

ANALYSES OF CAPITAL STRUCTURE AND FIRMS' PERFORMANCE IN UKRAINE: BASIC STATISTICS AND STYLIZED FACTS

Babalola Yisau Abiodun^{*}

1. Introduction

A triangulation analysis cannot be over-emphasized going by the fact that the empirical literatures on capital structure are replete with varying and distinct measures of leverage ratios. While all of these different measures lack consensus, some measures are incorrectly formulated [1]. Besides, Welch (2011) emphasized two common problems in capital structure research thus; Firstly, it is not clear whether non-financial liabilities should be considered debt and that they should never be considered as equity. Secondly, equity-issuing activity is not synonymous to capital structure changes.

However, empirical literatures are found to align with these two pitfalls. Potential investors will also be interested in the results of the capital structure analysis, since those results can make it easier to decide whether to hold, sell or acquire more shares of the company stock. By comparing the analysis results with those from prior periods, it is possible to spot positive or negative trends that are emerging, then, decide if the business is likely to continue profitability in the future. From this perspective, the capital structure analysis can aid owners in making changes that strengthen the business while also allowing investors to determine to what extent they wish to be involved with that company.

Going by these dynamics, it becomes imperative to provide a holistic analytical perspective to capital structure through a triangulation analysis; the benefit of triangulation includes: "increase confidence in research data, creating innovative ways of understanding a phenomenon, revealing unique findings, challenging or integrating theories, and providing a clearer understanding.

As such, we undertake analyses through the use of ratio analyses and the use of theoretical analyses of trend descriptive and tabular analyses. Apart from this introductory aspect, the remaining part of this study is organized into five other sections. Section two relates the conceptual measurement, methodological framework and the estimations across the various approaches. Section three discusses empirical findings while section four is evaluation of accounting strategy, the last section contains conclusion.

2. Conceptual Measurement and Methodological Framework

Analysis is premised on the attainment of accounting information for decision making. Financial accounting information is the product of corporate accounting and external reporting systems that measure and publicly disclose audited, quantitative data concerning the financial position and performance of publicly held enterprises, Bushman and Smith (2001).

The methodological approach to this study is a triangulation analysis where we employed a barrage of estimation procedures to attaining a valid outcome from the nexus between capital structure and performance of enterprises in Ukraine.

^{*} © Babalola Yisau Abiodun; PhD student; Accounting and Auditing Department; Odessa National Economics University; Odessa; Ukraine.

As such, we conduct analyses through the use of ratio analyses cum statistical analyses and the use of trend descriptive analyses and tabular analyses. For the accounting analyses, we seek to investigate both short-term and long-term analyses of capital structure and firm performance. The sources of data for analyses are the audited financial statements of two selected companies from the internet website.

Tab. 1. Analysis of Capital Structure Ratios

S/N	Capital Structure Analyses	Short-term Measures	Long-term Measures	Explanation
1	Current Ratio/Gearing Ratio	Current Assets Current Liabilities	Fixed Assets Long Term Liabilities	It shows the extent the current liabilities were used to fund the current assets; it should be greater than 2 but not less than 1.
2	Interest Cover/ Financial Leverage Ratio	Profit + Interest Interest	Debt Equity	The enterprise's vulnerability to new interest bearing obligations. Should exceed 3.
3	Solidity	-	Equity x 100 Total Capital	It is a measure of the vulnerability of the creditor's claim. Should preferably be about 30%.

Tab. 2. Analyses of Corporate Performance

S/N	Performance Analyses	Short-term Measures	Long-term Measures	Explanation
1	Net Profit Margin / Return to Total Capital	Profit before int. & extra ord. costs / Turnover	Operating Result + Fin.Inc / Asset (average value) x 100	Indicates the net surplus in relation to total sales, prior to interest on debts.
2	Operating Margin Ratio / Return On Capital Employed	Operating Results / Turnover x 100	Profit b4 extra-ord. costs / Equity (average value) x 100	The operating margin shows the profit from operation as a percentage of the turnover.
3	Asset Turnover Ratio	Operating result + Fin. Inc. / Turnover x 100	Total Turnover / Total Capital (average value)	How effectively the enterprise uses its total capital and shows how many times the invested capital is "turned over" in a year.

