Impact of Supply Chain Management on the Market Value of the Company using the Discounted Cash Flow Method

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Abstract- The purpose of this research is to study the impact of the supply chain that determine the financial sustainability of an organization on its market value. The analysis considers that in the process of determining the value of an organization through the use of the discounted cash flow method, a series of supply chain factors that reflect its financial sustainability are not taken into account and consequently, have a strong impact on the market value. The research has carried out a correlation study based on empirical data and has examined one of the most used valuation methods. Considering the relationship between supply chain management and the market value of an organization, it is intended to present scientific evidence to determine that the discounted cash flow model has certain shortcomings in the valuation process of an entity that reflect the lack of supply chain when this method is used.

Keywords; *Cash flow, Supply chain management, Discount rate, indicator, markrt value, indebtedness.*

1. Background

Supply Chain Management (SCM) has become a competitive advantage for com-panies from various industries [1-3], and compet-itive advantage is even considered as a defining characteristic of SCM [4]. Supply Chain performance improvements [5, 6] are initiated to increase this advantage. Improvements focusing onfinancial SC value drivers most often show conflicting effects on cost and cap-ital respectively: methods to improve working capital components (inventory, trade payables, trade receivables) for instance often result in cost increases (e.g.negative effects on cash discount or production cost) and hence reduce the prof-itability, measured by e.g. earnings before interest and taxes. The determitaion of the market value of corporations is a very open field within finance, given that it is a discipline in which specialists still have a significant influence on the results of their work. In [7] have introduced the importance of the concept of value as a definition of measurement in a market economy. They also add that in terms of investment, value is a useful measure that considers the long-term interests of all stakeholders and not necessarily the interests of the shareholders of the corporation being valued.

This is especially relevant because of the immense influence that assessments have on the final result of the estimation process. Valuation of the capital of the company is one of the necessary methods of control and management of the enterprise. The choice of an optimal valuation model is not only a support for certain managerial decisions, but also a search for the optimal way of the development of the company and forecasting of its activity [8]. Decisions on the investment attractiveness of new companies, the success of new company acquisitions, the negotiation of new financing or work on the stock market, all require an assessment of the value of the company in question. But in addition to this, it is necessary to evaluate the quality of management and the objective of creating value for the shareholder, depending on the growth rate of the organization's value.

The process of determining the market value of a company leads to the achievement of numerous objectives, such as buying and selling operations or stock exchange listings. It is a complete process in which it is necessary to establish a valuation methodology that allows to carry out an analysis and interpretation of the company, its financial situation, its internal structure, the sector in which it is located, etc. Acording to [9, 10] There are two approaches to determining the market value of an organization, a profitability approach and a direct capitalization approach. In the profitability approach, the value of the company is determined based on the current price of ownership of the expected revenue of the company, i.e., the revenue approach is based on the fact that the value of the company in which the capital has been invested must correspond to the current assessment of the quality and quantity of the revenue that the entity has generated. Consequently, the direct capitalization approach is used when the expected annual net operating income is constant and unchanged and income generation is not limited in time.

In the process of determining the market value, several variables that can influence the final valuation should be considered. These variables are represented in Figure 1 and can be divided into two groups, internal and external factors.

The external factors refer to the evolution of the economic state of the country where the company is located, the state of the economy where the company has commercial operations or receives monetary flows and finally the evolution of the sector to which the company being valued belongs.

The internal factors are composed of the history or reputation of the company, the economic sector to which the company belongs, the commercial factors (sales, customers, competition), the technical factors (production capacity, type of technology, patents), the supply chain process (type of management, training of the workers, motivation) and the financial factors (liquidity, free cash flow, financial sustainability).

