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Relationship between CSR and Financial Performance - Companies within ZSE CROBEX10® Index

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ABSTRACT

The main objective of this research paper is to examine the relationship between corporate social responsibility (CSR) and financial performance (FP) of the companies included in the official share index of the Zagreb Stock Exchange. CROBEX10® includes shares of 10 companies traded at the regulated market in Croatia. Corporate social responsibility is a factor having an important role in the consumer selection of products and services. Thus, CSR is increasingly gaining in importance because it creates organizational value for a company by giving the ability to differentiate the company from its competitors. All successful companies in the world have recognized the importance of CSR, but not all are equally successful in its implementation. Although many empirical studies found a link between the quality of CSR and the company performance measured by financial indicators, there is still a lot of inconsistency in the results of previous research, mainly due to the factors influencing this relation. The paper starts from the general premise that there is no relationship between CSR and FP, for companies included in CROBEX10®. In this paper common indicators such as the measure of the financial performance (such as ROA and ROE) are determined by using document analysis method. Levels of CSR indicators are evaluated by using content analysis. The relationship between CSR and financial performance is interpreted using descriptive statistics, method of simple regression analysis and factor analysis.

ARTICLE INFO

Keywords:
Correlation, CSR, CROBEX10®, Financial indicators, Measuring

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1. INTRODUCTION

This paper analyzes the relationship of corporate social responsibility (CSR) performance for the sample of 10 companies whose shares are included in the official share index of the Zagreb Stock Exchange (ZSE) and financial performance (FP) in the observed period from 2012 to 2014. The companies have to accept and develop socially responsible business in order to survive in the extremely competitive market. The overall objective of this paper is to assess the connection between the financial performance and the performance of corporate social responsibilities of selected companies. There are many examples where, due to the lack of transparency and unethical decision making, large business systems collapsed in a very short time. To prevent this and to achieve sustainable economic system, CSR is the only way to go (Horvat et al., 2014). Data used in the article are from secondary sources, books and scientific articles in the field of CSR and financial performance and publicly available annual financial reports and other relevant documents of companies included in the share index CROBEX10®.

CSR referred as a strategic plan (Roberts, 1992) is increasingly gaining in importance because it creates organizational value for a company by giving the ability to differentiate the company from its competitors. The general assumption is that a successful implementation of the CSR standard leads to higher financial performance of the companies. Successful

companies support the development of the capital market. Studies show that stock prices and other financial indicators generally respond positively to any improvement in CSR. Although many empirical studies find a link between the quality of CSR and the company performance measured by financial indicators, there is still a lot of inconsistency in the results of previous research, mainly due to the factors influencing this relation. The reason for this can be sought in the absence of adequate measures for quality of CSR, but also because of application of different measures. The unique standard of measure has not been established.

The study sample consisted of companies whose shares are included in the stock exchange index CROBEX10® (ZSE) after a regular revision in September 2015. This sample was selected primarily because of clear conditions for the inclusion of companies' shares in the index and elements for company comparison in the sample. Also, the assumption is that the companies included in the index CROBEX10® have the best performance and CSR quality. The paper starts from the general premise that there is no relationship between CSR and financial performance, for companies included in CROBEX10®. There are different methods of tracking company performance success. For the purpose of this research, financial performance is measured by two ratios most preferred for profitability assessment, ROA and ROE. CSR indicators are evaluated by using content analysis.

The structure of this paper is as follows. The next section provides theoretical evidence about linkage between corporate social responsibility and financial performance. The third section illustrates the research methodology and measurement process, the fourth section provides results report and discusses the main findings. In the last section, the authors make conclusion and give the assumption for future research.

2. EMPIRICAL LINKS BETWEEN CORPORATE SOCIAL RESPONSIBILITY AND FINANCIAL PERFORMANCE

Corporate social responsibility should be an integral part of each company and be present in every process and each activity (Horvat et al., 2014). A definition brought by Selvi, Wagner and Türel (2010) states that CSR is when companies take into account the impact of their decisions on society and the environment. There is a lot of inconsistency in the results of previous research and many authors approach to the relationship between corporate social responsibility and financial performance with different views. So far, presented research data have shown a positive, negative, and neutral impact of corporate social responsibility on financial performance. As one of the reason for this inconsistency authors usually refer to empirical analysis (McWilliams, Siegel, 2012) but also some authors take the neutral position because of the fact that there are many factors that can prevent researchers from secure results (Kang et al., 2010). Also, it is important to notice that there are some research papers in which CSR is perceived as a marketing strategy (D'Arcimoles, Trebucq, 2002) and CSR has a growing part in the marketing literature.

