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Key determinants of firm value: evidence from Serbian listed companies

Кључне детерминанте вредности компанија: искуство
акционарских друштава у Србији

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Abstract: The valuation of a firm is a major issue, scrutinized by all stakeholders, and serves as an indicator of the worth of the core business. The goal of this research is to analyze, from both academic and empirical point of view, how key financial determinants influence firm value. In more detail, this analysis strives to explain the relationships between company value of listed companies on Belgrade Stock Exchange (BELEX) as a dependent variable, determined through Tobin's Q, and independent variables that include leverage, size, liquidity, growth, asset structure and profitability. The objective of this study is to present an evaluation of the impact of firm-specific determinants on the company value of Serbian stock companies, across several industries using panel data analysis. The sample consists of 38 active companies that actively operated from 2019 to 2021, resulting in 114 observations. The results of panel data analysis show that on the one hand, liquidity and asset tangibility have positive and statistically significant influence on firm value, while on the other hand, leverage and profitability have negative and statistically significant influence on the value of the firm. Company size and growth showed no statistically significant impact on Tobin's Q.

Keywords: Tobin's Q, valuation, BELEX, panel analysis

JEL classification: C23, G32

Сажетак: Процена вредности компаније је значајно питање које разматрају све заинтересоване стране и служи као показатељ вредности пословања. Циљ истраживања ове студије је да се спроведе анализа како би се открило, из теоријске и из емпиријске перспективе, како кључне финансијске детерминанте утичу на вредност предузећа. Детаљније, ова студија има за циљ да испита односе између вредности котираних компанија на Београдској берзи (BELEX), као зависне варијабле мерене путем Tobin's Q и независних варијабли које укључују левериџ, величину компаније, ликвидност, раст, структуру aktive и профитабилност. Циљ овог рада је да пружи процену утицаја специфичних карактеристика предузећа на вредност акционарских компанија у Републици Србији, у неколико привредних грана, употребом панел анализе података. Узорак се састоји од 38 активних компанија које су пословале од 2019. до 2021. године,

што је резултирало са укупно 114 опсервација. Резултати панел анализе показују да, с једне стране, ликвидност и материјалност имовине имају позитиван и статистички значајан утицај на вредност предузећа, док са друге стране, левериџ и профитабилност имају негативан и статистички значајан утицај на вредност фирме. Величина и раст компаније нису показали статистички значајан утицај на Tobin's Q. **Кључне речи:** Tobin's Q, вредновање, BELEX, панел анализа
ЈЕЛ класификација: Ц23, Г32

Introduction

The total worth of a business is a question of great significance not only among researchers, but also investors, creditors, and other stakeholders inside and outside a corporation. This matter is best recognized in theory and practice as firm or company value. According to Adiputra & Hermawan (2020), a firm's value is one of the significant indicators for the third parties in assessing the core business of the company, because if the firm's value is high, the market would believe that the firm is performing well and could guarantee the sustainability of the shareholders' interest in the future. Reschiwati et al. (2019) highlight that firm value is a benchmark for investors to assess the success of a company. Moreover, Sondakh (2019) asserts that companies undergoing an initial public offering want to increase the overall worth of their company. This is primarily driven by the recognition that a higher value of company presents a compelling incentive for investors to allocate their financial resources. Furthermore, Husna & Satria (2019) agree that firm value is the selling price of a company that is considered feasible for prospective investors. This is a matter of great importance since, according to Marković & Savović (2022), foreign investors have to restructure targets quickly and radically, in order to improve targets' business performance.

The primary aim of this research is to analyze, from both theoretical and empirical point of view, how key financial determinants influence firm value. In more detail, this study tends to examine the relationships between firm value as a dependent variable explained through Tobin's Q and independent variables. In this paper, leverage, size, liquidity, growth, asset structure and profitability will be empirically examined as key determinants of firm value of listed corporations on Belgrade Stock Exchange (BELEX). The review of existing research literature showed that there are very few studies that focus on the examination of influence of financial determinants on firm value in Serbian stock market, in particular. Therefore, this study will contribute to this academic field to a large extent. Additionally, discovering the determinants of firm value and forming a regression model could improve several activities, both for management within the company and, externally, for consultants and auditors in the digitalization process (Vuković et al., 2023), as well as for investors and other stakeholders. In the light of rapid technological advancements, there have also been significant changes in all parts of corporate processes, as well as the creation of new business opportunities (Ljumović et al., 2021).

