Business Sustainability Assessment: Comparing Results of Two Studies

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Business sustainability assessment requires data, which can be gathered from various information sources. Annual statements are frequently used as a data source, because they are considered to be one of the most important means of the company to communicate with various stakeholders. The document is signed by the management of the company, ensuring that the information in the statement is accurate, and because the statements are audited by an independent third party.

The research was intended to solve the problem of the lack of information about the content of Lithuanian companies' annual statements from the perspective of corporate sustainability assessment. Thus, two studies were executed, first analysing annual statements of 15 companies, the second analysing the remaining annual statements of 23 companies, to build understanding of what information is available for further studies of business sustainability assessment. The studies encompassed 38 Lithuanian companies, listed in the Baltic main and secondary lists in Vilnius market in NASDAQ OMX, which constituted 100% of companies. As the studies were done in the beginning of 2010, annual statements for 2008 were used.

The methods of the research were logical literature analysis, computer assisted quantitative content analysis, comparative analysis.

The first part of the paper reviews the research of Lithuanian scientists in the field of sustainable development, and more specifically, various business and industry sectors. The literature review also includes various business sustainability evaluation models, focussing on the structure of the models, the quantity of companies analysed and the sources of data, used in the evaluations. In the second parts of the paper, the model of business sustainability evaluation is briefly described to create the basic structure for the research of annual statements of the companies. The third part describes the methodology of the research: what data was analysed, how it was analysed, the structure of the research. In the fourth part of the article, the results of the study are presented, explaining what information was most often found in the annual statements and how frequently it was found. Eventually, the findings are discussed from the perspective of whether the availability of information is satisfactory to execute corporate sustainability assessment.

The model for business sustainability assessment, used in this study, is based on the idea, that companies have an impact on the environment. But it is not always possible to state in advance weather an impact is positive or negative, as it depends on a specific company case analysed. Thus, the model is created grouping the company impacts into positive, negative and situational.

Positive impacts cover employee training, employing disabled, employing people with no work experience and elderly ones, workplace safety, family friendly workplace, lab or union existence, taxes paid, salaries paid, profit and donations to charity. Negative impacts cover pollution, product end-of-life pollution, discrimination, corruption, resource depletion, wasted materials, child lab or and fines paid to the government. Situational impacts cover product/service itself, and the delivery of this product or service to the society.

The study showed, that the information, present in all the 39 annual statements, is the information about profit, paid taxes, paid salaries, and the product or service the company produces. 82% of the annual statements had the information about employee training, 79% had the information about the materials and resources used, 72% of statements had the information about donations to charities, 69% of statements had information about fines paid, and 67% of annual statements had the information about labour unions. Among the information, that was not found at all in the annual statements is child labour and employing inexperienced, with 0% occurrence, 5% (2 annual statements out of 39) had some information about employing the disabled and corruption.

The terms "renewable" and "unrenewable" (Lithuanian equivalents) were found mentioned once each, showing, that the information about renewable resources cannot be found in the statements. From the sustainability perspective, this lack of information greatly limits the possibilities to include renewable resources, as one of the indicators, in business sustainability evaluation.

The results show, that because of the lack of some information in the annual statements, either the business sustainability assessment model should be simplified and data, that is not available, should be removed or substituted, or other sources of information (such as corporate websites, press releases or interviews) should be employed to gather the data needed for the evaluation of corporate sustainability. The third possibility is executing empirical business sustainability evaluation studies explicitly stating the limitations- what necessary information was not available during the research.

Introduction

The research problem. Business sustainability evaluation requires data, which can be gathered from various information sources, such as corporate websites, press releases, interviews, surveys, annual statements, advertising and other sources. Annual statements are frequently used as a data source because they considered to be one of the most important means of the company to communicate with various stakeholders, the document is signed by the management of the company, ensuring that the information in the statement is accurate, and because the statements are audited by an independent third party. This ensures data reliability, which is not the case while using interviews, surveys or press releases.

The research problem, that was intended to solve, was that there was no information on the availability of data, relevant for business sustainability evaluation. Before one starts evaluating business sustainability, he/she has to know if the reliable information is available, and what information is available about the companies. Thus, the studies, described in this article, were executed, first analysing the annual statements of *of 15 companies*, the second analysing the remaining annual statements of 23 companies, to build understanding of what information is available for further studies of business sustainability evaluation to be carried out in the future.

Newness of the research is the research of 100% of publicly traded companies in Lithuania (38 companies), analysing the information, published in their annual statements for 2008, from the perspective of business sustainability evaluation.

