

# Internal Social Responsibility: An Assessment Based on Official Reporting Data

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## Abstract

The authors have suggested analytical tools to evaluate levels of internal social responsibility by developing an aggregate set of indicators. The reference indicators values were substantiated on the basis of average industry ones, which provided an opportunity to determine the multiple coefficients. The suggested tools provide the opportunity to define enterprises' tendency for change in the level of responsibility level by years. This research can have important practical impacts due to its quantitative assessment having been based on published financial statements. The study creates additional opportunities for stakeholders to evaluate current internal corporate social responsibility levels and predict their own development direction.

## Keywords

Corporate Social Responsibility (CSR), internal social responsibility, CSR metrics, financial statement, food industry enterprises

## Introduction

A socially responsible approach to entrepreneurship is a typical feature of most market economy countries with developed civil society and democratic traditions. The practice of introducing corporate social responsibility (CSR) in the activities of these enterprises in such countries is formed under the influence of current legislation, primarily in the environmental and social spheres, as well as of international or non-governmental organisations that determine the principles of social responsibility in business. In Ukraine, this process has recently intensified since the signing of the Association Agreement with the EU(2014), and is characterised by the improvement of CSR's relevant legal and institutional support. The Constitution of Ukraine forms the basis of the regulatory and legal support of the social responsibility of enterprises in the country, and defines the requirements of respect for human rights and freedoms, labour relations, and the environment. The bases of the economic, social, and environmental components of the sustainable development of enterprises are laws, codes and regulations, national strategies and programmes aimed at supporting and developing business in Ukraine, international and national standards that define the principles and approaches to social responsibility in the business sphere, as well as legislative and special documents of a strategic nature in the field of CSR (Laws of Ukraine 'On Public-Private Partnership' (Law of Ukraine № 2404-VI of 1 July, 2010), 'On Social Dialogue in Ukraine' (Law of Ukraine №

2862-VI of 23 December, 2010), etc.). It could confidently be stated that Ukrainian legislation already covers the areas of human rights, social and labour relations, environmental protection, information and advertising, fiscal policy, and anti-corruption activities – all of which are in line with the principles of the UN Global Compact. However, despite the relevance and timeliness, a separate law on CSR does not yet exist.

On 1<sup>st</sup> January, 2018, an amendment to Ukrainian law ('On Accounting and Financial Reporting in Ukraine' and 'On Improving Certain Provisions', dated October 5, 2017 № 2164-VIII) came into force. This introduced the concept of CSR and made the submission of management reports mandatory for enterprises through a document containing financial and non-financial information that characterises the state and prospects of enterprises, and reveals the main risks and uncertainties of its activities (Law of Ukraine № 2164-VIII of 5 October, 2019). Article 11 of this law provides the submission of management reports along with (consolidated) financial statements. This normative document is mostly focused on larger enterprises, as it exempts micro and small enterprises from submitting any such reports, and medium-sized enterprises have the right to leave their non-financial information undisclosed in their management reports. Therefore, it is important to find reliable sources of information and indicators through which an enterprise's level of social responsibility can be accurately assessed. The monitoring of the results of such activities – i.e., the systematic monitoring, diagnosis, audit, and forecast of the economic, social, and environmental results of the enterprise in the context of their compliance with the sustainable development of the global economy, national policy documents, international reporting standards, and societal expectations – is a vital component of CSR.

The orientation of social responsibility may be represented, from the point of view of the impact of the company's activities, in the form of several levels: intra-corporate (responsibility to staff and shareholders), market (responsibility to partners and consumers), public (responsibility to the state and local communities), and global (responsibility before the world community). Most often, a more comprehensive approach is used, highlighting two main vectors of the development of socially responsible activities: internal and external.

The internal form of CSR implementation is expressed in the socially responsible policies of companies regarding their owners (i.e., shareholders) and staff. This is predominantly contained within such frameworks as healthcare programmes, the creation of safe working conditions, staff development, solving issues of socially responsible restructuring, and increasing the efficiency of business management. The external form relates to companies' social policies towards local communities and other external stakeholders. It includes programmes aimed at environmental protection, the development of the local community, and the conduct of honest business practices, among others.

On the one hand, such a division is necessary in order to understand the systemic and complex nature of CSR, as well as to make adequate corrections to the model of interaction with stakeholders implemented/used by companies. On the other hand, the selection of the mentioned forms of social responsibility could be called conditional. Although there are tasks at each level, certain programmes can have a dual impact vector. Traditionally, within the framework of internal CSR, primary attention is paid to the practice of developing relations with one's own employees. Such an approach is not only a team concern, but is also considered a necessary condition for a company's long-term survival and development.

As an organisation, an enterprise is an open system, which literally means that it has free entry and exit. Therefore, under a favourable socio-economic climate, the elements of society that constitute social capital (e.g., employees, people) consider an enterprise as a potential object through which to realise their economic interests. Both potential and actual employees have free access to the system. In a developed civil society, its elements (e.g., people) have certain qualities, such as the power of reason, will, and spirit, which afford them the opportunity and desire to exert influence upon enterprises (from both within and without) on the factors that make up its internal environment and image. A similar situation occurs with trade unions as a direct factor of the external environment. Therefore, the actions and activities of their members (who are, of course, also employees of the enterprise) may have significant internal impacts on the company, particularly in terms of such issues as working conditions, productivity and wages, and technical and technological

development (Ksondz et al. 2013). Indeed, this perspective allowed us to substantiate this thesis about the connection of social responsibility to employees of enterprises and its determinism due to external factors through internal agents. Accordingly, we sought to evaluate enterprises' levels of internal CSR.

The study was conducted based on enterprises in the Ukrainian food industry. The role of the food industry is primarily determined by the country's food security issues. Moreover, the place of the food industry in the national economy is determined by the following factors: it is among the TOP-5 most important industries of Ukraine and fully meets the needs of the inner market of food products. According to the State Statistics Service of Ukraine (2020) in terms of sales, it ranks first in industry – it accounted for 21.4% of sales of industrial products of Ukrainian enterprises in 2019, 12.5% of capital investment, and, in 2018, 3.7% of gross value added sales (State Statistics Service of Ukraine, 2019).

CSR in Ukraine is still undergoing a difficult period in its formation. There are no clear legislative requirements regarding the publication of non-financial reporting and motivational programmes that stimulate its preparation. According to research from the Centre for CSR Development Ukraine, among the TOP-100 list of the largest taxpayers in 2019, only 6 Ukrainian companies published non-financial reports on their official websites. As non-financial reports of Ukrainian enterprises were largely absent, we instead sought to measure CSR levels through calculating and interpreting financial and economic indicators. The advantages of using such indicators are as follows: 1) systematic calculation in the course of accounting and evaluation of the economic activity does not require additional time and money; 2) versatility, i.e., the characteristics of CSR in different directions and areas of responsibility; 3) the absence of inconsistent indicators, i.e., being in an inverse relationship in order to avoid counterbalances.

This study can have important practical contributions. For instance, the quantitative assessment of internal social responsibility is based on financial statements, which companies routinely publish anyway. The study creates additional opportunities for stakeholders to assess the current and dynamic level of internal CSR, as well as to predict the development of CSR for Ukrainian food companies. After all, we argue that it is both necessary and possible to quantify social responsibility indirectly through the use of traditional financial and economic indicators, the calculation of which is common for all businesses without exception.

The remainder of the paper is structured as follows. First, the literature related to measuring CSR is reviewed. This review contains different methods of social responsibility research, both external and internal. Second, the research methods are described, including data collection and the proposed social responsibility metrics. Third, the empirical results and their relevant descriptions are presented. Last, the study's limitations and conclusions are discussed.