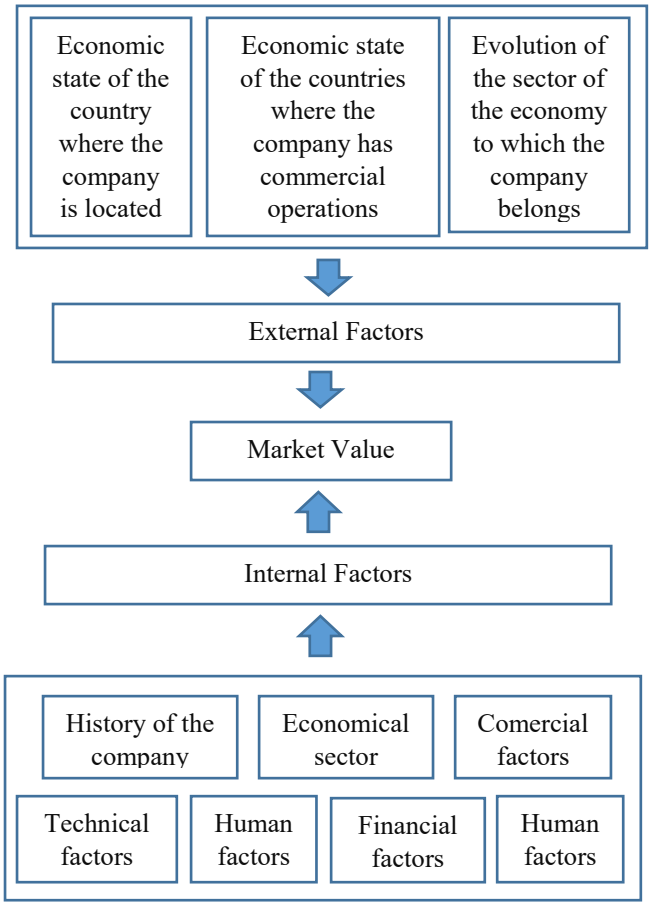

Figure 1. Factors that influence the market value of an entity in supply chain process

Howevr, [12] arguments that during the process of valuation of a company it is relevant to look at the trademark, in this context, this approach is developed taking into account two aspects, the first of these must be made taking into account a cost of historical reproduction necessary to create and protect the trademark which then must be adjusted to the infation. The other consideration is called replacement cost which refers to when the new trademark has a brand value equivalent to that provided by the target trademark.

In [13] stayed that there are numerous classifications, a distinction must be made between static, mixed and dynamic models of evaluation. Static models determine the value of a company according to its current position, which are deducted from the balance sheet.

These models represent an entity as the sum of its assets and liabilities and not as an operating entity. Mixed models begin with a static, projected financial statement presentation, including dynamism when attempting to quantify an intangible assets of an entity. Ultimately, dynamic models are based on the future expectations of the company, taking into account its past and present situation.

Of these models, we will focus mainly on the discounted cash flow model, as it is conceptually the most correct method for calculating the value of the company. The use of this method is acceptable for companies that have a certain business history and are in a stage of stable economic growth or development.

The discounted cash flow valuation method was used in industry as early as the 18th and 19th centuries; it was explained by John Burr Williams in his Theory of the Value of Investments in 1938; it was extensively debated in financial economics in the 1960s; and it was widely used in the U.S. courts in the 1980s and 1990s.

In the opinión of [14] discounted cash flow analysis is a powerful tool that is used not only to value companies, but also to price initial public offerings and other financial assets.

As stated by [15] it exists ten valuation methods based on discounted cash methods which are named as follows:

1) free cash flow discounted at the WACC;
2) equity cash flows discounted at the required return to equity;
3) capital cash flows discounted at the WACC before tax;
4) APV (Adjusted Present Value);
5) the business's risk-adjusted free cash flows discounted at the required return to assets;
6) the business's risk-adjusted equity cash flows discounted at the required return to assets;
7) economic profit discounted at the required return to equity;
8) EVA discounted at the WACC;
9) the risk-free rate-adjusted free cash flows discounted at the risk-free rate; and
10) the risk-free rate-adjusted equity cash flows discounted at the required return to assets.

