ANALYSIS OF INTERNAL FACTORS AFFECTING SHARE PROFITABILITY

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Abstract

In this article, the influence of internal factors on the share return of real sector enterprises operating in Uzbekistan is analyzed. In the selection of objects for research, 7 enterprises leading in terms of the number of transactions on the stock exchange were selected, including "Kvarts" JSC (KVTS), "Kizilqumsement" JSC (QZSM), "Ko'kan Mechanika Zavodi" JSC (KUMZ), "Uzbekistan Metallurgical Combine" JSC (UZMK), "Almalik Mine-Metallurgical Combine" JSC (AGMK), "Toshneftegazkurilish" JSC (TNGK) and "Kogon Oil Extraction Plant" JSC (KYEZ). As internal factors, the return on assets, return on capital, solvency, net profit margin, financial leverage and current liquidity indicators of these enterprises were taken from the data of the first quarter of 2016 to the data of the second quarter of 2024. To evaluate the influence of these factors, linear models based on panel data, PLS, FE and RE models were used.

Keywords: Return on equity, ROA, ROE, solvency, net profit margin, financial leverage and current liquidity

Introduction

An increase in the stock's return increases the interest of investors. Attracting investors to the financial market accelerates its development. A high share of minority shareholders leads to an increase in the real income of the population, acceleration of the privatization process, effective functioning of market mechanisms based on healthy competition.

Not only external factors, but also internal factors have a significant impact on the company's share profitability. Internal factors cause unsystematic risks.

Unsystematic risks of the enterprise are determined through the analysis of financial indicators. A company's financial performance is one of the most important factors affecting stock prices.[1] Investors are more interested in companies with high financial indicators, which increases the demand for their shares. Research shows that there is a correlation between changes in share price and changes in financial performance.[2] The financial activity of the enterprise is reflected in its financial statements. The value of financial indicators calculated on the basis of financial statements shows the unsystematic risks of the enterprise. For this reason, the impact of financial indicators on the company's share income was studied in the study. It is necessary to rely on previous research to select financial indicators for the analysis. The following table presents the research works of scientists who studied the relationship between the company's financial indicators and the stock's return. (see the table 1)

Table 1 Research studies on the influence of internal factors on stock returns[3]

Year	Scientists	Years of research	Country	Variable	Result
1981	Fama[4]	1953-1977	USA	Enterprise size	Positive
				Balance/market value (BE/ME)	Positive
				Cash flow profitability	Positive
1957	Collins[5]	1955-1956	USA	Dividends	Positive
				Operating income	Positive
				Net profit	Positive
				Balance value	Negative
2013	Malhotra va Tandon			Dividend income	Negative
2014	Almumani[6]	2005-2011	Jordan	Balance value	Positive
				Enterprise size	Negative
				Leverage	
2014	Hunjra[7]	2006-2011	Pakistan	Dividend income	Negative
				Dividend payout ratio	Positive
				EBITDA	Positive
				Earnings per share	Positive

[1] Fatmasari SUKESTI, Imam GHOZALI, Fuad FUAD, Abdul KHARIS ALMASYHARI, Nurcahyono NURCAHYONO / Journal of Asian Finance, Economics and Business Vol 8 No 2 (2021) 0165–0173

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				Return on capital (ROE)	Insignificant
2015	Sharif[8]	2006-2010	Bahrain	Return on capital (ROE)	Positive
				Balance value per share (BVS)	Positive
				Earnings per share (EPS)	Negative
				Dividend per share (DPS)	Positive
				Dividend income	Negative
				Earnings per share price	Positive
				Debt-equity ratio	Negative
2017	Atchyuthan	2012-2016	Sri Lanka	Earnings per share (EPS)	Positive
				Dividend per share (DPS)	Positive
				Return on asset (ROA)	Insignificant
				Return on capital (ROE)	Insignificant
2019	Pongsupatt[9]	2009-2018	Thailand	Return on asset (ROA)	Positive
				Earnings per share (EPS)	Positive
				EBITDA	Positive
				Dividend income	Negative
2020	Sukesti[10]	2014-2018	Indonesia	Debt-equity ratio	Positive
				Net profit margin	Positive
				Asset size	Negative
				Return on asset (ROA)	Positive
2020	Das[11]	2010-2019	India	Bir aksiya daromadligi (EPS)	Positive
				Aksiya bahosidan daromad (P/E)	Positive
				Dividend income	Negative
2021	Gharaibeh[12]	2006–2018	Jordan	Return on asset (ROA)	Positive
				Dividend income	Negative
				Balance/market value (BE/ME)	Negative
2022	Salim[13]	2015-2020	Indonesia	Dividend policy	Insignificant
				Earnings per share (EPS)	Positive
				Balance value (PBV)	Positive
				Debt-to-asset ratio	Positive
2022	Fonou-Dombeu[14]	2009-2018	South Africa	Assets	Negative
				Leverage	Negative
				Balance/market value (BE/ME)	Insignificant
				Cash flow variability	Positive
2022	Nazir[15]	2014-2020	Pakistan	Return on asset (ROA)	Negative
				Leverage	Negative
2023	Febriani[16]	2012-2021	Indonesia	Ratio of current periods	Positive
				Debt-equity ratio	Positive
				Gross profit margin	Positive