The research object is the information in the annual statements of the companies.

The aim of the research is by comparing the results of two studies, conducted by the authors, to draw conclusions whether information, available in the annual statements, is enough for business sustainability evaluation.

The tasks:

- to review previous research in sustainable development, applications in various industries and business evaluations;

- to describe the theoretical model and research methodology of the two research studies executed;

- to compare the descriptive statistics and the results of the researches;

- to assess whether information in the annual statements is enough for business sustainability evaluation.

The methods of the research were logical literature analysis, computer assisted quantitative content analysis, comparative analysis.

The structure of the paper. The first part of the paper reviews the research of Lithuanian scientists in the field of sustainable development, and more specifically, various business and industry sectors. The literature review also includes various business sustainability evaluation models, focussing on the structure of the models, the quantity of companies analysed and the sources of data, used in the evaluations. In the second parts of the paper, the model of business sustainability evaluation is briefly described to create the basic structure for the research of annual statements of the companies. The third part describes the methodology of the research: what data was analysed, how it was analysed, the structure of the research. In the fourth part of the article, the results of the study are presented, explaining what information was most often found in the annual statements and how frequently it was discovered. Eventually, the findings are discussed from the perspective of whether the availability of information is satisfactory to execute business sustainability evaluation studies in the future. The results are followed by the list of references.

Sustainable development and business sustainability evaluation

Lithuanian authors analyze a wide spectrum of sustainability issues. Ciegis (2003) discusses the principles of management of society's sustainable development with a focus on sustainable economic development and environmental indicators. Sustainable development indicators and sustainable development programs are the focus of Ciegis & Streimikiene (2005). Ciegis et al. (2005) discuss the concepts of strong and weak sustainability. The principles of sustainability in the management of universities are the focus of Grundey, Savrina & Kanapickiene (2007). Streimikiene & Girdzijauskas (2008) analyse the application of logistic growth models in sustainable growth analysis, while Grundey (2008a) analyses the application of sustainability principles at various levels of economy. The focus of a paper by Streimikiene (2008) is strategies of EU pollution reduction and the impact of policies on the slope of Kuznets curve. Ciegis et al. (2008) analyze Lithuania's socio-economic progress in the perspective of other new EU members, while Ciegis & Ciegis (2008) in their paper discuss the relationships of the laws of thermodynamics and sustainability. The use of sustainability indicators in assessing sustainable development is the focus of Ciegis, Ramanauskiene & Startiene (2009) while in their paper, Ciegis, Ramanauskiene & Martinkus (2009) broadly discuss different definitions and interpretations of the sustainability concept.

Business and industry sustainability are also analyzed from various perspectives by Lithuanian authors. Grundey (2003) focuses the study on sustainable production and consumption, and green marketing, Grundey et al. (2004) analyze sustainable consumption patterns in food industry, in another study Grundey (2008b) analyzes the possibilities to develop sustainable energy projects in Lithuania. Lithuania's progress in sustainable industrial development was analyzed by Staniskis et al. (2006). Krisciunas & Greblikaite (2007) discuss the impact of entrepreneurship on sustainable development with a specific focus on economic sustainability. Green marketing and eco-labeling are the focus of the studies by Grundey & Zaharia (2008) and Grundey (2009). Ruzevicius (2009) compared sustainability and socially responsible business manifestation in different countries. Tourism sector sustainability in Lithuania is the focus of a paper by

Grundey et al. (2009). Dagiliene (2001) analyzed the changes of corporate social responsibility information in the annual statements of four diary companies through 2007-2008. Peldschus et al. (2010) propose using game theory to sustainably select construction sites.

One of the first attempts to measure business sustainability was Ragas et al. (1997). In the theoretical consideration and sustainability definition, Ragas et al. (1997) acknowledge the three pillars of sustainability, but mainly focus on the ecological dimension, explaining, that "Ecological sustainability is a prerequisite for social and economic sustainability: the carrying capacity of the biosphere is limited and should not be exceeded by socioeconomic activities" (Ragas et al., 1997, p. 150). Thus, sustainability is seen as a level of impact of socioeconomic activities on the environment. For the empirical presentation of the evaluation method, Ragas et al. (1997) use a paper mill example in the Netherlands. Various indicators (energy, resources, output of white paper, emissions to air and water etc.) are calculated and compared to the environmental utility space (EUS) to create a graphical representation of the different impacts of a paper mill.

