

Table 12. Current Valuation Ratios of the Sector

CURRENT VALUATION RATIOS OF THE SECTOR							
FIRMS	MARKET CAP	P/E	PRICE / REVENUE	EPS	EPS Diluted	EV/ EBITDA	EV
PARSN	2.792,00	11,07	1,99	3,32	2,15	14.70	4.496,00
JANTS	7.307,00	15.18	3,98	5,45	4,15	17.55	5.842,00
DITAS	646,88	28,03	1,64	0,89	1,15	17.92	747,25
DOKTA	4.066,00	14,02	1,15	1,79	2,18	17.38	6.076,00
EGEEN	5.755,00	7,95	4,28	229,86	191,60	11,28	5.655,00
FMIZP	1.625,00	20.73	7,29	5,49	4,67	25,08	1.548,00
BALAT	109,69	—	48.20	-0,85	-0,85	—	—
BFREN	2.713,00	71.54	7,35	15,17	16,11	60.91	2.601,00

Source: (tradingview, 2022)

After all analysis and calculation we can say that;

- Financial statements have crucial importance for the valuation of the company. Nevertheless, it is not enough to explain the attitude of investment and cost of equity directly.
- Ratio analysis gives us more information about valuation but again it is not sufficient for the investment decision.
- Profitability ratios give some clues about firm and helps us to analyse the cost of equity especially ROE ROA and RoIC is important.
- EVA and MVA are the main indicator of the equity evaluation because creating quality profit, increases investors value. Beside this, EVA helps to create new fund and strength the capital of firm.
- MVA is another basic attractive points which is created by the market players. Indeed it shows that the value of created by the equity is much more than book value.
- Corporate management is an essential point in terms of sustainability. This kind of managerial approaches add values to the company in the long run.

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CURRICULUM VITAE

Uğur Temür was born in 1982 in İstanbul. He has graduated from Manisa Celal Bayar University International Commerce Department. After having graduated he was appointed to Garanti Bank in 2006 as a Customer Relationship supervisor in SME Banking Department. In 2013 he shifted to Ziraatbank as a SME banking specialist. He is still working for ZiraatBank as Territory Sales Supervisor.

Uğur TEMÜR

Date of birth: 03.03.1982

Educational Status

- 2020-... Turkish-German University Institute of Social Sciences- Business Management Program
- 2017-2020 Anadolu University Open Education Faculty- Agriculture Department
- 2001-2006 Celal Bayar University Applied Sciences College- International Commerce Department
- 1996-2000 Zeytinburnu Anatolian Foreign Trade High School Foreign Trade Department

Experiences

- 08.07.2006-11.08.2008 Garanti Bank Bağcılar Branch Customer Representative - Supervisor
- 11.08.2008- 02.04.2012 Garanti Bank Kocasinan İstanbul Branch Customer Relationship Manager
- 02.04.2012-.08.02.2013 Garanti Bankası Bağcılar Branch Customer Relationship Manager
- 10.02.2013-31.08.2016 Ziraat Bankası Customer Relationship Manager
- 01.09.2016-Ziraat Bankası Sales and Performance Monitoring Manager