The Impact of Debt Financing on the Value of a Company: the Case of North Macedonian Companies

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Abstract

The purpose of this paper is to determine the relation between a company's indebtedness and its value. We used a sample of 20 North Macedonian companies, listed on the Macedonian Stock Exchange (MSE) mandatory listing, and the data for 6 years' time span. In the paper, we use Panel Data models (Pooled OLS regression, Fixed and Random Effects models) to estimate the relation between debt financing and the company's value measured by return on assets (ROA) and Tobin's Q. According to the results of short-term debt has a statistically significant and negative impact, while the return on investments in human capital (HCROI), company's size and current ratio have a positive and statistically significant impact on the ROA. When investigating the impact of indebtedness on a company's value measured by Tobin's Q, short-term and long-term debt have positive and statistically significant effects. Our research suggests that while debt increases a company's indicators for market performance, it also decreases the company's accounting operating performance. Therefore, when analyzing a company's value, investors should be considering not only Tobin's Q, which can be sometimes regarded as a market-to-book value ratio, but also to look at the fundamental ratios, such as ROA, ROE (return on equity) and EPS (earnings per share).

Introduction

Companies exist to maximize shareholders' wealth, i.e., by maximizing price per share, which further translates into maximizing the company's value. Companies' value reflects the entire value of an enterprise and represents the theoretical takeover price of an enterprise. Enterprise value is calculated as a sum of the market capitalization of the enterprise, preferred stock, and total debt minus the cash and cash equivalents (Rosenbaum & Pearl, 2009; Corporate Finance Institute, 2018). From this calculation, the enterprise value is under the influence of shareholders' wealth, total indebtedness of the enterprise, and liquidity.

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Various studies (Hussein, 2020; Ahmed & Afza, 2019; Forte & Tavares, 2019; Le & Phan, 2017) examine a company's value through the aspect of indebtedness, by using many proxies for it, i.e., leverage, short-term debt to total assets, long-term to total assets, and by adding additional variables for better understanding and improving the model for the determinants of company's value. The main argument is that the higher the debt, the higher the share price and therefore, enterprise value. Nevertheless, why no company is 100% financed with debt? Because if the company increases its indebtedness, then it increases its risk of defaulting and it is said to be in financial distress, which raises additional direct and indirect costs. Therefore, the importance of corporate financial decisions, related to debt financing, to the company value is disputed. The company's debts produce benefits in terms of tax gains that can increase the company's value but simultaneously increase the bankruptcy risk.

Companies maximize their value by choosing the most efficient investment. An inevitable part of it is the financing decision, whether the company will use internal or external funds, and what would be the structure of the external financing. The quantity of cash stock will be lowered if the firm uses internal funding sources, and the risk of bankruptcy will increase if the company incurs debt (Gill & Obradovich, 2013). However, if the firm has extra cash flow, debt issuance will send a positive signal to the market, which will be regarded as a rise in company value, measured by Tobin's Q (Komara et al., 2019). On the other hand, investors, are more willing to invest if they receive a favorable return. They take into consideration ROA when determining which stock to invest in. Even though the increase in indebtedness may have a favorable impact on the company's value measured by Tobin's Q it can also mean that the company is overvalued and that the management is not efficient in investing the raised cash flow into assets that give the highest return (Dybvig & Warachka, 2015). From this standpoint, ROA, as an accounting-based measurement, facilitates the analysis of a company's value, i.e., it shows whether the assets are underutilized or overutilized and thus it is used as a measure of operational performance. When analyzing the studies where market-based and accounting-based metrics of companies' values were used, it can be noted that simultaneously as indebtedness has a negative impact over several of the accounting-based metrics, it has a positive impact over market-based performance metrics, or vice versa. Furthermore, the literature lacks research papers in this area on the case of Macedonian companies. Research that investigates the impact of capital structure on SMEs' profitability is rare (e. g., Ferati & Ejupi, 2012).