However, [16] in his paper assures that the ten most used methods to value companies by discounting cash flows always give the same value. This is mainly because all the methods analyse the same reality under the same assumptions; they only differ in the cash flows taken as the starting point for the valuation.

Nonetheless, [11] also claimed that by using the discounted cash flow method in combination with other methods, has a more effective approach to obtaining a realistic range of appropriate business values.

Also it must be kept in mind that the economic environment in which the organization operates is exposed to many factors, which can lead to periods of crisis that can influence the cash flows of an organization.

In this perspective, [18] affirms that economic crises cause cash flow disruptions or consequently affect the financing and investment decisions of companies.

As indicated above, there are several conceptions of the discounted cash flow method and several authors have dedicated part of their research to discussing the positive aspects of the discounted cash flow method. However, our research will show that indicators of supply chain, which are significantly important in the valuation of a company, are not taken into account by the discounted cash flow method, which therefore means that the results of this model may omit details that would allow a clearer picture of the company being valued.

In relation to the sustainability in the companies, it is necessary to affirm that the concept of sustainability in the organizations has been developed by diverse approaches, in the approach proposed by [13] it is affirmed that traditionally the sustainability is focused only in the stage of manufacture of the industrial system, without following exhaustively the performance with regards to the stages of construction, production, transport, use and elimination of the investigated system.

In addition to this in the research developed by [13] also raises a discussion that revolves around the environmental performance of industrial systems, which has been discussed in recent times, especially by the impact that environmental impacts that occur throughout the life cycle of a product, process or industrial activity.

On the other hand, considering the environmental sustainability approach developed by [17], it is necessary to mention that the research proposed by [20] shows that according to the Corporate Sustainability Index (ISE), the most sustainable companies in Brazil do not have a higher financial performance than the companies that do not have this profile. This suggests that there are no incentives from government entities, at least from this perspective, for companies to employ better sustainable approaches and practices.

Furthermore, [14] develops the expression sustainability in an environment in which it exposes two concepts, the circular economy and the lineal economy. According to this approach, the current economy has a lineal focus due to the philosophy of the modern society which is centered in consumption and which, as it is proposed, is unsustainable in the long term.

In addition to this, [1418 also states that sustainability is optimally developed in a circular economy environment in which a balance between environment and society must be maintained.

Other concepts of sustainability, in this opportunity focused on finance are illustrated by [19], where it is stated that la financial sustainability enables a corporation to efficiently use its financial resources and its financial information to ensure a stable flow of cash.

Analyzing an organization in terms of supply chain, it is imperative to analyze the strategies that the company uses to ensure an adequate supply chain sustainability, this is achieved by analyzing how the company properly allocates resources to avoid financial risks and operational risks.

2. Hypotheses development

Moreover, it is essential to analyse the financial ratios of the company to establish whether it is supply chain and, consequently, to increase or decrease its market value. Our hypothesis assumes that the use of supply chain in terms of indebtedness, have a significant influence on the process of determining the market value of an organization through the discounted cash flow method.

The discounted cash flow model estimates the present value of future cash flows by discounting them at a rate that reflects the value of the capital provided.This is necessary because cash flows in different periods cannot be directly compared, since logically, having money now is not the same as having it in the future.

2.1 Discounted free cash flows

Cash flows are normally expected to be generated over a given period of time. At the end of this period, the final value of the investment is determined, thus solving the problem of the indefinite duration of the cash flows, which is also discounted at the initial moment, treating it as one more cash flow. The analytical expression of this model can be seen in Eq (1):

$$\text{PV} = \frac{CF_1}{(1+k)} + \frac{CF_2}{(1+k)^2} + \cdots \frac{CF_n + RV_n}{(1+k)^n} \qquad (1)$$

Where n represents the number of years in the forecast period, PV represents the future value of the company, RV the residual value, CF the cash flow of period 1 and k the discount rate.

