

Evaluation of the Company in the BIST Transport Sector According To the Economic Added Value Method: Case of Reysas Transport and Logistics Trade INC.

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ABSTRACT

The value of a company can be determined by various methods. Analysts often use basic analysis methods. One of these methods is the Discounted Cash Flow (DCF) method. The INA can be calculated in three different dimensions as the free cash flows to the firm (FCFF), free cash flows to the equity (FCFE) and EVA. In this study, it is tried to determine the firm value of “Reysaş Transportation and Logistics Trade” transportation sectors by using EVA firm valuation methods. The purpose of this study is to determine which of the firm valuation methods yields closer to the market price in which sector. For this purpose, the firm's 2017 and 2018 firm values were tried to be found. As a result of the study, it is concluded that EVA gives the closest result to the market value in transportation sectors.

Keywords: Firm Valuation, EVA, Market Value

1. INTRODUCTION

With the development of information and production technology and a rapid globalization process, companies have started to adopt a value-oriented approach instead of a profit-oriented approach in order to survive. The assets and values created by firms are among the factors that play an important role in the formation and development of the general economy. Accurate determination of the real values of firms operating in the private sector or in the public

sector is also an indicator for the course of the economy.

2. Teoric Framework

Value; In the literature, the total benefit of any object is defined as the value of use, the amount of objects that can be received in return of any asset given to another person (Alkan and Demireli, 2007: 28). In other words, value is a useful property of a certain good, idea or service (Alkan and Demireli, 2007: 28). Value is the representative price determined by the buyer and seller for the goods and services offered for sale. The price is değer value expressed in money; the amount of money that a seller wants to give up his right to goods or services Hat (Hatipoğlu, 2011: 2). As the reasons for the difference between price and value concepts; the lack of information and economic uncertainties between the buyer and the seller, the low number of buyers and sellers, irrational modes of action and various policies and limitations of the government can be shown (Konuk, 2006: 4). Economic value added is a measure that indicates the amount of value added to the entity during a certain period (Masun, 2017: 21). Economic added value brings the costs of the resources used by the firm and the value created by the firm or the units of the firm to shareholders and savings holders in a visible format (Aydin, 2012: 107). EVA is an important technique

because of the following features (Küçükaraba, 2012: 150):

- EVA is not limited by general accounting principles. Its users are willing to make the necessary arrangements to increase economic value.
- EVA directs firms to take into account not only senior executives but all employees, including those at the lower level of the organization, in performing their duties to increase the stock value of stockholders. EVA can be formulated as follows (Slow, 2011: 74):

$$\text{EVA} = \text{Operating Profit After Tax} (\text{Capital Cost}$$

* Capital

3. Literature Review

Work with relevant when we look at the studies investigated in Turkey; In his study, Bal (2009) compared the free cash flows to the firm and the free cash flows to equity, and observed that the firm value calculated by both methods yielded different results. Öztürk (2010) calculated the values of firms in the manufacturing sector by using Residual Profit, Free cash flows to equity and book value methods and as a result of the study, it was found that all three methods gave the same results with their market values. Akbaş (2011) stated the advantages of EVA over traditional valuation models and criticized EVA for its manipulation and short-term perspective. Göğüş (2011) discussed the conceptual framework dimension of EVA and explained how to correct the data used to calculate EVA. Göğüş also underlined that there is less need for corrections for EVA calculation in financial statements prepared in accordance with American Generally Accepted Accounting Principles or International Financial Reporting Standards.

Hatipoğlu and Beale (2013), the firm free cash flows to equity free cash flow method with Turkey had applied in the energy sector have tested whether the results. As a result, free cash flows to the firm give

more applicable results to equity than free cash flows. Akyüz (2013) tried to estimate the value of the ceramic firms in the ISE 100 between 2005 and 2010 by using the economic value added method and market value added methods. It is stated that both methods do not create value as of the years studied. Bastı and Yılmaz (2013) conducted two different analyzes to measure the differences between the EVA and MVA averages of the manufacturing industry companies traded on the ISE and the extent to which EVA explains MVA. As a result of the analysis, they concluded that EVA yields healthier results and that the power of EVA to explain MVA is low. In his study,

