PROFITABILITY DETERMINANTS OF SERBIAN AGRICULTURAL COMPANIES

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ABSTRACT

The study examines the impact of specific factors on the profitability of agriculture companies measured through ROA. The research utilized multiple linear panel regression models, namely, ordinary least squares (OLS), fixed effects (FE), and random effects (RE). The investigation was conducted on 99 companies operating in the agricultural sector within the Republic of Serbia. The time period covered by the study is from 2020 to 2023. The results indicate that ROE and net profit have a positive impact on profitability, while the impact of net cash flow, although positive, is not statistically significant. Empirical findings show that total assets, fixed assets, debt, and liquidity have a negative impact on ROA, but only the impact of debt is statistically significant.

Introduction

Achieving and maintaining a competitive advantage in a highly dynamic market is a premise for modern enterprises. To accomplish this, it is essential to continuously analyze business operations, measure performance, compare planned objectives with achieved goals, and make significant decisions to overcome business challenges. This is because the process of measuring performance can be viewed as a control activity necessary for determining the economic potential of resources and the strategic position of the company. The success of an enterprise depends on its business activities, specifically the key driving forces and success factors, based on which it is necessary to define key performance metrics to measure the degree of fulfillment of previously defined

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strategies. Today, managers are increasingly interested in finding new ways to assess performance, that is, to measure the performance of the company. Traditional methods of performance measurement focus exclusively on financial performance metrics obtained from accounting information in financial statements. These typically provide information about the past of the company; therefore, this approach to assessing business success becomes incomplete. In today's conditions, it is essential to examine the impact of individual factors on business performance rather than merely calculating indicators.

A company's profitability is influenced by a number of firm-specific variables, including market conditions, liquidity, leverage, and financial ratios. Financial measures that show how well a business uses its resources to earn a profit include return on equity (ROE) and return on assets (ROA). Liquidity ratios also show a company's ability to pay short-term debts, which has a direct impact on operational effectiveness and, eventually, profitability. Leverage in finance can also boost returns, but too much debt can raise risk and possibly put one in financial trouble.

In the Republic of Serbia, favorable conditions exist for the development of agricultural production, with the most significant resource being agricultural land, which covers 5,097,000 hectares, or 0.54 hectares per capita. Additionally, the agricultural sector has a significant share in total foreign trade and has maintained a positive balance of foreign trade for many years (Ševkušić, 2022). Therefore, agricultural production in the Republic of Serbia has great potential and strategic importance for the development and stability of the entire economy. To align business results with actual potential, it is essential to continuously monitor, analyze, and improve the performance of agricultural enterprises.

In this regard, the first part of the paper provides a theoretical background, establishing the framework for the research. Subsequently, the selected variables for investigation are explained, and the applied methodology is outlined. The research results and discussion are presented in the final part of the paper.

Theoretical Background

Profitability is one of company's success and sustainability measure, reflecting its ability to generate profit relative to its revenue, assets, or equity. A company's profitability is influenced by a variety of factors, such as market conditions, managerial techniques, operational effectiveness, and financial performance indicators.

In their study, Choiriyah et al. (2020) analyzed the impact of several financial indicators on the stock prices of banking companies and its profitabilty. Through regression analysis, the authors examined the influence of the following factors: Return on Equity (ROE), Earnings per Share (EPS), Net Profit Margin (NPM), and Operating Profit Margin (OPM). The research found that ROA and EPS are key factors determining the stock prices of banks, while the other factors do not have a significant impact.

Milošev (2020) examined the relationship between various financial indicators and the profitability of companies through regression analysis, focusing on identifying

key factors in working capital management as significant for maintaining liquidity and operational efficiency. The study concluded that faster collection of receivables, quicker inventory turnover, longer payment periods to suppliers, and shorter cash conversion cycles positively impact the profitability of companies, as measured by Return on Assets (ROA) and net profit margin.

