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ПРИХОВАНІ ПЕРЕВИТРАТИ РЕСУРСІВ ЯК ПЕРВИННА РУШІЙНА СИЛА МАКРОЕКОНОМІЧНОЇ ДИНАМІКИ: РЕСУРСНА МОДЕЛЬ ЕКОНОМІЧНИХ ЦИКЛІВ

Пропонується нова ресурсна модель економічного циклу, в рамках якої доводиться, що приховані перевитрати ресурсів, які задіяні у виробництві ВВП, є первісною і загальною рушійною силою макроекономічної динаміки. Перевитрати ресурсів є результатом накопичення недосконалостей ринків, що вимірюються як різниця між дефляторами «природних» та поточних ринкових цін. Сумарна ефективність регуляторної політики може бути оцінена за цією різницею. Ресурсну модель було протестовано на прикладі економіки США протягом 40 років або шести емпіричних циклів поспіль. Модель дозволяє однозначно визначити початок рецесії з упередженням в 6-18 місяців. Емпіричне тестування ресурсної моделі показало відсутність неправдивих сигналів про час початку рецесій.

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CORPORATE SOCIAL RESPONSIBILITY AND ITS IMPACT ON COMPANY'S FINANCIAL PERFORMANCE

Corporate social responsibility practical implementation experience in Ukraine is investigated, the main drivers for ccorporate social responsibility activities are distinguished. The relationship between Ukrainian companies' corporate social and financial performance is evaluated. The main obstacles for socially responsible activities of Ukrainian companies are underlined.

Problem description. The concept of corporate social responsibility (CSR) has gradually become a vital issue in business making. Primary emerged from solitary occurrences of charitable donations and propounded as corporate philanthropy, it has now expanded to core business strategies and the process of its implementation requires considerable cogitation and reasonable preparations. Building up a CSR strategy and enshrining it into all business processes could be a remedy for companies enduring crisis or an additional competitive advantage for already stable companies. A deep interest to CSR is an outcome of reasonable motivations behind responsible practices. These incentives involve sustainable development of a company and world community in general, however reasonable investors do not permanently put their money in the projects without any return. Therefore, an assumption can be

made about the financial advantages of CSR, which are reducing social risks, improved company's reputation, reducing operating costs, attraction of employees and shareholders, product differentiation, etc. All of them in the long run lead to meliorated financial performance. Thus, CSR can be deservedly called the most effective and innovative business strategy in the current situation.

Analysis of the scientific researches. CSR in its regard to financial performance is a scrupulous area for interest for hundreds of foreign scholars, thus it is quite meaningfully covered in a number of works. According to Margolis and Walsh (2002), one hundred twenty-two published studies between 1971 and 2001 empirically examined the relationship between corporate social responsibility and financial performance [1].

Empirical studies of the relationship between CSR and financial performance comprise essentially two types. The first uses the event study methodology to assess the short-run financial impact (abnormal returns) when firms engage in either socially responsible or irresponsible acts. The results of these studies have been mixed. Wright and Ferris (1997) discovered a negative relationship; Posnikoff (1997) reported a positive relationship, while Welch and Wazzan (1999) found no relationship between CSR and financial performance. Other studies, discussed in McWilliams and Siegel (1997), are similarly inconsistent concerning the relationship between CSR and short run financial returns [2].

The second type of study examines the relationship between some measure of CSP and measures of long term financial performance, by using accounting or financial measures of profitability. The studies that explore the relationship between social responsibility and accounting-based performance measures have also produced mixed results. Cochran and Wood (1984) located a positive correlation be-

tween social responsibility and accounting performance after controlling for the age of assets. Aupperle, Carroll, and Hatfield (1985) detected no significant relation between CSP and a firm's risk adjusted return on assets. In contrast, Waddock and Graves (1997) found significant positive relationships between an index of CSP and performance measures, such as ROA in the following year [2].

The **aim** of the article is to conduct an empirical research on the relationship between Ukrainian companies' corporate social and financial performance.