One of the first data were from 1984 in the research paper from Cochran and Wood who found out that average age of corporate assets are highly correlated with social responsibility ranking. Karagiorgos (2010) made a research on 39 Greek companies listed on the Athens Stock Exchange. The presented results showed that companies which adopt CSR strategy and practices may obtain higher stock values due to the fact that shareholders evaluate positively these activities. Flammer (2013b) found out in her research that CSR is a very valuable resource for the company which leads to higher financial performance. Also in her previously research Flammer (2013a) found out that companies experience an extreme stock price increase upon the announcement eco-friendly initiative. Fasanya and Onakoy (2013)

observed primarily and secondary data about Nigerian companies and they found out that CSR could be a key instrument to the financial development and that profit making is the most important for growth trends in corporate social responsibility performance. Servaes and Tamayo (2013) conducted a research about the connection between the existence of CSR of the company and business value of companies that have highly conscious consumers. They performed a set of different studies and their results show that the existence or, on the other hand, the lack of social responsibility, influences the company business success.
But still there is some evidence of negative and neutral relationship. Mahoney and Roberts (1997) in their research on a sample of Canadian firms found no significant relationship between CSR activities and FP. In an empirical analysis on a sample of 179 publicly held Canadian firms Makni, Francoeur and Bellavance (2009) found no significant relationship between a composite measure of a firm's CSR and FP, except for market returns. Rapti and Medda (2012) in their research present a negative or nonexistent relationship between CSR and FP according to the commonly used ratios in the air transport industry - EBITDA and Net Assets. Hirigoyen and Poulain-Rehm (2015) in their research on a sample of 329 listed companies in three geographical areas (the US, Europe and the Asia-Pacific region) found that greater social responsibility does not have an influence on a better financial performance, as well as that financial performance has a negative impact on corporate social responsibility.

3. RESEARCH HYPOTHESIS AND METHODOLOGY

The objective of this research paper is to investigate the correlation of company financial performance and CSR performance, respectively to investigate the measure to which the CSR performance of the observed companies influences their performance. The assumption is that CSR leads to a higher level of company performance. The above literature review shows that the relationship between CSR and company financial performance is not clear. Based on our literature review and other authors' review we started from the general premise that there is no relationship between CSR and FP, for companies included in CROBEX10® through the period (2012-2014). Based on that premise, one hypothesis was created.

***H1**: Statistically significant correlation between the financial performance indicators ROA and ROE and overall CSR performance of the companies included in CROBEX10® does not exist.*

The aim is to examine how the implementation of CSR in Croatian companies listed in the stock exchange index CROBEX10® affects the financial performance measured by ROA and ROE. In order to examine the above stated hypothesis, authors conducted a web page analysis. Company web sites were analyzed in order to check the elements identified through the content analysis. This study utilizes a quantitative and deductive approach. A quantitative approach is considered suitable from a statistical perspective regarding companies listed on the stock exchange index CROBEX10®. A deductive approach is considered because the research results are compared to previous research (Hyde, 2000). Simple linear regression has been utilized as a most common method in previous researches, so the authors also decided to use simple linear regressions in order to examine the relationship between CSR performance, as an independent and either ROA or ROE as dependent variable. Empirical results are gained by the analysis of the data in MS Excel and statistical tool Statistica.

3.1 Sample and data

The initial sample constituted of companies that are included in the stock exchange index CROBEX10® (ZSE) after a regular revision in September 2015. The secondary data was collected from the Croatian stock market website (http://www.zse.hr/default.aspx?id=61298). The companies listed in the stock exchange index CROBEX10® are from different industrial sectors and they are ranked on the basis of two criteria: a) their shares in the free float market capitalization, and b) their shares in the order book turnover in the course of six months preceding the revision (Resolution on the CROBEX10® index, 2014). The composition of CROBEX10® is: AD Plastik, Adris grupa, Atlantic Grupa, Ericsson Nikola Tesla, HT, INA, Končar - Elektroindustrija, Kraš, Podravka and VALAMAR RIVIERA. Each company from the sample presented in the table below is indicated as fi where i = 1 to 10^{th} company. The main assumption is that the companies included in the index CROBEX10® have the best financial performance and strong commitment to CSR principles. This also presents the main limitation of the research since there is no clear evidence of correlation between those two variables.