This manuscript involves three main sections. The first section contains the theoretical background and review of prior research results of different authors regarding the effect of key firm-related determinants on value of listed corporations in various markets worldwide. According to literature overview, the main hypotheses were made. The following part

presents the observed sample and methodology applied in this research, in more detail. The last section shows empirical findings and the discussion of results with the aim to confirm or reject the research hypotheses.

1. Theoretical background

In order to value the company adequately and give a signal to stakeholders whether a firm's stocks are being overvalued or undervalued in the market, Tobin's Q is a primarily used concept. According to Ishaq et al. (2021), Tobin's Q is a widely used proxy for the operating performance in studies of corporate governance. Tobin's Q ratio is a tool that measures the link among market and book value of the firm. According to Ganguli & Agrawal (2009), the Tobin's Q model includes inherent finance risk, resulting in a more forward-looking valuation of the firm. Fisher and McGowan (1983) states that by combining stock market data with accounting data, Tobin's Q produces a more accurate measure of firm rent. This paper employed Tobin's Q as a dependent variable to assess the impact of selected economic variables.

The examination of the influence of leverage on company valuation is in a special focus of academic researchers in the last decade. The significance of this function remains a subject of debate, leading to continuous interest and investigation among scholars. In this paper, debt-to-asset ratio is applied for calculation of impact on firm value. According to Vatansever & Hepsen (2013), debt-to-asset ratio is performed to measure how much a company's assets are financed by debt or how much the company's debt affects its asset management. In corporate finance, the impact of financial leverage on firms' strategic decisions is of crucial importance (Shilpa & Amulya, 2020). By analyzing 96 companies belonging to metals and metal products industries publicly traded on the National Stock Exchange (NSE) in India, Shilpa & Amulya (2020) conclude that debt ratios have negative impact on market-to-book value of firm which is contrary to traditional trade-off theory. The study from Gharaibeh & Qader (2017), who empirically investigate the determinants of firm value on a sample of 40 companies listed on the Saudi Stock Exchange (TADAWUL), resulted in the conclusion that there is no statistically significant relationship between firm value and its leverage. Considering previous research findings and the aim of this study, the hypothesis that would be examined during this research is the following:

Hypothesis 1 (H1): Financial leverage, as the debt-to-asset ratio, has a negative and statistically significant impact on firm value.

The financial variable of great influence on company value, which measures a corporate ability to create income, is return on assets (ROA). As Hendrani & Septyanto (2021) highlight, ROA is a ratio for measuring profitability that is very often used by financial managers to evaluate overall effectiveness in generating profits with available assets. According to Tica et al. (2023), ROA could assess the performance of both publicly traded and non-publicly traded companies, which makes it suitable for research on different markets. Moreover, Reschiwati et al. (2019) state that the higher profits generated by a company would increase the creditor's confidence to provide loans and could increase investor confidence to

invest capital, so it could be said that profitability influences capital structure. On the one hand, Reschiwati et al. (2019), based on research performed on banks listed on the Indonesia Stock Exchange for the years 2014 to 2018, concluded that profitability does not significantly affect the value of the company. Also, Rahmantari et al. (2019) indicated that the profitability increase is not accompanied by the stock prices growth, which leads to a decrease in the company value. On the other hand, profitability is found to have a significant and positive relationship with firms' value of quoted manufacturing firms in Nigeria, according Igbiovina & Ogbeide (2019) that made research on the sample of fifteen manufacturing companies in Nigeria from the Nigerian Stock Exchange covering five sub-sectors and including the period of 2012 to 2017. This could be interpreted as an indication that increased ability for profit generation accelerates corporate value. Markonah et al. (2020) obtained the assumption that profitability has a positive and significant influence on firm value, based on the sample of 14 industrial corporations from food and beverage industry registered at Indonesian stock market in the period 2010-2016. Furthermore, in the research performed by Gamayuni (2015) it is concluded that ROA has positive and significant impact on firm value, measured through Tobin's Q, based on manufacturing companies in Indonesia listed on IDX (2007-2009). Similar studies conducted by Afinindy et al. (2021), Mardiyati et al. (2012), Sukmawardini (2018) and Rizqia et al. (2013) also agree with those findings. Based on available research evidence and the scope of this paper, the hypothesis that would be examined in this study is the following:

Hypothesis 2 (H2): Profitability as the return on assets has a positive and statistically significant impact on firm value.

