

IMPACT OF THE CORPORATE GOVERNANCE REFORM ON THE MANAGEMENT EFFECTIVENESS OF STATE-OWNED ENTERPRISES IN LITHUANIA IN 2012–2014

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Abstract. *Following previous research on the management efficiency of the state-owned enterprises (SOEs) in Lithuania¹, this paper extends the discussion via analysis of the broader period of time not only focusing on 1 year caption (2012), but trying to identify the impacts (if any) of the corporate governance reform of the SOEs in Lithuania looking at the data of 2012–2014.*

To ensure the consistency and comparability of the results, the theoretical background is sought to be maintained as similar as in the previous papers, following the paradigms of (post) new public management, principle-agent theory, corporate governance guidelines established by such international organisations as the Organisation for Economic Co-operation and Development (OECD), the World Bank, the International Monetary fund and others.

In addition to the quantitative part of the analysis (quantitative analysis of the relationship between management of SOEs and results of its operations as measured by Return on Equity (ROE)), case studies representing biggest Lithuanian SOEs and – accordingly – 3 main sectors Lithuanian SOEs are acting in are analysed to understand if and what (i) actual changes of the corporate governance principles are impacting the management effectiveness of SOEs, as well as (ii) what are the limiting factors (if any) reducing the positive effects of the changes being introduced with the new reform.

For both parts of the analysis (quantitative and case studies) we focus on (i) the main elements of corporate governance being introduced by the SOE reform and (ii) the relations of the SOEs and the shareholder of theirs (Government and the society). By applying the above described approach, the paper seeks to (i) understand not only the effects of corporate governance on management and performance of SOEs per se, but also include the time dimension with the purpose to understand (confirm) if previous findings (e.g., the fact that board independence and transparency were the key factors influencing SOEs management efficiency in 2012) are sufficiently sustainable outcomes of the reform, which would still be valid in the 3 year period (2012-2014), as well as (ii) explain the most relevant (in terms of impact on management effectiveness) corporate governance principles that should be applied or be promoted stronger in Lithuanian SOEs.

Key words: *state-owned enterprises, corporate governance, management efficiency*

¹ L. Jurkonis (2012), L. Jurkonis, Z. Gineitienė (2013), L. Jurkonis, D. Petrusauskaitė (2014), L. Jurkonis, I. Aničas, (2015).

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1. Introduction

Results of the previous research conducted by the authors of this paper as well as the number of other authors analysing similar topics (e.g., management efficiency, effects of internal control functions, transparency and corporate governance, monitoring of performance results)² in the context of SOEs show that improvement of internal control systems, transparency and corporate governance standards have a positive effect on the management effectiveness.

The intention of this paper is to understand not only the effects of corporate governance on management and performance of SOEs per se, but also include the time dimension with the purpose to understand (confirm) if previous findings (e.g., the fact that board independence and transparency were the key factors influencing SOEs management efficiency in 2012) are sufficiently sustainable outcomes of the reform, which would still be valid in the 3 year period (2012-2014).

Moreover, in addition to the quantitative part of the analysis, case studies representing biggest Lithuanian SOEs and – accordingly – 3 main sectors Lithuanian SOEs are acting in are analyzed to understand if and what (i) actual changes of the corporate governance principles are impacting the management effectiveness of SOEs, as well as (ii) what are the limiting factors (if any) reducing the positive effects of the changes being introduced with the new reform.

As per above, for both parts of the analysis (quantitative and case studies) we focus on (i) the main elements of corporate governance being introduced by the SOE reform and (ii) the relations of the SOEs and the shareholder of theirs (Government and the society). By this we do seek to explain the most relevant (in terms of impact on management efficiency) corporate governance principles that should be applied or be promoted stronger in Lithuanian SOEs.

The following chapters of the paper present (i) the theoretical background for the analysis of SOEs management efficiency (including the suggested theoretical model for the analysis, followed by appropriate hypothesis), (ii) regression analysis built to understand if principles of best practices and theoretical model constructed work in the context of 140 Lithuanian SOEs and (iii) validate the results of the quantitative analysis (or find the explanations why certain elements do not work as they should according to the theory) exploring 3 biggest Lithuanian SOEs acting in energy and utilities (Lithuanian energy group, UAB “Lietuvos energija”), transport (Lithuanian railways group, AB “Lietuvos geležinkeliai”) and forestry (Lithuanian regional forestry directorates). We conclude with the presentation of the main results of the analysis performed as well as the suggestions regarding the potential improvements in the field of public administration (specifically for the SOEs) and thoughts regarding further areas of the research to be explored.

² G. Grossi, U. Papenfuß (2015), Fan, J., Wong, T. J.(2013), Pargendler, M. (2012), Sokol, D. (2009) Zhang, W.(2006), Heath, J., Norman, W. (2004), Wong, S. C. Y., (2004), other.

2. Theoretical background for the analysis of SOEs management effectiveness

Corporate governance and proper structuring of management principles play a fundamental role in the performance of SOEs. The Organisation for Economic Co-operation and Development (OECD) encourages countries to introduce corporate governance principles, improve boards of SOE via introduction of independent and professional board members in all SOEs due to the fact that countries, which introduced these principles, report better quality board discourse and ultimately improved SOE performance.³

According to the Baltic Institute of Corporate Governance (BICG), the board's role is to provide entrepreneurial leadership of the company within a framework of prudent and effective controls which enables risk to be assessed and managed⁴. To ensure the board's role, board members should be professional and have different sets of skills. Independent board members generally improve overall performance of board activities, for they bring knowledge and expertise in areas where the CEO's and management team's knowledge may be lacking, such as internal controls, finance, human resources, marketing, tax and other areas. Moreover, according to BICG, professional and independent board members demonstrate the following: ethical leadership, displaying – and promoting throughout the company – behaviours consistent with the culture and values it has defined for the organisation; create a performance culture that drives value creation without exposing the company to excessive risk of value destruction; make well-informed and high-quality decisions based on a clear line of sight into the business; are accountable particularly to those that provide the company's capital and think carefully about its governance arrangements and embrace the evaluation of their effectiveness. With a board of independent board members, companies gain a panel with expertise that it does not have in-house, create a culture and structure that will withstand extraordinary changes in business environment and management.