In business sustainability evaluation models, the impacts are being classified in different ways, but mostly have the structure of three sustainability dimensions of economy, society and ecology. Tyteca & Callens (1999) group measurement indicators into three dimensions, as well as Figge & Hahn (2004) in their proposed concept of sustainable value. Though Figge & Hahn (2005) in the calculations show, that the sustainable value in different dimensions can be also positive and negative. Krajnc & Glavic (2005) also use three dimensions and the measured performance indicators of a company can be either positive of negative.

On the other hand, Caporali & Tellarini (2000) use the grouping of indicators into economic and energy dimensions, and indicators are also related to input and output. Ko (2005) distinguishes the human system and the ecosystem, but these are further granulated into more dimensions. Bebington et al. (2006) propose using Sustainability Assessment Modeling (SAM) for business sustainability evaluation, and group the impacts into economic, environmental, resources and social, and also positive and negative. Phillis & Davis (2009) also use the grouping of impacts into human and ecological, which are further granulated into more components.

The empirical studies could be grouped into two groups according to the number of companies analyzed and the source of data. One group could consist mostly of case study analysis, where one or a few companies are evaluated. The data used for such studies is most often taken for the annual statements of these companies. Examples of such studies could be Ragas et al., (1997), Caporali & Tellarini (2000), Figge & Hahn (2005), Krajnc & Glavic (2005), Tseng et al. (2009), Phillis & Davis (2009).

Another group of studies evaluate many companies at the same time, and most often use survey data for evaluation of sustainability and company ranking. Such studies are: Tyteca (1999), Andreoli & Tellarini (2000), Van Passel et al., (2007), Gomez-Limon & Sanchez-Fernandez (2010).

Hence a conclusion can be made, that most business sustainability researchers base corporate sustainability evaluation on studying company's impact on the environment and the society, while grouping these impact according to three sustainability pillars or in some other ways. To gather the data needed for evaluation, some studies utilize company annual statement information, mostly when case study analysis is done, or utilize survey data, when aiming at evaluation and ranking of a big number of business entities.

The model of business sustainability evaluation

The model for business sustainability evaluation, used in this study, is based on the idea, that companies have an impact on the environment. The structure of the model is analogous to the model, developed by Grunda (2010). As seen from the literature review, the idea of measuring impact, as a representation of business sustainability, is widely used in the models. From company evaluation and ranking perspective, and potential policy improvement, one would be interested in knowing on what areas does a company have positive impacts and on what areas it has negative ones. This knowledge would enable increasing the positive impacts and reducing negative ones.

But it is not always possible to state in advance weather an impact is positive or negative, as it depends on a specific company case analyzed. Thus, the model is created grouping the company impacts into positive, negative and situational. The impacts also could be grouped according to the three sustainability dimensions, similar to Tyteca & Callens (1999) proposition of calculating the overall evaluation by adding positive economic impacts (which should be maximized), subtracting negative economic impacts (which should be minimized), adding positive social impacts (which should be maximized), subtracting negative social impacts (which should be minimized), adding positive environmental impacts (which should be maximized) and subtracting negative environmental impacts (which should be minimized). In this study this is not done in order not to complicate the basic structure too much.

Positive impacts are: employee training, employing disabled, employing people with no work experience, employing elderly, workplace safety, family friendly workplace, labor union existence, taxes paid, salaries paid, profit and donations to charity. Negative impacts are: pollution, product end-of-life pollution, discrimination, corruption, resource depletion, wasted materials, child labor and fines paid to the government. Situational impacts are: product/service itself, and the delivery of this product or service to the society.

The described model of evaluating business sustainability through positive, negative and situational impacts is used further in the research of company annual statement analysis.

Methodology of the research

The study was done using content analysis as a method. To ensure the possibility to compare the results of this and a previous study, methodological procedures were

retained the same as in the prior study by Grunda (2010). This ensures, that the results of both studies can be credibly compared from the point of research methodology and research execution.

The first study was done analyzing annual statements of Lithuanian companies, that were listed in the Baltic main list of the Vilnius market in NASDAQ OMX. At the time of the study, the main list consisted of 15 publicly traded companies, thus 15 annual statements were analyzed. The first study included 100% of the main list, what constituted 39,5% of the total number of Lithuanian companies listed in the NASDAQ OMX Vilnius market.