[8] T.Sharif, H.Purohit, R.Pillai. Analysis of Factors Affecting Share Prices: The Case of Bahrain Stock Exchange// International Journal of Economics and Finance; Vol. 7, No. 3; 2015. DOI: 10.5539/ijef.v7n3p207

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Methodology

To evaluate the influence of these factors, linear models based on panel data PLS, FE, RE and DPD models were used.

Based on these factors, the following variables were obtained during the research: (see table 2)

Table 2 The internal factor is the variables selected to determine the effect[17]

Symbol	Variable	Formula	H
Dependent variable			
EP	Earnings per share	$AD = r_2 / r_1 - 1$	
Independent variables			
ROA	Return on Assets	= Profit before tax / Arithmetic average value of assets In this case, the arithmetic average value of assets = (assets at the beginning of the report + assets at the end of the report)/2	$H_1(+)$
ROE	Return on equity	= Net profit / Arithmetic average value of share capital	$H_2(+)$
S	Solvency	= Current Assets / Liabilities - Non-current liabilities	$H_3(+)$
NPM	Net profit margin	=Net profit / Income	$H_4(+)$
FL	Financial leverage ratio	= Total debt funds / Total capital	$H_5(-)$
CR	Current liquidity	= Current Assets / Current Liabilities	$H_6(+)$

Results

A panel database was created to study the impact of financial indicators on stock returns. Using the financial reports of the 7 joint-stock companies under study, the quarterly financial indicators from the first quarter of 2016 to the second quarter of 2024 were calculated. The following table shows their analytical statistics:(see table 3)

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[17] Resolution No. 775 of the Cabinet of Ministers of the Republic of Uzbekistan dated 09.12.2020. On measures to further improve the system of performance evaluation of the executive body of enterprises with state participation. (National database of legal documents, 09.12.2020, No. 09/20/775/1612) was developed by the author.

Table 3 Analytical statistics of variables [18]

Variable	Obs	Mean	Std. Dev.	Min	Max
ep	230	.002	.124	-.68	.733
roa	230	.022	.028	-.021	.125
roe	230	.024	.033	-.09	.196
s	230	-2.797	101.344	-1532.03	21.487
npm	230	1.357	19.449	-1.248	295.021
fl	230	.985	.81	0	3.658
cr	230	3.991	3.897	0	21.487

The panel database is strongly unbalanced. Because the KYEZ enterprise has not provided information since 2023. So, the lowest amount of the quarterly total stock return of the studied enterprises was equal to -0.68%, while the highest value was 0.7%. The highest volatility was observed in the indicator of solvency and Net profit margin. For example, the minimum value of solvency was equal to -1532.03, and the highest value was equal to 21.487. The minimum net profit margin was -1.24, and the maximum value reached 295 coefficients. Of the indicators that fluctuated moderately, the return on assets index fluctuated between -0.021 and 0.125, while the return on equity fluctuated between -0.09 and 0.196. The minimum value of financial leverage and current liquidity indicators was equal to 0. The most important aspect of the current liquidity indicator is 21. However, the optimal value of this indicator of a stable enterprise should be between 1.2 and 2. These financial indicators indicate that the enterprises have not properly organized their financial activities.

Correlation analysis of variables is presented in the table below. (see table 4)

Table 4 Correlation analysis of variables

Pairwise correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) ep	1.000						
(2) roa	0.111	1.000					
(3) roe	0.098	0.836	1.000				
(4) s	0.004	0.026	-0.006	1.000			
(5) npm	0.000	0.220	0.179	0.010	1.000		
(6) fl	-0.001	-0.436	-0.273	0.060	-0.070	1.000	
(7) cr	0.079	0.332	0.203	0.074	0.135	-0.553	1.000

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[18] Developed by the author using STATA 14.

From the data of the table above, it can be seen that the result and factor symbols are not strongly connected. The largest correlation to stock returns was return on assets, which also accounted for 0.1. More importantly, all independent variables are positively associated with stock returns, while only financial leverage is negatively associated. This fully corresponds to the proposed hypothesis.