The impact of firm size on company value, often mentioned as the 'size effect', is merely one of several factors taken into consideration while examining the influence on firm value. This is supported by the research of Oktaviarni & Suprayitno (2018), which shows that the size of the company affects the value of the company because the larger the company, the easier it is to obtain sources of funding. On the contrary, according to Reschiwati et al. (2019), firm size has a negative and significant effect to the value, following the results of research conducted on banks listed on the Indonesia Stock Exchange for the period 2014-2018. Igbiovina & Ogbeide (2019) conducted research on the sample of fifteen manufacturing companies in Nigeria from the Nigerian Stock Exchange covering five sub-sectors and including the period of 2012 to 2017 and concluded that size is negative and statistically insignificant with firms' value of quoted manufacturing firms in Nigeria. Djashan & Agustinus (2020) included 180 non-financial companies listed on the Indonesian Stock Exchange in the period of 2015-2017 in their research and confirmed that size of the company has no significant effect on firm value. The insignificant influence of firm size on firm value is also confirmed a the study by Gharaibeh & Qader (2017), who empirically investigated the determinants of firm value of a sample of 40 companies listed in the Saudi Stock Exchange (TADAWUL). Moreover, the research of Afinindy et al. (2021) came with a conclusion that that firm size has no effect on firm value, which means that large firm size is not always followed by an increase in firm value, according to the study of food and beverage companies listed on the Indonesia Stock Exchange for six periods (2013-2018). In accordance with

previous research and the aim of this paper, the hypothesis that would be examined in this study is the following:

Hypothesis 3 (H3): Firm size has a negative and statistically significant effect on firm value.

In this paper, liquidity is measured by current ratio, which, according to Husna & Satria (2019), is used to measure the ability of a company to meet its short-term liabilities that are due by using the total current assets available. Janačković et al. (2022) underline that the three important elements that include liquidity are time, means of payment and financial obligation. Reschiwati et al. (2019) clarify that when a company is highly liquid, it could pay the short-term debt, reducing total debt and turning capital structure more towards its own sources. Hence, it could be said that liquidity has great affect to capital structure. Djashan & Agustinus (2020) highlight that high liquidity could affect the investor's decision to invest in a company, which causes the demand for the company's stock, consequently rising the stock price. Markonah et al. (2020) conclude that the higher the current ratio, the greater firm's capacity to promptly fulfill its financial responsibilities. Based on the research of Reschiwati et al. (2019), conducted on banking companies listed on the Indonesia Stock Exchange for the period 2014-2018, liquidity has a positive and significant effect to the value of the company. However, the results of high ratio, not necessarily imply the high liquidity of the firm. The findings of the study by Markonah et al. (2020) showed that the current ratio does not have significant impact on the firm value, based on the sample of corporations in food and beverage industry registered on Indonesian stock market in the period 2010-2016. Moreover, Afinindy et al. (2021) concluded as well that either high or low liquidity have no effect on firm value, based on a study of food and beverage companies listed on the Indonesia Stock Exchange for six periods (2013-2018). Based on prior research results and the purpose of this paper, the hypothesis that would be examined in this study is the following:

Hypothesis 4 (H4): Liquidity, as a current ratio, has a positive and statistically significant impact on firm value.

The growth of the firm, as another important metric, could be explained as a company's ability to expand by comparing sales from the current year with previous. Moreover, Afinindy et al. (2021) explain that from an investor's point of view, sales growth shows a positive signal where a firm is able to increase profits through its sales and has a positive impact on firm value. In this paper, growth is defined as annual percentage change of sales. According to Hestinoviana (2013), sales growth rate is calculated as the sales in the second year minus the sales value in first year and then divided by the sales value in the first year. Vuković et al. (2022) clarify that all internal and external stakeholders will be provided with insight into the reality of growth plans and opportunities for future sustainable growth, which creates a basis for measuring a company's business prosperity and predicting its long-term performance. However, the research of Hestinoviana (2013) envisaged that growth measured through turnover has no impact on corporate value. Furthermore, the results of Afinindy et al. (2021) based on food and beverage companies listed on the Indonesia Stock Exchange for six periods (2013-2018) indicate that sales growth has no effect on firm value,

meaning that the level of sales growth does not affect firm value. This finding indicates that the determinant regarding sales growth is not always considered by stakeholders, because different sales levels do not ensure the expected rate of return to shareholders. Relying on previous research findings and the main objectives of this paper, the hypothesis that would be examined in this research is the following:

Hypothesis 5 (H5): Growth has a positive and statistically significant impact on firm value.