## Literature review

The assessment of CSR is a time-consuming process, as this phenomenon affects many different aspects. This is due to the specific nature of the subject of evaluation, the ability to select and calculate the performance indicators, and different methods of evaluation, among other factors. The complexity of such an assessment is amplified by such elements as the influence of subjective factors, the diversity and incomparability of moral, ethical and economic parameters, and the degree of satisfaction of different stakeholders. The lack of open information about the company's social activities (except for companies that publish social reports that are necessary for signatories of the UN Global Compact and those who want to be competitive in the world market) is also a problem that, in turn, limits the possibilities of its evaluation by stakeholders. This problem also applies to Ukraine. The existing financial statements of Ukrainian companies do not provide a standard form that reflect the achieved level of social responsibility. However, at the same time, a wide range of subjects of social-economic relations are interested in this kind of assessment. Assessing CSR levels allows for the current states of companies to be influenced, for decisions and directions to be made or changed, for the impact on key parameters to be predicted, and for further developmental plans to be made. Moreover, there is evidence in the literature that the results of social activities and a company's performance are interlinked. Wu and Shen (2013), analysing data

from 162 banking institutions from 22 countries, showed a positive relationship between the CSR level and the financial performance of banks. Furthermore, studies have shown a close relationship between social and financial performance of corporations (Simpson and Kohers, 2002). Dividing CSR into five dimensions, Inoue and Lee (2011) showed that all five had a positive, but different, financial effect. The relationship between social responsibility and financial performance in the Turkish banking sector was evidenced by Yilmaz (2012). Further, Peloza (2009) provided a good review of the academic and practical literature on the link between CSR and financial performance. Moreover, Luo et al. (2015) revealed the basic information mechanism of the link between corporate social and financial efficiency, emphasising the role of the analysts. Additionally, Ming-Te Lee (2020) explored the relationship between CSR and inefficient investment among Taiwanese firms in the emerging Asian market.

However, there is also evidence to support a negative relationship between social spending and business performance (Boyle et al. 1997; Wright and Ferris 1997).

In general, the theory and practice of CSR have accumulated an extremely large quantity of assessment models and methods. For instance, Kanji and Agrawal (2016) singled out a group of the generic models of CSR. According to the mentioned authors, it includes:

- Ackerman's Model (Ackerman and Bauer 1976);
- The Pyramid Model of CSR (Carroll 1991; Pinkston and Carroll 1996);
- The Intersecting Circles Model of CSR (Schwartz and Carroll 2003);
- The Concentric Circles Model of CSR (Committee for Economic Development 1971);
- 3C–SR Model (Meehan, Meehan and Richards 2006);
- Liberal Model (Friedman 1971);
- Stakeholder Model (Freeman 1984).

Kanji and Agrawal (2016) also indicated two models used in India: the Ethical Model and the Statist Model. The listed approaches assume that it is mandatory for enterprises to understand ways to improve their social existence – especially their social recognition. Accordingly, stakeholders must be convinced that businesses are proactively addressing issues of concern to society, be they social or any other risks they may pose.

In addition to those listed above, Visagie, Sibanda and Coetzee's (2019) comprehensive review characterised the Agency Theory, the Shareholder Theory, the Stewardship Theory, the Triple Bottom Line, the Sustainable Development Model, the DNA of CSR 2.0, the Practitioner-Based Model of Societal Responsibilities, the Value Creation Model of CSR, and Consumer-Driven Corporate Responsibility. Generalising, we can sum up that all these theories and models define the purpose of business as serving society by providing safe, high-quality products and services that enhance our well-being without destroying our ecological and social life support systems.

There have been proposals to use the CSR maturity model, which is based on progression models of CSR, as well as the organisational maturity concept derived from the capability maturity model. The CSR maturity model framework consists of three perspectives: the CSR process maturity, the CSR formal maturity, and the CSR developmental maturity. These perspectives refer to the processes, values and underlying assumptions of the CSR activities of enterprises (Witek-Crabb 2019).

Within the literature, the stage theory model is of particular interest. For example, Carlisle and Faulkner (2004) proposed the developmental stage theory model, which may be indicative of the progression from awareness to cultural embedding in the context of CSR more generally:

Stage 1: Developing awareness (senior managers become aware of issues/policies are developed/policies are linked to mission statements);

Stage 2: Promoting awareness (promote awareness of issues and image/appoint someone to oversee policy/publish reports);

Stage 3: Initial implementation (develop and publish quantifiable measures/offer abstract guidance to departments on operation of policy/circulate reports more widely and involve stakeholders);

Stage 4: Mainstreaming (implement concrete procedures for departments to follow/monitor performance in accordance with quantifiable measures/take appropriate actions to ensure effective policy operation).

'In this process, structural changes coupled with the implementation of increasingly effective practices and procedures to promote ethical behaviour in particular areas can lead ultimately to a more ethical corporate culture. In noting the areas covered by CSR policies, our research also suggests that many companies start out with a relatively narrow concept of ethical requirements, which broadens out to encompass additional areas of ethical concern' (Carlisle & Faulkner, 2004).

A similar approach was used by Harrysson, Schoder and Tavakoli (2016), who investigated the evolution of organisational approaches to social technologies, which appeared to move through three phases of use: 1) try-outs; 2) collaboration and knowledge work; and 3) strategic insights.

Accordingly, the above studies have covered different methods of evaluating CSR levels (through content analysis, surveys, reputational measures, one-dimensional indicators, ethical rating).

Studying the problem of social responsibility, S. Prakash Sethi's 1974 book, *The unstable ground: Corporate social policy in a dynamic society*, identified 4 approaches (or methods) to assess the CSR of an enterprise (Sethi et al. 1974). The first method was to use social indicators, including determining living standards by calculating the quantitative indicators and assessing the impact of a corporation's social activities on this index (using such indicators as occupational health and healthcare). The second method was to develop a system that included an estimate of the cost of social programmes, their implementation, as well as an assessment of their effectiveness. The third approach involved conducting an assessment through the preparation of a so-called social report, which presented the balance between the benefits for employees, customers, suppliers, communities, and others and the social costs of an enterprise to create these benefits. The fourth method involved ranking companies according to the level of social responsibility implementation. The first three approaches allow us to assess each component of social responsibility separately, but do not provide an opportunity to evaluate its overall level or compare companies according to this indicator. The above-mentioned ranking method is used for this purpose. However, competitions and ratings should be as transparent and open as possible, and their organisation and conduct should be professional, responsible, and sustainable (authority, reputation, independence, etc.) (Sethi et al. 1974).

Another way to determine the effectiveness of CSR is to use the interview method. For example, Lozano (2015) applied this approach for identifying internal and external drivers of social responsibility. Madueno et al. (2016), studying the impact of social responsibility on the level of competitiveness of Spanish small and medium-sized enterprises, combined the interview method with the statistical analysis of the obtained data. Thus, the researchers found that the development of CSR practices helps to increase competitiveness both directly and indirectly through the company's ability to manage its stakeholders.

Akin and Yilmaz (2016) used content analysis to investigate the link between CSR disclosure and the corporate management characteristics of banks. Moreover, researchers have occasionally used the non-financial reporting of enterprises to assess the level of social responsibility (e.g. Glebova et al. 2013).

A popular assessment method is including companies to an appropriate rating system based on compliance to certain criteria. These criteria assess the socially-responsible behaviour of enterprises in relation to the society. Indeed, Jankalova (2016) provided an overview of such indices and models used in the business environment, focusing on the sustainability indices. These ratings have become so important that many large enterprises hire in-house professionals and teams to monitor and communicate their social performance (Marquez and Fombrun 2005).

A further aspect to be considered is the objectivity of the assessment of CSR. As has been presented in some research, managers of socially-responsible firms conduct CSR activities with the real objective of building corporate citizenship and concealing actual business performance through discretionary accruals, resulting in damaged stakeholders' interests (Mutuc et al. 2020).

It is also worth mentioning a number of studies on CSR levels in Ukrainian enterprises. Although the understanding of the importance of this business aspect lags behind that of more developed countries, progress is certainly being made. This can partly be explained by the need to enter the markets of developed countries and, accordingly, to adapt the best practices of social responsibility. This has been confirmed by, in particular, Levkivska and Leykovych's (2017) study of CSR in agriculture of Ukraine. The authors considered the following aspects: The understanding and

implementation of CSR by agricultural enterprises, as well as the factors that motivate enterprises to provide CSR. Their study detected a low level of understanding of the concept of CSR. Indeed, most businesses operate on CSR irregularly, and there appears to be a lack of programmes or budgeting for social activities. The study also showed that the main factors contributing to the development of CSR can be tax reduction, changes in legislation, public opinion, personal experience, and positive consequences. One method for assessing the levels of CSR in Ukrainian enterprises in the tourism sector was described by Kubareva et al. (2018). The authors suggested assessing social responsibility based on a balanced scorecard (BSC approach), using the following parameters:

- Number of tourists' positive reviews;
- A metric calculated using a combination of the number of average daily visitors to official sites, as well as the number of views over a particular month;
- The level of trust of business partners (travel agencies) in tourist enterprises (calculated as a percentage);
- The number of concluded deals with hotels and air carriers that adhere to the principles of CSR;
- A questionnaire comprising questions about the level of job satisfaction of employees with working conditions based on a 5-item Likert 5-item (calculated as a percentage);
- The number of CSR development programmes with staff participation;
- The Transparency Corporate Reporting Index (calculated as a percentage);
- The number of social projects aimed at developing the local community and society in a particular year;
- The number of franchises (Kubareva et al. 2018).