Therefore, the market value of an entity using a cash flow discount is the sum of its expected cash flows and its residual value. Cash flows must currently be capitalized. We can summarize the calculation of this method in three variables in urdir to obtain an appropriate estimate:

1. Cash flows (CF)
2. Time horizon (residual value)
3. Discount rate (k, WACC)

Cash flows are the result obtained by the company, regardless of how it is financed. For the calculation, it starts with a profit and loss account. In particular, the so-called operating profit.

To receive the cash flow, it is necessary to add a tax impact (tax rate) to the result of the operation. We also have to take into account depreciation (if it does not result in a cash outflow). In addition, one more variable must be added: the need to invest in assets (acquisition of equipment, etc.). And finally, it will be necessary to introduce operational needs in the financing (purchase of shares, etc.), which the company expects to have.

Cash flows are projected with estimates. Growth forecasts, investment costs and operational requirements will be established. It should be noted that the estimates will depend largely on the value of those assumptions. In order to do so, it is necessary to know how the company has developed in recent years. To make these assumptions as realistic as possible

The time horizon marks the value of the company at a given point in time. For example, if you project cash flows for five years, you get the value of the company as if it only had a certain duration of five years.

As it is clear that the company will not only operate for five years but will also generate future cash flows for an indefinite period of time, the residual value of the company is calculated on the basis of the last projected cash flow.

2.2 Residual value

In the process of determining the market value of a company, it is frequently necessary to take into account free cash flow forecasts for the next five or ten years and subsequently calculate the residual value. The objective of this residual value is primarily to determine or estimate the free cash flows in the years after the last year in which the free cash flow forecast was made.

In other words, the residual value suggests that the organization being valued is capable of generating revenues in the years following the last year of the previous forecast. Generally, the residual value is presented as a geometric progression that is referred to as a g or gross rate.

In this manner, the method of discounting free cash flows states that companies operate to infinity. The residual value is represented by a geometric progression which means that the free cash flow in the year following the last year of the cash flow forecast is equivalent to the free cash flow in the last year of the forecast plus the growth rate of the residual value g expressed in Eq (2)

$$RV = FCF_n(1+g) \quad (2)$$

Assuming the interest rate, the geometric progression represented by g the equation that allows to make a forecast of these future free cash flows in the last year of the forecast is represented in Eq (3)

$$RV = \frac{FCF_n(1+g)}{(i-g)} \quad (3)$$

With regard to the determination of g growth rates, it is generally agreed to calculate rates between 0.5% and 1% for base market value or intermediate valuation scenarios. For very optimistic valuation scenarios, g values are generally between 1.5% and 2%. In practice, taking g values higher than 3% is not reasonable considering the long term nominal GDP of each country, due to it can be inferred that this is lower than 3%.

Once the growth rate g has been determined, it is necessary to take into account that the interest rate at which all monetary flows are to be discounted has to be represented through the WACC Weighted Average Cost of Capital.

2.3 WACC (Weighted Average Cost of Capital)

As claimed by [20] this is one of the most difficult stages in assessing the value of a company based on the discounted cash flow method. However, the calculation of the WACC is important since the discount rate provides a basis for discounting expected future cash flows. One of the most common methods as a basis for calculating the discount rate is the WACC indicator.

The WACC is calculated by weighing the cost of debt and the cost of capital. Always consider the financial structure of the company. The Eq (4) shows the procedure used to calculate it:

$$\text{WACC} = Ke\frac{E}{(E+D)} + Kd(1-T)\frac{D}{(E+D)} \quad (4)$$

Where Ke represents the cost of property, Kd the cost of financial debt, E the equity, D the financial debt, and T the tax rate.

Another coefficient, called CAPM, is often used to estimate the cost of capital. It is known as the Capital Asset Price Model.Using the CAPM model, the price of an asset can be calculated with three variables in mind: (i) risk-free rate (Rf), (ii) expected return (Rm) and (iii) risk of the sector to which the firm belongs (b = Beta).