3.2 Measure of CSR

Defining and measuring CSR originally referred to as social responsibility is a complicated process, and one of the main reasons for the problematic measurement is the absence of a common framework (Rapti, Medda, 2012). There are several methods for measuring CSR that are recognized in the literature. But there are only two best-known and used methods, reputation index and content analysis (Fasanya, Onakoy, 2013). For the purpose of this research the authors used content – analytic procedure to collect relevant information. Content analysis uses information from the reporting of CSR activities in company publications, codes of ethics, and in the annual report, but sometimes also in stand-alone reports (Bebbington et al., 2008). Company reports on CSR are the primary communication medium to indicate company's CSR actions and strategy (Grudić Kvasić, 2014). Measuring CSR is a multi-dimensional process, because it could be observed from different aspects and includes internal (governance, employees) and external (environmental and community impact) factors (Palmer, 2012).

Based on a content analysis of 10 listed companies on the stock exchange index CROBEX10® (ZSE) the CSR features in the Croatian companies are evaluated. We collected information and documents on CSR directly from their websites, which is connected with the fact that companies use Internet widely as a place to communicate their principles and disseminate their information to public (Snider et al., 2003).

For the purpose of this research, we use the following types of CSR reports, available only at the official websites as a public communication canal: a) Sustainability Report, b) Code of Ethics, c) CSR report, d) Environmental report, e) Code of Business Conduct as well as the section of corporate websites dedicated to disclosing CSR activities. Five companies issued sustainability report, whereas three companies published a code of ethics in business, one company published CSR report, three companies published environmental reports, two companies published code of business conduct and eight companies provided a dedicated CSR section on their websites. All companies disseminated additional types of CSR reports, such as annual report, global compact report, and quality report. The CSR information is published in Croatian and English editions. The fact that companies have different types of CSR reports means that the companies are aware of the importance of developing CSR and its influence on public opinion, and probably on financial results. One of the assumptions is

also that financially stronger companies have people who deal with public relations and therefore have a better program of corporate social responsibility.
Using previous research data, but mainly elements of content analysis by CSR topic from the research paper of Campopiano and De Massis (2015), we made our own research analysis on 10 Croatian companies. In this type of analysis, there are always three main dimensions: business, environment and social performance (Giannarakis et al., 2011). Earlier research conducted on 20 Croatian companies noted that Croatian companies mainly engage in social (95%) and environmental programs (85%) while only 10% of them invest in economic CSR programs (Grudić Kvasić, 2014). General (sub)topic identified on the official websites content analysis are grouped into six logical entities, that is sub-indexes: a) *Values and general interests* (honesty, integrity, respect, gender equality, support for cultural and sporting activities), b) *Shareholder* (CG principles), c) *Employees* (working conditions, no discrimination in selection, business culture, training, HRM), d) *Environmental issue* (environmental policy, environmental investment, responsible use of energy, clean energy, reduction of pollution emissions, sustainable research, circular economy), e) *Philanthropy* (donations, sponsorship, community program sponsorship (anti-racism, employee volunteerism, children/youth program), health program and research), f) *Stakeholder issue* (stakeholder dialogue, involvement in decision making process). Evidence of the content analysis by CSR topic was characterized by dichotomy. An affirmative answer is coded with a value of "1" and the negation with value "0". In calculation of certain sub-indexes each question holds equal value. This way ensures that every sub-index has a value between 0 and 1. The value is calculated in the following manner: [(the sum of values of the answered questions* overall number of questions composed of sub-indexes)/ number of answered questions]/ the biggest sum achieved for the latter sub-index in the year.