In addition, the authors identified four groups of stakeholders (consumers, business communities, employees, and society), and discovered that the indicators for 'society' and 'employees' significantly impacted the number of franchises (but found no such impact for 'business communities' and 'consumers').

These methods have predominantly been used to externally assess the level of CSR. Indeed, surveys have been conducted on entrepreneurs and top managers of large companies. Moreover, data from public reports/sites have been analysed through market performance indicators, CSR projects, various socially oriented activities/actions, comparing the performance indicators of individual enterprises with each other, and using national-level data on the economy or sector level. However, it is important to remember that the social responsibility of each business entity is realised both in the internal and external environments. Moreover, both external and internal CSR measures have an equally positive effect on the accumulation of intangible resources of the enterprise and on the growth of the market value (Hawn and Ioannou 2015). That is, social responsibility should be assessed not only as the company's responsibility to society, but also to its employees. Accordingly, internal social responsibility includes a business' activities in relation to its own employees – everything related to the development of human resources in the enterprise. On the one hand, the employees are stakeholders of an enterprise, but, on the other, they are also its main source of productivity and efficiency, and the most vital resources in the firm's management. Accordingly, the study of the internal component of CSR (i.e., interactions with staff) is highly relevant.

Certain studies within the literature have already been working in this direction. For example, Witek-Crabb (2019) classified all CSR determinants as external or internal. Moreover, 'level of CSR commitment also depends on the pressure of the employees on issues related to employment conditions, safety standards and employment stability'. Longo et al. (2005) examined a number of employee-related issues as indicators of CSP, including 'employees' health and safety at work, development of workers' skills, wellbeing and satisfaction of workers, quality of work, and social equity. It should be noted here that the factor 'employee satisfaction' has been criticised by some researchers. For instance, Wood (2010) argued that 'measures of employee satisfaction have occasionally been used as a surrogate for CSP, but there is no reason to believe that this is a valid or reliable CSP measure'.

Obeidat (2016) found a significant positive impact of CSR (both internal and external) and employee engagement on organisational effectiveness. The basis for data collection and analysis is a field study in which respondents answer proposed questions. Moreover, the level of employee

engagement is also assessed on the basis of interviews – a concept is borrowed from (Ferreira and De Oliveira 2014).

Further studies have focused on internal CSR research. Van Buren (2005) proposed a significant revision of the CSP model to focus on employee concerns. Corley et al. (2001) offered evidence that the actions of public affairs managers can have unintended consequences for internal stakeholders – primarily employees. However, it should be noted that some works have studied only one enterprises (e.g. Fedotova and Plekan 2017), whereas others have provided proposals which lack practical verification (e.g. Dziuba and Ziuzina 2012). Accordingly, in light of the above review, it seems clear that the degree of research on the impact of social capital on business performance is currently insufficient. The importance of this impact remains underestimated despite its key importance in the current conditions of Ukraine's economic development due to its significant adaptability and relatively low cost.

The current study differs from others in that it focuses on assessing internal CSR – that is, a company's responsibility to its employees. For this purpose, we deemed it pertinent to use the financial statements of the enterprises under investigation. It has been widely established that most of the existing approaches to evaluation have been based on the use of non-financial information. We believe that the proposed method complements the existing ones and allows us to examine the phenomenon from a slightly different angle, thereby allowing a more comprehensive evaluation. Furthermore, we would argue that companies' financial performance affects their attitudes towards employee management, not vice versa. Such ideas have been confirmed within the literature (e.g. Pelozo 2009). Firstly, the implementation of internal CSR measures according to certain perspectives requires an assessment of the intermediate results. Practitioners need CSR assessment tools that are simple and non-time-consuming. Secondly, the collection and use of non-financial data requires considerable effort and resources, but within and without the companies themselves. Additionally, this kind of activity is not typical for companies. Thirdly, financial indicators are the result of team activities for a certain period and, based on them, conclusions can be drawn about certain aspects of social responsibility to employees. Fourthly, the profitability and value of Ukrainian enterprises increasingly depend not only on their efforts at the production, economic, and market levels, but also on their activities and practical achievements in the field of social responsibility. The approach suggested in this article can thus serve these aims.

The main purpose of the suggested approach is to determine the effectiveness of CSR by comparing the benefits and costs, reducing and preventing environmental risks, creating a database to inform stakeholders in the context of meeting their interests, facilitating CSR decision making, as well as improving enterprises' image and reputation.

## Data and methods

Due to the impossibility of creating a single framework complete with full information, research on social responsibility has tended to use a variety of different methods. Accordingly, we opted to apply a multi-case study approach as our research design. This method is suitable for the purpose of comparing and replicating findings due to the approach's ability to produce more compelling and robust evidence, particularly when compared to a single-case study method (Yin 2017).

We chose five Ukrainian enterprises in five regions in order to yield different findings. However, these enterprises were chosen according to their similarities (the same type of economic activity, namely food industry and beverage production) to retrieve research from identical institutional set-ups. During the selection process, the last point to consider was the CSR information published by these different enterprises. Indeed, we sought to cover enterprises independently of the fullness or existence of their CSR reports. The characteristics of the selected entities are provided in Table 1.

Table 1. Characteristics of enterprises for the analytical assessment of social responsibility

Characteristic	Private JSC Obolon	Private JSC Volyn Holding	PJSC Mondelis Ukraine	PJSC Chernivtsi Bakery	Private JSC VO Odessa Cannery
Location	Kyiv	Volyn region	Sumy region	Chernivtsi region	Odessa
Share capital	32,512.7	100	1,883.3	1,027.5	56,950.2
Average number of employees, persons	2,624	754	1,108	598	800
The main activities	Production of beer and soft drinks	Production of spices and seasonings	Production of cocoa, chocolate, and sugar confectionery	Production of bread and bakery products	Processing and canning of fruits and vegetables
Assets, thousand UAH	6,881,460	641,095	3,277,901	104,517	237,371
Net income from sales of products (goods, works, services), thousand UAH	4,963,232	1,315,898	4,801,280	186,210	348,366
Public information about CSR activity	Full	Full	Partial	Weak	Weak

Source: 'YouControl' (2019).

It seems reasonable to provide an additional explanation regarding the characteristics – public information about CSR activity. We defined the following indicators: website presence, press and website information about CSR, investing in social programmes, and the presence of non-financial reports. The presented enterprises were chosen by differentiated involvement (for additional information, see Table 2).

Table 2. Public information about enterprises' CSR activity

Enterprises	Website presence	Information about CSR on the website and press	Investing in social programmes	Non-financial reports presence
Private JSC Obolon	–		+	+
Private JSC Volyn Holding	+	+	+	+
PJSC Mondelis Ukraine	+	+	+	–
PJSC Chernivtsi Bakery	+	–	–	–
Private JSC VO Odessa Cannery	+	–	–	–

Source: collected by the authors from enterprises' websites.

Staff members are an enterprise's primary stakeholders. When added value is created, relations between management levels arise in accordance with the functional duties of employees. While there seems to be no direct connection between the indicators, this is not to say that this would not be possible indirectly. The indicators to assess the level of internal social responsibility with the feasibility substantiation of their application are presented in Table 3.

We determined the reference indicators for Ukrainian food enterprises in order to make our calculations. In particular, as a basis for determining the reference values of the gross income ratio (considering the inflation index), we took the industry average indicators from official statistics for the share of intangible assets, labour productivity, the level of contributions to social activities, average wages, and debt ratio to employees. As for other indicators, the reference was chosen based on the Western practices of countries with socially-oriented economies. The share of managers was determined by using the Greykunas-formula (Zelinskyj 2015). Furthermore, we determined the reference ratio of management wages to the wages of all staff based on the differentiation of wages in the range of 4.5–5.5. This ration serves to stimulate the top management to develop professional skills, but is intended to avoid creating tensions within working teams. Accordingly, the reference values of management wages and the values of management wage costs were similarly calculated. Typically, labour cost percentages average 25% to 35% of gross sales. Appropriate percentages vary by industry, but manufacturers tend to try to keep the figure below 35% (Adkins 2019).