After the first study was executed, to increase the reliability of the findings, the second study was carried out. This was done with several aims in mind: the original sample was only 15 companies, so to increase the reliability of the findings, the study was decided to repeat including the remaining Lithuanian companies from the secondary list, so that all Lithuanian companies would be studied. So the second study consisted of 23 companies, that were listed in the Secondary list in Vilnius market of NASDAQ OMX. Because of the availability of multiple annual statements (company's annual statement and annual statement of a group, that is consolidated report) the final number of annual statements analyzed was 24. This constituted the remaining of 100% annual statements of Lithuanian companies, so the results of both studies can be interpreted more reliably.

Another aim of carrying out the second study was to be able to compare the results with the intention of finding out similarities and differences in both samples. And the congruence of the methodological procedures allows interpreting the results of both studies as one, consisting of a bigger data sample.

In the second sample of companies, similarly as in the first study, some companies had additional special statements (e.g. social responsibility statement, of a statement, that is created more for the representation purposes with pictures and illustrations inside). These additional annual statements were not used in the study. It can be seen as a future study possibility to carry out a study using more diverse sources of information, such as special purpose annual statements, press releases or corporate websites.

The study was carried out analyzing annual statements, that were prepared for the year 2008, because newer statements were not all yet published. Thus, the study has also more possibilities to be expanded using annual statements of several years to increase the data sample and at the same time employ a historical perspective of changing corporate behaviour.

The study was carried out utilizing computer-assisted content analysis. As Milne, Adler (1999) states, "The research method that is most commonly used to assess organizations' social and environmental disclosures is content analysis". As a method, content analysis can be employed to analyze various content: text, images, sounds and video, but for this study, words and phrases were used as coding units.

The ultimate goal of evaluating business sustainability cannot be achieved through content analysis as a method,

because measurement and evaluation is done though various indicators. As this procedure requires calculation, using content analysis with the coding units as words and phrases, it is not possible to gather such information. Consequently, this study is intended to find out what information is available in the annual statements for business sustainability evaluation, so that a rough estimate of future possibilities for sustainability evaluation would be clearer.

As the annual statements were in Lithuanian language, both studies were carried out in this language. Thus the dictionary was composed also in Lithuanian. The second study was carried out utilizing the dictionary, developed in the first study (Grunda, 2010), according to the structure of business sustainability evaluation model, described in the first section.

The dictionary had these quantities of terms:

● *Among the positive impacts*, employee training was represented by 7 terms, employing disabled – 3 terms, employing inexperienced – 1 term, employing elderly – 1 term, work safety/health – 8 terms, family friendly workplace – 6 terms, labour unions – 4 terms, taxes paid – 4 terms, salaries paid – 2 terms, profit term group – 4 terms, charity donations – 4 terms;

● *Among the negative impacts*, pollution term group had 6 terms, discrimination – 7 terms, corruption – 3 terms, Material use – 9 terms, child labour – 2 terms, fines paid – 1 term.

● *Among the situational impacts*, product or service (value) term group consisted of 4 terms.

Results of the empirical research

To measure and evaluate business sustainability, certain information is needed. One of the aims of this study was to find out whether this information is present in the companies' annual statements. This calculation did not calculate the frequencies of occurrence, only the existence of at least one mention in the statement.

Certain groups of terms, needed for sustainability evaluation, were in some of the analyzed annual statements. There were some term groups, that were present in all of the annual statements, but it was also found that some of the information is not present at all neither in the first 15 statements, nor in the second 24 annual statements.

Table 1 shows the number of statements of the two studies, that had certain term group information- the number of statements carrying certain information, its conversion into percentage points, and a combination of two studies in percentage points.

From Table 1 it can be seen, that information about paid taxes, paid salaries, profit and product/service was found in all annual statements of both studies. In both studies there was no information found about employing inexperienced and child labor, which is shown as 0 % in both studies in Table 1. All the other term groups were found at least one or several times in the annual statements, some of them more often than others.

Table 1

Term occurrence in annual statements

Positive impact:	Term group	I study (15)	II study (24)	I study	II study	Sum(39)
	Employee training	12	20	80%	83%	82%
	Employing disabled	1	1	7%	4%	5%
	Employing inexperienced	0	0	0%	0%	0%
	Employing elderly	0	7	0%	29%	18%
	Work safety/health	7	16	47%	67%	59%
	Family friendly workplace	5	4	33%	17%	23%
	Labor unions	7	19	47%	79%	67%
	Taxes paid	15	24	100%	100%	100%
	Salaries paid	15	24	100%	100%	100%
	Profit	15	24	100%	100%	100%
	Charity donations	9	19	60%	79%	72%
Negative impact:						
	Pollution	7	18	47%	75%	64%
	Discrimination	1	4	7%	17%	13%
	Corruption	1	1	7%	4%	5%
	Material use	12	19	80%	79%	79%
	Child labor	0	0	0%	0%	0%
	Fines paid	9	18	60%	75%	69%
Situational:						
	Product (value)	15	24	100%	100%	100%

Among the most frequent information in the annual statements there was information about employee training, found in 82% of all (34/39) annual statements, in 72% of all the annual statements charity donations were mentioned (in 28 of 39 statements). Information about fines was mentioned in 69% of the annual statements, information about labour unions was present in 67% of statements and 64% of statements had at least some information about pollution. These earlier mentioned term groups were found in the most of the annual statements analyzed.