Based on the above practical examples as well as theoretical insights coming from new institutionalism⁵, new public management (NPM)⁶ and principal-agent⁷ theories, the following hypotheses are raised for the further research:

Full and proper implementation of corporate governance principles should have a positive influence on SOEs management efficiency via:

(i) *SOEs management transparency*. Increased transparency of SOEs performance,

³ OECD, "Guidelines on Corporate Governance of State-Owned Enterprises", 2015 Edition

⁴ BICG, "Guidance on Board effectiveness" <http://www.bicg.eu/wp-content/uploads/2016/02/Guidance-on-Board-Effectiveness-EN.pdf>, viewed on 6th, July, 2016.

⁵ Tõnurist, P., Karo, E., „State owned enterprises as instruments of innovation policy“, *Annals of Public and Cooperative Economics*, Wiley Library, 2016

⁶ McLaughlin, K., Ferlie, E., Osborne, S., „New Public Management: Current Trends and Future Prospects“, Routledge, 2002 / Osborne, S., „The New Public Governance?: Emerging Perspectives on the Theory and Practice of Public Governance“, Routledge; 1 edition, 2010

⁷ Lawson, C., „The theory of state-owned enterprises in market economies“, *Journal of Economic Surveys*, 8: 283–309, 1994

goals and targets set should have a positive effect on the management (including ROE) of SOEs. Management transparency is seen to potentially increase the involvement of society into the process of SOEs management and thus have a positive pressure on the executives of SOEs to improve the management principles of appropriate organisations;

- (ii) *SOEs Board compliance with OECD guideline requirements.* Better qualified, more independent and professional boards should lead to better strategic management and thus to a better performance of SOEs in the long term. Moreover, independent board members tend to have more private sector experience, therefore making decisions focused to ROE;
- (iii) *SOEs strategic planning and internal control system effectiveness.* Quality of internal control and strategic planning should also be one of the main determinants of the management efficiency. A functioning internal control system monitors the organisation's operational effectiveness and efficiency; therefore, it helps to identify potentially faulty or not correctly functioning process.

The following paper is focused to test the hypothesis raised in the context of Lithuanian SOEs, analysing their performance in the period of 2012–2014.

3. Effects of corporate governance to management effectiveness of SOEs (quantitative part)

Empirical application

This section will provide a quantitative analysis of the relationship between management of SOEs and results of its operations as measured by Return on Equity (ROE).

Data description

The main dataset comes from Governance Coordination Center (GCC) under The Ministry of Finance of the Republic of Lithuania and basically contains various indicators compiled from self-assessment performed by C-level executives or the results of the evaluation of the quality of strategic management performed by the GCC itself.

The dataset contains three aggregated indexes or pillars covering Transparency, Composition of the board and Quality of planning and internal control system. There are 12 sub-indicators within each of them: Quality of management reporting, Compliance with the international financial reporting standards, Corporate social responsibility policy, Positive external audit opinion (Transparency); Board independence, Key competencies in the board, Employee's participation in the board, Cases of board members being present in more than three boards, Structure of the committees, Selection procedure for the board (Composition of the board); Quality of strategic planning, Quality of internal control system (Quality of planning and internal control system). Each index and sub-indicator was evaluated in the scale of 1 to 3 (1 representing a poor implementation of the appropriate guidance, and 3 representing a full compliance).

Additionally, GCC have provided ROEs for each of the SOE.

Initially, the dataset covered a 3-year period (2012–2014) and around 135 SOEs. However, there were some manipulations done with the data. The ROEs were adjusted so as to make the figures comparable to usual companies, i.e., there are some specific taxes for SOEs, so basically they were subtracted from costs before calculating the ROE (it was done by GCC). Some of the SOEs did not have ROE figures for some years (due to reasons of when it was established or when it has been closed down etc.) and so were removed from the dataset (mostly, they were very small SOEs) to make it more balanced. On a related note, some SOEs have merged over this period (e.g., airports) or in fact works in a very related fashion (e.g., forest enterprises). There were a couple of such SOEs and they were treated as single entities (taking average values for the management indicators and joint returns). Finally, there were three SOEs which had extremely low (negative) ROEs and in a regression analysis seemed to behave like outliers (as measured by Cook’s distance).

So the final dataset contains 62 entities over a 3 year period (after removing 22 SOEs and merging some companies which should be taken as single entities in the analysis).

Summary statistics

Table below provides some summary statistics of the dataset.

TABLE 1. Summary statistics for ROEs and management indicators

Variable	Mean	St. Dev.	Min	Median	Max
Transparency	1.94	0.34	1.17	1.91	2.80
Financial reporting standards	1.26	0.67	1.00	1.00	3.00
Quality of management reporting	2.50	0.46	1.00	2.62	3.00
External audit opinion	2.61	0.56	1.00	3.00	3.00
Corporate social responsibility	1.29	0.32	1.00	1.30	3.00
Composition of the boards	1.70	0.42	1.00	1.79	2.93
Employees’ participation in the boards	2.45	0.76	1.00	3.00	3.00
Structure of the committees	1.09	0.34	1.00	1.00	3.00
Key competencies in the board	2.10	0.72	1.00	2.02	3.00
Cases of board members in other boards	2.01	0.80	1.00	2.00	3.00
Independence of the boards	1.51	0.55	1.00	1.40	3.00
Selection procedure of the boards	1.04	0.25	1.00	1.00	3.00
Quality of planning	2.23	0.42	1.00	2.25	3.00
Quality of strategic planning	2.08	0.66	0.71	2.00	3.00
Quality of internal control system	2.40	0.45	1.00	2.50	3.00
ROE	1.99	5.66	-16.54	2.73	12.30

One thing to note straight away is that ROEs are somewhat skewed to the positive side. Other indicators are also skewed towards right (above No. 1.5).