Therefore, this paper tries to narrow this gap and provide the basis for further research in the related area. The main research question is to what extent indebtedness influences a company's value by utilizing Tobin's Q and ROA as measurements of a company's value. The paper is divided into three sections, where firstly, a literature review is given, secondly, the data is specified and two models for research are proposed, and thirdly, findings from the research are presented and discussed.

Literature Review

Impact of debt financing on a company's value

The issues of optimal capital structure and how the capital structure influences a company's value are two of the most important concerns in corporate finance. Indebtedness or debt financing is the main explanatory variable of concern, and researchers (e. g., Ebaid, 2009; Ferati & Ejupi, 2012; Dawar, 2014; Hamid et al. 2015; Adenugba et al., 2016; Forte & Tavares, 2019; Nazir, 2020) are using different metrics, such as: debt-to-equity ratio, short-term borrowing to total assets ratio, long-term borrowing to total assets ratio, and/or total debt borrowing to total assets ratio, to investigate the impact of debt borrowing on a company's value. Their results reveal that samples of companies from various countries show different relations between debt level and the company's value. Their empirical findings coincide with different theories on capital structure, such as the modified MM theory (Modigliani & Miller, 1963), Trade-Off theory (Kraus & Litzenberger, 1973), Pecking Order Theory (Myers, 1984), Agency Theory (Jensen & Meckling, 1976) and Signaling theory (Ross, 1977). Appropriately, findings show that capital structure has no positive or negative impact on a company's value. For example, some of the authors (e. g., Nugroho & Patricia, 2022; Akhtar et al., 2015, Obradovich & Gill, 2013) found that financial leverage has a statistically significant and positive impact on a company's value, meaning that profitable companies are prone to issuing more debt over equity and that it will push the management to generate cash flows for repaying the debt, otherwise, the company would face bankruptcy. On the other hand, there are examples where authors (e. g., Nazir et al., 2021; Nyamwanza et al., 2020; Sampurna & Romawati, 2019; Le & Phan, 2017; Hamid et al., 2015; Tifow & Sayilir, 2015; Dawar, 2014), found that there is a statistically significant and negative impact of debt financing on a company's value, meaning that the utilization of outside funding sources, can only result in information asymmetry, which will raise the cost of

capital and ultimately lower profitability and company value. Additionally, Ebaid (2009), and Olaniyi et al. (2015) found that debt financing has a weak or no impact on a company's value.

When analyzing in-depth the previous research papers on this topic it can be noted that the measurements that academic scholars have used for measuring a company's value differ in terms of whether they are market-based (e.g., Tobin's Q) or/and accounting-based metrics (e.g., ROA, ROE, EPS). Concurrently, the determined relationship between the debt financing and the company's value measured by both, market-based or management accounts, differs. As indebtedness simultaneously harms several of the accounting-based metrics, it has a positive impact on market-based performance metrics, or vice versa. For instance, Tifow and Sayilir (2015) investigated the impact that short-term and long-term indebtedness have on Tobin's Q, ROA, ROE, and EPS and found that short-term indebtedness has a negative association with ROA, EPS, and Tobin's Q, but long-term indebtedness has an inverse association with ROE, EPS, and Tobin's Q. In the sample of Pakistan enterprises, Ahmed, and Afza (2019) have found that capital structure has a negative influence on ROA and ROE but a positive impact on Tobin's Q. According to the research conducted by Hussein (2020) for the sample of Egyptian enterprises, the results showed that short term indebtedness has a statistically significant and positive influence on all performance indicators except for the Tobin's Q, while long term indebtedness harms return on assets but a positive impact on return on equity.