In their study, Rakhman et al. (2019) also examined the factors influencing profitability measured by Return on Assets (ROA) using a sample of companies from the food and beverage sector listed on the Indonesian Stock Exchange. The results indicated that cash turnover and accounts receivable turnover jointly affect ROA, while accounts receivable turnover has a partial impact on ROA.

Pandey & Diaz (2019) conducted a study on companies in the technology and finance sectors in the United States. According to empirical data, Return on Equity (ROE) is negatively correlated with Return on Assets (ROA), while Return on Sales (ROS) is positively correlated with profitability for both financial and technological firms. On one hand, the current ratio (CR) shows a positive relationship with ROA for financial firms, whereas it has a negative relationship for technology companies. Firm size has a positive impact on the profitability of technology firms.

Brewer et al. (2012) examined various indicators of financial efficiency (profitability, liquidity, and capital structure) with the aim of assessing how different factors affect the financial health of agricultural enterprises. They concluded that large agricultural enterprises with higher levels of debt are significantly more vulnerable to financial crises. Additionally, while small agricultural enterprises appear to be safer, they did not experience as much improvement in their business operations from increased activity as large enterprises did.

Ratios of liquidity, like the quick and current ratios, are essential in figuring out profitability. Higher liquidity enables businesses to satisfy their short-term obligations, which improves operational efficiency and profitability, according to a Islam et al. (2022) study. On the other hand, too much liquidity may cause resources to be underutilized, which would reduce profits (Hossain & Alam, 2019).

The purpose of study conducted by Kamau and Azuo (2014) was to investigate the relationship between working capital management (cash conversion cycle, CCC) and organizational performance of manufacturing firms in Eldoret Municipality of Uasin Gishu County, Kenya. The results show that there is a negative correlation between working capital management and both return on equity (ROE) and return on assets (ROA).

Based on this analysis in the research paper by Bolek (2014) we can see that there is a significant and positive correlation between return on current assets (ROCA) and cash conversion cycle (CCC). The ability to turn a profit could be compromised by declining CCC.

The research by Loo and Lau (2019) examines the role of working capital management components on four dimensions of business investment performance in Malaysia. These performance indicators are return on assets, return on equity, Tobin's q, and

stock performance. They reveal that high liquidity contributes positively to the firm when considering the impact of the cash conversion cycle. Therefore, managers should prioritize the importance of working capital requirements to enhance investor value.

In order to find the impact of return on assets (RoA), Kamruzzaman examines financial factors including current asset (CR), return on equity (ROE), quick ratio (QR), cash ratio (CSR), operating profit margin (OPM), total asset turnover (TAT), net profit margin (NPM), debt to total asset (DTTA), current asset turnover (CAT), fixed asset turnover (FAT), inventory turnover (IT), inventory holding period (IHP), debt ratio (DT), and earning per share (EPS) (Kamruzzaman, 2019). The impact of these factors on ROA is measured in the research using a multiple linear regression model. The conclusion is that while the majority of the factor have link with ROA, there are some factors that have a negative impact.

Profitability has been found to be correlated with the size of the company, with larger businesses typically gaining from economies of scale. According to a study by Azhar et al. (2019), larger businesses typically have higher profitability because they can distribute fixed costs among a broader customer base. However, diminishing returns may occur as firms grow, leading to inefficiencies.

Factors affecting profitability

There are a substantial body of research that explores the factors influencing the profitability of agricultural companies (Nursanti et al., 2020; Sandhar, S. K., & Janglani, S., 2013; Karduman, 2011; Sharma, A. & Kumar, S., 2011). Some of tham are: Return to equity, Capital Structure, Net profit, Current Ratio, Working capital, Total assets, Fixed assets, Size, Net cash flow, Debt, Tangibility, Liquidity and so on. For our researshe we chose: Return to equity, Net profit, Total assets, Fixed assets, Net cash flow, Debt and Liquidity.