Another thing to note is that the dataset actually contains a few cuts. That is, SOEs in the dataset belong to different groups with a different level of commercialisation: companies in group No. 2 focus on the implementation of social and political objectives, and profitable activities have a secondary role while companies in groups No. 1A and 1B put more weight on increasing the value of the enterprise itself and a yield from dividends or profit contributions. Commercialisation is applied to different sectors (Transport and communications, Forestry, Energy and other), is of different size (having category that denotes it from I to V) and has different legal forms of operation (corporation (AB), joint-stock company (UAB) and state enterprise (VI)). However, summarising data by all of them would make the analysis somewhat cluttered and the analysis showed that it did not bring any additional benefit (see below).

Correlations

The next natural step is to correlate these indicators with the ROE. The table below shows these correlations for each of the index/sub-indicator along with estimated P-values. Note, estimated correlations in this section are Spearman correlations due to the ordinal data nature itself.

TABLE 2. Unconditional correlations between ROEs and management indicators

Variable	Correlation	P-Value
Structure of the committees	-0.17	0.02
Employees' participation in the boards	-0.15	0.04
Key competencies in the board	-0.08	0.31
Financial reporting standards	-0.07	0.35
Composition of the boards	-0.07	0.37
Independence of the boards	-0.05	0.49
Selection procedure of the boards	0.04	0.62
External audit opinion	0.05	0.51
Cases of board members in other boards	0.07	0.35
Quality of internal control system	0.11	0.13
Transparency	0.12	0.11
Corporate social responsibility	0.17	0.02
Quality of strategic planning	0.19	0.01
Quality of planning	0.20	0.01
Quality of management reporting	0.23	0.00

The results are pretty straightforward: unconditionally, there does not seem to be a significant and substantial linear relationship between various indicators and ROE.

On the other hand, the dataset contains various cuts that can be used for similar purpose as mentioned above. However, the dataset is not large and correlating various variables with ROEs split by some variable decrease the sample size substantially, which introduces the possibility of a spurious relationship. Keeping this in mind, the table below shows significant correlations (with P-values < 0.01) for various indicators using smaller sub-samples of the dataset split by group, size, sector or legal form.

TABLE 3. Correlations between SOEs and management indicator for various data cuts

Variable	Split by	Value	Correlation	# of SOEs
Financial reporting standards	Group	1B	-0.47	14
Cases of board members in other boards	Group	2	0.34	29
Quality of internal control system	Group	1A	0.38	19
Quality of strategic planning	Group	1A	0.40	19
Quality of planning	Group	1A	0.50	19
Structure of the committees	Size	II	-0.64	7
Financial reporting standards	Size	II	-0.60	7
Employees' participation in the boards	Size	II	-0.59	7
Quality of management reporting	Size	V	0.28	31
Quality of strategic planning	Size	V	0.30	31
Transparency	Size	V	0.30	31
Quality of planning	Size	V	0.32	31
Financial reporting standards	Sector	Communica-tions	-0.49	11
Structure of the committees	Sector	Communica-tions	-0.47	11
Quality of planning	Sector	Other	0.24	42
Quality of internal control system	Sector	Other	0.24	42
Transparency	Sector	Other	0.27	42
Quality of management reporting	Sector	Other	0.27	42
Quality of strategic planning	Legal form	AB	0.4	14
Quality of management reporting	Legal form	AB	0.42	14
Quality of planning	Legal form	AB	0.48	14

The story does not seem to change much. While there are some bigger and significant correlations now, there also are cases of negative correlations which are very likely to be spurious. On the other hand, Quality of planning with its two sub-indicators seem to have medium-sized positive correlation with ROE for SOEs that have legal form of AB or those in group of 1A. So, only a relatively weak relationship is signaled unconditionally between management indicators for SOEs and their ROE.

Regression analysis

To fully exploit the panel nature of the dataset and provide more control than was possible in estimating simple unconditional correlations, regression framework will be used in this section.

Since both various indicators and ROEs vary by subject (SOE) and time (yearly), it means that various fixed effects could be used as controls (i.e. fixed specific SOE effects, fixed effects by legal form, sector, etc.) which suggests a relatively simple Least Squares Dummy Variables (LSDV) estimator. However, while fixed effects themselves are not of direct interest here, further inspection revealed that sufficient variation is not available to include specific SOE effects as well as other fixed effects (sector, size, group, legal form). As a result, for the controlling factors, individual SOE fixed effects will be used

in a LSDV regression, because they explained the biggest part of variation as indicated by adjusted R-squared compared to other choice of fixed effects (see below).

While not analysed explicitly, a cross-correlation analysis between all the indexes and sub-indicators revealed that there are no significant and substantial cross-correlations between aggregated indexes (Transparency, Composition of boards and Quality of planning) while there was some overlap (as expected) between sub-indicators within the indexes. Thus, three indexes will be used as explanatory variables which should diminish the effects of multicollinearity.

Finally, the dependent variable – ROE – contains some heavy tails. Also, it is customary to use log returns in financial literature due to some convenient features of logarithms. However, a logarithm does not work well with negative values and some additional transformation (for example, translation by some positive constant) is necessary. Instead, we transform ROEs using the Inverse Hyperbolic Sine transformation, which in fact acts in a similar fashion like a logarithm, but can cope with both positive and negative values easily. The advantages of this transformation are that, while keeping the interpretation for small values (approximately) identical to logarithm, it somewhat mitigates negative effects of heavy tails mentioned previously.

The table below contains the results for these regressions.