Table 3. Indicators and methods of their calculation to assess the social responsibility of the enterprise (on the example of stuff)

No.	Indicator	Calculation formula	Feasibility substantiation of indicators using
1.	Gross income ratio	Gross profit/ Sales income	The increase in gross income ratio is due to the greater trust of consumers on the one hand and the coordinated work of the team in the direction of reducing costs on the other. This serves as evidence for employees' loyalty as main stakeholders.
2.	Share of intangible assets, %	Intangible assets/ Assets*100%	The increase in the value of this indicator shows an increase in 'intellectual' assets, and consequently, an increase in the value of the enterprise. This distinguishes the company on the positive side, because the intangible assets are mostly created by highly-qualified professionals. Moreover, having a larger share of such employees increases growth opportunities for other staff members, making such enterprises more competitive in the long run. This also increases the level of employee optimism.
3.	Labour productivity per wages fund	Sales income/ Wages fund	Using this indicator is important because employee incentives are one of the most effective ways of increasing the profitability of an enterprise. This contributes to the formation of a positive attitude to the enterprise through the creation of additional jobs and the emergence of a social effect.
4.	The average level of contributions to social activities per employee, currency units per person	Social activities expenses/ The average number of employees	Enterprises that conduct their economic activities, bearing in mind the issues of social responsibility and partnership, have a more positive image in society. Accordingly, working at the enterprise is an important value for employees.
5.	The average level of wages on the enterprise, currency units per person	Wage expenses/ The average number of employees	The level of wages, especially in Ukraine, is highly important for assessing the enterprise's responsibility on the part of employees.
6.	Debt ratio to employees	Current accounts payable for wages/ Wage costs	The decrease in this indicator shows an increase in the responsibility of the management to employees and enhances employee loyalty to the company. It also increases employee motivation and adds to the interest in positive results.
7.	Management wages, currency units per person	Management wage costs/ Average number of managers	The level of wages of management should be commensurate with their functional responsibilities and to the level of wages of employees. In addition, this indicator should be not only economically, but also socially, justified.
8.	Share of managers, %	Number of managers/ Average number of employees * 100%	This indicator, similar to the previous one, is also able to distinguish a positive or negative image of the enterprise for the main stakeholders (employees) depending on its value. In addition, it must be justified.
9.	The share of wage costs in total costs	Wage costs/ Total costs	An increase in this indicator shows a rise in the complexity of production on one hand, but may also indicate an increase in intellectual labour. However, the growing influence of both factors lead to increasing employee attention for social responsibility.
10.	Management wage costs from general expenses	Management wage costs/ Total costs	The assessment of this indicator should be conducted in combination with the previous indicator. That is, the increase or decrease of the share must be proportional.
11.	The ratio of management wages to the wages of all staff	Management wages/ Wages throughout the enterprise	An increase in this indicator shows an increase in the gap between the levels of wages on the enterprise, deepens disparities, and complicates the coordination of interests. In addition, this situation worsens the atmosphere at the enterprise, and negatively affects the level of motivation and interest in the final results.

Source: authors' own proposal.

As noted above, mutually-inverse and conflicting indicators need to be avoided. The share of the managers, the debt ratio to employees, and management wage costs from general expenses showed an inverse impact to internal social responsibility. In this case, we used reference values as numerators in order to change the relation type to direct. Additional explanations are required for the

indicators on the average level of contributions to social activities per employee, the average level of wages, and management wages. Their values were changed by years. In this case, reference values were used as denominators in order to provide comparativeness by years. Furthermore, we estimated the ratio of management wages to the wages of all staff and the share of wage costs at intervals using MS Excel's 'IF' function. This meant that, if mentioned indicators were in reference values, the value would be 1, and otherwise 0.5. Further to the numeral material, we included the letter indicators: If the value of the calculated indicator corresponded to (or was higher than) the reference indicator, we marked the letter 'P'; if the value of the calculated indicator did not correspond to (or was lower than) the reference indicator, we marked the letter 'N'. When calculating the multiple coefficient, we used the product of the coefficients by using the natural logarithm. We decided to use the LN function in Excel for the multiplication of coefficients in order to reduce the impact of different kinds of data and establish estimation for unusual observations. The primary limitation regarding the use of the proposed indicators related to not including the multiple coefficient calculation in the absence of current data, meaning that the quantity of indicators could change. We also added some limitations regarding gross income ratio. Thus, if this indicator was less than zero, it was not considered when calculating the multiple coefficient due to its being economically illogical.

## Results and discussions

We performed analytical calculations of the indicators for the indirect assessment of social responsibility of enterprises. The calculations and analytical studies of Private JSC Obolon, the signatory of the global agreement with appropriate actions in the direction of social responsibility, are presented in Table 4.

Table 4. Analytical assessment of internal social responsibility for Private JSC Obolon

Indicator	2013	2014	2015	2016	2017	Deviation 2017 to 2013
Gross income ratio	0.05	-0.18	-0.11	0.05	0.04	-0.01
Share of intangible assets, %	0.675	1.141	0.966	0.477	0.121	-0.55
Labour productivity per wages fund	10.31	10.73	13.05	11.15	11.08	0.77
The average level of contributions to social activities per employee, thousand UAH	24.0	31.64	30.90	23.68	36.53	11.63
The average level of wages on the enterprise, thousand UAH	70.4	89.3	87.5	111.7	172.2	101.8
Debt ratio to employees	0.04	0.04	0.03	0.04	0.11	0.07
Share of managers, %	0.24	0.48	0.5	0.46	0.5	0.26
Management wage costs from general expenses	0.002	0.004	0.004	0.004	0.003	0.001
Management wages, thousand UAH	556.9	716.1	863.6	930.2	1,190.0	633.1
The ratio of management wages to the wages of all staff	7.91	8.02	9.87	8.33	6.91	-1.00
The share of wage costs in total costs	0.11	0.10	0.08	0.09	0.09	-0.02

Source: calculated by the authors based on the official reports of Private JSC Obolon.

The gross income ratio of the enterprise was negative between 2014–2015, which indicates a period of crisis. The decrease in the share of intangible assets was negative, thus suggesting a lack of attention to intellectual capital. At the same time, the growth of labour productivity per wages fund (except for 2015 due to the growth rate of prices outpacing wage growth) evidenced an increase in the level of internal social responsibility. The level of management wages grew at a slower pace than the enterprise's average level of wages, which led to the reduction of the gap between salary levels from 7.91 to 6.91, despite the fact that the share of managers remained unchanged. More positively, the share of wage costs declined, thus indicating a reduction in manual

labour costs. In general, the reporting indicators of Obolon Private JSC showed a significant level of attention paid to the principles of social responsibility to employees.

Private JSC Volyn Holding was profitable during 2013–2017. However, the company had a very low share of intangible assets, which declined over the previous five years (Table 5).

Table 5. Analytical assessment of internal social responsibility for Private JSC Volyn Holding

Indicator	2013	2014	2015	2016	2017	Deviation 2017 to 2013
Gross income ratio	0.05	0.05	0.04	0.07	0.07	0.02
Share of intangible assets, %	0.008	0.004	0.003	0.002	0.003	-0.005
Labour productivity per wages fund	22.85	25.12	30.51	31.45	21.16	-1.70
The average level of contributions to social activities per employee, thousand UAH	14.81	16.01	18.33	11.79	17.02	2.21
The average level of wages on the enterprise, thousand UAH	39.5	39.3	50.8	54.8	82.5	43
Debt ratio to employees	0.002	0.002	0.001	0.001	0.002	-
Share of managers, %	1.8	1.7	2	1.8	2.1	0.3
Management wage costs from general expenses	0.007	0.007	0.005	0.005	0.008	0.001
Management wages, thousand UAH	348.3	370.6	387.5	409.9	624.1	275.8
The ratio of management wages to the wages of all staff	8.82	9.43	7.63	7.48	7.57	-1.25
The share of wage costs in total costs	0.05	0.04	0.03	0.03	0.05	0.00

Source: calculated by the authors based on the official reports of Private JSC Volyn Holding.

Private JSC Volyn Holding had a high level of labour productivity per wages fund. At the same time, the level of contributions to social activities indicated a low salary when compared to Private JSC Obolon. However, on a positive note, the company had a small level of debt to employees. The share of managers increased between 2013–2017 and amounted to 2.12% of the total number of employees. Accordingly, the cost of management wages increased. Although the ratio of management wages to the wages of all staff decreased in 2017 (as compared to 2013), they increased in the same year compared to 2016, which deepened the differentiation in employee incomes.