3. Analyses of Corporate Performance in Ukraine

Accounting strategy for the analysis of capital structure and firms' performances would be carry out using a plethora of triangulation analysis which comprises a combination of Trend Descriptive and Tabular Analyses. The use of triangulation analysis is employed in other to use those three analytical techniques to confirm the reliability and validity of the estimate obtained from audited financial statement of the two firms in Ukraine used as samples.

The triangulation analysis becomes imperatives going by the historical nature of financial information and due to the flexible nature of thresholds of accounting ratios. This strategy is thus systematically followed, first, by the analysis of enterprises performance and second by the analysis of capital structure as:

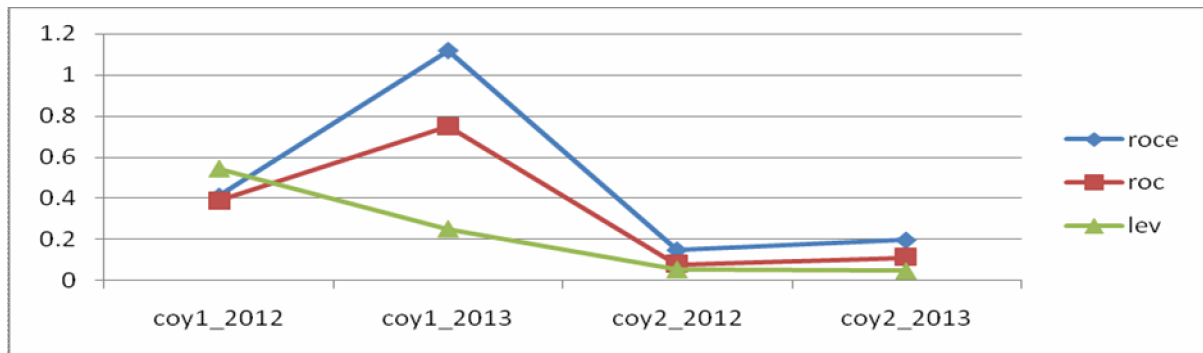


Fig. 1. Accounting Measures of Corporate Performance in Ukraine

Source: Authors' computational work

Note: Coy1 = MICEN ENERGY; Coy2 = ŠKODA AUTO Group

Fig. 1 above shows the trend of return on capital employed (proxied as ROCE), return on capital (proxied as ROC) and the leverage ratio (proxied as LEV) for the two Ukrainian companies such as MICEN ENERGY (proxied as Coy1) and ŠKODA AUTO Group (proxied as Coy2).

The trend indicates that there is an indirect relationship between the accounting indicators such as ROCE and ROC and the gearing level of Coy1 for the periods 2012 and 2013 and, similarly, for Coy2 too but less substantially (Fig. 1).

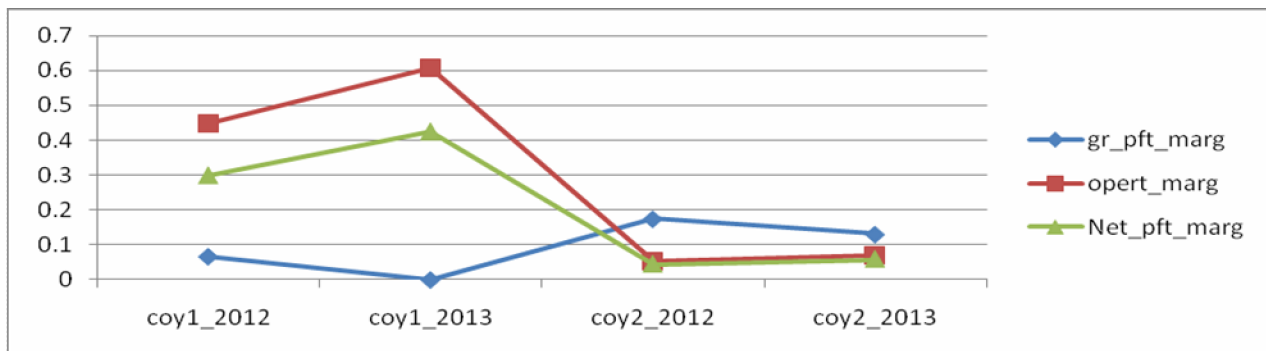


Fig. 2. Accounting Measures of Corporate Performance in Ukraine

Source: Author's Computational work

Note: Coy1 = MICEN ENERGY; Coy2 = ŠKODA AUTO Group

In furtherance of the analyses of enterprises performance in Ukraine, we employ other indicators such as the gross profit margin (proxied as gr_pft_marg), the operating margin (proxied as opert_marg) and the net profit margin (proxied as Net_pft_marg). The figure indicates that the operating profit margin and the net profit margin converge or tarry together for ŠKODA AUTO Group (proxied as Coy2) while it markedly differs for MICEN Energy (Proxied as Coy1). The implication is that ŠKODA AUTO Group does not diversify its businesses within the lines of their business sector in Ukraine while MICEN Energy diversified its business activities away from one line of trade and possibly have a chain of transactions across the petroleum industry.