3.3 Measure of financial performance

One of the most important benefits that CSR may provide to a company is financial success (Rapti, Medda, 2012). The financial performance of a company is examined through its annual financial reports, where information about growth, investments, earnings, costs, etc. are listed. The above literature review shows that measures of financial performance could be either accounting-based or market-based. For the purpose of this research paper we use accounting-based data available in the annual financial reports of companies included in the share index CROBEX10® in the observed period from 2012 to 2014.
Profitability is the main indicator of company success. Relative measures of profitability are much more revealing than absolute profit numbers when comparing companies (Van Horne, Wachowicz, 2012). They are divided into two groups: ratios that show profitability in relation to sales, and those which show it in relation to investment. Measures of financial performance presenting profitability in relation to investment link some measure of profit with some measure of assets tied up in business. We use two ratios most preferred for profitability assessment and these are: return on assets (ROA), and return on equity (ROE). ROA determines the operating efficiency of the company relating earnings before interest and taxes (EBIT) and total assets. ROE shows the return of shareholders dividing earnings after taxes (EAT) by equity. ROE is the ratio that some consider the most important in finance since it is a driver of value (Walsh, 2006). However, high levels of ROE cannot be achieved without good ROA. To calculate either of these measures of return on investment there has to be a profit. Therefore, for all the years during which a company incurred loss i.e. negative EBIT or EAT, corresponding ROA or ROE was not calculated for our sample (Table 1).

Table 1: ROA and ROE for CROBEX10® companies, years 2012-2014						
Company	ROA2012	ROE2012	ROA2013	ROE2013	ROA2014	ROE2014
AD Plastik d.d. (f1)	6.12%	6.59%	5.85%	6.20%	3.27%	2.03%
Adris grupa d.d. (f2)	7.96%	7.25%	6.48%	6.05%	9.15%	9.56%
Atlantic Grupa d.d. (f3)	1.28%	EAT negative	0.91%	EAT negative	1.46%	EAT negative
Ericsson Nikola Tesla d.d. (f4)	12.29%	16.72%	13.83%	21.47%	12.20%	25.10%
HT d.d. (f5)	16.23%	15.23%	13.11%	13.23%	9.45%	10.08%
INA d.d. (f6)	6.68%	8.53%	EBIT negative	EAT negative	3.19%	5.50%
Končar - Elektroindustrija d.d. (f7)	7.72%	7.93%	9.45%	9.56%	5.94%	5.80%
Kraš d.d. (f8)	3.25%	1.34%	2.49%	1.07%	3.09%	2.47%
Podravka d.d. (f9)	1.89%	EAT negative	5.51%	4.53%	10.35%	15.07%
VALAMAR RIVIERA d.d. (f10)	2.98%	2.61%	1.83%	3.00%	1.81%	1.14%

4. RESEARCH RESULTS

In this section, we present the findings of our analysis. In order to test the dependence between financial indicators and the CSR performance, we used the method of simple linear regression and factor analysis. Based on the calculation of the average values of variables ROA and ROE in the period 2012-2014 we created Table 2. The values for CSR performance shown in Table 2 were obtained according to the description of evaluation given in 3.2 , based on the evaluation entities (sub-indexes): a) *Values and general interests* (VGI), b) *Shareholder* (Sh), c) *Employees* (Emp), d) *Environmental issue* (E), e) *Philanthropy* (Ph) and f) *Stakeholder issue* (Si).

Table 2: The values for ROA, ROE and CSR

Company	ROA	ROE	CSR
f1	5.08%	4.94%	0.85
f2	7.86%	7.62%	0.55
f3	1.22%	0.00%	0.72
f4	12.77%	21.10%	0.80
f5	12.93%	12.85%	0.76
f6	3.29%	4.68%	0.98
f7	7.70%	7.76%	0.82
f8	2.94%	1.63%	0.74
f9	5.92%	6.53%	0.71
f10	2.21%	2.25%	0.54

By applying *Statistica* tool we made a regression analysis to determine whether there is a dependence between variable ROA and cumulative CSR performance. The result is shown in Table 3.

Table 3: Regression summary for dependent variable ROA

	Multiple R	Multiple R^2	Adjusted R^2	SS Model
ROA	0.094930	0.009012	-0.114862	0.000139

It is obvious that the amount of the correlation coefficient (r = 0.095) points to the fact that there is no statistically significant correlation between ROA and overall CSR performance indicator. Table 4 gives parameter estimation regarding simple linear regression.