Return on Equity (ROE) is an important financial performance metric that is calculated by dividing net income by the number of outstanding shares, and it is used to assess a company's profitability. Based on ROE, stakeholders obtain information about the efficiency with which their resources are utilized. Companies with higher levels of free cash flow are often better positioned to make additional investments (Jensen, 1986; Williamson, 1988). Furthermore, there is a clear correlation and significant impact between a firm's profitability and ROE (Pandey & Diaz, 2019).

H1: High level of ROE leads to a higher level of profitability in agricultural enterprises.

Net profit is a vital metric for assessing a company's financial performance, reflecting the income remaining after all expenses have been deducted from total revenue. It serves as a direct input in calculating Return on Assets (ROA), which is derived from dividing net profit by total assets. A higher net profit indicates efficient operational management, contributing positively to ROA. Research by Mubin et al. (2014) demonstrated that firms with robust net profits generally exhibit higher ROA, indicating effective asset utilization. Furthermore, Jayaraman, et al. (2021). emphasized that a consistent rise in

net profit enhances a company's financial stability and market reputation, attracting investors and fostering growth.

H2: Net profit of agricultural enterprises has a positive impact on ROA

Total assets, which include all of a company's resources, are a key indicator of its health and financial situation. This comprises both current and non-current assets, such as property, plant, and equipment as well as intangible assets like patents and trademarks, as well as current assets like cash and inventories that are anticipated to be turned into cash within a year. Comprehending the total assets of a company is essential for different stakeholders, such as creditors, investors, and management. This is because the information reveals the firm's potential to develop, run efficiently, and maintain overall financial stability (Alvi, 2015). The importance of total assets in determining the profitability and performance of a corporation has been emphasized by recent study. Research has shown, for example, that companies with larger total assets typically have better levels of profitability and operational efficiency (Handoyo et al., 2023). But, excessive build-up of total assets, especially in the form of receivables or inventories, may result in inefficiencies and have a detrimental effect on profitability. This implies that while overall assets are important for growth, efficient asset level management is just as important.

H3: The value of Total Assets has a negative impact on ROA.

Fixed assets are used for operations for an extended period of time, usually more than a year an is a crucial part of a business's financial structure. Plants, machinery, and real estate are included in this category of fix assets. Maintaining the enterprise's operational effectiveness and profitability requires effective fixed asset management. Revenue and profitability are directly impacted by real estate and equipment, which facilitate manufacturing and service delivery. Businesses that make investments in new equipment or facility modernization frequently see increases in productivity and cost savings (Rapposelli et al., 2024).

H4: The value of Fixed Assets in agricultural enterprises has not statistical significant for their profitability.

Net cash flow is a key financial indicator that shows how much money a business makes or spends over a certain time period. It is computed as the difference between cash inflows and outflows and offers important information on the liquidity, effectiveness of operations, and general financial health of a firm. A firm with positive net cash flow has enough cash on hand to pay its bills on time, make investments in expansion prospects, and give shareholders their money back. Maintaining operations and investing in income-generating assets are made possible by a steady positive cash flow, which boosts return on assets (ROA). Research has indicated that companies with strong operational efficiency generally manage cash flow better, which raises ROA (Bolek & Wili'nski, 2012). According to Rompotis study (2024), changes in net cash flow can have a big influence on ROA. This means that in order to maximize asset usage, businesses should try to keep their cash flow consistent.

H5: The impact of Net cash flow on ROA in agricultural enterprises are positive but statisticaly insignificant

DEBT indicates a company's ability to meet all its obligations to creditors in the long term. The value of this ratio can be obtaine by dividing total debt by total assets. The ability to fulfill obligations is recognized as a key aspect in determining the profitability of the business since it impacts the organization's ability to run efficiently over the long term (Pandey & Diaz, 2019). Highly leveraged companies, or those that strive to attract necessary funds, have a greater motivation to provide high-quality information, thereby better informing investors (Okika et al., 2019). Additionally, these companies are more prone to failure if their debt is not managed adequately (Ofek, 1993).