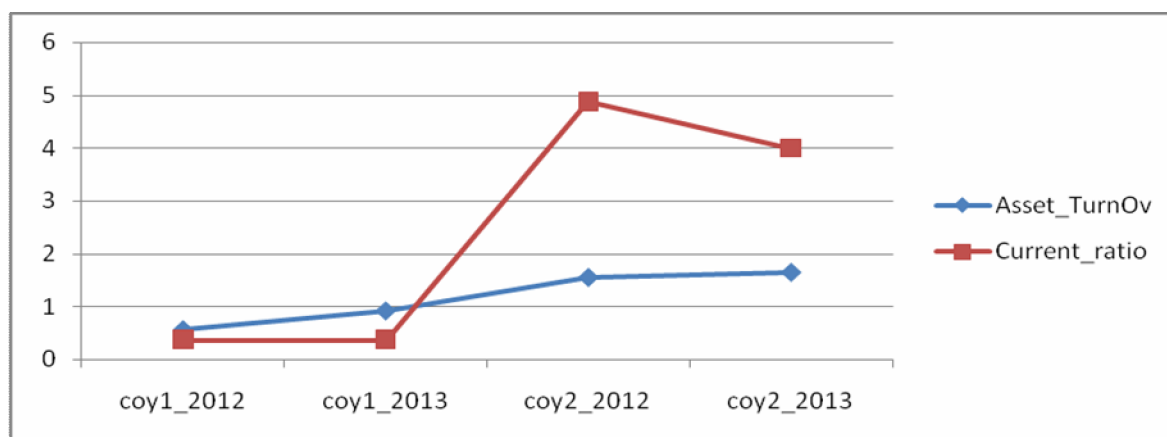


Fig. 3. Accounting Measures of Corporate Performance in Ukraine

Source: Author's Computational work

Note: Coy1 = MICEN ENERGY; Coy2 = ŠKODA AUTO Group

Nonetheless, the current ratio of Ukrainian firms differs (Fig. 3). The trend depicted in Fig. 3 shows that ŠKODA AUTO Group (proxied as Coy2) has more current assets than its current liabilities for the years 2012 and 2013; hence, the reason while the current ratio is above 1.0 ratio as benchmark for the two years while that of MICEN Energy indicates opposite relations where the current liability ratio is more than that of the current asset for the years 2012 and 2013; hence, the reason while the current ratio lies below the 1.0 benchmark (Fig. 3). The implication is that ŠKODA AUTO Group has less absorptive capacity and does have excess liquidity more than what is ordinarily needed in the firm while for MICEN Energy; more working capital is needed for the daily smooth running of the organization.