Table 4: Results of a simple linear regression of dependability financial measure ROA of CSR performance

	ROA Param.	ROA Std.Err	ROA t	ROA p	-95.00% Cnf.Lmt	+95.00% Cnf.Lmt	ROA Beta (ß)	ROA St.Err.ß
Intercept	0.039519	0.084209	0.469298	0.651381	-0.154668	0.233706		
CSR	0.029929	0.110963	0.269722	0.794201	-0.225952	0.285810	0.094930	0.351957

From the above results which show t-value for independent variable lower than 2 and p-value for independent variable high it can be concluded that the obtained simple linear correlation coefficient is not statistically significant. This leads to the acceptance of the *H1* considering the correlation existence between ROA and CSR indicator. Below we examine the possible correlation between variables ROE and CSR performance indicator. The result for the correlation coefficient is shown in Table 5.

Table 5: Regression summary for dependent variable ROE.				
	Multiple R	Multiple R²	Adjusted R²	SS Model
ROE	0.175790	0.030902	-0.090235	0.001063

The result for the correlation coefficient between CSR and ROE is approximately r = 0.176. This is a somewhat higher value than the one we got for CSR and ROA although is also quite small. Table 6 gives parameter estimation regarding simple linear regression.

Table 6: Results of a simple linear regression of dependability financial measure ROE of CSR performance

	ROE Param.	ROE Std.Err	ROE t	ROE p	-95.00% Cnf.Lmt	+95.00% Cnf.Lmt	ROE Beta (ß)	ROE St.Err.ß
Intercept	0.007480	0.124193	0.060232	0.953449	-0.278908	0.293869		
CSR	0.082655	0.163649	0.505074	0.627124	-0.294720	0.460030	0.175790	0.348048

Therefore, it can be concluded that there is no statistically significant linear correlation between CSR indicator and financial indicators ROA and ROE. Based on hypothesis testing, this leads to the final acceptance of the H1.

In order to achieve a deeper insight into the structure of the possible relationships between the profitability and indicator of CSR, we made an analysis of each elements of the overall indicators of CSR since (according to the description given in 3.2). Evaluation results of the CSR components together with the values of ROA and ROE are presented in Table 7.

Table 7. The values of the variables that make CSR and those values describing the financial results for the company from CROBEX10®

	ROA	ROE	VGI	Sh	Emp	EP	Ph	SI
f1	0.051	0.049	0.750	1.000	1.000	0.857	0.500	1.000
f2	0.079	0.076	0.500	1.000	0.800	0.000	1.000	0.000
f3	0.012	0.000	0.750	1.000	1.000	0.571	0.500	0.500
f4	0.128	0.211	0.750	1.000	1.000	0.571	0.500	1.000
f5	0.129	0.128	1.000	1.000	0.800	0.286	1.000	0.500
f6	0.033	0.047	1.000	1.000	1.000	0.857	1.000	1.000
f7	0.077	0.078	1.000	1.000	1.000	0.429	0.500	1.000
f8	0.029	0.016	0.500	1.000	1.000	0.714	0.750	0.500
f9	0.059	0.065	0.750	1.000	1.000	0.286	0.750	0.500
f10	0.022	0.023	0.500	1.000	0.600	0.143	0.500	0.500

For the purpose of further data processing, we calculated Cronbach's alpha as a measure of internal reliability. The value is Cronbach - alpha = 0.598128 which can be considered satisfactory considering the size of the sample. In addition, we excluded the variable Sh from further consideration since it has no variation for all the observed companies. After the implementation of factor analysis we determined the existence of two main factors as it is given in Table 8.

Table 8: Factors and coordinates of variables (CROBEX10®)		
	Factor 1	Factor 2
ROA	0.982506	0.186230
ROE	0.982506	-0.186230
*VGI	0.336671	0.146586
*Emp	0.027758	-0.236450
*EP	-0.199245	-0.378404
*Ph	0.140624	0.430677
*SI	0.184792	-0.461887

Considering the position of the cases (companies) in further analysis in the two-dimensional factor space we determined a big deviation for Ericsson Nikola Tesla (f4; Table 1) which differs extremely in high profitability from the other companies in CROBEX10®. Since this case can be seen as the exception, this company is not taken into consideration in further analysis. In this case, it could be determined with a greater reliability that the regularity is valid for a set of some the most prominent Croatian companies from the Zagreb Stock Exchange.