H6: Debt has negative but statistical significant effect on profitability.

Liquidity is the ability of a business to pay its debts on schedule in the near future. Companies with a high liquidity ratio are required to present high-quality information in their financial statements, as this is a reliable sign of the company's financial soundness. Divide current assets by current liabilities to get the liquidity ratio. Research conducted by Panigrahi (2013) and Bolek and Wiliński (2012) has demonstrated that profitability is negatively affected by liquidity. Additionally, every study shows that short-term assets and liabilities are significant parts of total assets and should be carefully examined.

H7: Liquidity has negativ impact on ROA in agricultural enterprises.

Research methodology

Data and sample

To examine the factors that determined the value of ROA, the research sample included 99 agricultural companies (large and medium-sized) operating on the territory of Republics of Serbia. Sources for data gathering were financial statements: the balance sheet, the income statement, and cash flows. Financial statement is obtained from official website of the Serbian Business Registers Agency's and the financial ratios are manually calculated in Microsoft Excel. Financial statements covering the period from 2020 to 2023. This is a period of great geopolitical changes and turbulence, caused by the outbreak of the Covid-19 pandemic and the Russian-Ukrainian conflict. Table 1 shows the definitions of the variables used in the research.

The collected data was analyzed using EViews 12 and Stata 17 software packages.

The dependent variable in this research is Return to assets (ROA) as an important metric for gauging the profitability of a company and represents a company's net income as a percentage of total assets.

In line with the theoretical backdrop, the literature study and the specified hypothesis, the independent variables are: Return to equity, Net profit, Total assets, Fixed assets, Net cash flow, Debt and Liquidity. Table 1 shows the explanation of the variables used in the research.

Table 1. Description of the panel regression analysis's variables

Variable	Acronym	Description
Return to assets	ROA	The ratio of net income to total assets
Return to equity	ROE	The ratio of net income and shareholders' equity
Net profit	NetPr	The difference between Total Revenue - Total Expenses
Total assets	TA	Sum of assets of the company
Fixed assets	FA	1. The assets which are purchased for long-term use and are not likely to be converted quickly into cash.
Net cash flow	NCF	A profitability metrics shows how much money a company makes or loses over a specific time frame.
Debt	D	The ratio of total debt to total assets
Liquidity	LIQ	The ratio of current assets to current liabilities

Source: Authors

Table 2 provides the descriptive statistics for the variables utilized in the analysis. The computed values of the variability and central tendency measures are displayed. The columns contain information on the number of observations, the arithmetic mean, standard deviations, and the maximum and minimum values of the parameters. Jarque-Bera test results are at a statistically significant level ($p < 0.05$), which indicates that the data do not have a normal distribution, which is why the logarithmic values (LROA, LROE, LNetPr, LTA, LFA, LNCF, LD, LLIQ) were used for further analysis.

Table 2. Descriptive statistics

Variable	Obs.	Mean	Std. Dev.	Maximum	Minimum
ROA	396	3.024369	9.351353	50.79000	-94.25000
ROE	396	6.067601	33.59808	74.30000	-562.4100
Net profit	396	83133.70	322207.4	3158702.	-2219162.
Total assets	396	181156.6	310991.1	3353520.	35.00000
Fixed assets	396	1958568.	3635648	32805911	16020.00
Net cash flow	396	120044.1	364686.3	3193247.	-1757304.
Debt	396	49.55187	35.46697	284.4200	1.370000
Liquidity	396	2.901843	5.312580	60.27000	0.080000

Source: Author's calculation

Research Method

The profitability of Serbian agricultural companies (ROA) is determined by seven company-specific factors that are examined in this paper. Strictly balanced datasets, or "full" time series, are used in the analysis. For testing, least-squares model (Pooled OLS), the fixed-effect model (FE), and random-effect model (RE), were employed. The model that follows is designed to use independent variables to explain dependent ones:

$$LROA_{i,t} = \alpha_i + \beta_1 LROE_{i,t} + \beta_2 LNetPr_{i,t} + \beta_3 LTA_{i,t} + \beta_4 LFA_{i,t} + \beta_5 LNCF_{i,t} + \beta_6 LD_{i,t} + \beta_7 LLIQ_{i,t} + \varepsilon_{i,t}$$