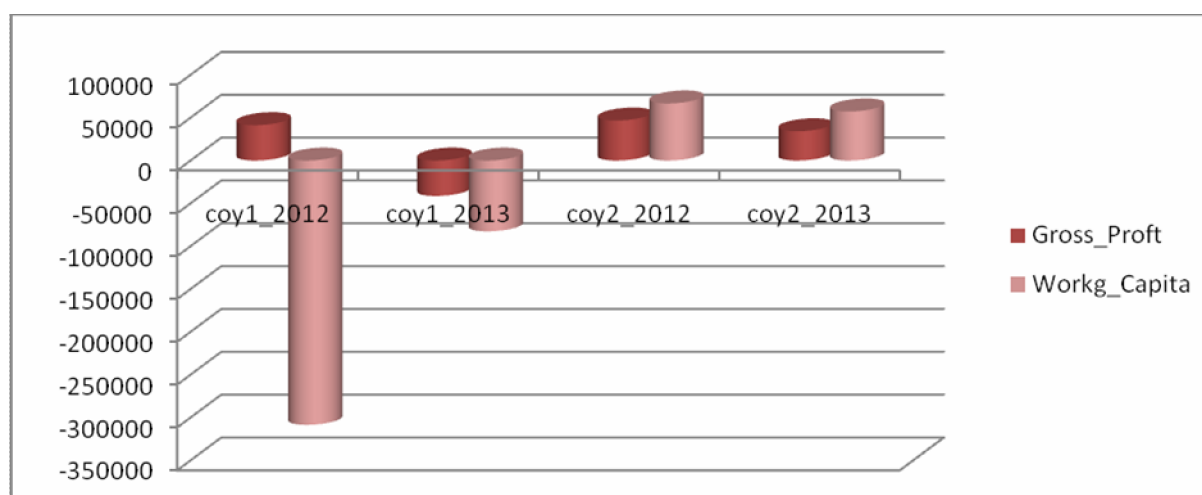


Fig. 4. Accounting Measures of Corporate Performance in Ukraine

Source: Author's Computational work.

Note: Coy1 = MICEN ENERGY; Coy2 = ŠKODA AUTO Group

Lending credence to the submission in Figure 3 above is the trend depicted in Fig. 4 on the gross profit and working capital of both MICEN Energy (proxied as Coy1) and of ŠKODA AUTO Group (proxied as Coy2) respectively. The trend supports the facts that Coy2 is more liquid than Coy1; perhaps, due to the fact that the Coy2 effectively utilizes the assets at its disposal more than Coy1.

4. Analyses of Capital Structure In Ukraine

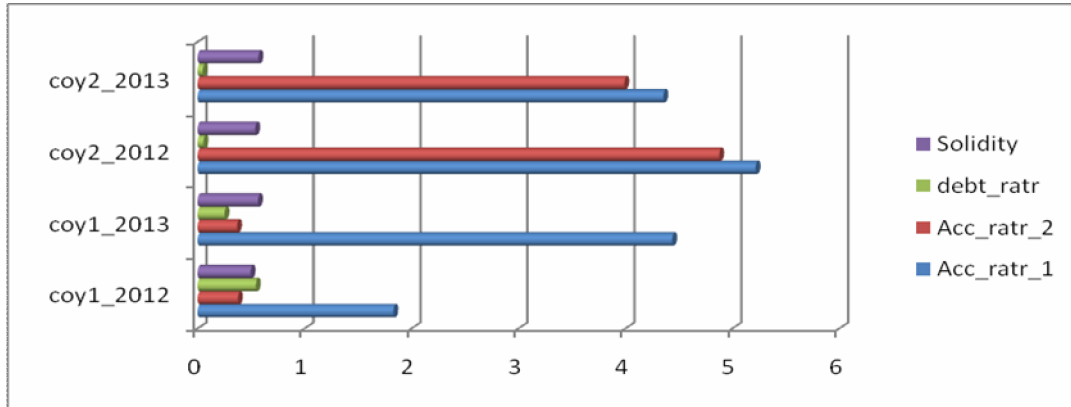


Fig. 5. Accounting Measures of Capital Structure in Ukraine

Source: Author's Computational work.

Note: Coy1 = MICEN ENERGY; Coy2 = ŠKODA AUTO Group

In obtaining the analyses of capital structure in Ukraine, we employ the accounting ratio 1 (proxied as Acc_ratr_1), accounting ratio 2 (proxied as Acc_ratr_2), the debt equity ratio (proxied as debt_ratr) and the solidity ratio (proxied as solidity). The debt equity ratio indicates that MICEN Energy is more geared than ŠKODA AUTO Group.