Asset structure is another independent variable of great importance and influence on firm value. As a condition for survival in modern markets, companies regularly invest in the acquisition of new technology and use them to gain yield (Tica, 2022). Aggarwal & Padhan (2017) state that high compositions of fixed assets offer more collateral value, hence providing a safety cushion backup. With the increased level of tangibility of assets, the company has more guarantee to deal and therefore, has more power to invest in various projects due to available funds. Gamayuni (2015) highlights that value of intangible assets is more volatile than the value of tangible assets. According to the study performed by Igbinoia & Ogbeide (2019), on the sample of fifteen randomly selected manufacturing companies in Nigeria based on data availability from the Nigerian Stock Exchange covering five sub-sectors and including the period of 2012 to 2017, tangibility of assets is found to have a significant positive relationship with firms' value of quoted manufacturing firms in Nigeria. This could be an implication that effective allocation of assets would empower company value, especially when those assets are valuable for enhancement of value of stocks. On the contrary, in the research conducted by Gharaibeh & Qader (2017), which empirically investigated the determinants of firm value of a sample of 40 companies listed in the Saudi Stock Exchange (TADAWUL), the conclusion was made that there is no statistically significant relationship between firm value and its asset tangibility. According to literature review and the aim of this paper, the hypothesis that would be examined in this study is the following:

Hypothesis 6 (H6): Asset structure has a positive and statistically significant impact on firm value.

2. Data and methodology

The goal of this research is to provide an empirical and theoretical evaluation of the influence of firm-specific characteristics on the firm value of listed companies in Republic of Serbia, across several industries. The sample consists of 38 active companies that operated from 2019 to 2021, resulting in a total of 114 observations. The TP Catalyst database was used as a primary data source for this research (Bureau van Dijk, 2022). The details of the model's variables are specified in Table 1.

Table 1: Summary of variable specification

Variable	Designation	Calculation	Literature
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Dependent variable	Tobin's Q	(Market value of equity/Book value of assets)	Hestinoviana, 2013; Gamayuni, 2015; Gharaibeh & Qader, 2017; Al-Slehat, 2020; Ishaq et al., 2021;
Independent variables	Leverage	Sum of liabilities/Total assets	Gharaibeh & Qader, 2017; Husna & Satria, 2019; Shilpa & Amulya, 2020.
	Profitability measured by ROA	Net income/Total assets	Gamayuni, 2015; Igbinovia & Ogbeide, 2019; Reschiwati et al., 2019; Sondakh, 2019; Husna & Satria, 2019; Djashan & Agustinus, 2020; Afinindy et al., 2021; Hendrani & Septyanto, 2021.
	Company size	Ln Total assets	Gharaibeh & Qader, 2017; Husna & Satria, 2019; Igbinovia, & Ogbeide, 2019; Reschiwati et al., 2019; Adiputra & Hermawan, 2020; Al-Slehat, 2020; Djashan & Agustinus, 2020; Umar Abbas, 2020; Afinindy et al., 2021; Hendrani & Septyanto, 2021.
	Liquidity	Current assets/current liabilities	Gamayuni, 2015; Husna & Satria, 2019; Reschiwati et al., 2019; Sondakh, 2019; Adiputra & Hermawan, 2020; Djashan & Agustinus, 2020; Markonah et al., 2020; Afinindy et al., 2021.
	Company growth	Relative change in sales revenue	Hestinoviana, 2013; Djashan & Agustinus, 2020; Afinindy et al., 2021.
	Assets tangibility	Fixed assets/Total assets	Gharaibeh & Qader, 2017; Igbinovia & Ogbeide, 2019; Al-Slehat, 2020; Djashan & Agustinus, 2020.

Source: the authors' research

The sample comprises enterprises from several sectors, according to NACE Rev. 2 (Eurostat, 2008). The overall structure of enterprises categorized by industries is displayed in Table 2.