Where:

$LROA_{i,t}$ – dependent variable (logarithmic value of ROA);

i – entity, Serbian agricultural companies; t – time (year from 2020 to 2023);

α_i – intercept for each entity;

β_k - coefficient corresponding to the independent variables;

$LROE$ – independent variable (logarithmic value of ROE);

$LNetPr$ - independent variable (logarithmic value of NetPr);

LTA – independent variable (logarithmic value of TA);

LFA – independent variable (logarithmic value of FA);

$LNCF$ – independent variable (logarithmic value of NCF);

LD – independent variable (logarithmic value of D):

$LLIQ$ – independent variable (logarithmic value of LIQ);

$\varepsilon_{i,t}$ – the error term.

The analysis of the coefficients' significance will involve comparing the *p* values at the 10%, 5%, and 1% significance levels. Hausman and LM tests were used to check which of the models was the most adequate given the data in the research. The presence of heteroskedasticity was verified by the Wald test.

Results and Discussion

To examine whether there is a relationship between the selected variables, as well as the strength and direction of that relationship, we conducted a correlation analysis. Pearson's correlation coefficient indicated that there is a relationship between all the observed variables, and since its value is below 0.8, we can conclude that there is no problem of multicollinearity. This is particularly important because if Pearson's coefficient exceeds 0.8, it would indicate a high level of agreement between the independent variables themselves, which significantly complicates the interpretation of the results. The matrix of correlation coefficients is presented in Table 3.

Table 3. Correlation analysis results

Variable	LROE	LNetPr	LTA	LFA	LNCF	LD	LLIQ
LROE	1						
LNetPr	0.3770	1					

Variable	LROE	LNetPr	LTA	LFA	LNCF	LD	LLIQ
LTA	-0.1931	0.3424	1				
LFA	-0.0493	-0.0477	0.4198	1			
LNCF	0.1007	0.4620	0.2125	0.1691	1		
LD	-0.1001	-0.3030	-0.0399	-0.2066	-0.3752	1	
LLIQ	0.0019	0.0645	0.0499	0.1304	0.1493	-0.2778	1

Source: Author's calculation

Since multicollinearity issues with independent variables are not always evident in the correlation matrix, Table 4's conclusions are derived using the Variance Inflation Factor (VIF) and Tolerance.

Table 4. VIF test results

Variable	VIF	Tolerance (1/VIF)
LROE	2,14	0,467
LNetpr	1,82	0,549
LTA	1,50	0,668
LFA	1,43	0,699
LNCF	1,42	0,706
LD	1,37	0,730
LLIQ	1,09	0.914

Source: Author's calculation

As is well known, multicollinearity occurs when VIF is more than 10 and Tolerance is less than 0.10. Table 4 demonstrates that for all factors, the VIF does not exceed 10. Furthermore, none of the variables' tolerance values fall below 0.10, indicating that multicollinearity among the variables in this study is not an issue.

The results of key variables influencing the ROA of agricultural companies operating in the territory of the Republic of Serbia are shown in Table 5. Multiple regression was used in the analysis. Diagnostic tests (Hausman, LM, and Wald tests) for the adequate model were also examined and prezent in Table 5.