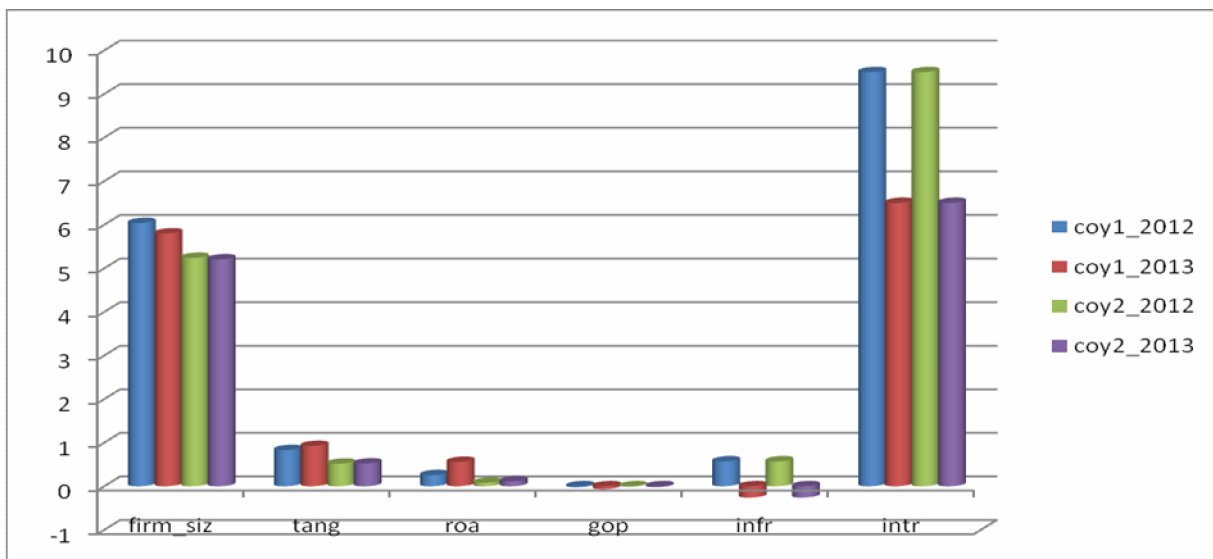


Fig. 6. Empirical Indicators of Capital Structure and Firm's Performance

Source: Author's Computational work.

Note: Coy1 = MICEN ENERGY; Coy2 = ŠKODA AUTO Group

In terms of firm size, asset tangibility and return on asset; however, MICEN Energy seems better positioned than ŠKODA AUTO Group for the two periods under review.

This suggests that, even though, the latter firm seems to have better managerial expertise to efficient management of organization resources, the former firm seems to be more attractive to prospecting and existing investors and can garner needed resources for expansion and maintenance than the ŠKODA AUTO Group. Other indicators for empirical investigation are macroeconomic variables such as the rate of interest and the inflation rate. These are external to the firm as they could not control for it but only try to reduce the risk embedded in the effect.

5. Evaluation of Accounting Strategy

Tab. 1. Comparatives Analyses of Capital Structure and Profitability of Firms in Ukraine

MESUREMENTS	1 ST COMPANY			2 ST COMPANY		
CAPITAL STRUCTURE	2012	2013		2012	2013	
Acc_ratr_1	1.82950979	4.43709506		5.216407931	4.3540363	
Acc_ratr_2	0.3763044	0.36784493		4.876271876	3.98899666	
Debt/Equity_ratr	0.544	0.251		0.0543	0.0474	
Solidity	0.49441155	0.56435696		0.537831828	0.56821222	
ATO	0.56689688	0.91858886		1.546801549	1.6416999	
Current_ratr	0.3763044	0.36784493		4.876271876	3.98899666	
FINANCIAL PERFORMANCE	1 ST COMPANY			2 ST COMPANY		
	coy1_2012	coy1_2013	Average value	coy2_2012	coy2_2013	Average value
ROCE	0.41	1.116	0.763	0.149	0.197	0.173
ROC	0.387	0.749	0.568	0.078	0.112	0.095
LEV	0.544	0.251	0.3975	0.0543	0.0474	0.05085
GPM	0.06683303	0*	0.0668	0.174111732	0.13017373	0.15215
OPM	0.44817671	0.60774479	0.52795	0.051918063	0.06828124	0.0601
NPM	0.29882329	0.42496365	0.3619	0.044067039	0.05845825	0.05126
G_P	41325	-41325	0	46749	34190	80,939
Workg_Capita	-308405	-82641	-391,046	66668	57317	123,985

Source: Author's Computation with Data Sourced from SEC (2013)

The statistics detailed in Table 1 above largely corroborates the trend depicted in figures above. On the whole, it shows that MICEN Energy is fairly better compared to ŠKODA AUTO Group as the former has averaged values of 76,3%, 56.8% and 39,75% for the measures of corporate performance for the periods 2012-2013 while the latter contemporaneously averaged 17,3%, 9,5% and 5,085% respectively, it further lends credence to the submission that the management of MICEN Energy (proxied as Coy1) relatively employed the resources kept at their disposal by the shareholders as well as the owners of the companies to promote their wealth maximization objective better than those of the ŠKODA AUTO Group. The indicators supporting this fact is that the former averaged 6.7%, 52.8% and 36,2% for their gross profit margin, operating profit margin and net profit margin respectively while the contemporaneous figures for ŠKODA AUTO Group are 15,2%, 6.01% and 5,1% for the gross profit margin, operating profit margin and net profit margin respectively.