Between 2013–2017, PJSC Mondelis Ukraine was profitable, as evidenced by the gross income ratio (Table 6). The share of intangible assets was low – which could be taken as negative – which indicates a lack of attention paid to the enterprise's intellectual capital. In contrast, and more positively, the company had a relatively high level of labour productivity. At the same time, the average level of contributions to social activities per employee was much higher than in the previous company, which reflects a much higher level of wages. Low debt to employees could be taken as proof for a responsible attitude towards employees.

It should be noted that the share of managers had a steady downward trend. Accordingly, the share of management wage cost decreased, although the management wages increased. This combination of indicators may indicate that the company increased its management efficiency. It could also be indicative of more effective team communication, reduced tension, and greater staff cohesion – all of which are signs of an appropriate level of internal CSR.

Table 6. Analytical assessment of internal social responsibility for PJSC Mondelis Ukraine

Indicator	2013	2014	2015	2016	2017	Deviation 2017 to 2013
Gross income ratio	0.08	0.07	0.07	0.02	0.06	-0.02
Share of intangible assets, %	0.064	0.071	0.076	0.115	0.073	0.01
Labour productivity per wages fund	20.54	22.21	20.10	17.72	22.38	1.84
The average level of contributions to social activities per employee, thousand UAH	30.33	33.21	34.75	27.65	32.56	2.23
The average level of wages on the enterprise, thousand UAH	122.3	134.9	153.6	185.5	193.7	71.4
Debt ratio to employees	0.016	0.020	0.013	0.020	0.026	0.01
Share of managers, %	1.5	1.4	1.9	1.4	0.9	-0.6
Management wage costs from general expenses	0.008	0.008	0.012	0.007	0.004	-
Management wages, thousand UAH	1,004.3	1,386.8	1,582.1	1,640.7	1,730.0	725.7
The ratio of management wages to the wages of all staff	8.21	10.28	10.30	8.84	8.93	0.72
The share of wage costs in total costs	0.06	0.05	0.06	0.06	0.05	-0.01

Source: calculated by the authors based on the official reports of PJSC Mondelis Ukraine.

At PJSC Chernivtsi Bakery, the five-year study period saw a significant reduction in the gross income ratio (by 0.18), which is a signal of the need for systemic action (Table 7).

Table 7. Analytical assessment of internal social responsibility for PJSC Chernivtsi Bakery'

Indicator	2013	2014	2015	2016	2017	Deviation 2017 to 2013
Gross income ratio	0.19	0.22	0.17	0.02	0.01	-0.18
Share of intangible assets, %	0.004	0.001	0	0.092	0.076	0.07
Labour productivity per wages fund	7.90	7.03	9.64	6.22	4.64	-3.27
The average level of contributions to social activities per employee, thousand UAH	11.09	12.08	15.20	11.68	13.41	2.33
The average level of wages on the enterprise, thousand UAH	31.4	34.1	41.2	58.2	67.2	35.8
Debt ratio to employees	0.052	0.054	0.051	0.060	0.053	-
Share of managers, %	2.7	3.01	3.7	3.6	3.2	0.5
Management wage costs from general expenses	0.017	0.017	0.012	0.018	0.022	0.00
Management wages, thousand UAH	160.6	153.6	153.7	167.6	201.8	41.2
The ratio of management wages to the wages of all staff	5.12	4.52	3.73	2.88	3.01	-2.12
The share of wage costs in total costs	0.13	0.13	0.09	0.17	0.23	0.10

Source: calculated by the authors based on the official reports of PJSC Chernivtsi Bakery.

The share of intangible assets of PJSC Chernivtsi Bakery increased slightly in 2017, but remained low (0.076% of total assets). The enterprise's labour productivity decreased significantly (by 3.27 in 2017 compared to 2013). Contributions to social activities per employee increased slightly. The average level of wages on the enterprise increased by UAH 35,800 over the study period, and the management wages by UAH 41,200. The ratio of management wages to the wages of all staff decreased by 2.12, and amounted to 3.01. The share of wage costs increased significantly

(by 0.1). The decrease in gross income and labour productivity indicated the existing problems at the enterprise. Accordingly, at such an enterprise, the issue of CSR was afforded little attention.

The gross income ratio of PJSC VO Odessa Cannery increased by 0.04 between 2013–2017 (Table 8).

Table 8. Analytical assessment of internal social responsibility for PJSC Odessa Cannery

Indicator	2013	2014	2015	2016	2017	Deviation 2017 to 2013
Gross income ratio	0.11	0.11	0.08	0.10	0.15	0.04
Share of intangible assets, %	0.015	0.014	0.015	0.009	0.051	0.04
Labour productivity per wages fund	10.57	10.73	14.24	11.83	7.51	-3.06
The average level of contributions to social activities per employee, thousand UAH	10.95	11.95	12.49	9.12	12.70	1.74
The average level of wages on the enterprise, thousand UAH	30.1	32.5	33.8	42.1	58.0	27.9
Debt ratio to employees	0.023	0.024	0.021	0.019	0.018	-0.005
Share of managers, %	1.8	1.8	2.1	2.3	2.3	0.5
Management wage costs from general expenses	0.009	0.009	0.008	0.010	0.012	0.003
Management wages, thousand UAH	161.0	173.2	183.8	209.5	234.2	73.2
The ratio of management wages to the wages of all staff	5.35	5.32	5.43	4.98	4.04	-1.31
The share of wage costs in total costs	0.10	0.09	0.07	0.09	0.13	0.03

Source: calculated by the authors based on the official reports of PJSC Odessa Cannery.

The share of intangible assets was not significant, but increased significantly in 2017 and amounted to 0.051%. The company saw a reduction in labour productivity (by 3.06 in 2017 compared to 2013). At the same time, the level of contributions to social activities was reflective of a low salary at the company, despite an increase of UAH 1,740 in 2017 compared to 2013.

We observed a growth both in the average level of wages within PJSC VO Odessa Cannery (by UAH 27,900) and in the management wages (by UAH 73,200). On the positive side, the company reduced its debt to employees. The share of managers increased during 2013–2017 by 0.5% and amounted to 2.3% of the total number of employees. Accordingly, the cost of management wages increased. The ratio of management wages to the wages of all staff decreased by 1.31 in 2017 compared to 2013.

Our next step was to compare the calculated indicators for the selected enterprises with the reference indicators in order to calculate the multiple coefficient. Based on this data, we were able to draw conclusions regarding the development of the enterprise's internal social responsibility. For greater clarity, such comparisons are presented in tabular form (see Table 9).

Private JSC Obolon regularly published non-financial reports. In a somewhat negative finding for the company, its multiple coefficient of internal social responsibility was found to have decreased. The number of indicators with the 'P' marker decreased from 9 in 2013 to 6 in 2017, and those with the 'N' marker increased from 2 in 2013 to 5 in 2017.

Table 9. The multiple coefficient calculation of internal social responsibility for Private JSC Obolon

Indicator	Reference	2013	2014	2015	2016	2017
Gross income ratio	0.05	1.01	-3.61	-2.2	1.04	0.71
Share of intangible assets, %	0.5	1.35	2.28	1.93	0.95	0.24
Labour productivity per wages fund	10	1.03	1.07	1.30	1.11	1.11
The average level of contributions to social activities per employee, thousand UAH	25	1.00	1.27	1.24	0.95	1.46
The average level of wages on the enterprise, thousand UAH	35.45/ 37.8/ 43.9/ 53.8/ 75.3 per year	1.98	2.36	1.99	2.08	2.29
Debt ratio to employees	0,05	1.17	1.16	1.90	1.15	0.44
Share of managers, %	1	4.11	2.08	2.00	2.18	2.00
Management wage costs from general expenses, thousand UAH	0,01	4.86	2.71	2.48	2.80	3.27
Management wages, thousand UAH	177.3/ 189/ 220/ 269/ 376.5 per year	9.92	11.82	9.96	10.38	11.44
The ratio of management wages to the wages of all staff	4.5–5.5	0.5	0.5	0.5	0.5	0.5
The share of wage costs in total costs	0.25–0.35	0.5	0.5	0.5	0.5	0.5
Multiple coefficient	5.08	4.95	4.98	3.68	1.65	
Total 'P' indicators	9	8	8	7	6	
Total 'N' indicators	2	2	2	4	5	

Source: calculated based on the authors' suggestions.

The calculation of the indices for the analytical assessment of social responsibility of Private JSC Volyn Holding is presented in Table 10.