Tobin's Q, computed as the sum of the market value of a firm's equity and debt divided by the replacement value of total assets, has been used as a proxy in determining corporate value by several researchers. Tobin's Q indicates that the company's value will be greater if Tobin's Q is also higher; hence, for investors, as Tobin's Q rises, so will the potential of the company's value. However, some scholars refute the usage of "simple" Tobin's Q as a measurement of firm value and dependent variable when building a regression model. When Tobin's Q is given as a measure of operating efficiency or performance, it is defined as management's capacity to generate sales while limiting expenses (Cronqvist et al., 2009). According to Graham et al. (2002), managers are increasingly preoccupied with their rewards, which means they will use debt to boost EPS and underinvest to boost stock prices. Tobin's Q is instantaneously/in the short term improved by this managerial behavior, which is related to managerial entrenchment, which denotes inadequate corporate governance (Core et al., 1999). In the long run, this

reduces the value of Tobin's Q, due to the cost and scale decisions, asking for doubt about Tobin's Q's eligibility as an indicator of operating performance. As a result, various criteria, such as management accounting indicators, i.e., return on assets, return on equity, profits per share, or net profit margin, are important for establishing the value of a firm. These metrics can be used as complementary for efficiency indicators. They serve as important indicators for assessing a company's performance from the standpoint of investors, much like Tobin's Q.

Other determinants of a company's value

Human capital represents the human factor in an organization, that is, it represents a mix of abilities, skills, motivation, knowledge, and expertise that separates the company from other entities on the market. Human capital can learn, change, and innovate and thus enables the organization to survive in the long run. The goal of any organization is value creation. The question is how human capital can affect a company's value. Al-Delawi et al. (2023) have found that the increase in the company's market value is due to human capital and that the efficiency of the employees is high. Also, Sisodia et al. (2021) confirmed a positive association between a company's value and human capital. These empirical findings confirm what Smith (1776) had recognized, i.e., that people's abilities, knowledge, and skills are the fundamental source of wealth. Additionally, Becker and Mincer (Fleischhauer, 2007) have described people's knowledge, abilities, personality, and experience as human capital which is the driving force of business resilience.

Furthermore, company size is an additional factor that affects a company's value. From a traditional point of view, large companies, by using economies of scale, reduce the average cost per unit of production, leading to greater profitability. At the same time, large-scale companies can take advantage of size negotiate input prices, and further decrease their average costs. In general, it can be concluded that large companies attract more attention to the public or institutional investors and can use not only internal sources of financing but to efficiently maximize the utilization of external financing, also leading to further increase in their profitability. Company size is usually measured by analyzing a company's total assets, total sales, or company's capital. According to the empirical findings presented by Atiningsih and Nur Izzaty (2021), company size has a statistically significant and positive relationship with ROE and ROA, while ROE and ROA have a positive impact on company value. According to the research by Vinasithamby (2015), a company's size is positively related to ROA. However, Meiryani and

co-authors (2020), who investigated the effect of company size on a company's performance, found that a company's size does not have a statistically significant association with the company's performance, measured by ROA and market-to-book-value. The results of this study coincide with the findings of Gupta and Gupta (2014) which show that a company's size is not related to its performance when measured by ROA, PBV (price-to-book value ratio), or Tobin's Q. They give further explanation about these results, stating that due to the measurement of company size as natural logarithm of total assets, there isn't any reflection on the effect of the size on the performance.

Many authors have also been researching the impact of liquidity, measured by traditional metrics such as current, quick, or cash-low ratio, on a company's performance across all sectors. The outcome of all these previous studies showed that liquidity has either a positive impact on company value, such as those of Maani et al. (2021), Reschiwati et al. (2020), Madushanka and Jathurika (2018), or a negative impact on company's value, such as it was found in Dinta et al. (2021).

Data Specification and Research Methodology

To achieve the main aim of this research, which is to determine the impact that debt financing has on a company's value, measured by one accounting (ROA) and one market-based metric (Tobin's Q), two-panel regression models were used (see equations 1 and 2), by examining pooled OLS, Fixed and Random Effect estimators for each of the dependent variables. The models in this research are enlarged and modified from the model used by Hussein (2020), and Nazir et al. (2021). Both papers use short-term and long-term debt to total assets as a measure for debt financing and use the company's size, as a natural logarithm of total assets, as one of their control variables. However, the models presented in this paper take into consideration these variables, but also add the indicator of financial leverage as an additional measure of debt financing and add additional control variables such as human capital return on investment, and current ratio. Data that are used in these models are secondary and obtained from the System for Electronic Information for 20 listed companies on the MSE mandatory listing from the industry sector for the period between 2016 and 2021. These models are enlarged to achieve a better approximation of the impact of debt financing over the company's value, i.e., besides short-term debt (SRTD), long-term debt (LNTD), and financial leverage (DE), human capital return on investment (HCROI),