The following table presents the analysis results of the PLS, FE (fixed effect), RE (random effect) and DPD (dynamic panel data) linear models, which were implemented to assess the impact of the company's financial indicators on the stock return. (see table 5)

Table 5 Internal factors panel data analysis [19]

VARIABLES	(PLS) ad	(FE) ad	(RE) ad	(DPD) ad
L.ep				1.198
				(2.207)
L2. ep				0
				(0)
roa	0.557	0.567*	0.557***	0
	(0.589)	(0.262)	(0.215)	(0)
roe	0.0324	0.0285	0.0324	2.566
	(0.463)	(0.142)	(0.120)	(1.603)
sr	-1.62e-05	-1.82e-05***	-1.62e-05***	-0.00161
	(8.21e-05)	(4.31e-06)	(2.77e-06)	(0.00122)
np	-0.000226	-0.000193***	-0.000226***	-0.00134**
	(0.000435)	(4.68e-05)	(4.59e-05)	(0.000551)
fl	0.0171	0.0180***	0.0171***	2.105
	(0.0131)	(0.00466)	(0.00209)	(1.539)
cr	0.00327	0.00419***	0.00327***	0.116
	(0.00258)	(0.000772)	(0.000619)	(0.0830)
Constant	-0.0409*	-0.0456***	-0.0409***	-2.679
	(0.0239)	(0.00688)	(0.00394)	(1.949)
Observations	230	230	230	211
Number of AJ	7	7	7	7
R-squared	0.023	0.024		

Standard errors in parentheses

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

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[19] Developed by the author using STATA 14.

In this case, FE and RE models are calculated for the 95% probability interval using robust error. From the data in the table above, it can be seen that the effect of PLS on any independent variable on stock returns was not found to be statistically significant. According to the FE, RE and DPD models, ROA, financial leverage and current liquidity are positively related, and solvency and net profit margin are negatively related to stock returns. That is, a 1% increase in ROA, financial leverage and current liquidity leads to a 0.6%, 0.02% and 0.004% increase in equity returns, respectively, and a 1% increase in solvency and net profit margin. increase, it is found to decrease the stock return by -1.62e-05% and -0.00134%, respectively. The influence of the ROE indicator on the stock return was not found to be statistically significant in all the developed models.

Analysis

A VIF test was performed to prove the validity of these models. (see table 6)

Table 6
PLS model VIF test[20]
Variance inflation factor

	VIF	1/VIF
roa	4.067	.246
roe	3.463	.289
fl	1.677	.596
cr	1.503	.665
npm	1.061	.942
s	1.026	.974
Mean VIF	**2.133**	.

According to this table, the VIF test is between 1 and 10, which means that the model is statistically significant.

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[20] Developed by the author using STATA 14.

Table 7 A test of panel regressions [21]

	Hausman (1978) specification test	Modified Wald test	Breusch and Pagan (LM) test
	Coef.	Coef.	Coef.
Chi-square test value	.63	256.80	0.00
P-value	.96	0.0000	1.0000

According to the Hausman test, the p-value is higher than 0.05, so the RE model is selected. The improved Wald test determines the group heteroskedasticity of the FE model. According to the results of this test, the FE model has a problem of heteroscedasticity. The Breusch and Pagan Lagrangian multiplicity test for random effects revealed that there was no random effect in the model. These issues have been fixed using a robust bug fix.

Conclusion and discussions

In conclusion, the influence of internal factors on stock returns is no less than the influence of external factors. Analysis of internal factors The relationship between asset profitability, capital profitability, solvency, net profit margin, financial leverage and current liquidity indicators was checked.

To evaluate the influence of these factors, linear models based on panel data, PLS, FE, RE and DPD models were used. The hypotheses put forward in the empirical research gave the following results: (see table 8)

Table 8
Hypothesis results[22]

Ko'rsatkich	Gipoteza	Natija
Return on Assets	$H_1(+)$	+
Return on equity	$H_2(+)$	Insignificant
Solvency	$H_3(+)$	-
Net profit margin	$H_4(+)$	-
Financial leverage ratio	$H_5(-)$	+
Current liquidity	$H_6(+)$	+

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[21] Developed by the author using STATA 14.
[22] Muallif tomonidan ishlab chiqildi.

According to the hypothesis, a positive connection of internal factors, solvency and net profit margin to share profitability was expected. Because it was believed that the growth of Net profit will increase the interest of investors, which will increase the demand for the stock and cause its price to rise. Analytical data showed the opposite. So, it is assumed that the increase in the net profit margin in the Tashkent Stock Exchange has increased the confidence of investors in stable enterprises, which is the basis for keeping the share price at a stable low amount.

And the opposite of this process, the hypothesis that the low level of financial leverage should increase the stock's profitability, did not justify itself in the case of the studied enterprises. According to the results of the research, a positive connection was found between financial leverage and share profitability of joint-stock companies.

According to the hypothesis of asset profitability and current liquidity indicators, a positive relationship with stock returns was expected, the results of the study justified this hypothesis, and a positive change was found between these variables.

According to the results of the study, the effect of capital profitability on stock returns was not found to be statistically significant. According to the main hypothesis, a positive relationship was expected between these variables.

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