Table 10. The multiple coefficient calculation of internal social responsibility for Private JSC Volyn Holding

Indicator	Reference	2013	2014	2015	2016	2017
Gross income ratio	0.05	0.97	0.93	0.70	1.44	1.35
Share of intangible assets, %	0.5	0.02	0.01	0.01	0.004	0.01
Labour productivity per wages fund	10	2.29	2.51	3.05	3.15	2.12
The average level of contributions to social activities per employee, thousand UAH	25	0.59	0.64	0.73	0.47	0.68
The average level of wages on the enterprise, thousand UAH	35.45/ 37.8/ 43.9/ 53.8/ 75.3 per year	1.11	1.04	1.16	1.02	1.10
Debt ratio to employees	0.05	31.98	21.21	81.38	43.25	31.10
Share of managers, %	1	0.56	0.60	0.50	0.55	0.47
Management wage costs from general expenses	0.01	1.37	1.46	1.96	2.17	1.24
Management wages, thousand UAH	177.3/ 189/ 220/ 269/ 376.5 per year	5.57	5.20	5.78	5.10	5.48
The ratio of management wages to the wages of all staff	4.5–5.5	0.5	0.5	0.5	0.5	0.5
The share of wage costs in total costs	0.25–0,35	0.5	0.5	0.5	0.5	0.5
Multiple coefficient	-0.18	-1.25	0.25	-0.46	-1.01	
Total "P" indicators	5	5	5	6	6	
Total "N" indicators	6	6	6	5	5	

Source: calculated based on the authors' suggestions.

Private JSC Volyn Holding had a negative multiple coefficient of internal social responsibility. Between 2013–2015, the number of indicators with the 'P' and 'N' markers were 5 and 6, and 6 and 5 between 2016–2017, respectively. In this case, we observed a situation where the multiple coefficient of internal social responsibility, assessed on the basis of the suggested indicators, slightly differed from what the enterprise publicly declared. This could perhaps have been due to the company paying more attention to external, rather than internal, CSR.

PJSC Mondelis Ukraine had the best multiple coefficient of internal social responsibility (its value during the studied period was stable). The number of indicators with the 'P' marker increased from 7 in 2013 to 8 in 2017, and those with the 'N' marker decreased from 4 in 2013 to 3 in 2017 (Table 11).

Table 11. The multiple coefficient calculation of internal social responsibility for PJSC Mondelis Ukraine

Indicator	Reference	2013	2014	2015	2016	2017
Gross income ratio	0.05	1.58	1.36	1.45	0.50	1.16
Share of intangible assets, %	0.5	0.13	0.14	0.15	0.23	0.15
Labour productivity per wages fund	10	2.05	2.22	2.01	1.77	2.24
The average level of contributions to social activities per employee, thousand UAH	25	1.21	1.33	1.39	1.11	1.30
The average level of wages on the enterprise, thousand UAH	35.45/ 37.8/ 43.9/ 53.8/ 75.3 per year	3.45	3.57	3.50	3.45	2.57
Debt ratio to employees	0.05	3.15	2.56	3.81	2.44	1.93
Share of managers, %	1	0.65	0.72	0.53	0.72	1.11
Management wage costs from general expenses	0.01	1.33	1.32	0.85	1.41	2.44
Management wages, thousand UAH	177.3/ 189/ 220/ 269/ 376.5 per year	17.25	17.84	17.50	17.24	12.86
The ratio of management wages to the wages of all staff	4.5–5.5	0.5	0.5	0.5	0.5	0.5
The share of wage costs in total costs	0.25–0.35	0.5	0.5	0.5	0.5	0.5
Multiple coefficient	3.02	3.09	2.80	2.10	3.05	
Total 'P' indicators	7	7	6	6	8	
Total 'N' indicators	4	4	5	5	3	

Source: calculated based on the authors' suggestions.

This situation shows that the management of the enterprise had a balanced approach to the implementation of policies of both external and internal social responsibility.

The calculation of indices for the analytical assessment of internal social responsibility of PJSC Chernivtsi Bakery is presented in Table 12.

PJSC Chernivtsi Bakery's level of internal social responsibility was negative between 2013–2017. The number of indicators with the 'P' marker during 2013–2016 was 2, which decreased to 1 in 2017. The number of indicators with the N marker increased from 9 in 2013 to 10 in 2017.

Private JSC VO Odessa Cannery also had a negative multiple coefficient of internal social responsibility between 2013–2017 (Table 13). The dynamics of the expression of social responsibility was found to be uneven.

Table 12. The multiple coefficient calculation of internal social responsibility for PJSC Chernivtsi Bakery

Indicator	Reference	2013	2014	2015	2016	2017
Gross income ratio	0.05	3.71	4.31	3.36	0.48	0.20
Share of intangible assets, %	0.5	0.01	0.003	0	0.18	0.15
Labour productivity per wages fund	10	0.79	0.70	0.96	0.62	0.46
The average level of contributions to social activities per employee, thousand UAH	25	0.44	0.48	0.61	0.47	0.54
The average level of wages on the enterprise, thousand UAH	35.45/ 37.8/ 43.9/ 53.8/ 75.3 per year	0.88	0.90	0.94	1.08	0.89
Debt ratio to employees	0.05	0.97	0.93	0.98	0.83	0.95
Share of managers, %	1	0.37	0.33	0.29	0.28	0.31
Management wage costs from general expenses	0,01	0.57	0.58	0.83	0.55	0.46
Management wages, thousand UAH	177.3/ 189/ 220/ 269/ 376.5 per year	4.42	4.50	4.69	5.41	4.46
The ratio of management wages to the wages of all staff	4.5–5.5	0.5	0.5	0.5	0.5	0.5
The share of wage costs in total costs	0.25–0.35	0.5	0.5	0.5	0.5	0.5
Multiple coefficient	–6.05	–7.31	–0.68	–5.35	–6.91	
Total 'P' indicators	2	2	2	2	1	
Total 'N' indicators	9	9	9	9	10	

Source: calculated based on the authors' suggestions.

Table 13. The multiple coefficient calculation of internal social responsibility for Private JSC VO Odessa Cannery

Indicator	Reference	2013	2014	2015	2016	2017
Gross income ratio	0.05	2.16	2.17	1.67	2.01	2.95
Share of intangible assets, %	0.5	0.03	0.03	0.03	0.02	0.10
Labour productivity per wages fund	10	1.06	1.07	1.42	1.18	0.75
The average level of contributions to social activities per employee, thousand UAH	25	0.44	0.48	0.50	0.36	0.51
The average level of wages on the enterprise, thousand UAH	35.45/ 37.8/ 43.9/ 53.8/ 75.3 per year	0.85	0.86	0.77	0.78	0.77
Debt ratio to employees	0.05	2.16	2.09	2.42	2.69	2.74
Share of managers, %	1	0.56	0.56	0.47	0.43	0.44
Management wage costs from general expenses	0.01	1.08	1.14	1.19	1.00	0.83
Management wages, thousand UAH	177.3/ 189/ 220/ 269/ 376.5 per year	4.24	4.30	3.85	3.91	3.85
The ratio of management wages to the wages of all staff	4.5–5.5	0.5	0.5	0.5	0.5	0.5
The share of wage costs in total costs	0.25–0.35	0.5	0.5	0.5	0.5	0.5
Multiple coefficient	–3.34	–3.22	–3.34	–4.25	–2.45	
Total 'P' indicators	5	5	5	5	3	
Total 'N' indicators	6	6	6	6	8	

Source: calculated based on the authors' suggestions.

In the cases of the last two enterprises, the assessment of internal CSR coincided with the previously formed opinion. This seems to demonstrate that properly interpreted financial and economic indicators can be used to determine social responsibility.



Based on the calculated data, we identified a pattern of the dynamics of internal social responsibility in the context of assessing financial and economic indicators (Table 14).

Table 14. Possible tendency of the internal social responsibility level (according to the multiple coefficient)

Enterprise	Dynamics of the multiple coefficient by years					Tendency
	2013	2014	2015	2016	2017	
Private JSC 'OBOLON'	5.08	4.95	4.98	3.68	1.65	Decreased
Private JSC 'Volyn Holding'	-0.18	-1.25	0.25	-0.46	-1.01	Decreased
PJSC 'Mondelis Ukraine'	3.02	3.09	2.80	2.10	3.05	Stable (positive)
PJSC 'Chernivtsi bakery'	-6.05	-7.31	-0.68	-5.35	-6.91	Uneven
Private JSC VO 'Odessa cannery'	-3.34	-3.22	-3.34	-4.25	-2.45	Stable (negative)

Source: authors' suggestions.