company size (LS), and current ratio (CR) are included as independent variables:

$$ROA_{it} = \alpha + \beta_1 SRTD + \beta_2 LNTD + \beta_3 HCROI + \beta_4 LS + \beta_5 DE + \beta_6 CR + \varepsilon_{it} \quad (1)$$

$$TQ_{it} = \alpha + \beta_1 SRTD + \beta_2 LNTD + \beta_3 HCROI + \beta_4 LS + \beta_5 DE + \beta_6 CR + \varepsilon_{it} \quad (1)$$

In this study, the authors assume that a company's value is analogous to its performance in terms of operational efficiency, and two distinct proxies for the company's value, Tobin's Q and ROA, will be employed. Tobin's Q is used to examine a firm's financial health as a market-based measure of performance, calculated as a sum of market capitalization and a total of short-term and long-term borrowing, divided by total assets, while ROA is calculated as Net Income divided by total assets.

Indebtedness is surrogated by three proxies, i.e., short-term borrowing to total assets (SRTD), long-term borrowing to total assets (LNTD), and debt to equity ratio (DE) because they are different measures of a company's debt financing altogether. The metric used for human capital is the return on investment in human capital (HCROI), calculated as a ratio between the difference of total revenues and human capital costs, and human capital costs. This ratio represents a relationship between employee costs and the profit of the company. The key point of this indicator is that no matter what the company's expenses are or in what direction they are moving, it clearly shows the relationship between human capital productivity and a company's performance. The natural logarithm of the total sales is used as an indicator of a company's size (LS), where large-scale companies have greater income from the sale of their products, while small-scale companies have fewer products available and therefore smaller sales. The current ratio, calculated as a ratio between current assets and current liabilities (CR), is used as an indicator of liquidity.

Findings and Discussion

From the descriptive statistics (see Table 1) of the data included in this study, ROA has an overall average of 1.3%, which in total suggests that companies might have over-invested in assets that have failed to produce revenue growth, which can be translated as a sign that on average companies might be in some trouble. Additionally, Tobin's is 0.41 indicating that on average this sample of North Macedonian companies shows lower market value when compared to the replacement costs of their total assets. However, in both dependent variables used in the two models, the variation across legal entities (time-invariant) is greater than the variation over time or a given company (time-variant).

Table 1

Descriptive summary of variables, subject of investigation

Variable		Mean	Std. Dev.	Min	Max	Observations
TQ	overall	0.4118658	0.2631532	0.0219322	1.43538	N = 120
	between		0.2502942	0.059975	1.199922	n = 20
	within		0.0960969	0.0789865	0.652604	T = 6
ROA	overall	0.0126097	0.0583333	-0.1652323	0.3024199	N = 120
	between		0.044516	-0.0743563	0.1121755	n = 20
	within		0.038786	-0.0782663	0.2729155	T = 6
SRTD	overall	0.1047676	0.1159128	0	0.4383968	N = 120
	between		0.1054181	0	0.3595749	n = 20
	within		0.0528178	-0.1027247	0.3356721	T = 6
LNTD	overall	0.0126097	0.0583333	-0.1652323	0.3024199	N = 120
	between		0.044516	-0.0743563	0.1121755	n = 20
	within		0.038786	-0.0782663	0.2729155	T = 6
HCROI	overall	0.1047676	0.1159128	0	0.4383968	N = 120
	between		0.1054181	0	0.3595749	n = 20
	within		0.0528178	-0.1027247	0.3356721	T = 6
LS	overall	5.446846	0.5987037	4.173244	6.698737	N = 120
	between		0.5932718	4.260861	6.659873	n = 20
	within		0.1458196	4.702642	6.050133	T = 6
DE	overall	0.2132702	0.7581738	-4.01609	2.112972	N = 120
	between		0.6096885	-1.515859	1.318693	n = 20
	within		0.4676814	-2.963241	1.502533	T = 6
CR	overall	4.482991	10.97833	0.1370034	77.08908	N = 120
	between		10.00374	0.3167792	44.13854	n = 20
			4.965267	-17.36834	37.43353	T = 6