Findık (2013) explained the theoretical framework of EVA and compared it with traditional financial reporting. As a result, it is emphasized that the two methods yield different results and that this is caused by equity costs. Ünlü and Saygın (2014) concluded that the tourism sector did not create value and depleted its existing capital in the study conducted by the tourism companies located in Borsa Istanbul to determine the value of the firm with the Economic Value Added method. Öztepe and Beylik (2014) conducted a study to determine the value of the firm in health institutions. In the study, they used the book value, market value / book value, price / gain and net flow approaches. They conclude that each approach yields different results and that the market value of the health sector is higher than it should be. Bilir and Kulalı (2014) performed a comparison between the discounted cash flow method and the relative valuation methods and found that the INA method yielded healthier results than the relative valuation method. Zor, Bozkurt and Öksüz (2015) conducted a study on the availability of valuation methods in the decision to accept or reject bankruptcy postponement requests. As a result of the study, it is concluded that bankruptcy can be accepted or rejected by using free cash flows (FCFF).

4. Purpose of the Study

It is aimed to determine the values of the companies operating in the transportation sector in BIST by using different approaches and methods and to determine the approach and method that finds the firm value in the most realistic way.

5. Importance of Research

The most important information for stock investors is the present and future value of the stocks they are planning to invest in. In the meantime, the firm valuation studies reveal the importance of the companies by determining the price levels of the stocks that the investors should have.

6. Limitations of the Study

DO-CO Aktiengesellschaft; Since the financial statements could not be reached, they were excluded from the research. Trabzon Liman İşletmeciliği A.Ş. was excluded from the research due to the fact that only the tables belonging to 2017 and 2018 were found.

Method

- 1) Economic Value Added
- 2) Financial Ratio Method
- 3) Relative Valuation Method

Results-Review

All valuation methods except the F / S ratio have been valued among the price ranges of the companies in 2019 stock exchange.

snake on	BIST TRANSPORT INDEX	MARKET INCOME (RM)	RISK-FREE INTEREST RATE	MARKET RISK PREMIUM
2017	160	one	11 901	-10.91
2018	157.96	one	18.77	-17.77

Cost of equity for the year 2017 = 11,90 + 0,93 (10,91) = 1,76

The cost of equity for 2018 = 18.77 + 0.93 (17.77) = 2.24

7. Application

In this part of the study, the firm values of the sectors analyzed by EVA methods are shown in tables.

a. First Stage: Calculation of AOSM

Calculating the Cost of Foreign Resources

Reysaş Transportation and Logistics Trade Inc. treasury bills interest rate is used as the cost of foreign resources. This ratio is 18,77 for 2018 and 11,90 for 2017.

$$K = r * (1-v)$$

r: Borrowing interest rate

v: Tax Rate (The tax rate used in the calculation is 35%, which is the income tax rate on the highest income for both years.)

$$K_{2018} = 18.77 * (1-0.35) = 12.20$$

$$K_{2017} = 11.90 * (1.0.35) = 7.73$$

b) Calculation of Cost of Equity

$$K = rf + b (rm-rf)$$

Reysaş Taşımacılık ve Lojistik Ticaret A.Ş is taken as beta 0.93 in the calculation of the cost of equity (www.bigpara.com)

The closing cost of BIST Transport Sector index is taken as the basis for the market return, which is another component of the cost of equity.

Shares of Capital Elements in Capital

Capital Component	2017	%	2018	%
FOREIGN RESOURCES	48 476	70	77 792	
EQUITY	20131	30	31284	
TOTAL	68 647		109076	

2017 AOSM = 10.73

2018 AOSM = 8.85

b. Second Stage: Estimation of Expected Profit

	Total Capital	AOSM	Expected Profit
2017	1304241551	8.85	1154253
2018	1377061871	10.73	1478184

c. Third Stage: Calculation of Operating Profit After Tax

	2017	2018
Operating Profit.	85662562	94077145
Tax (-)	0	0
VSFK.	85662562	94077145

d . Economic Value Added Calculation

EVA = VSFK-Expected Profit

2017 = 92598961

2018 = 93,567,899

GENERAL EVALUATION AND CONCLUSION

The use of more than one valuation method in the valuation of the firm will be of great benefit in terms of a healthy outcome of the valuation activities. Especially in the selection of the method to be used, the

general economic situation as well as the characteristics of the firm and the sector should be taken into consideration. It should also be remembered that some of the methods used are based on subjective assumptions and various assumptions.

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