The main results of the research. Understanding of the CSR impact on the bottom line is very significant for its development in Ukraine, as it is business that has to take an initiative in raising CSR awareness and necessity. With the purpose of analyzing main CSR trends in Ukraine a sociological survey among Ukrainian companies has been conducted, in the process of the research 1457 large, medium-sized and small companies where surveyed via electronic questionnaire.

As the survey results show only 35 % of respondents believe that CSR has an impact on the corporate financial performance (CFP), 46 % find this question difficult to answer. However, only 38 % evaluate this impact quantitatively and qualitatively. At the same time only 19 % believe that socially responsible activity can positively influence financial performance, 23 % are certain that CSR reduces profit as it means extra expenses, 58 % of respondents answered that it has no influence on CFP. As the Figure 1 shows, prevailing factors that encourage Ukrainian companies to implement socially responsible practices are moral principles and accordance with company's corporate culture. However, only 12,13 % of respondents consider increase of company's profitability as a motivation for CSR. It is a strong evidence of low awareness level
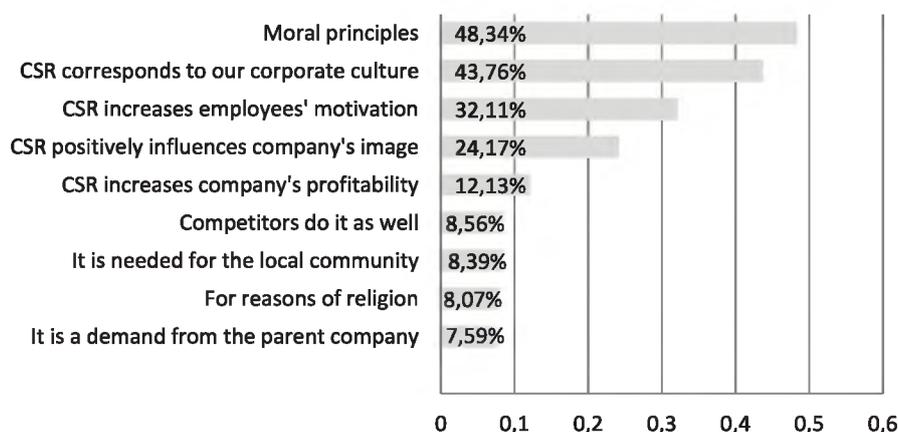

Fig. 1. Main incentives for CSR activities among Ukrainian companies, %
Source: developed by authors based on sociological survey.

of CSR opportunities and at the same time a good explanation for rarity of CSR strategies implementation, not to mention about choosing responsible activities as the chief business strategy. These results also show that in Ukraine CSR is apprehended as an additional business activity that has little in common with operating activities or a display of philanthropy.

In general, survey results affirm that CSR awareness, its development and prevalence of its practices in Ukraine are on the very low level. Certainly, there are some obstacles for CSR development even in well-developed countries. Questionnaire among Ukrainian companies revealed that the main barrier for business to implement socially responsible practices is lack of financial resources. Another but equally significant barriers are lack of government support and impossibility to measure efficiency of CSR activities (fig. 2).
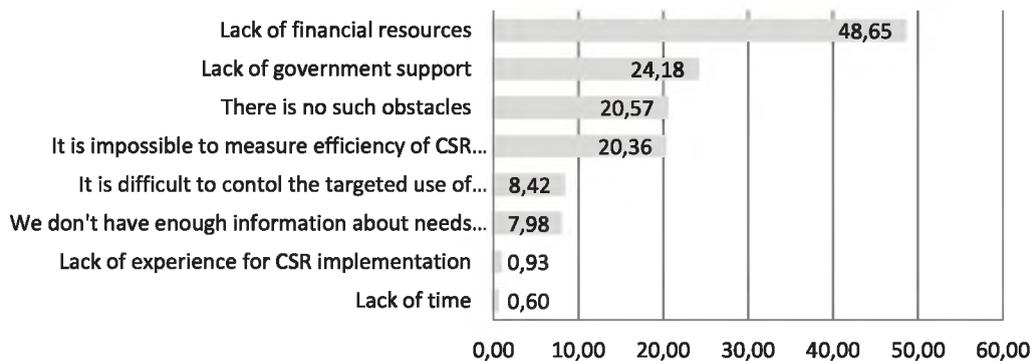
would bring competitive disadvantage to the company by increasing consequential costs that might not be covered by profits. There are also studies implying there is no reason to anticipate correlation between CFP and CSR, as there are lots of other factors standing between those two.