To find out which topics can be found most often in the annual statements, a method "frequency counting" was utilized. The results of frequency counting in the two studies are presented in Table 2.

Table 2

Term frequencies in annual statements

Positive	Term group	I study			II study		
	Employee training	61	505115	0.012%	130	636213	0.026%
	Employing disabled	1	505115	0.000%	1	636213	0.000%
	Employing inexperienced	0	505115	0.000%	0	636213	0.000%
	Employing elderly	0	505115	0.000%	13	636213	0.003%
	Work safety/health	20	505115	0.004%	82	636213	0.016%
	Family friendly workplace	12	505115	0.002%	9	636213	0.002%
	Labor unions	61	505115	0.012%	98	636213	0.019%
	Taxes paid	999	505115	0.198%	1438	636213	0.285%
	Salaries paid	1352	505115	0.268%	2041	636213	0.404%
	Profit	7760	505115	1.536%	9745	636213	1.929%
	Charity donations	46	505115	0.009%	64	636213	0.013%
		10312	**505115**	**2.042%**	**13621**	**636213**	2.697%
Negative:							
	Pollution	51	505115	0.010%	311	636213	0.062%
	Discrimination	1	505115	0.000%	20	636213	0.004%
	Corruption	1	505115	0.000%	1	636213	0.000%
	Material use	100	505115	0.020%	208	636213	0.041%
	Child labor	0	505115	0.000%	0	636213	0.000%
	Fines paid	26	505115	0.005%	34	636213	0.007%
		179	**505115**	**0.035%**	**574**	**636213**	0.114%
Situational							
	Product (value)	**1186**	**505115**	**0.235%**	1866	636213	0.369%

From the perspective of positive, negative and situational impacts, the results of the two studies show that there is more positive information in the annual statements, which constitutes 2.042% of the content in the first study, and 2.697% of content in the second study. The situational impact information frequency is second in the row, constituting 0.235% of information in the first, and 0.369% of information in the second study. The last group of information, which is found least frequently, is negative impact information, constituting 0.035% and 0.114% of the two studies.

While comparing frequencies of the separate term groups of the two studies, the results are very similar. The four most frequent term groups, as in the first study, were profit, salaries, product/service and taxes. Term group "material" ranked the 5th in the first study, and the 6th in the second, where the 5th place in the rank was taken by pollution information. The 6th and the 7th ranks in the first study were split by labour union information and training, while training was also the 7th in the second study and trade unions were in the 8th place. These similar ranking results show that there is consistency in the information frequency in both studies and that the same information is more prevalent in both studies.

Among the differences of the two studies, the term group "employing elderly" should be mentioned, as in the first study this term group was not found at all, but in the second study 13 occurrences have been found in 7 annual statements. Elder people can be seen as a problematic group, as it is generally more difficult for them to get a job before or during pension age. This is why employing elderly can be seen as a positive activity of a company. But one of the companies in the second study mentioned older age of the employees not from the social responsibility perspective, but also as a potential threat to the company, as employees that are near the pension age might leave the company, and the company will lose most of experienced workers. This could create problems because of the lack of qualified younger workers in the labour market.

From the perspective of business sustainability, certain terms, such as "renewable" and "unrenewable" can be seen as fundamental for evaluation. The first study showed, that the term "unrenewable" (in Lithuanian language) was used once, and the term "renewable" was not found in the 15 annual statements. The second study shows that the term "renewable" was found mentioned one in 24 annual statements and the term "unrenewable" was not found at all. The results could be defined as: "out of 39 annual statements of Lithuanian listed companies in 2008, the terms "renewable" and "unrenewable" were found once for each term". This shows, that terminology of renewable and unrenewable resources is not common, and that such analysis of the type of materials used is not performed, or at least not presented in the annual statements. But it does not mean, that the companies depend only on unrenewable materials and resources- in the list there are agricultural, diary, furniture, food companies, that clearly depend on renewable resources, as well as there are energy companies, that depend mostly on unrenewable resources, such as oil. Thus, there are various companies, only the analysis of renewable and unrenewable materials and resources in not done or presented.