Accordingly, based on the calculated data it is possible to estimate the tendency of dynamic change to internal CSR levels. Thus, PJSC Chernivtsi Bakery had an uneven tendency of change. This same tendency could be said to have decreased for both Private JSC Volyn Holding and Private JSC Obolon. Changes in internal CSR for Private JSC Odessa Cannery can be defined as stable, though in a negative manner. Moreover, the tendency for change in internal CSR for PJSC Mondelis Ukraine could be described as positively stable.

## Conclusions

In some, our findings allowed us to draw certain conclusions. The proposed method is an attempt to solve the problem of measuring the social responsibility of enterprises to their employees with the help of economic indicators. The method could be described as understandable, easy to implement due to the simplicity of calculations, straightforward to interpret, and convenient due to is requiring little time and no unnecessary (additional) costs. All of the indicators can be calculated on a regular basis by an enterprise's economic specialist. Moreover, the number of indicators is insignificant, while the indicators themselves are consistent. Of course, while this approach is not free from criticism, we would argue that it deserves attention, and could be improved, altered, and supplemented in further research.

Given the need to study new trends in economy socialisation, it is advisable to use not only economic factors, but also those relating to social responsibility when making management decisions. Accordingly, determining the level of internal social responsibility with the help of indicators of official financial statements can not only provide a transparent assessment of an enterprise's socialisation, but also facilitate the identification of its change tendency by years. The obtained results can be used to improve the methods of developing social responsibility indicators, which can characterise enterprise's level of involvement in the development of society and the level of responsibility in ensuring the interests of all participants of a social partnership.

The proposed analytical tools would allow one to evaluate enterprises on their level of social responsibility development both in general and in their dynamics in order to more accurately identify problem areas. In terms of further research, we would describe it as objectively necessary to check the practical applicability of the proposed method through making appropriate calculations for a larger number of enterprises and economic activities. Thus, the results of the assessment of the level of internal social responsibility can form the basis for the development of regional and national policies on the management of social responsibility, the determination of the relevant areas of cooperation between government, business, and society (as well as the identification of any potential problems and opportunities of such cooperation), and act as a mechanism for identifying economic, environmental, and social problems that could be solved through the participation of businesses.

The main goal of the current study was to identify an accurate method of assessing social responsibility using economic methods based on the calculation and interpretation of financial and economic indicators. At the same time, we aimed to determine which indicators are constantly calculated in the process of accounting and assessing economic activity, and thus guarantee covering a wide range of enterprises for assessment. A key point of the analytical tool is its sole focus on publicly-available information (i.e., data from enterprises' official reports). We aimed our research at trying to assess social responsibility towards employees as the main stakeholders of an enterprise. Obviously as with all research, our paper is not without limitations. First, we only used data from the food industry. As such, applying our approach to other industries could yield different results. Second, we exclusively used data from financial statements. It is a common practice to cover CSR practices in non-financial statements. However, unlike the financial statements of Ukrainian enterprises, their non-financial equivalents are not uniform and have a different structure of data submission. The third limitation concerns the availability of financial statement data. For example, in Ukraine, only private and public joint-stock companies are available publicly, while many companies operate in the form of business partnerships. The inaccessibility of such data significantly reduces the ability to compare businesses with one another. However, we see prospects for further development of the proposed financial reporting toolkit for assessing social responsibility to other groups of stakeholders. For example, a company's relationship with suppliers of resources or financial capital is described through such economic indicators as the average turnover time of inventories, the average repayment period of accounts payable, and liquidity. For example, the fact that raw materials recipient companies try to optimise the repayment periods of short-term payables for their own benefit does not need to be proved. It is clear that this is possible if allowed by the counterparty company. This will happen only if there is trust between the subjects. Trust can be established through an enterprise's adherence to the principles of social responsibility, such as by complying to existing agreements. A similar situation occurs in a company's relations with financial (i.e., banking) institutions. If a company's credit history is negative or the liquidity ratios are unsatisfactory, then there is little reason for the company to count on trust and loans from banks. Based on a similar logic, it is possible to define a list of financial reporting indicators for assessing social responsibility to interested groups (i.e., owners, partners, consumers, the state, local communities, and society).

## References

- Ackerman, R., and Bauer, R. A., 1976, *Corporate Social Responsiveness: The Modern Dilemma*. Reston: Reston Publishing Company.
- Adkins, W., 2019, 'How to calculate the employee labor percentage', *Houston Chronicle*. 1 January. Available at: <https://smallbusiness.chron.com/calculate-employee-labor-percentage-15980.html> (accessed: 15.01.2023).
- Akin, A., and Yilmaz, I., 2016, 'Drivers of corporate social responsibility disclosures: Evidence from the Turkish banking sector', *Procedia Economics and Finance*, 38, 2–7. Available at: [https://doi.org/10.1016/S2212-5671\(16\)30171-X](https://doi.org/10.1016/S2212-5671(16)30171-X) (accessed: 15.01.2022).
- Boyle, E. J., Higgins, M. M., and Rhee, S. G., 1997, 'Stock market reaction to ethical initiatives of defence contractors: Theory and evidence', *Critical Perspectives on Accounting*, 8, 541–561. Available at: <https://doi.org/10.1006/cpac.1997.0124> (accessed: 15.01.2022).
- Carroll, A. B., 1991, 'The pyramid of corporate social responsibility: Toward the moral management of organizational stakeholders', *Business Horizons*, 34(4), 39–48.
- Carlisle, Y. M., and Faulkner, D. O., 2004, 'Corporate social responsibility: A stages framework', *European Business Journal*, 16(4), 143–151.
- Committee for Economic Development (CED), 1971, *Social Responsibilities of Business Corporations*. New York: Committee for Economic Development.
- Corley, K. G., Cochran, P. L. and Comstock, T. G., 2001, 'Image and the impact of public affairs management on internal stakeholders', *Journal of Public Affairs*, 1(1), 53–68.
- Dziuba, O. M., and Ziuzina, V. P., 2012, Ефективність внутрішньої складової корпоративної соціальної відповідальності підприємства [The effectiveness of the internal component of corporate social responsibility]. *Вісник Національного університету "Львівська політехніка" [Bulletin of the National University 'Lviv Polytechnic']*, 725, 277–281.