Table 2: Summary of sample structure by industry

Section	Title	No. of companies	% Share
A	Agriculture, forestry and fishing	2	5.3%
B	Mining and quarrying	1	2.6%
C	Manufacturing	17	44.7%
F	Construction	5	13.2%
G	Wholesale and retail trade; repair of motor vehicles and motorcycles	3	7.9%
H	Transportation and storage	3	7.9%
J	Information and communication	1	2.6%
K	Financial and insurance activities	2	5.3%
L	Real estate activities	1	2.6%
M	Professional, scientific, and technical activities	1	2.6%

N	Administrative and support service activities	1	2.6%
P	Education	1	2.6%
Total		38	100,00%

Source: the authors' calculation

In the study, panel data analysis is employed to assess the impact of financial factors on the company value, measured by Tobin's Q of stock corporation and based in Serbia. Tobin's Q indicator involves market evaluations, which are derived from the prices at which a company's assets could be sold in the stock market. It presents investor anticipations regarding the potential prosperity of the firm. Tobin's Q is a forward-looking metric that takes into consideration the expected future expenses associated with property replacement. Tobin's Q serves as a standardized metric for evaluating value, enabling comparisons to be made across various organizations and industries. The primary constraint related to Tobin's Q is its reliance on market value data, which may not be easily accessible for every company or in all markets. Consequently, this limitation restricts its applicability in some circumstances. Due to this reason, many companies were excluded from the sample. In this paper, the following model will be evaluated:

$$TOBINQ_{it} = \beta_{it} + \beta_1 LEV + \beta_2 ROA + \beta_3 SIZE + \beta_4 LIQ + \beta_5 GR + \beta_6 TANG + u_{it}$$

where the abbreviations are as follows: i - firm ($i = 1, 2, 3, \dots, n$), t - year ($t = 1, 2, 3$), $TOBINQ$ - Tobin's Q (firm value), LEV - financial leverage, ROA - return on assets, $SIZE$ - firm size, LIQ - liquidity, GR - company growth, $TANG$ - assets tangibility.

3. Results and discussion

Before employing a detailed empirical analysis, it is necessary to perceive the variables of the sample using descriptive statistics. According to the findings reported in Table 3, the Tobin's Q value has a notable variation, ranging from 0.004 to 1.341. The Tobin's Q ratio, which relates the market worth of the firm to its substitution value, generally ranges between the range of 0 to 1. When the ratio is closer to 0, it implies that the cost of replacing the assets surpasses the shares value, indicating a relatively low company value. In contrast, it may be observed that when the Tobin's Q ratio exceeds 1, it indicates that the valuation of a company's assets surpasses its replacement cost, implying that they may be overpriced. Moreover, it is observed that the median debt-to-assets ratio is 0.383 for Serbian stock corporations. This suggests that, on average, these companies tend to depend more on equity funding, with a minor inclination towards utilizing borrowed sources for operational activities. The low values of this indicator may suggest a minimal level of investment risk. The profitability, shown by the median of ROA, is found to be 1%. This figure falls below the conventional target of 10%. If subsequent examination indicates that profitability is an important variable in examining the value of a firm, it should be advisable for firms to improve their ability to generate earnings. The current ratio revealed a mean value of 1.142, presenting a significant range from 0.047 to 7.180. In comparison to the target value of 2, the median value indicates that a significant proportion of the studied companies are unable to fulfill their immediate financial obligations by utilizing their current assets. Therefore, there

are expressed worries regarding the maintenance of liquidity, despite the inclusion of highly liquid enterprises in the sample. When examining the potential for sales growth, it is observed that the median of sales growth values 0.040, with a range spanning from -0.992 to 1.541. These statistics suggest that the company's assets possess the ability to yield earnings in the form of sales. The median value representing the level of tangibility is 0.655. Therefore, it could be observed that, on average, organizations own asset structures that are mostly fixed assets. This implies that the companies included in the sample are predominantly distinguished by a high intensity of capital.