Source: Own research

Related to the three proxies of debt financing as shown, the following results appear. The overall average value of the short-term debt to total assets ratio is 0.105, showing that on average for every unit of denar invested in assets, 0.105 denars are financed with short-term debt, and for every denar invested in total assets 0.098 denars are financed from long term debt. When analyzing the debt-to-equity ratio, the overall average value of the financial leverage is 0.213, showing that on average companies have 21% of debt in total assets. Even though this is a good value of DE, it means that on average the selected companies do not use leverage to increase equity returns. However, when analyzing the overall variation, it moves from negative -4.02 to positive 2.11, meaning that on average several companies have more liabilities than assets, meaning that they are considered extremely risky companies.

The overall average value of HCROI is 1.12, showing that on average the employees in North Macedonian companies subject to this investigation earn revenues of 1.12 denars for 1 denar spent on them. The overall variation is between -9.775532 to 6.851049, showing that in certain companies, employees do not contribute to the overall value creation, i.e., there is loss creation for investing in employees.

The overall average value of a company's size (LS) in the case of North Macedonian companies in this study is 5.45 and the overall variation is between 4.17 and 6.7, which

indicates that on average there are small deviations between the companies' subject of research.

The overall average value of CR for the examined North Macedonian companies is 4.49, indicating of high value, which is above 2. If analyzing the descriptive statistics for this independent variable, the overall maximum and minimum value is 77.1 and 0.13, respectively, indicating high variation between companies and time. The between variation is smaller than overall and it takes values from 0.31 to 44.14. According to these summaries of the current ratio, some of the selected companies are struggling to fulfill their financial obligations in the short term, while other companies with very high current ratios are having trouble with inefficient usage of current assets.

When analyzing the findings from the aspect of between and within the variation of the included independent variables it can be noted that all the explanatories, except HCROI, have greater between than the within variation

(and in some of the cases substantial), leading us that fixed effects model might be inappropriate when investigating the regression.

Table 2 and Table 3 display the estimated results of the regression analysis between ROA/Tobin's Q and explanatory factors. In the case of the first-panel data model (see Table 2), the null hypothesis was not rejected after running the Hausman test to see if the individual traits relate to the independent variables, indicating that the random effects model produces more appropriate findings than the fixed effects model. Furthermore, the null hypothesis was accepted when the Breusch and Pagan Lagrange multiplier test for random effects, i.e., if there are significant changes between firms, indicating that there is no significant difference between units (i.e., no panel effect). For this regression model, the pooled OLS estimator is BLUE. This model's findings indicate that SRDT has a statistically significant and inverse influence on ROA at the 1% significance level. As a result, for every unit increase in short-term debt to

Table 2

Pooled OLS, fixed, and random effects regression model results

Dependent Variable ROA	Pooled OLS Model 1	Fixed Effect Model 2	Random Effect Model 3	VIF collinearity statistics	
				VIF	1/VIF
SRTD	-0.1797008*** (0.0362546)	-0.0810818 (0.0728341)	-0.1794016*** (0.0365329)	1.56	0.642
LNTD	-0.0454418 (0.0277828)	0.0388285 (0.0630828)	-0.045259 (0.027996)	1.68	0.594
HCROI	0.0184606*** (0.0021769)	0.0165975*** (0.0029909)	0.018452*** (0.0021848)	1.21	0.828
LS	0.0163382*** (0.0062643)	0.0167734 (0.0249974)	0.0163212*** (0.0063266)	1.24	0.807
DE	0.0016679 (0.0051105)	-0.0027362 (0.0079211)	0.001676 (0.005137)	1.32	0.756
CR	0.0009185*** (0.0003297)	0.000191 (0.0006884)	0.000916 (0.0003323)	1.15	0.866
Some obs.	**120**	**120**	**120**		
R²	**0.6232**				
Root MSE	**0.03675**				
Rho		0.040	0.004		