- Fedotova, Y., and Plekan, U., 2017, Канонічні кореляції як інструмент управління підприємств приладобудування у забезпеченні соціальної відповідальності перед власними працівниками [The canonical correlation as the management tool in providing social responsibility to employees at the instrument-making enterprises]. *Актуальні проблеми інноваційної економіки [Actual Problems of Innovative Economy]*, 4, 73–80.
- Ferreira, P., and De Oliveira, E. R., 2014, 'Does corporate social responsibility impact on employee engagement?', *Journal of Workplace Learning*, 26(3/4), 232–247. DOI: [dx.doi.org/10.1108/JWL-09-2013-0070](https://doi.org/10.1108/JWL-09-2013-0070)
- Freeman, R. E., 1984, *Strategic Management: A Stakeholder Approach*. New York: Cambridge University Press.
- Friedman, M., 1971, *An Economist's Protest: Columns in Political Economy*. Glen Ridge: Thomas Horton and Company.
- Glebova, I. et al., 2013, 'Evaluation of corporate social responsibility of Russian companies based on nonfinancial reporting', *Middle East Journal of Scientific Research*, 13, 143–148. Available at: <https://doi.org/10.5829/idosi.mejsr.2013.13.sesh.1426>.
- Harrysson, M., Schoder, D., and Tavakoli, A., 2016, 'The evolution of social technologies', *McKinsey Quarterly*, June(3), 8–12.
- Hawn, O., and Ioannou, I., 2016, 'Mind the gap: The interplay between external and internal actions in the case of corporate social responsibility'. *Strategic Management Journal*, 37(13), 2569–2588. <https://doi.org/10.1002/smj.2464>
- Centre for CSR Development Ukraine, 2019, 'Index of transparency of websites of Ukrainian companies 2019', 9 November. Available at: <https://csr-ukraine.org/research/transp-index-2019/> (accessed: 16.02.2022).
- Inoue, Y., and Lee, S., 2011, 'Effects of different dimensions of corporate social responsibility on corporate financial performance in tourism-related industries', *Tourism Management*, 32(4), 790–804. DOI: <https://doi.org/10.1016/j.tourman.2010.06.019>
- Jankalova, M., 2016, 'Approaches to the evaluation of corporate social responsibility', *Procedia Economics and Finance*, 39, 580–587. DOI: [https://doi.org/10.1016/S2212-5671\(16\)30302-1](https://doi.org/10.1016/S2212-5671(16)30302-1)
- Kanji, R., and Agrawal, R., 2016, 'Models of corporate social responsibility: Comparison, evolution and convergence', *IIM Kozhikode Society & Management Review*, 5(2), 141–155.
- Ksondz, S., Yaskal, I., and Madei, I., 2013, 'Концептуальні підходи до кількісного визначення іміджу підприємства' [Conceptual approaches to the quantitative determination of the image of the enterprise]. *Ефективна економіка [Effective Economy]*, 3. Available at: [http://nbuv.gov.ua/UJRN/efek\\_2013\\_3\\_46](http://nbuv.gov.ua/UJRN/efek_2013_3_46).
- Kubareva, I., Maliarchuk, O., and Pohuda, N., 2018, 'Corporate social responsibility of Ukrainian tourist enterprises: Identity, strategy and performance', *Eastern Journal of European Studies*, 9(2), 145–167.
- Law of Ukraine No. 2404-VI of 1 July, 2010, *Про державно-приватне партнерство [About public-private partnerships]*. Available at: <https://zakon.rada.gov.ua/laws/show/2404-17> (accessed: 15.02.2022).
- Law of Ukraine No. 2862-VI of 23 December, 2010, *Про соціальний діалог [About the social dialogue in Ukraine]*. Available at: <https://zakon.rada.gov.ua/laws/show/2862-17> (accessed: 12.02.2022).
- Law of Ukraine No. 2164-VIII of 5 October, 2019, *Про внесення змін до Закону України "Про бухгалтерський облік та фінансову звітність в Україні" щодо удосконалення деяких положень [On amendments to the law of Ukraine 'and 'On accounting and financial reporting in Ukraine to improve certain provisions']*. Available at: <http://zakon.rada.gov.ua/laws/show/2164-19> (accessed: 16.02.2022).
- Lee, M.-T., 2020, 'Corporate social responsibility and investment efficiency: Evidence from an Asian emerging market', *DLSU Business & Economics Review*, 29(2), 1–16.
- Levkivska, L., and Levkovych, I., 2017, 'Social responsibility in Ukrainian agriculture: The regional issue', *Eastern Journal of European Studies*, 8(1), 97–114.
- Longo, M., Mura, M., and Bonoli, A., 2005, 'Corporate social responsibility and corporate performance: The case of Italian SMEs', *Corporate Governance*, 5(4), 28–42. Available at: [doi.org/10.1108/14720700510616578](https://doi.org/10.1108/14720700510616578)
- Lozano, R., 2015, 'A holistic perspective on corporate sustainability drivers', *Corporate Social Responsibility and Environmental Management*, 22, 32–44. <https://doi.org/10.1002/csr.1325>
- Luo, X. et al., 2015, 'Corporate social performance, analyst stock recommendations, and firm future returns', *Strategic Management Journal*, 36(1), 123–136. <https://doi.org/10.1002/smj.2219>

- Madueno, J. H. et al., 2016, 'Relationship between corporate social responsibility and competitive performance in Spanish SMEs: Empirical evidence from a stakeholders' perspective', *BRQ Business Research Quarterly*, 19(1), 55–72. <https://doi.org/10.1016/j.brq.2015.06.002>
- Marquez, A., and Fombrun, C. J., 2005, 'Measuring corporate social responsibility', *Corporate Reputation Review*, 7(4), 304–308. DOI: <https://doi.org/10.1057/palgrave.crr.1540228>
- Meehan, J., Meehan, K., and Richards, A., 2006, 'Corporate social responsibility: 3C-SR model', *International Journal of Social Economics*, 33(5–6), 386–398.
- Mutuc, E. B., Lee, J.-S., and Tsai, F.-S., 2020, 'Corporate social responsibility and earnings management: Evidence from controversial and non-controversial sectors in Asia', *DLSU Business & Economics Review*, 29(2), 17–28.
- Obeidat, B., 2016, 'Exploring the relationship between corporate social responsibility, employee engagement, and organizational performance: The case of Jordanian mobile telecommunication companies', *International Journal of Communications, Network and System Sciences*, 9, 361–386. DOI: 10.4236/ijcns.2016.99032.
- Pelozo, J., 2009, 'The challenge of measuring financial impacts from investments in corporate social performance', *Journal of Management*, 35 (6), pp. 1518–1541. DOI: <https://doi.org/10.1177/0149206309335188>
- Pinkston, T. S., and Carroll, A. B., 1996, 'A retrospective examination of CSR orientations: Have they changed?' *Journal of Business Ethics*, 15(2), 199–206.
- Private JSC "OBOLON". Official site (n.d), 'Corporate responsibility'. Retrieved November 2, 2019. Available at: <https://obolon.ua/ua> (accessed: 15.01.2023).
- Private JSC VO "Odessa cannery". Official site (n.d), Retrieved October 14, 2019. Available at: <https://okz.od.ua/uk/> (accessed: 15.01.2023).
- Private JSC "Volyn Holding". Official site (n.d), 'Creating common values'. Retrieved October 25, 2019. Available at: <https://www.nestle.ua/jobs/vacancy/volyn-holding> (accessed: 15.01.2023).
- Private PJSC "Chernivtsi bakery". Official site (n.d), Retrieved October 23, 2019. Available at: <https://hlib.cv.ua/> (accessed: 15.01.2023).
- Private PJSC "Mondelis Ukraine". Official site (n.d), 'Snacking made right'. Retrieved October 17, 2019. Available at: <https://www.mondelezinternational.com/Ukraine> (accessed: 15.01.2023).
- Sethi, S. Prakash (ed.), 1974, *The Unstable Ground: Corporate Social Policy in a Dynamic Society*. Los Angeles: Melville Pub. Co.
- Simpson, W. G., and Kohers, T., 2002, 'The link between corporate social and financial performance: Evidence from the banking industry', *Journal of Business Ethics*, 35, 97–109. DOI: <https://doi.org/10.1023/A:1013082525900>
- Schwartz, M. S., and Carroll, A. B., 2003, 'Corporate social responsibility: A three-domain approach', *Business Ethics Quarterly*, 13(4), 503–530.
- State Statistics Service of Ukraine, 2019, 'Ukrainian input-output table at basic prices for 2017', *Statistical Publication*, p. 46.
- State Statistics Service of Ukraine, 2020, 'Business activities'. Available at: <http://www.ukrstat.gov.ua> (accessed: 18.03.2020).
- Van Buren, H. J. III, 2005, 'An employee-centered model of corporate social performance', *Business Ethics Quarterly*, 15, 687–709.
- Visagie, J. C., Sibanda, V., and Coetzee, R., 2019, 'The evolution and models of corporate social responsibility', *The Journal of Social Sciences Research*, 5(12), 1885–1892. DOI: 10.32861/jssr.512.1885.1892
- Witek-Crabb, A., 2019, 'CSR maturity in Polish listed companies: A qualitative diagnosis based on a progression model', *Sustainability*, 11, 1736. DOI:10.3390/su11061736
- Wood, D. J., 2010, 'Measuring corporate social performance: A review', *International Journal of Management Reviews*, 12, 50–84. DOI: 10.1111/j.1468-2370.2009.00274.x
- Wright, P., and Ferris, S., 1997, 'Agency conflict and corporate strategy: The effect of divestment on corporate value', *Strategic Management Journal*, 18(1), 77–83.
- Wu, M.-W., and Shen, C.-H., 2013, 'Corporate social responsibility in the banking industry: Motives and financial performance', *Journal of Banking & Finance*, 37, 3529–3547. DOI: <https://doi.org/10.1016/j.jbankfin.2013.04.023>
- Yilmaz, İ., 2012, *CSR Disclosures: Interaction of Social and Financial Performance*. Saarbrücken: Lambert Academic Publishing.
- Yin, R. K., 2017, *Case Study Research and Applications: Design and Methods*. Los Angeles: Sage.

YouControl, 2019, *Finances*. Retrieved November 11, 2019, available at: [https://youcontrol.com.ua/en/our\\_possibility](https://youcontrol.com.ua/en/our_possibility) (accessed: 15.02.2022).

Zelinskyj, S., 2015, Стан кадрового забезпечення державного управління [The state of the staffing of state administration]. *Наукові записки Інституту законодавства Верховної Ради України*. [Scientific notes of the Institute of Legislation of the Verkhovna Rada of Ukraine], 4, 91–99.