TABLE 4. Results of regressing management indexes on ROEs

	Dependent variable	
	ROE	
	(1)	(2)
Year 2012	-0.022	-0.052
	-0.023	(0.052)
Year 2013	-0.039*	-0.073
	-0.023	(0.052)
Year 2014	-0.039	-0.074
	-0.023	(0.053)
Transparency		-0.024
		(0.018)
Composition of the boards		0.044**
		(0.020)
Quality of planning		-0.005
		(0.012)
SOE fixed effects included:	Yes	Yes
R-Squared	0.71	0.725
Adjusted R-Squared	0.558	0.569
Residual Std. Error	0.040 (df = 122)	0.039 (df = 118)
F Statistic	4.668*** (df = 64; 122)	4.651*** (df = 67; 118)
Note:		* p<0.1; **p<0.05; ***p<0.01

As mentioned before, fixed effects are not of direct interest in this context and are used only for control purposes. Thus, SOE specific effects are not displayed in the table, but are estimated in the regression. Since only 3 years cover the dataset, all three estimat-

ed yearly fixed effects are shown in the table. In both regressions (the control regression and the other regression, including three indexes as explanatory variables), yearly effects are not significant, but negative. Both regressions seem to explain a reasonable part of the variation as measured by R-squared and adjusted R-squared. While not displayed, a residual analysis (residual vs. leverage and residual vs. fitted plots) did not suggest problems with outliers or non-linearities. Regarding the explanatory variables (Transparency, Boards and Quality of planning), it seems that the Composition of the boards might be a significant and a positively returns affecting factor. Other variables (Boards and Quality of planning) are insignificant and negative, suggesting that the coefficients might be spurious.

It is important to note that residual analysis, specifically the scale-location plot, indicated a possibility of heteroscedasticity. While the pattern in the plot was not plain, if the heteroscedasticity robust covariance matrix is used, then the Composition of the boards coefficient is not significant anymore. On the other hand, the sample is of relatively modest size and so it is not clear whether it is enough for a robust estimator to achieve sufficient effectiveness.

In either case, this analysis does suggest a possibility of the Composition of the boards having a positive effect on the results of SOEs, but this will be tested in the future as more data is acquired with time.

4. Effects of corporate governance to management effectiveness of SOEs (case study)

In order to have a better understanding of factors that impact management and financial ratios of SOEs, this paper section presents a case study analysis of the three largest SOEs groups operating in different sectors: (i) AB „Lietuvos geležinkeliai“ group (LG) – transport and communications sector (railway), (ii) „Lietuvos energija“, UAB group (LE) – energy sector (energy production, distribution and sales), (iii) group of 42 Lithuanian forest enterprises (FE)⁸ – basic material sector. To reach the previously mentioned goal, this case study includes: (i) a detailed evaluation of SOEs management development index assessed and monitored by GCC (Index) during the 2012–2014 year period and (ii) semi-structural interviews with board members and top management⁹ of selected SOEs.

It is important to note that goal of this analysis is to evaluate factors that impact management principles and effectiveness development of the selected SOEs during the 2012–2014 year period.

⁸ Group of 42 Lithuanian forest enterprises are analysed as one unit.

⁹ Note: Top management in the context of case study is defined as executive positions (e.g., executive director, deputy directors, heads of particular departments) which have major influence over companies (SOEs), management principles and financial results.

To begin with, all three selected SOEs operate in different legal forms (Public, Private and State companies). However, this aspect is not viewed as a critical obstacle to increase efficiency of the SOEs. Therefore, hereinafter it is not analysed thoroughly and the main focus is intended to identify deeper factors and causal links which determine the development of SOEs management efficiency.

Charts below represent Index analysis of selected SOEs during 2012–2014 year period.

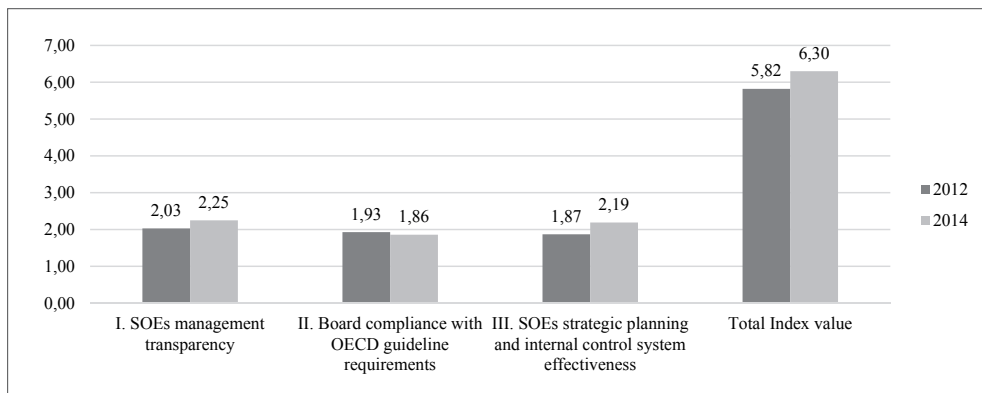


FIG. 1. Changes in Index values for LG during 2012–2014 year period (Source: created by authors on the basis of data reported by GCC¹⁰)

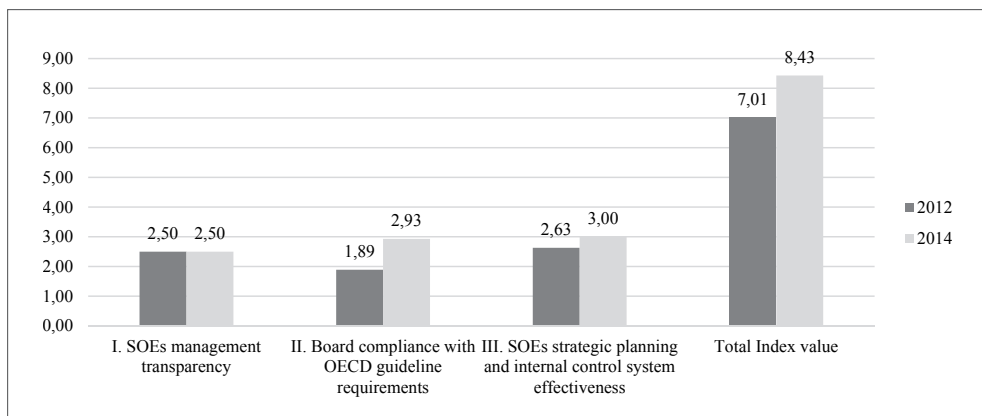


FIG. 2. Changes in Index values for LE during 2012–2014 year period (Source: created by authors, on the basis of data reported by GCC¹¹)

¹⁰ State owned enterprises, information about every enterprise, < <http://vkc.turtas.lt/vvi-portfelis/vvi-finansines-ataskaitos/finansiniai-rezultatai> >, viewed on 6th, July, 2016.