- The risk-free rate takes into account the expected return on investment in bonds issued by the Central Bank.
- The expected return is identified with the rate of return expected by the investor. It takes into account the market in which the investor is invested.
- Economic sector risk is the risk inherent in the operations and financing activities of the Company.

2.4 Net financual debt

After calculating the discounted free cash flows, the equity of the entity or 100% of the shareholding of the company is calculated. In order to accomplish this procedure, it is necessary to consider the EV and the net financial debt that the company owns at the time of carrying out the valuation process and subsequently subtract the cash balance that the company also has at the time of conducting the market value measurement. This expression is represented in the Eq (5).

$$NFD = STD + LTD - CB \quad (5)$$

Where NFD represents the net financial debt, NTD the short term debt, LTD the long term debt and CB the cash balance at the time of valuation.

2.5 Market value

Finally, for the calculation of the market value of the organization, the level of net financial debt of the company and the sum of the cash flows are taken into account. This market value is mentioned as the intrinsic value in the work done by [15], who claims that the intrinsic value is made up of the combined sale of all assets minus the liabilities that the company must repay to its creditors. This expression is represented in Eq (6).

$$MV = EV - NDF \quad (6)$$

Where MV represents the market value of the organization, EV the enterprice value and NDF the net financial debt

For the study of the hypothesis presented in this research, it is assumed that the sustainability indicators

in terms of debt are are correlated with the market value as represented in figure 2. The financing structure of these companies is also explored, with the aim of concluding on preferences for sources of financing, on trends in the distribution of financing between external and internal sources and on the use of financial obligations to leverage investments in companies.

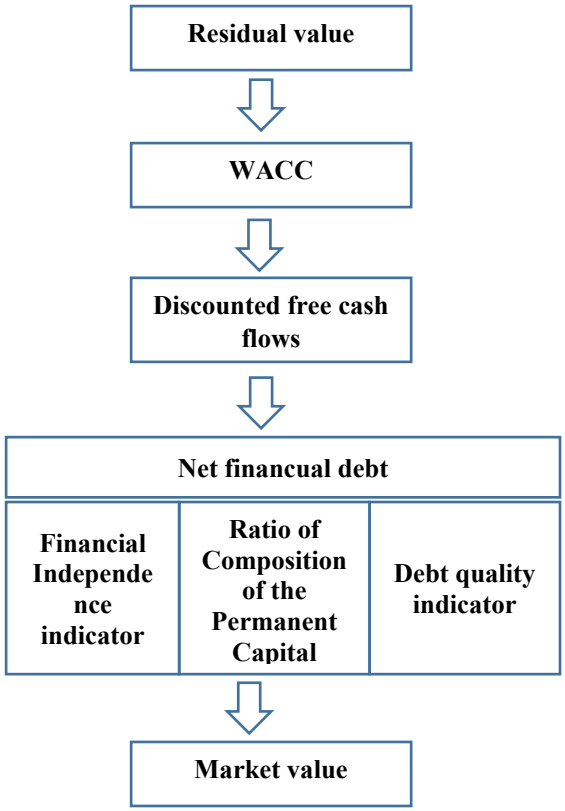

Figure 2 Correlation of financial sustainability indicators in terms of debt with the market cost of an organization

3 Supply Chain Finance Management

As global supply chains stretch across the globe with multinational buyers on one side and a diverse group of suppliers in numerous countries on the other, corporations are under pressure to unlock the working capital trapped in their supply chains. Supply chain finance, also known as supplier finance or reverse factoring, is a set of solutions that optimizes cash flow by allowing businesses to lengthen their payment terms to their suppliers while providing the option for their large and SME suppliers to get paid early. This results in a win-win situation for the buyer and supplier. The buyer optimizes working capital, and the supplier generates additional operating cash flow, thus minimizing risk across the supply chain. Havin considered the influence that net financial debt levels can have on the market value of the organization. This study enables to determine a series of indicators that allow the identification of the structure of the debt, which is an indicator of the financial sustainability of the entity and, consequently, may affect its market value.