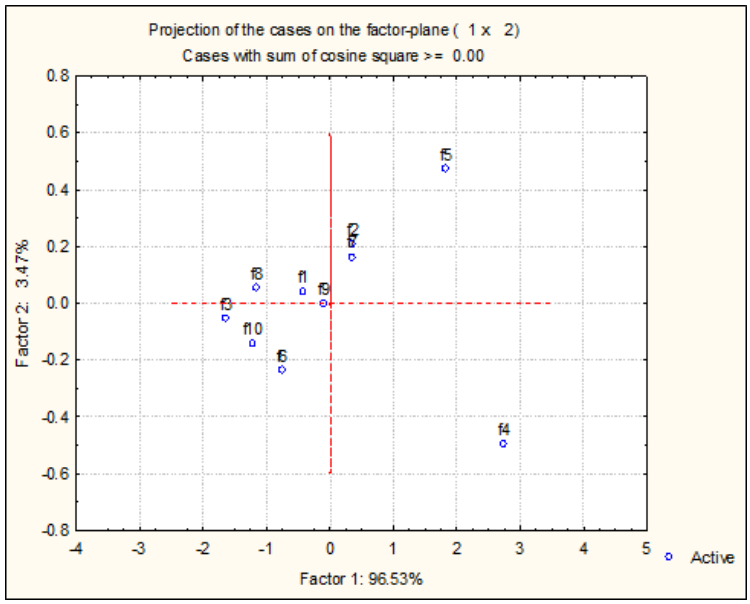


Figure 1: Two-dimensional factor-plane for analysis of CSR components and ROA/ROE (CROBEX10®)

Excluding company (f4), we get a reduced table (no line f4 and no column Sh), where again we have a check of data consistency. The data analysis shows that Cronbach alpha is

0.612640, which gives us an improved result. In addition, in the calculation of factor analysis with the procedure of principal components (excluding ERNT), we get the following correlation matrix (Table 9).

Table 9: Factor analysis- Correlation matrix (CROBEX10®- ERNT)

	ROA	ROE	VGI	Emp	EP	Ph	SI
ROA	1.00000	0.97782	0.43140	-0.15848	-0.40396	0.49220	-0.13932
ROE	0.97782	1.00000	0.51118	-0.15551	-0.37575	0.53801	-0.04641
VGI	0.43140	0.51118	1.00000	0.39736	0.33309	0.15554	0.64952
Emp	-0.15848	-0.15551	0.39736	1.00000	0.70589	-0.08241	0.48751
EP	-0.40396	-0.37575	0.33309	0.70589	1.00000	-0.17270	0.74038
Ph	0.49220	0.53801	0.15554	-0.08241	-0.17270	1.00000	-0.35921
SI	-0.13932	-0.04641	0.64952	0.48751	0.74038	-0.35921	1.00000
Means	0.05461	0.05362	0.75000	0.91111	0.46032	0.72222	0.61111
Std.Dev.	0.03650	0.03894	0.21651	0.14530	0.30952	0.23199	0.33333
No.Cases	9.00000						
Matrix	1.00000						

According to Table 9 it is evident that the profitability indicators ROA and ROE, although they do not have a significant correlation with the overall indicator of CSR, have some fairly significant correlation with the performance of individual components of CSR. Component VGI has a relatively large positive correlation ($R > 0.43$) with ROA and ROE. The similar situation exists with component Ph with ($R > 0.49$). In addition, based on the correlation matrix a new procedure of factor analysis is performed. We apply also the rotation Varimax Normalized. The result is the separation of factors that are given in Table 10.

Table 10: Factor loadings (CROBEX10® - ERNT)

	Factor 1	Factor 2
ROA	0.953242	-0.089084
ROE	0.980689	-0.027109
VGI	0.570044	0.726516
Emp	-0.116481	0.778477
EP	-0.338361	0.848531
Ph	0.647263	-0.184190
SI	-0.067394	0.901941
Expl.Var	2.746919	2.709952
Prp.Totl	0.392417	0.387136

Table 10 shows that the first factor is marked by large weights of financial performance variables. Also, a high value of CSR components is characteristic for the second factor. However, there is one specific exception and that is the variable Ph (Philanthropy). Factors have an eigenvalues as presented in Table 11.