Table 3: Summary of descriptive statistics

Variable	No. of observations	Median	Mean	St. dev.	Min.	Max.
Tobin's Q	114	0.184	0.262	0.255	0.004	1.341
Leverage	114	0.383	0.429	0.355	0.048	1.735
ROA	114	0.010	0.01	0.075	-0.227	0.281
Firm size	114	9.640	9.835	1.600	6.255	15.086
Liquidity	114	1.142	1.804	1.708	0.047	7.180
Growth	114	0.040	0.04	0.327	-0.992	1.541
Tangibility	114	0.655	0.633	0.235	0.032	0.980

Source: the authors' calculation

Since we have time dimensions from 2019 to 2021, as well as the spatial dimensions in the form of firms, panel data analysis should be applied. Fixed-effect and random-effects panel regression analysis was estimated and used the Hausman test to indicate the adequate type of model for the analysis. The Hausman test results were significant ($p = 0.0365$), so we rejected the null hypothesis that envisages using the model with stochastic specification.

Table 5: Test of autocorrelation, heteroscedasticity, and cross-section dependence

Test	Test statistics value	p
Wooldridge test	2.030	0.163
Breusch-Pagan / Cook-Weisberg test	21.40	0.000
Pesaran cross-section independence test	0.377	0.706

Source: the authors' calculation

After estimating the model, it proves appropriate to test the main assumptions for applying panel data analysis (autocorrelation, heteroskedasticity, and cross-section dependence). The presence of autocorrelation in data is examined using the Wooldridge test. Since the findings of the Wooldridge test do not show significance ($p = 0.163$), we confirm the null hypothesis that there is no first-order autocorrelation. Breusch-Pagan/Cook-Weisberg test is implemented to test the existence of heteroskedasticity. The results were significant ($p = 0.000$), so we reject the null hypothesis of homoscedasticity. Pesaran cross-section independence test was used to examine whether there is a cross section-dependence between panels. The results were not significant ($p = 0.706$), so we accepted the null hypothesis of cross-sectional independence. Table 6 shows the findings of the evaluation of multicollinearity among the independent variables, utilizing the Variance Impact Factors (VIF) and 1/VIF (TOL) coefficients. The VIF parameters for all variables are under 10 and

the TOL parametres are above 0.1. Thus, the lack of multicollinearity in the model could be confirmed. Based on the results, one of four assumptions for applying panel regression analysis have not been met.

Table 6: Test of multicollinearity

Variable	VIF	TOL (1/VIF)
Leverage	2.21	0.45
ROA	1.91	0.52
Liquidity	1.62	0.62
Assets tangibility	1.53	0.65
Company growth	1.13	0.89
Company size	1.07	0.93
Mean VIF	1.58	

Source: the authors' computation

To overcome the assumption violation for applying panel regression analysis, an alternative model specification with panel-corrected standard errors was used. The findings of the model with panel-corrected standard errors are presents in Table 7.

Table 7: Results of evaluation of regression model with panel-corrected standard errors results

Variable	PCSE model
Leverage	-0.273* (0.061)
ROA	-0.529** (0.246)
Company size	-0.011 (0.012)
Liquidity	0.041* (0.013)
Company growth	0.009 (0.050)
Assets tangibility	0.121** (0.053)
C	0.350** (0.150)
R ²	0.4143
Wald χ^2	103.58*
p < 1%*, 5%**	

Source: the authors' computation

The findings of regression analysis with panel-corrected standard errors show that financial leverage has negative and statistically significant impact on corporate value, whereby hypothesis 1 is accepted. Increasing levels of debt have the potential to constrain a company's financial maneuverability. The company might be required to dedicate a substantial proportion of its cash flows towards servicing its debt, so reducing the available funds for dividend distributions, share repurchases, or investments in its operations. Moreover, high amounts of debt might give rise to agency expenses and potentially enhance the credit risk of the organization. These are all factors that indirectly lead to a decrease in firm value. These results have been empirically confirmed by Shilpa & Amulya (2020). Furthermore, panel analysis findings revealed that profitability negatively impacts firm value, denying hypothesis 2. Although this direction of influence is unexpected, there are some reasons why it is present. Investors may express concern regarding a company's capacity to retain its profit margins over a long time if the firm's profitability is mostly driven by short-term indicators or unsustainable practices, such as the implementation of aggressive