3.1 SCF indicator

One of the indicators that determines whether a company is financially sustainable is the indicator of financial independence. By means of the discounted cash flow method, in order to have an idea of the market value of the organization, it is necessary to know the peculiarities of the structure of the debt in the short and long term, therefore through the financial independence indicator it is possible to evaluate the relationship between income and expenses and its relation to the level of debt.

Thus, the indicator of financial independence shows the level of stability of a company by determining the relationship between the capital that belongs to the entity and the total fixed capital required to finance it, which includes medium- and long-term loans.

As stayed by [16], financial autonomy refers to the degree of solvency of the company by comparing the share capital and total liabilities.

This ratio provides evidence of a dependence of the entity or independence from the capital of other corporations. In other words, the indicator of financial independence shows the grade of stability of a company by determining the relation between the own capital of the company and the total of the necessary fixed capital to finance it, which includes the medium and long term loans. The result indicates the dependence or independence of a firm on the capital of others. This suggests indicates a financial risk, which consequently reduces or increases the market value of the entity. The Financial Independence index is expressed by Eq (7):

$$\text{FS} = \frac{E}{TF} \tag{7}$$

Where SCF represents the ratio of supply chain finance, E the equity and TD the total debt.

The purpose of the financial independence indicator is to provide an assessment of how the company uses its assets in the management of its business and whether it is profitable. In a specific case, this ratio shows to what extent the company is dependent on external financing. The higher the ratio, the greater the autonomy of the company, which indicates the financial stability of the company and as a result increases its market value.

3.2 Ratio of Composition of the Permanent Capital

To the extent that permanent capital reflects the value of the company's own and borrowed long-term financing, this ratio provides an indication of what percentage of the long-term financing has been provided by indebtedness. The higher the value of the ratio, the higher the percentage, the greater the weight, of long-term debt financing. In terms of financial autonomy, this ratio should be as low as possible.

Consequently, a percentage less than or equal to 50% is recommended. If the company places its ratio in these terms, it will mean that, at least in the long term, the proportion of the contribution between equity and debt is

greater in equity. Then, a higher rate of financial autonomy in the long term. The formula for this indicator is represented in Eq (8).

$$CPC = \frac{LTD}{PC} \quad (8)$$

Where CR represents the composition Ratio of the Permanent Capitals, LTD Long-Term liabilities and E the permanent capitals.

In addition, the ratio is more significative in the case of large companies than in the case of small entities, as the financing model of small organizations is mainly supported by their own financing, since they have a more limited, restricted and expensive access to external financing than large companies, which have significantly different conditions.

3.3 Debt quality indicator

Furthermore, it is also important to analyze the quality of the debt to be paid, this indicator allows to analyze the internal composition of the debt ratio and to determine the short-term financial sustainability of the company.

Therefore, it is worthwhile to analyze the ratio of the quality of the debt to be paid, considering short-term debt as bad quality debt and long-term demand as good quality debt. In order to increase the market value of the organisation, the lower the value of this ratio, the better the quality of the debt, in terms of time. The indicator that reflects the quality of an organization can be found by means of the Eq (9).

$$QR = \frac{STD}{STD+LTD} \quad (9)$$

Where QR represents the debt quality ratio, STD the short term financial debt and LTD the long term financial debt.

It should be recalled that many companies, either because of their small size or because of the activity they carry out, have difficulties in accessing long-term financing and the stock markets, which explains why they have predominantly short-term debt. This is the case, for example, with commercial enterprises.