Table 5. Multiple Reggresion result for Serbian agricultural companies

Variable	OLS	FE	RE	Robust FE
LROE				
Coefficient	.1792355	.1622421	.16894	.1622421
Standard error	.0075133	.0070758	.0066702	.014267
t	23.86	22.93	25.33	11.37
p-value	0.000	0.000	0.000	0.000
LNtPr				
Coefficient	5.85e-06	8.49e-06	7.07e-06	8.49e-06
Standard error	9.63e-07	1.12e-06	9.48e-07	3.21e-06
t	6.08	7.59	7.45	2.65
p-value	0.000	0.000	0.000	0.009
LTA				

Variable	OLS	FE	RE	Robust FE
Coefficient	-2.19e-06	-9.92e-07	-2.06e-06	-9.92e-07
Standard error	9.20e-07	1.19e-06	9.39e-07	1.13e-06
t	-2.39	-0.83	-2.19	-0.88
p-value	0.018	0.405	0.029	0.381
LFA				
Coefficient	-1.56e-07	-3.46e-08	-1.52e-07	-3.46e-08
Standard error	7.14e-08	3.93e-07	9.40e-08	7.30e-07
t	-2.18	-0.09	-1.62	-0.05
p-value	0.030	0.930	0.106	0.962
LNCF				
Coefficient	1.70e-06	1.96e-06	1.68e-06	1.96e-06
Standard error	6.96e-07	6.44e-07	5.96e-07	1.20e-06
t	2.44	3.05	2.82	1.63
p-value	0.015	0.003	0.005	0.106
LD				
Coefficient	-.0894073	-.083941	-.0871471	-.083941
Standard error	.0069973	.0172743	.0088273	.0200677
t	-12.78	-4.86	-9.87	-4.18
p-value	0.000	0.000	0.000	0.000
LLIQ				
Coefficient	-.072566	-.0653827	-.074036	-.0653827
Standard error	.0417644	.0751901	.050494	.0568473
t	-1.74	-0.87	-1.47	-1.15
p-value	0.083	0.385	0.143	0.253
Cons				
Coefficient	6.59043	1.239945	.6471224	5.695193
Standard error	.495778	4.59	9.91	1.310765
t	13.29	5.695193	6.413186	4.34
p-value	0.000	0.000	0.000	0.000
R^2	R-squared = 0.8003; Adj R-squared = 0.7967	Within = 0.7937 Between = 0.7757 Overall = 0.7836	Within = 0.7911 Between = 0.8045 Overall = 0.7983	Within = 0.7937 Between = 0.7757 Overall = 0.7836
F	F(7, 388) = 222.13; Prob > F = 0.0000	F(7,290) = 159.41; Prob> F = 0.0000	Wald chi2(7) = 1499.58; Prob > chi2 = 0.0000	F(7,98) = 43.40; Prob > F = 0.0000
Hausman's test	chi2(3) = 8.43; Prob > chi2 = 0.0380			
LM test	chibar2(01) = 80.85; Prob > chibar2 = 0.0000			
Wald test	Chi2(99) = 8 1.0e+07; Prob>chi2 = 0.0000			

Note: ***, **, *- 1%, 5%, and 10% significance levels

Source: Author's calculation

When determining whether the data support the fixed effects (FE) or random effects (RE) paradigm, the Hausman test offers a rigorous statistical evaluation. Based on the Hausman test results the FE model is more appropriate than the RE model (r= 0,038,

p< 0,05). According to the Breusch and Pagan LM test, we can say that the RE model is more appropriate than the OLS model (r = 0.000, p< 0,05). So, we We carried out further research with the consumption that the FE model was determined to be the best suitable model. The value of Wald test is less than 0,05, so, there is an existence of a heteroskedasticity problem in the fixed effects model, which is why the robust FE was chosen as the most adequate model. All the examine model with statistical significance (Prob > F = 0.0000) are indicated by the values of the F statistics. Also, models (OLS, FE, RE and robust FE) determination coefficient indicates that about 80% of the dependent variable's changes may be explained by independent factors. The OLS FE, RE and robust FE models

According to the OLS model's results, each of observed independent variable has statistically significant effects on the dependent variable. Total assets, Fixed assets, Debt, and Liquidity have negative impacts on Return on Assets (p< 0,05). Other independent variables Return on Capital, Net profit, and Net cash flow have positive impacts. All the variable has a statistical significant (p< 0,05).