In this article, companies listed in the Transparency Index of Ukrainian companies 2011–2012 reports were selected as samples. Total amount of companies in each list accounts for 100, however sets of companies within each year were different. Thus, total number of companies suitable for the research stands for 50. All of them for the most part belong to one of the six main industry sectors: power industry, heavy industry, oil industry, communication, food industry or transport. Therefore, this study is divided into two sectors: examining relationship between CFP and CSR in general among Ukrainian companies and within different industries.

Fig. 2. Main barriers to CSR implementation in Ukraine, %
Source: developed by author based on sociological survey.

Hence, although important changes have happened in the social responsibility awareness level since 2005, still it is very low and needs support from government. Only few companies popularize and actively implement CSR practices in Ukraine. Partially this is due to the lack of information about CSR and absence of experience, partially due to the distorted approach to CSR as a moral principle rather than an opportunity to obtain long-run sustainability.

Main supporters of positive correlation between CSR activities and CFP suggest that commitment to CSR would result in increased costs to competitiveness and decreased hidden social risk costs. This argument is meaningful as good relationships with customers, suppliers and employees are necessary for company to survive. Therefore, CSR means short-term CFP in order to achieve long-run sustainable financial improvement [3, p. 132].

The viewpoint of negative correlation between CFP and CSR infers that implementation of CSR

To carry out a research, two specific indicators had to be determined. CSR indicators could be a hard task to measure. However, within scientific and business circles three main approaches to measuring CSR are distinguished. First one relates to the social disclosure of responsible activities carried out by company in its annual report. Rating is conducted by using content analysis, in the process of which annual reports are screening in order to find CSR-related words. Second one refers to concrete and observable socially responsible actions, like pollution control, charitable donations, social programmes. In this case, money spent on CSR activities are compared with returns on these initiatives. Third method is most wide-spread and refers to associating CSR with reputation, transparency or other CSR-related indices, providing to the public by special organizations or rating companies.

Due to the lack of information about the costs of the implemented CSR practices, inaccuracy and criticism of using content analysis in measuring CSR, third method was used for this research.

Transparency Index of Ukrainian companies, which is measured by Centre of CSR Development since 2011 each year was used as CSR indicator. This index covers all the possible dimensions of CSR disclosure, thus draw up the whole picture of the level of company's responsibility.

Indicators of financial performance have significant influence on the reliability and comparability of the results. In 51 studies related to the relationship between CSR and CSP roughly 80 different measures of CFP were used. This inconsistency has caused heated debate around CFP indicators. In this article, two most significant as to financial information for investors and at the same time most commonly used, meaningful and suitable for the analysis are chosen: return on assets (ROA) and return on equity (ROE). Both indicators are anticipated to provide comparable results as they limit or even get rid of the firm's size problem. Larger firms have sufficient resources to generate

1) when CSR is an independent variable and CFP is a dependent variable:

$$CFP_t = a_0 + b_1 CSR_t + e$$

2) when CFP is an independent variable, and CSR is a dependent variable:

$$CSR_t = a_0 + b_1 CFP_t + e$$

3) where t is the t-th year, CFP_t is the CFP of t-th year, and CSR_t is the CSR of t-th year.

Analysis was conducted in "Statistica" software package. A sample size of 42 companies was used; in the process of analysis 2 outliers were found giving a testable size of 40 companies. Normality tests were done on data, as a result residuals weren't normally distributed. Therefore, non-parametric testing was used to analyze data.

Spearman's rank order correlation matrices were built up to examine relationship between CSR performance and CFP. Table 1 shows correlation between CSR and financial performance variables.