¹¹ Ibid.

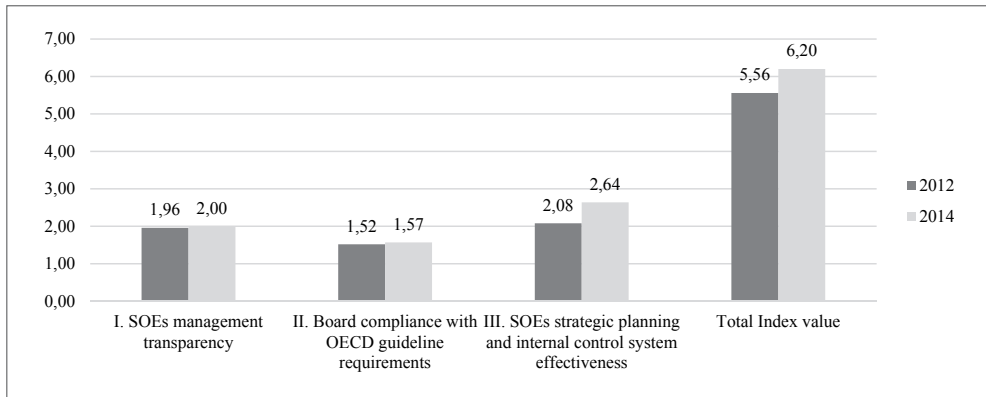


FIG. 3. Changes in Index values for FE during 2012–2014 year period¹² (Source: created by authors, on the basis of data reported by GCC¹³)

As it can be seen from charts above, the average Index value during the 2012–2014 year period increased in all selected SOEs (from a 0,47 points increase for FE to a 1,42 points increase for LE). Nevertheless, the increase is not identical across the analyzed SOEs. It is worth noting that the LE Index value is higher across every section when compared to LG or FE. Therefore, when assessing changes in Index values, it is important to take into consideration the different starting positions (year 2012) and the progress of selected SOEs as well as analyse them by each sub-indicator of Index:

- *I. SOEs management transparency*

In terms of SOEs management transparency sub-indicator valuations, LG stands out from the group of selected SOEs. During the analysed period, the LG management transparency sub-indicator valuation increased by 0,22 points. The increase is mostly related with more detailed disclosure of LG social policy and operational goals in the yearly reports. The main area for improvement still remains the transitioning to International Financial Reporting Standards (IFRS) for LG financial reporting. In the group of the largest Lithuanian SOEs, LG is the only one not using IFRS. Therefore, financial results of LG cannot be directly compared with other SOEs. Furthermore, due to the application of different accounting standards, LG financial results cannot be compared with other international transportation and railway companies. LG financial reporting principles lead to disclosure of financial and management results which are complicated to compare and interpret. As a result, LG management transparency decreases.

The same observations regarding the accounting standards are also applicable to the FE (it also effects the FE management transparency sub-indicator valuation). However, due to the fact that FE management is decentralised and separate forestry enterprises are relatively small in terms of revenue and employees number, pressure from political, public and other interested parties to apply IFRS is lower for FE than for LG.

¹² Note: figure contains averaged Index values of 42 separate forest enterprises.

¹³ Ibid.

The LE management transparency sub-indicator valuation during the 2012–2014 year period remained extraordinary high and unchanged. It is interesting to note that LE, during the analysed period, was not only leading among SOEs in terms on management transparency valuation, but it was also positively recognised on a national level¹⁴. However, due to financial auditor remarks in the 2011 yearly report, LE did not reach the maximum possible management transparency evaluation. It is import to note that LE, during the analysed time period, could not do anything to impact / solve the remarks provided by the financial auditors.

- *II. Board compliance with OECD guideline requirements*

Board compliance with OECD guideline requirements sub-indicator valuations among selected SOEs stands out as the one with highest variance. During the 2012–2014 year period, LE valuation increased most (by 1,04 points) among the selected SOEs and was by 1,07 points higher than the next ranking – LG (1,87 total LG points).

The LE leap in board compliance valuation is linked with many internal changes done by the LE during the analysed time period¹⁵, while other selected SOEs basically did not change anything. Internal changes done by LE are provided below:

- (i) Changed state political institution which exercises rights and duties of the sole shareholder – the Republic of Lithuania. Firstly, it was changed from the Ministry of Energy, which dictates sector policy, to the Ministry of Economy and, shortly, to the Ministry of Finance.
- (ii) Reformed management structure to holding type management structure, which complies with all OECD guideline requirements for company boards – board member independence, number of supervisory board members and required governing bodies (e.g., audit, remuneration, nomination committees).
- (iii) Defined clear goals, which were orientated to increase total value of LE and to increase ROE.

As previously mentioned, neither LG nor FE management principles were changed. What is more, FE boards consist of political members (General Directorate of State Forests under Ministry of Environment ¹⁶), while LG accepted their second independent board members just on March, 2015, after OECD provided corresponding remarks to the Lithuanian government¹⁷. The matter of independent board members is also related to required competence compliance. As noted in the GCC report on November, 2012, despite the fact that Lithuanian SOEs boards are usually formed to fulfill every required competence field, the latter often (if there are no independent members) miss private sector management experience¹⁸.

¹⁴ Verslo žinios, „Companies that most openly talk about corruption“, <<http://vz.lt/vadyba/2015/07/29/paskelbtos-atviriausiai-apie-korupcija-kalbancios-imonos>>, published 29th, July, 2015.

¹⁵ About LE, <<http://www.le.lt/lt/apie-mus/9>>, viewed on 6th, July, 2016.