Based on the FE model results, the profitability of Serbian agricultural companies is positively impacted by Return on equity, Net profit, and Net cash flow. Total assets, Fixed assets, Debt, and Liquidity all have a negative effect. But statistical significant has only the variable Debt (p< 0,05).

The results of the RE model indicate significant positive impacts of Return on Equity, Net profit and Net cash flows on the dependent variable. The impacts of Total assets, Fixed assets, Debt, and Liquidity are negative, with the value of p statistic for variables Total assets and Debt at a statistically significant level (p< 0,05). Fixed assets and Liquidity does not have satisfactory values of the p-statistic.

Finally, results for Robust FE model show positive and statistically significant impact of Return of equity and Net profit on profitability (p< 0,05). The impact of Net cash flow is also positive but insignificant. On the other hand, Total assets, Fixed assets, Debt, and Liquidity have a negative impact on profitability, but only the impact of Debt is significant (p< 0,05).

The positive and direct impact of ROE on profitability, discovered in agricultural enterprises, is in line with the research of Shubita and Alsawalhah (2012), and Şamiloğlu et al. (2017).

Anarfo (2015) likewise finds that debt has a negative influence on ROA in his study. His research showed that debt negatively impacts ROA because most banks in the study opt for internal financing to reduce information asymmetry. A high debt ratio does not affect a firm's profitability in the research conducted by Deloof (2003) and Kebewar (2012).

In their study, Pondey and Diaz (2019) also concluded that liquidity is not statistically significant for profitability, measured by ROA, in technology companies and financial firms considered together in the United States.

Negative impact of Total Assets on ROA was recognized also in the research of Kamruzzaman (2019).

Conclusions

A large number of small agricultural producers, a fragmented market supply, lack of organized procurement and contractual relationships, ineffective inspection bodies in market regulation, absence of a collection and distribution center, slow development of the credit market, short debt financing periods, and low purchasing power of the domestic market are just some of the characteristics of the agricultural product market in the Republic of Serbia. Due to the large number of factors, both external and internal nature, agricultural enterprises have become a subject of interest for a significant number of researchers.

As agricultural activity increasingly becomes a key driver of national economic development, assessing the performance of companies operating within this sector is important for both the managers of these companies and decision-makers at the national level. The focus of the study was on examining the factors influencing the profitability of agricultural enterprises operating in the Republic of Serbia. The research sample consisted of 99 large and medium-sized enterprises. Profitability was measured using the Return on Assets (RoA) rate, which is considered one of the essential indicators. The independent variables examined included: Return on Equity (ROE), Net Profit, Net Cash Flow, Total Assets, Fixed Assets, Debt Ratio, and Liquidity.

The research findings indicated that factors such as ROE and Net Profit significantly and positively impact the profitability of the agricultural enterprises in the sample. In contrast, the positive influence of Net Cash Flow, while present, was not statistically significant. In this context, companies with higher ROE and Net Profit levels tend to have greater profitability, suggesting that these two indicators should be central to management's focus. Conversely, Total Assets, Fixed Assets, Debt, and Liquidity negatively affect the profitability (RoA) of agricultural enterprises. However, only the impact of the Debt was statistically significant. Companies with a higher level of debt tend to have lower profitability, while a lower level of debt leads to better performance. Managers should aim to balance external sourse and RoA levels effectively.

For a successful assessment of profitability and the achievement and maintenance competitive advantage among agricultural enterprises in the Republic of Serbia, attention should also be given to other external factors that can significantly contribute to improved performance. Given the diverse activities within this sector, regulatory bodies should conduct thorough analyses and provide support to ensure the proper functioning of these enterprises. Additionally, creating favorable conditions for the sustainable development of agricultural businesses is essential for their long-term success and resilience.

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Conflict of interests

The authors declare no conflict of interest.

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