Interestingly, however, the asset turnover ratio (proxied as Asset_TurnOv) suggests that ŠKODA AUTO Group has succeeded in utilizing the assets kept at their disposal by the owners of the corporate firm to improve the market capitalization of the firm within the enterprise as the company recorded a ratio of 1.55 in 2012 which was improved upon to a tune of 1.64 in 2013. On the other hand, MICEN Energy (proxied as Coy2) only managed to record about an average of what ŠKODA AUTO Group recorded in terms of asset turnover in 2013 but about one-third of SKODA's in 2012; on the average, ŠKODA AUTO Group has enough resources (as indicated by the working capital) to work with in order to generate more returns and revenues to the owners of the business while MICEN Energy (proxied as Coy1) continued accumulating negative working capital that is capable of threatening the going concern of the firm as the firm's negative working capital continue increases between 2012 and 2013. More so, the average gross profit is nil for MICEN Energy in 2012 and the firm recorded Gross loss in 2013 to the tune of 391,046 while ŠKODA AUTO Group have gross profit for both periods as 80,939 and 123,985 respectively.

While the former debt-equity ratio decreases in 2013 from its figure of 0,54 in 2012 to 0,25; the latter is a lowly-geared company as its debt-equity ratio is nearly inexistence which decreases from 0,54 in 2012 to 0,47 in 2013 (Tab. 5). The solidity ratio (proxied as solidity) obtained; which

ordinarily should not be above 30%, is highly instructive for the case of Ukrainian firms in that both MICEN Energy and ŠKODA AUTO Group have solidity ratio above the required benchmark. This implies that creditor's claim is highly vulnerable in Ukrainian corporate firms. These firms have solidity ratio of at least 50% for the periods of 2012 and 2013. In Ukraine, the inflation rate for 2012 is 0,57 but – 0,26 for 2013 while the rates of interest are 9,5% and 6,5% respectively. This portends a very positive outlook for Ukraine since the country maintains a single digit inflation rate and a considerable rate of interest (Tab. 6). This is so in that the various indicators for these companies reflect this submission.

6. Conclusion

Going by the evaluation of accounting strategies adopted by the two selected firms in Ukraine detailed above, the following stylized facts results; most enterprises in Ukraine engaged in over-trading activities cum capital mismatching; solidity ratio of averaged 50 percent suggests that creditors' claim are less vulnerable (that is, well protected); market capitalizations of shareholders' funds are maximized and agency costs are reduced; fair macroeconomics conditions and volatility.

References

1. Welch I. Two common problems in capital structure research: The Financial-debt-to-asset ratio and issuing activity versus leverage changes / I. Welch // *International Review of Finance*. – 2011. – Vol. 11. – Pp. 1–17.
2. Bushman R. Financial Accounting and Corporate Governance / R. Bushman // *Journal of Accounting and Economics*. – 2001. – Pp. 237–333.
3. Misen Energy Annual report and Consolidated financial statements; financial year 2013. – Pricewaterhouse. – Coopers AB, Göteborg. – 2014.
4. ŠKODA Annual Report Annual report and Consolidated financial statements; financial year 2013. – Carlsberg & Richter. – Communications Consulting. – 2014.

Summary

This study undertakes analyses of capital structure and firms' performance in Ukraine using triangulation analysis to investigate the two selected companies with their audited financial statement. We follow a guideline of analyses and our strategy of evaluation revolves various measures of capital structure and financial performance ratios; our results show stylized facts thus; most enterprises in Ukraine engaged in over-trading activities cum capital mismatching; solidity ratio of averaged 50 percent suggests that creditors' claims are less vulnerable (that is, well protected); market capitalizations of shareholders' funds are maximized and agency costs are reduced; fair macroeconomics conditions and volatility. The findings of this study deemed to benefit the external investors and share/stakeholders in guiding their proper decision making; professional managers would be better informed to understand the factors empirically driving the level of performance; the present and future government also be guided on how to strengthen the enterprises by providing enabling environment and explore their financing options to achieve better performance for a sustainable development and academicians who will see new empirical evidence in the accounting literature emanating from an emerging economy like Ukraine.

Keywords: analysis, capital structure, enterprises' performance, basic statistics and stylized facts, competitiveness, parametric indexes, integral index.

JEL classification: M210

UD classification: 338.487:339.137.2(477)

Date of acceptance: 18.08.2014.