Table 11: Factors and Eigenvalues				
	Eigenvalue	% Total variance	Cumulative Eigenvalue	Cumulative %
1	2.984255	42.63222	2.984255	42.63222
2	2.472615	35.32307	5.456870	77.95529

It is evident that variable Ph (Philanthropy) has a positive correlation with variables ROA and ROE, while it has a mainly negative correlation with other CSR components (Emp, EP, SI). Table 10 shows that Ph variable participates with greater weight in factor 1 than in factor 2. If we analyze the position of different variables in the two-dimensional factor space, then we see that the variable Ph is near to the ROA and ROE (Figure 2). In this load factor arrangement, variable VGI is also extent (Values and general interest).
Therefore, unlike the first test analysis of a simple correlation between cumulative factors - CSR performance and profitability indicators for companies included in CROBEX10®-distribution of CSR on the components and deeper structural analysis revealed interesting results. Although the hypothesis that there is no significant positive correlation between overall indicator of CSR performance and profitability indicators for companies included in CROBEX10® is correct, the profitability of the analyzed companies (with the exclusion of Ericsson Nikola Tesla) is in the positive correlation with the components of CSR: with VGI and even more with Ph. Variable Ph is not in relevant significant positive correlation with other components of CSR.

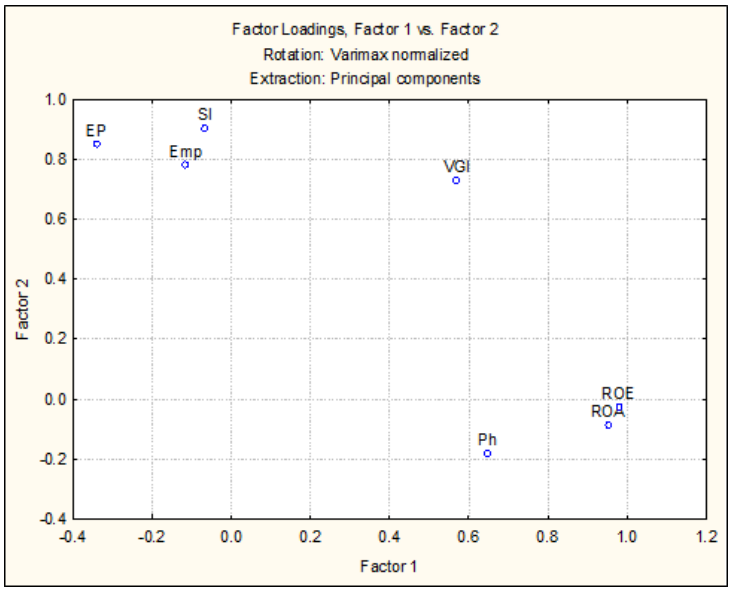


Figure 2: Two-dimensional factor plane

Therefore, the answer to the question about the correlation between ROA and ROE indicators and CSR indicator is not quite unambiguous. In Figure 2 the proximity of variable Philanthropy can be seen, which includes donations, sponsorship with the profitability variables. This positive relationship is expected in some respects, since the companies that generate excess cash are more prone to such social activities.

5. CONCLUSION

This research paper gives the result which indicates that there is no statistically significant correlation between overall indicator of CSR and financial indicators ROE and ROA of the Croatian companies included in CROBEX10® share index. A more detailed analysis of the components of CSR shows that there is some correlation between CSR components and indicators ROA and ROE. Both profitability variables are positively correlated with the variable VGI (Values and general interests) and even more with Ph (Philanthropy). It should be noted that Ericsson Nikola Tesla was excluded from this part of the analysis because it is highly profitable compared to other companies included in CROBEX10®.

But still, the value of regression coefficient gives some evidence that companies in Croatia have been gradually accepting the concept of sustainable performance. As the literature review shows, it is possible that different set of problem results in a different outcome. In some earlier research conducted on 22 Croatian companies, Vitezić (2011) found out that business profitability measured by ROA and ROE, as well as profit margin, is much better in a socially responsible enterprise which submits transparent reports.

Beside the fact that we defined a set of documents, figures and criteria that can be considered in the content analysis of CSR, the study had several limitations regarding the possible conclusions. CSR indicators are not determined on the basis of strict quantitative procedures, but they include the effect of estimation and judgments in a substantial part. Therefore, the accuracy of the amounts of individual values and the components of CSR are partially unreliable. The sample size does not allow generalizations about Croatian companies on the whole and this research study can be interpreted only as a pilot study. Also, the analyzed companies are among the most successful ones in Croatia and their CSR activities cannot be representative of those with poor financial performance. From that point of view, this research provides a starting point for further more complex research.

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