Source: Own research

In general, companies with higher short-term indebtedness experience reduced operating efficiency. These empirical findings coincide with prior findings of Ebaid (2009), Dawar (2014), Hamid et al. (2015), and Nazir et al. (2021). The estimated results of the regression between Tobin's Q and the independent variables are shown in Table 3. The null hypothesis was not rejected after running the Hausman test to see if the individual features of the firms relate to the independent variables, indicating that the random effects model produces more appropriate findings than the fixed effects model. Furthermore, the null hypothesis was rejected when the Breusch and Pagan Lagrange multiplier test for random effects was performed, indicating that there is a significant difference across units and that variation across companies is random and uncorrelated with the explanatory variables. At the 1% significance level, estimates from the random effects generalized least squares (GLS) regression revealed that SRDT and LNTD had a statistically significant and favorable influence on Tobin's Q. Thus, for every unit increase in short-term debt to total assets or long-term debt to total assets, Tobin's Q rises by 1.033 and 1.05 points, respectively. HCROI, LS, and DE all have a negative but statistically insignificant relationship with a company's worth, and CR has a positive but statistically insignificant association with Tobin's Q. The estimated rho demonstrates that differences across entities explain 91% of the variation in Tobin's Q.

total assets, ROA decreases by 0.17. Companies use short-term debt for financing urgent emergencies or when in cash deficit, to bridge a gap when necessary and avoid liquidity risks. LNTD has a negative influence on firm value, whereas DE has a favorable impact, although both are statistically insignificant. At the 1% significance level, HCROI, LS, and CR all have a positive and statistically significant influence on ROA. R2 indicates that the independent variables utilized in the model explain 62% of the variation in ROA. The explanatory variables' variance inflation factor (VIF) is less than 2, indicating that there is no multicollinearity among them in the multiple regression model.

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Table 3

Pooled OLS, fixed, and random effects regression model results

Dependent Variable Tobin's Q	Pooled OLS	Fixed Effect	Random Effect
SRTD	0.530409 *** (0.1527358)	1.070611*** (0.1017029)	1.033368*** (0.1002931)
LNTD	0.8950749*** (0.1170453)	1.068064*** (0.0880865)	1.052791*** (0.0853294)
HCROI	0. 0006685 (0.0091712)	-0.0005249 (0.0041764)	-0.0010722 (0.0041797)
LS	0.0163382*** (0.0062643)	-.0470158 (0.0349055)	-0.0119621 (0.0314359)
DE	-0.0262001 (0.0215298)	-0.0078188 (0.0110608)	-0.0073855 (0.0110478)
CR	0.0017772 (0.0013892)	0.001216 (0.0009612)	0.0015501 (0.0009478)
Number of obs.	**120**	**120**	**120**
R²	**0.6714**		
Root MSE	**0.15481**		
Rho		0.93	0.91

Source: Own research

*Notes: Standard errors are reported in the parenthesis *, **, *** show significance levels of 10 %, 5 %, and 1 %, respectively*

Conclusion

The objective of this research paper was to examine the impact of indebtedness on a company's value, measured by Tobin's Q and ROA, on a sample of 20 North Macedonian companies listed on the mandatory listing on the Macedonian Stock Exchange from the industrial sector based on the secondary data for the time frame 2016-2021. By using pooled OLS, fixed, and random effects estimators, in the first-panel data model where the dependent variable for explaining the company's value was ROA, it was found that pooled OLS estimator was the best linear unbiased estimator, where debt, both short (statistically significant) and long term (statistically insignificant), have negative influence on ROA. The increase in short-term debt contributes to a statistically significant reduction in ROA, i.e., a decrease in the accounting operating performance. This finding is in line with Nazir et al. (2021), Nyamwanza et al. (2020), Hussein (2020), Ahmed and Afza (2019), Le and Phan (2017), Tifow and Sayilir (2015), Dawar (2014), Salim and Yadav (2012), and Ebaid (2009), while it is inconsistent with the study of Forte and Tavares (2019).