Table 1. **Correlation matrices of CSR and financial performance variables**

Variable relationship	Correlation Coefficient	p-level
CSR Index 2011 and ROA 2012	0,038	0,816
CSR Index 2011 and ROE 2012	0,196	0,217
CSR Index Change and ROA Change	0,127	0,435
CSR Index Change and ROE Change	**0,299**	**0,051**
ROA 2011 and CSR Index 2012	0,194	0,231
ROE 2011 and CSR Index 2012	**0,412**	**0,008**

larger profits, ROA and ROE smooth discrepancies between sample observations. CFP indicators were calculated from relevant figures from a company's 2011 and 2012 annual reports. The formulas used to calculate ROA and ROE are the following:

ROA = Net Operating Income / Total Assets

ROE = Net Income / Total Equity

Three main hypotheses are tested to substantiate or reject a claim that there is a link between CFP and CSR of Ukrainian companies:

Hypothesis 1: Corporate social responsibility has a positive impact on financial performance. Companies that undertake and disclose CSR would experience increased financial performance in the following year.

Hypothesis 2: Financial performance has a positive impact on corporate social performance. The idea is that firms have "spare cash" available and are more likely to invest them in relations with stakeholders. CSR is regarded as an extra activity.

Hypothesis 3: There is a difference between CSR and CFP correlation within different industry sectors.

To study the causal relationship between CSR and CFP, this research employs regression as the main statistical method:

A positive relationship was found in all cases, however only in two: CSR Index Change and ROE Change, ROE 2011 and CSR Index 2012 the result was significant. It is shown by a p-level coefficient, which was measured as 0,051 and 0,008 respectively. Despite that, still both relationships founded are not strong enough, however a regression model can be constructed on their basis.

As a result of correlation analysis that was carried out, hypothesis one is rejected because a significant positive relationship was not found between CSR index in 2011 and financial performance in the following year. Hypothesis two can be accepted partially as only one CFP index showed positive significant relationship with CSR variable. There is a couple of reasons for results like this. First of all, correlation analysis attested results of the questionnaire conducted to draw the overall CSR situation in Ukraine. Responsible behavior of Ukrainian companies does not affect the bottom line. This is due to inconstancy, rarity and lack of connection between social investment that was made and well-considered business strategy. Deficiency of the CSR efficiency evidences in Ukraine, at the same time, discourages any stimuli and desires for responsible practices implementation. Thus, a vicious circle of relationship between CSR and financial

performance is observed in Ukraine. A necessary way out of this problem is education and raising CSR awareness among Ukrainian companies in the sense that concerns financial performance. It should be clearly explained to the representatives of Ukrainian management that there is a prolonged time lag, in some cases up to 5 years, between CSR costs, that must be spent immediately, and return on CSR. One more important point to consider is significance of the relationship between ROE Change and CSR Index Change and insignificance of the analogous relationship between ROA Change and CSR Index Change. A fair explanation for this may be a tendency of CSR to be correlated with ROA mainly when company carries out environmental activities or holds an active conversation with its customers, which are not common practices in Ukraine. Contrary to that, relationship between CSR and ROE is mainly determined by company's brand or reputation building, relations with suppliers and investors that are more usual in Ukraine.

Finally, hypothesis two can be accepted. In fact, it precisely draws up a picture of a real CSR situation in Ukraine: there is an inverse relationship between CSR and CFP: as income gained by company during financial year finances CSR activities, but not the reverse, when CSR generates additional profit – a common practice in developed countries. Correlation coefficient is significant, however quite low, which is particularly due to the financial crisis in 2008–2009 and lack of funds to continuously support social investment. Nevertheless a regression model based on

the relationship between CSR Index 2012 and ROE 2011 can be developed (table 2).