¹⁶ State owned enterprises, information about every enterprise, <<http://vkc.turtas.lt/vvi-portfelis/vvi-finansines-ataskaitos/finansiniai-rezultatai>>, viewed on 6th, July, 2016.

¹⁷ CV.LT: Variakojis became an independent board member in LG, <http://vz.lt/archive/article/2015/3/31/cv-lt-nepriklausomu-lietuvos-gelezinkeliu-valdybos-nariu-tapo-variakojis>, viewed on 6th, July, 2016.

¹⁸ GCC, „SOEs board composition report“, 14th, November, 2012.

- *III. SOEs strategic planning and internal control system effectiveness*

During the analysed period, SOEs strategic planning and internal control system effectiveness sub-indicator valuation improved across all three selected SOEs.

LE received maximum possible valuation in the mentioned sub-indicator (3 points total and 0,37 points increase in comparison with 2012). Maximum valuation is related to (i) developed as well as integrated planning and monitoring system policy, which is used by every subsidiary in LE in order to ensure strategy execution, (ii) every subsidiary and every process in LE has responsible person and management areas, (iii) three level risk management principles, which are determined as well as regulated in the management and control system, along with other management tools used to reinforce internal control system.

Despite the fact that during the analysed period strategic planning and internal control system effectiveness sub-indicator valuation increased in LG (from 1,87 point to 2,19 points) and in FE (from 2,08 points to 2,64 points), valuations were lower than LE due to completely or partially decentralised management process as well as absence of common management and control principles.

It is important to note that during the analysed period various political decisions (e.g. AB “Lietuvos jūrų laivininkystė“ bankruptcy and its transfer to LG¹⁹; many corruption and ineffective management scandals related to FE²⁰) negatively influenced management transparency, effectiveness and public opinion about LG and FE. At the same time, there was no such type of public information regarding LE management principles during the analysed period or it was not found during analysis.

The chart below summarises Index values of SOEs during 2012–2014 year period.

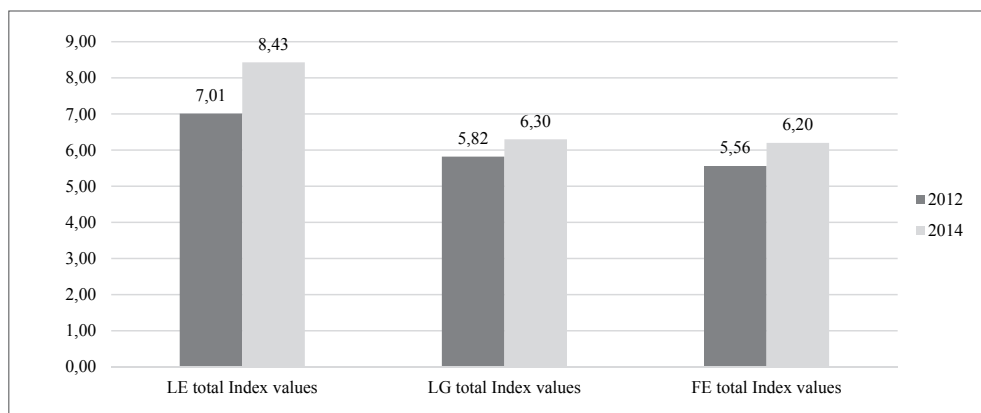


FIG. 4. Changes in Index evaluations across selected SOEs (Source: created by authors on the basis of data reported by GCC)

¹⁹ A.Butkevičius: LjL shares transfer to LG will help company to become profitable, <<http://www.bns.lt/topic/1912/news/48331693/>>, viewed on 6th, July, 2016.

²⁰ Open interview with the general manager of forest enterprise: How the large scope of corruption is behind Lithuania’s forests?, <<http://grynas.delfi.lt/aplinka/atviras-generalinio-uredo-interviu-koki-korupcijos-masta-slepia-lietuvos-miskai.d?id=70211846>>, viewed on 29th, January, 2016.

In order to seek deeper understanding about the management principle changes in selected SOEs, from September, 2015 to December, 2015 semi-structured interviews with selected SOEs top management, supervisory boards and boards were performed.

Main factors which lead to changes in SOEs management principles and determined quality of principles were identified during the interviews. The latter analysis and valuation is presented below:

- Respondents unanimously agreed that role of the **Government** was relevant and important in forming SOEs management principles. However, after the approval of uniformed SOEs management principles and requirements, responsibility for management as well as monitoring was transferred to state political institutions (e.g.. the Ministry of Economics, the Ministry of Transport, the Ministry of Finance) which exercise rights and duties of the sole shareholder – the Republic of Lithuania. It is important to note that this change was especially important to LE because its shareholder rights and duties were transferred to the Ministry of Finance²¹.
- Respondents unanimously stressed that role of the **shareholder** is important for the management SOEs. Direct accountability to the state institution which forms policy in the particular sector of SOE was assessed as faulty, as well as leading to a biased political decision and increased uncertainty in the management environment. Survey results showed that direct accountability to policy forming institution increases risk of (i) a particular state institution using SOE human resources as their own and, therefore, increases the administration burden for the particular SOE and at the same time (ii) decreases the management transparency and objectivity of particular SOE due to its involvement in the policy forming process.

As stressed above, the example of LE clearly shows that after the sole shareholder rights and duties were transfer to the Ministry of Finance, LE mission and strategic goals were adjusted / focused to increase the financial potential of this particular SOE and to (i) increase LE value at least by a factor of two, so (ii) that LE would become the most valuable energy company in the Baltic states²². It is important to note that goals focused on increasing financial returns and value of company are directly related to goals of the Ministry of Finance – to ensure Lithuania’s effective finance policy, macroeconomic stability and development²³.

While LE was accountable to the Ministry of Energy, the LE management agenda was mainly focused on the implementation of strategic energy projects (e.g., Visaginas nuclear energy power plant development, which clearly represents the strategic goals of the Ministry of Energy²⁴). At the time of accountability to the Ministry of

²¹ LE group consolidated interim report, 1st. January, 2013 – 30th, September, 2013.