cost-cutting measures. Moreover, the presence of very high profitability has the potential to draw the attention of regulatory and tax authorities, which may subsequently result in alterations or increases in the tax treatment. Provided that the company chooses to retain all its earnings without distributing dividends, investors who prioritize income might demonstrate a preference for corporations that offer earning opportunities through regular dividend payments. Similar findings were confirmed by Rahmantari et al. (2019). As the results revealed, company size is not a significant factor in firm value. It is possible for company size to develop a different impact on firm value in different industries. Investors and analysts frequently evaluate companies by considering their growth potential, profitability, market position and other aspects that may hold greater significance than mere size. Smaller enterprises frequently demonstrate enhanced efficiency, adaptability, and resilience in the face of dynamic market conditions when compared with their bigger counterparts. All things considered, hypothesis 3 is rejected. These results confirm the direction and significance of the firm size effect, as in research from Gharaibeh & Qader (2017), Djashan & Agustinus (2020) and Afinindy et al. (2021). Regarding liquidity, analysis envisages that the current ratio has a positive and statistically significant impact on company value and hypothesis 4 is confirmed. The presence of liquidity serves as a protective measure against potential financial difficulties and unexpected obstacles. Moreover, companies that possess sufficient cash could allocate resources towards research & development, investment initiatives, and growth efforts, so improving their competitive strength and overall profitability. In addition, liquidity enables corporations to distribute dividends to their shareholders. Researching a related subject matter, Reschiwati et al. (2019) and Djashan & Agustinus (2020) obtained similar results. If we recall descriptive analysis, firms from sample record a low liquidity. Hence, given that observed Serbian companies intend to achieve high firm values, it proves necessary to determine a means of accelerating the immobilization of funds and extending the repayment period of obligations. Considering further results, company growth measured by annual change in sales does not significantly affect firm value. If a company encounters a period of rapid sales revenue growth, it is important to consider that this may not necessarily result in an increase in firm value if its profit margins are narrow or decreasing. Consequently, hypothesis 5 is rejected. Such direction could also be found in study performed by Hestinoviana (2013) and Afinindy et al. (2021). Regarding tangibility of assets, empirical research shows that participation of the fixed assets in total assets positively and statistically significant impacts on Tobin's Q. Tangible assets possess the potential to serve as collateral for the purpose of obtaining loans and securing finance. Moreover, it is worth noting that tangible assets provide a higher degree of liquidity in comparison to intangible assets, as they may be easily transformed into cash. Considering descriptive statistics, sampled companies have an asset structure predominantly oriented towards fixed assets, which is a great advantage in the process of valuing the corporation. Regarding the findings of the panel analysis, Hypothesis 6 is accepted. Also, the results are in accordance with the research conducted by Igbinovia & Ogbeide (2019).

Conclusion

Firm value presents a global focus of academic researchers in the present time. Moreover, the total worth of a business is a question of great importance not only among researchers, but also various stakeholders inside a company. In this paper, the authors seek to examine the relationships between firm value, expressed through Tobin's Q, and financial determinants such as leverage, size, liquidity, growth, asset structure and profitability, measured through specific financial ratios. The goal of this research is to deliver an econometrical and academic evaluation of the effect of determinants on the firm value of companies in Serbia, across several industries, listed on Belgrade Stock Exchange (BELEX). TP Catalyst database was used as a primary data source for this research (Bureau van Dijk, 2022). According to this database, the sample consists of 38 active companies that operated from 2019 to 2021, resulting in a total of 114 observations. The authors applied panel regression analysis to test the research hypotheses. The results of empirical analysis have shown that leverage and profitability have negative and statistically significant impact on firm value, while liquidity and asset structure showed positive and statistically significant influence on firm value. Additionally, firm size and growth resulted in statistical insignificance effect on the firm value.

Having in mind that the review of existing literature showed that there are very few studies testing the impact of firm-relevant determinants on company value particularly in Serbia, it could be said this study shall contribute to this academic field to some extent. However, there are some limitations of this research that are open for further investigation. It is necessary to point out that the sample contains only listed companies on Serbian stock market, which is a minor share of total number of enterprises of Serbian economy. Furthermore, the possible limitation of this study arises from the fact that for this type of analysis it is necessary to obtain market data, which is not publicly available for a great number of domestic companies. Also, more specific sector analysis could be a subject of future research. There is a global awareness of the financial consequences of COVID-19 on economies worldwide and regarding this matter, it would be possible to make a comparison of the influence of key determinants on firm value before and after the pandemic. Finally, beside the before mentioned main factors of influence on firm value, future research could extend the scope of this study by adding other potential internal and external determinants of influence to obtain an overall picture of a company's worth.

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