According to the model 67,1 % of the CSR Index 2012 variation can be explained by ROE 2011 variation. The connection and conformity level are quite low, however acceptable. In general, linear regression model comes out in the following way:

CSR Index 2012 = 0,417+ 0,341ROE 2011

As it is shown in the model 0,01 UAH increase in ROE 2011 accounts for 0,34 points of increase of CSR Index in 2012. In fact, though a reverse to favourable CSR relationship with financial performance is observed in Ukraine, still it can be a positive tendency regarding CSR being on its formative stage of development. Thus, it is possible that companies begin actively investing money in socially responsible activities with a future perspective.

One more hypothesis has to be verified, particularly the presence of the connection between CSR performance and corporate financial performance within different industry types. Considering there is a limited sample size, two large industries were chosen for analysis to be adequate. Separated companies operating in heavy industry showed no significant correlation between their financial performance and CSR one (table 3). Therefore, no CSR has almost no impact on CFP within companies in heavy industry, however the result may be caused by the sample limitation.

Another large industry that was chosen for analysis is power industry. As in the previous case, no significant correlation has been found, which is also due to the sample size limitation (table 4).

Table 2. **Results of the regression analysis of ROE and CSR Index relationship**

ROE 2011 and CSR Index 2012	b-value	b_0	p-level	R^2	t-value
Coefficient	0,341	0,417	0,038	0,671	2,147

Table 3. **Correlation matrices of CSR and financial performance variables within heavy industry companies**

Variable relationship	Correlation Coefficient	p-level
CSR Index 2011 and ROA 2012	0,067	0,854
CSR Index 2011 and ROE 2012	0,413	0,235
CSR Index Change and ROA Change	0,001	0,437
CSR Index Change and ROE Change	0,183	0,613
ROA 2011 and CSR Index 2012	0,103	0,777
ROE 2011 and CSR Index 2012	0,467	0,174

Table 4. **Correlation matrices of CSR and financial performance variables within power industry companies**

Variable relationship	Correlation Coefficient	p-level
CSR Index 2011 and ROA 2012	-0,607	0,148
CSR Index and ROE 2012	-0,785	0,361
CSR Index Change and ROA Change	0,577	0,175
CSR Index Change and ROE Change	0,739	0,056
ROA 2011 and CSR Index 2012	0,559	0,192
ROE 2011 and CSR Index 2012	0,468	0,248

Although both cases show no significant correlations, still hypothesis three cannot be rejected due to the lack of strong evidence. More observations are needed within analyzed industries as well as inclusion of other industries in order to provide a meaningful basis for hypothesis verification and adequate conclusion.

Conclusions. Gradually more and more companies in Ukraine become familiarized with this issue and eager to implement one. Most of the adopted responsible measures relate to labor issues, like development of the staff, non-discrimination at work, etc. A serious weakness is paying little attention to environmental practices and communication with society, though Ukraine is not a country where environmental and social problems are an exception. Main understanding that lies beneath CSR concept still remains

on the primary level. Socially responsible activities are associated mainly with moral principles, their similarity with company's corporate culture, improved image and reputation, etc. Contrary to that financial gains as incentive for social investment are perceived by the minority of companies. Therefore, responsible practices are carried out rarely, with no resort to CSR implementation as a business strategy.

The evidence of the CSR implementation shortcomings and their uncommon occurrence in Ukraine is an absence of correlation between transparency index as CSR indicator and indicators of financial performance. The reason for this is lack of information about successful CSR strategies abroad, lack information of its proper implementation, financial crisis 2008-2009, thus lack of funds, and what is most important — lack of government support.

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КОРПОРАТИВНА СОЦІАЛЬНА ВІДПОВІДАЛЬНІСТЬ ТА ЇЇ ВПЛИВ НА ФІНАНСОВІ РЕЗУЛЬТАТИ ПІДПРИЄМСТВА

У статті досліджено досвід практичного застосування принципів корпоративної соціальної відповідальності в Україні; проаналізовано основні фактори, що визначають соціальну відповідальність компаній; здійснено оцінку взаємозв'язків корпоративної соціальної відповідальності та фінансових результатів підприємства; виділено основні перешкоди для соціально відповідальної діяльності українських компаній.

Ключові слова: корпоративна соціальна відповідальність, фінансові результати, сталий розвиток, відповідальний бізнес.