²² About LE <<http://www.le.lt/lt/apie-mus/9>>, viewed on 6th, July, 2016.

²³ Strategic goal and mission of Ministry of Finance – „To ensure Lithuania’s effective finance policy, macroeconomic stability and development“ (Ministry of Finance of the Republic of Lithuania 2016–2018 strategic plan (I chapter. Mission and strategic changes) approved by Minister of Finance of the Republic of Lithuania commandment, 10th, February, 2016).

²⁴ Ministry of Energy of the Republic of Lithuania 2013 – 2015 strategic plan, Minister of Energy of the Republic of Lithuania commandment No. 1-262, 11th, December, 2012 (Minister of Energy of the Republic of Lithuania commandment edition No. 1-197 9th, October, 2013).

Economy, main strategic goals were related to implementation of the third energy package directive (the liberalisation of Lithuanian energy market)²⁵.

Analysis of strategic planning documents of Ministries representing sole shareholder rights and duties of LG and FE shows that main priorities are related to (i) implementation of corresponding Ministry policy strategic goals, (ii) development of strategic projects related to a particular Ministry, (iii) focus on social functions (e.g., passenger transportation, environmental aspects)²⁶. It is interesting to note that the latter are also clearly represented in the strategic plans of previously mentioned SOEs and emphasised by goals guided to increase operational volume in the particular side of business, but not by an increase in ROE or total value of SOEs. All in all, the accountability to a shareholder, which forms both policy and regulation of a particular sector as well as strategic goals of SOE, clearly increases risk (due to management involvement in the policy forming processes and aspects of the particular sector) for management objectivity as well as for transparency to decrease, while operational effectiveness in the mentioned situations are not the priorities of particular SOEs.

- **Support of change management.** As it was noted previously in the analysis of Index valuations, organisational structure and the establishment of a formal holding structure (i.e., centralisation of management decisions) is critical in order to set balanced strategic goals and management principles for any type of company (including SOEs). A historical number and scope of successful change management cases is one of the most relevant indicators which demonstrated the ability of a particular SOE to successfully implement or reach new goals set by the Government of the Republic of Lithuania. The LE example illustrates that previous shake-ups inside the company (LE decentralisation to the East and West regions, repeated centralisation and partial privatisation in 2008 – 2009²⁷) resulted not only in the constant improvement of its organisational structure, but as well as in changes across top management and administration. These changes lead to demolition of stagnancy in management and decision making principles inside LE. On the basis of SOEs management survey results, the latter factor can remarkably affect balance between shareholder and SOE (a trustee) and at the same time enforces SOE (a trustee) to resist decisions of shareholder, especially when they are related to the changes in management principles.

²⁵ The mission and strategic goal of the Ministry of Economy of the Republic of Lithuania – “To develop favorable legal and economic environment for the state economy development and by that ensure public welfare as well as employment”, Minister’s of Economy 2014 – 2016 strategic plan for main management areas (1st chapter. Mission and strategic changes) approved by the Minister of the Economy commandment No. 4-1071 12th, December, 2013.

²⁶ Strategic goals and priorities of related Ministries of the Republic of Lithuania (Ministry of Transportation, Ministry of Energy and Ministry of Environment) summary:

- Ensure citizens interest in the management areas of a particular Minister;
- Ensure proper as well as complying with ES regulations policy;
- Implementation of National strategy;
- Implementation of strategic projects related to the management areas of particular Minister.

²⁷ Contract on the establishment of national investments between the Government of the Republic of Lithuania acting in the name of the Republic of Lithuania and UAB “NDX energija”, <http://www3.lrs.lt/pls/inter3/dokpaies-ka.showdoc_l?p_id=312099>, viewed on 13th, March, 2016.

The influence of this factor is not noticeable in LE, however being particularly relevant to LG and FE, where top management relations with the shareholder clearly transcend limits of direct subordination and accountability, e.g., top management in LG and FE are / were in the past active participants in the political area of Lithuania and still have strong relations not only with representatives of policy forming Ministries, but also with other active politicians (members of Lithuanian parliament, leaders of political parties included).²⁸ It is important that a particular level of relations mentioned increases the ability of SOEs management to resist new goals, especially to change the management principles and to seek operational effectiveness (ROE).

- **Human resources and competence** is the fourth group of factors which are particularly important in order to ensure changes in the management principles in SOEs. It is worth noting that, according to GCC assessment and to surveys of SOEs top management, SOEs human resources and competence can be seen as a necessary factor to implement changes. However, the latter is directly related to other factors supporting changes, i.e., usually, when principal positions for required changes are agreed due to decisions taken by shareholders and top management, the appointment of required resources and competences becomes only a technical aspect. What is more, both in LG and LE, competences formed in the level of shareholder, top management and management were evaluated as sufficient to implement changes. Only in FE the competence factor was evaluated as the one which could be improved (due to decentralised FE management).

Summarised survey results of selected SOEs top management are presented (supplemented by the return on capital in a particular SOE) in the table below.

SOEs	LG		LE		FE	
	Support of change management ²⁹	Human resource and competence	Support of change management	Human resource and competence	Support of change management	Human resource and competence
Shareholder	+/-	+	+	+	-	+/-
Board	+/-	+	+	+	+/-	+/-
Director	-	+	+	+	+/-	+/-
Management	-	+	+	+	-	+/-

ROE changes 2012–2014	↓ 3,1 p.p. (5% / 1,9%)	↑ 14.8 p.p. (-11% / 3,8%)	↑ 2,7 p.p. (20% / 22,7%)
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FIG. 5. Summary of main factors influencing changes in management principles of selected SOEs (Source: created by authors)

²⁸ Baltic institute of Corporate Governance, “CEOs in Lithuanian State-owned Enterprises”, 2013.

²⁹ Note: support of change management in the context of case study was defined not only as formal definition and declaration of the objectives, but as justified actual actions by shareholder, board and SOEs decisions as well as structural changes which effect SOEs management principles.