In the second-panel data model where the dependent variable is Tobin's Q, the random effects model is more appropriate, meaning that differences across companies have a significant impact on Tobin's Q and they explain 91% of its variation. From this standpoint, it can be derived that with the debt, i.e., underinvestment, the market value of companies might be boosted, which would attract investors'/creditors' attention to believe in the growth potential of the company. This finding is in line with the studies of Hussein (2020), and Ahmed and Afza (2019), and inconsistent with Le and Phan (2017), and Tifow and Sayilir (2015).

Short-term and long-term debt have a statistical and positive influence over the company's market value (Tobin's Q), which is in line with the trade-off theory and agency theory that assumes a positive relationship with performance since increased usage of debt will lead to higher profits due to tax saving; the increase in short-term debt leads to lower ROA, while long term debt has negative but statistically non-significant relationship with ROA, which is consistent with pecking order theory which assumes a negative relationship between performance and capital structure and that profitable companies are expected to use less debt capital than those that are not profitable.

The complexity in the findings, as expected and elaborated from previous research, comes from the usage of different performance measures when testing the impact of capital structure (Weill, 2008). The increase in debt financing can boost Tobin's Q indicator in the short term, but in the long run, due to poor cost and scale decisions, there will be a reduction in the value of Tobin's Q (Ishaq et al., 2021). This undermines the sole usage of Tobin's Q as a proxy for the company's value (Bartlett & Partnoy, 2018). Accordingly, the contribution of this paper is seen in finding this inconsistency in the results when measuring Macedonian companies' performances with different measures, recommending that when analyzing market value (by using market-based indicators, such as Tobin's Q) of the sampled companies, investor/financial analysts should also take into consideration and fundamental ratios such as ROA to identify potential operating inefficiencies. Additionally, this research paper asks for further research in this area related to the purpose of issued debt, the efficiency of scale decisions, and cost management.

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Vpliv dolžniškega financiranja na vrednost podjetja: primer severnomakedonskih podjetij

Izvleček

Namen tega prispevka je ugotoviti povezavo med zadolženostjo podjetja in njegovo vrednostjo. Uporabili smo vzorec 20 severnomakedonskih podjetij, ki kotirajo na makedonski borzi vrednostnih papirjev (MSE), in podatke za obdobje šestih let. V članku uporabljamo modele panelnih podatkov (združena regresija OLS, modeli fiksnih in naključnih učinkov) za oceno povezave med financiranjem z dolgom in vrednostjo podjetja, merjeno z donosnostjo sredstev (ROA) in Tobinovim Q. Glede na rezultate ima kratkoročni dolg statistično pomemben in negativen vpliv, medtem ko imajo donosnost naložb v človeški kapital (HCROI), velikost podjetja in tekoči koeficient pozitiven in statistično pomemben vpliv na ROA. Pri proučevanju vpliva zadolženosti na vrednost podjetja, merjeno s Tobinovim Q, imata kratkoročni in dolgoročni dolg pozitiven in statistično značilen vpliv. Naša raziskava kaže, da dolg sicer povečuje kazalnike tržne uspešnosti podjetja, vendar hkrati zmanjšuje računovodsko uspešnost poslovanja podjetja. Zato bi morali vlagatelji pri analizi vrednosti podjetja poleg Tobinovega Q, ki ga včasih lahko obravnavamo kot razmerje med tržno in knjigovodsko vrednostjo, upoštevati tudi temeljne kazalnike, kot so ROA, ROE (donosnost kapitala) in EPS (dobiček na delnico).

Ključne besede: vrednost podjetja, kratkoročni dolg, dolgoročni dolg, finančni vzvod, Severna Makedonija