4 Methodology

The implementation of the proposal under the research hypothesis will require some prior knowledge, using the discounted cash flow method for the application to the assigned company. Subsequently, the steps for the valuation of an organization according to the model proposed will be followed and evidence of the correlation with the indicators of financial sustainability in terms of debt will be shown. The information will be collected, and then the variables needed to calculate the required variables will be calculated. Finally, an analysis of the results obtained will be presented. The research is of a descriptive type, using as a basis the knowledge acquired in the investigations carried out, and subsequently the discounted cash flow model will be applied.

5. Results

It has also been noticed that and from the data analyzed that focus on quality and market knowledge are two most important factor for implementation of the SCM strategies. Many companies use their efficiency in technology as major equipment in development of supply chain which will results in the increase in the overall efficiency of the company. Focusing primarily on the operations of supply chain and implementing the effective supply chain management practices are also important for the adoption of changing market conditions. This research will develop an example to determine the market value of an organization by means of the cash flow discount method and demonstrate the influence that sustainability indicators have on the final result. We will assume that a company is undergoing an evaluation process to determine its market value. For this purpose, below is a table with the Free Cash Flows (table 1), from year 1 onwards. In order to value the company, assumptions have been made such as:

Table 1. Forecasted cash flows

Year	Forecasted cash flow
1	100 000 000 ₽
2	200 000 000 ₽
3	300 000 000 ₽
4	400 000 000 ₽
5	500 000 000 ₽

These values are the outcome of the corresponding cash flows for a period of 5 years, were obtained from a practical case to be expressed as a model to carry out the overall objective of the work

In the same way, there is also the assumption that since the 6th year the company has been able to produce on a scale with geometric progression, which is growing due to g = 1% per year.

The interest rate at which the free cash flows are to be discounted in this case in WACC was determined to be 11% per annum.

5.1 Calculation of the residual value

Based on the information taken from the case study and the Eq (3), the residual value is calculated taking into account the predicted free cash flow for year 5, the WACC interest rate and the geometric growth rate g The results obtained are as follows

$$RV = \frac{500\,000\,000 * (1 - 1\%)}{(11\% - 1\%)} \quad (10)$$

$$RV = 5.050.000.000 \quad (11)$$

5.2 Calculation of Discounted Cash Flow

Subsequently, the discounted cash flow from year 1 to year 5 is calculated at a discount rate of 11% and the terminal value is discounted in year 5, where an indefinite or perpetual growth of 1% is assumed based on the equation (1). Following this, the discounted free cash flows are totalled, this result is called enterprice

value (EV). The results obtained are are represented in the table 2 as follows

Table 2. Discounted Cash Flow Calculation Case Study

Market value of the Company	
Year	Cash flows
1	90.090.090 ₽
2	162.324.486 ₽
3	219.357.414 ₽
4	263.492.389 ₽
5	3.496.929.206 ₽
EV	4.232.193.587 ₽

5.3 Calculation of net financial debt

Following our case study, Table 3 reflects the status of the short-term debt, long-term debt and cash balance of the company being evaluated at the time of determining its market value.

Table 3 Situation of the financial statements of the company at the time of the valuation.

Short-term debt	100.000.000 ₽
Long-term debt	90.000.000 ₽
Cash balance	180.000.000 ₽

The calculation of net financial debt is made by means of Eq (5), taking into account the sum of discounted cash flows, short and long-term debt and cash balances. The results obtained are shown below.

$$NFD = 100.000.000 + 90.000.000 - 180.000.000 \quad (12)$$

$$\mathrm{N}FD = 10.000.000 \quad (13)$$

Thus, the net financial debt of the company is 10, 000,000, which will cause a reduction in the market value of the organization.

5.4 Calculation of the market value Through SCM

Considering the levels of net financial debt held by the company when the valuation is being carried out, the market value of the organization is calculated taking into account the sum of the discounted cash flows and the level of net financial debt. The results of this procedure are shown below.

$$MV = 4.232.193.587 \ - 10.000.000 \quad (14)$$

$$MV = 4.222.193.587 ₽ \quad (15)$$

Based on the final result, determined by using the cash flow discount model, it is possible to conclude that the company has a market value of 4.222.193.587 ₽.