To summarise analysed the Index changes and top management survey results, it is important to note that:

- Balance between goals of different SOEs management structural units (shareholder, board, management) is necessary to successfully implement changes in SOEs management principles. Analysed SOEs cases in Lithuania show that (i) formal goals of a shareholder will not be reached or implemented if there is no support in SOEs and (ii) implementation of changes does not happen even if SOE has required human resources and competences, but no motivation or incentives to change management principles.
- Isolation of management decisions and independence in the shareholder, board and management levels ensures that goals are focused to increase SOEs management effectiveness and operational results (ROE included). The shareholder, which actively participates in formation of policy, often faces incentives to set additional goals, responsibilities and duties for the SOEs (e.g., focus to social functions or / and political goals).
- Despite the fact that implementation of OECD management guidelines cannot directly influence absolute sector profitability (e.g., forestry sector), analysed cases of selected SOEs show that the implementation of management principles and management quality can (i) balance strategic goals and principles in the particular group of SOE, (ii) reduce operational costs by centralising administrative functions, (iii) increase decision autonomy and independence, which may positively influence the effectiveness of SOEs management.

Findings presented above support and emphasise the importance of independent board members, management of SOEs management transparency, quality and ability to perform change. Case studies also show that implementation of OECD guidelines cannot directly effect absolute profitability of particular sector, however it can have essential influence for SOEs operational results and value created.

5. Conclusions

This paper, through quantitative and qualitative analysis of particular Lithuanian SOEs examples, examined the main factors influencing the principle changes and effectiveness SOEs management. The importance of this question for each state (especially – the type of transition economies) is particularly significant for a number of reasons:

- (i) The strategic SOEs role in state's objectives realisation (e.g., strategic projects' implementation, critical infrastructure management, social problems' decisions, etc.);
- (ii) SOEs dominate economic sectors that have the strategic importance for state development (e.g., transport);
- (iii) The extremely high potential impact (both positive and negative) for state economy and social environment development at the national level as well as many other reasons.

SOEs and the corporate governance impact question in Lithuania has become particularly relevant for the 15th Lithuanian Republic Government in 2010 after deciding to take SOEs reforms on reorganising the established SOEs monitoring mechanisms, accountability principles, implementing corporate governance principles in SOEs management structure. During these changes in Lithuania, for the first time it was looked at the state as the owner and manager of property (business), upon whose managerial abilities depend the strategic state objectives' success and the proper management of states property (through existing SOEs).

Starting from insights of theories analysing corporate management (principal-agent theory), this paper sought to confirm that the implementation of corporate management principles, i.e. – (i) SOEs management transparency, (ii) board composition and competence, (iii) strategic planning and internal controls in SOEs management – results in increased operational effectiveness.

Paper results show that:

- (i) Empirical quantitative data provides some support that the Composition of the boards has a significant positive effect on the results (ROE) of SOEs;
- (ii) Case study analysis (analysing LG, LE, FE) not only confirmed quantitative conclusions about independent board members, but also highlighted the importance of decision making isolation between the administrative management and strategic levels;
- (iii) There is a necessity to change the role (if the government seeks to increase SOEs return on capital ratios) of the shareholder, so that the latter would not be related to the policy formation of corresponding SOEs, but rather seek to set goals related to operational effectiveness and would require related SOEs governing bodies to develop required skills and competences to reach effectiveness goals.

Despite the fact that quantitative analysis does not show the effect of every independent variable for SOEs effectiveness, it confirms that the main goal of the reforms as well as the main independent variable of study – the strengthening of SOEs board independence and SOEs management isolation from policy formation – have essential impact for SOEs management effectiveness and return on capital. It is important to note, however, that results of quantitative analysis do not reflect that other corporate governance principles do not effect SOEs management results. These are the main factors which could have led to biased quantitative analysis: (i) most of the GCC data is based on self-assessment of SOEs management, therefore it can lead to biased data, (ii) the scope of statistical data (2012–2014) might be not significant enough to provide reasonable statistical results and (iii) the application of corporate governance principles does not have an immediate effect on financial and operation results of SOEs, since particular principles take a particular time period to improve SOEs management (e.g., new independent board member make decisions which are focused towards long-term benefits for the particular SOE). What is more, it is particularly important that GCC would strengthen their human

resource capabilities in order to provide data which would not be guided by those self-assessments of the SOEs management.

What is more, paper findings mentioned above are important both for national and international SOEs effectiveness discussion, since they help clarify the main directions of SOEs management principles and provide evidence, supported by quantitative methods, regarding best practices supported by international agencies. These types of studies should and must be expanded in terms of scope:

- By performing studies not only in Lithuania, but across Baltics as well, of SOEs operating in other regions as well as by collecting additional data related to SOEs management quality and management principles;
- By performing corresponding studies not only in SOEs, but as well as in Municipality owned enterprises;
- By evaluating the effect of corporate management principles not only for ROE and management effectiveness, but as well as for quality of services and society satisfaction related to SOEs and Municipality owned enterprises services (especially important for Municipality owned enterprises public services, where competition with the private sector has increased dramatically during Lithuanian independence).

At the same time, study results can provide useful practical insights for representatives responsible for Lithuanian SOEs policy:

- In the course of the study, a couple of key factors were separated: the need to increase independence and competence of SOEs board members as well as to ensure management isolation from policy makers, which results in direct and remarkable benefits for Lithuanian SOEs. In order to increase the SOEs contribution to the national budget or a strategic project (by receiving greater dividends), the latter mechanisms / factors should be supported by Lithuanian politicians (independently from their political views);

For the final note, questions regarding management quality are increasingly spreading across public political discussions and in the future, due to expanding data reflecting corresponding management quality, the study of corporate management principles effects can be increased in terms of scope and depth, which could lead to the implementation of corporate management principles in broader terms (in terms of region, in terms of comparability between different public organisations) as well as increased practical and theoretical knowledge and findings of study. Assuming that Lithuania will expand the practice of management principle implementation, findings presented in the paper will be used not only for the most relevant public administration areas, but also for the bigger geographical region, which would allow to compare quantitative and qualitative differences SOEs policy and management practices.

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