Afterwards, our analysis will show evidence that indicators that reflect the financial sustainability of an organization that are not taken into account in the discounted cash flow model can influence its market value.

3.4 Iindicators of SCM on market value

5.4.1 Financial Independence indicator

Returning to the case study, it will take into account the levels of net financial debt held by the company and will be assumed that the company being valued has a net equity of 250, 000,000. In this context, the financial independence ratio will be calculated considering the Eq (16) as follows.

$$\mathrm{FS} = \frac{250.000.000}{190.000.000} = 1{,}3157 \quad (16)$$

$$\mathrm{FS} = 1{,}3157 \quad (17)$$

According to the results obtained, the company enjoys a good ratio of financial independence, for this and we can say that the company the organization that is being evaluated is less dependent on borrowed capital, which contributes to the conclusion that taking into account this indicator, the company would have an advantage when calculating its market value. As claimed [21-23] The more financial independence ratio increase, the higher the company is healthy.

5.4.2 Ratio of Composition of the Permanent Capital

For the calculation of the index of the permanent capital composition, it is assumed that the level of permanent capital of the company is 150, 000,000. In this way the calculation of this indicator is performed using the Eq (8) as shown below.

$$CPC = \frac{90.000.000}{200.000.000} = 0.6 \quad (18)$$

In view of the findings of this evaluation, it can be stated that the ratio between the own and external long-term resources of the company is superior in terms of equity. This means that the entity has a higher rate of financial autonomy in the long term. The outcome of this indicator can be said to positively affect the determination of its market value.

5.4.3 Debt quality indicator

Considering that the level of the long-term debt of the ompany is 100, 000,000 and, at the same time, given that the long-term debt level is 90, 000,000, it is possible to calculate the indicator that represents the quality of the debt of the company using Eq (9) as a reference.

$$QR = \frac{90.000.000}{90.000.000 + 100.000.000} \quad (19)$$

$$QR = 0.5 \quad (20)$$

Keeping in mind that the debt quality indicator reflects the fact that at the time of carrying out the valuation of the organization, the share of short-term debt in the total debt is 0,5, which means that the debt quality is relatively acceptable.

It is necessary to mention that in case the result of this parameter is higher than 0.6, it would mean that the volume of debts is excessively high and that the

company is losing financial autonomy in front of third parties, or what is the same, that it is decapitalizing itself.Therefore, it provides us with information on the composition of the debt; if it is very based on external resources or if it has the capacity to get into more debt. In addition, if the entity had a high coefficient in the debt indicator, it would mean that it is not using the resources properly because its short-term debt is greater than its long-term debt, which would negatively affect the market value of the organization.

6. Discussion and conclusion

According to our analysis, we see that the discounted cash flow model does not take into account important indicators that help determine the financial stability in terms of an entities indebtedness, which may significantly affect the final value of the company. The main benefit of supply chain finance is that the buyer does not pay any fee to extend its payment terms and the supplier only pays a small discount if he wants to get paid early.

Based on the purposes of an organisation's valuation, indicators of financial sustainability can be considered to be complementary to the use of discounted cash flow techniques to determine the market value of an organization, as the data and assumptions used are subject to measurement uncertainties and the judgement of an analyst making a valuation or presenting assumptions that must be taken into account.

In certain cases, the application of a discounted cash flow model is recommended, either because of the specific nature of the industry of the company under review or because of the complementary nature of this type of valuation. In some cases, they may be used as an approximation if a quick estimate is required or if cash flows are very uncertain and difficult to estimate.

It might be said that the main drawback of discounted cash flow models is that they are a very challenging methodology in terms of the demand for information and the assumptions that they involve. Therefore, their practical application can be limited, since a large amount of information is needed to have a clear picture of the financial situation of the company, a deep knowledge of the company to be analysed and the sector in which it operates.

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