The study shows that some types of information are presented in every annual statement, while some of the information, necessary for the business sustainability evaluation, is not present at all. A conclusion can be drawn, that according to the proposed sustainability evaluation model, the information in the annual statements is not completely present, and either the model of evaluation should be modified according the availability of the data, or other information sources should be also used to gather the missing data, or both.

Conclusions

The literature review showed, that Lithuanian scientist analyse a wide spectrum of sustainability issues: sustainable economic development, sustainability indicators, strong and weak sustainability, sustainable development definitions. Lithuanian scientific literature analyse sustainability of such industries, as food, energy, tourism, universities, construction industry.

Business and industry sustainability evaluation studies can be grouped according to two criteria: the number of companies analysed and the source of research data. On group of studies concentrate on case studies, focusing on a small number of companies, and often gathering data from the annual statements. The second group mostly researches ranking of companies, thus focusing on a large number of companies and gathering data from surveys and available statistic databases.

The model of business sustainability evaluation, used in most studies, is based on the idea, that companies have impact in the environment. Business impacts in the model are grouped into three groups: positive, negative and situational. To ensure the possibility to compare the results of two studies, both of them were executed using the same methodology. The first study analysed annual statements of 15 companies, the second study analysed annual statements of 23 companies, thus, both studies analysed 38 companies, which constituted 100 % of Lithuanian companies, listed in the Vilnius market in NASDAQ OMX.

The comparison of the two studies has shown, that the information availability in the annual statements of the companies in both studies is similar with the same groups of information appearing most often in most of the annual statements. The information, present in all the 39 annual statements, is the information about profit, paid taxes, paid salaries, and the product or service the company produces.

82% of the annual statements had the information about employee training, 79% had the information about the materials and resources used, 72% of statements had the information about donations to charities, 69% of statements had information about fines paid, and 67% of annual statements had the information about labour unions.

Among the information, that was not found at all in the annual statements is child labour and employing inexperienced, with 0% occurrence, 5% (2 annual statements out of 39) had some information about employing disabled and corruption.

The terms "renewable" and "unrenewable" (Lithuanian equivalents) were found mentioned once each, showing, that the information about renewable resources cannot be found in the statements. From the sustainability perspective, this lack of information greatly limits the possibilities to include renewable resources, as one of the indicators, in business sustainability evaluation.

The results show, that because of the lack of some information in the annual statements, either the business sustainability evaluation model should be simplified and data, that is not available, should be removed or substituted, or other sources of information (such as corporate websites, press releases or interviews) should be employed to gather the data needed for evaluation of business sustainability. This conclusion also proposes another possibility- an empirical research with certain limitations. It is common in scientific research to execute empirical researches, that often are limited by the lack of necessary data. Nevertheless, further empirical business sustainability evaluation researches could be executed with explicit and clear statements about what kind of information is necessary, but not available during the research.

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Verslo darnumo vertinimas: dviejų tyrimų palyginimas

Santrauka

Verslo darnumui vertini reikalingi duomenys, kurie gali būti gaunami iš įvairių šaltinių: įmonių svetainių, pranešimų spaudai, interviu, apklausų, metinių ataskaitų, reklaminių pranešimų. Metinės ataskaitos dažnai naudojamos kaip duomenų šaltinis, kadangi jos yra vertinamos kaip viena pagrindinių priemonių bendraujant su įvairiomis suinteresuotomis šalimis. Šiuos dokumentus turi įmonės vadovai, kurie užtikrina, kad pateikta ataskaitose informacija yra tiksli, nes nepriklausomi auditoriai atlieka ataskaitų auditą. Tai užtikrina duomenų patikimumą, o duomenys, gauti naudojant interviu, apklausas ar pranešimus spaudai nėra patikimi.

Tyrimo problema, kurią siekiama išspręsti,-kaip prieiti prie duomenų, reikalingų verslo darnumui vertinti. Taigi buvo atlikti du tyrimai: atliekant pirmąjį tyrimą buvo analizuojamos 2008 m. parengtos penkiolikos įmonių metinės ataskaitos, atliekant antrąjį tyrimą,- likusių dvidešimt trijų įmonių metinės ataskaito. Buvo siekiama ištirti, kokia informacija yra paskelbta metinėse ataskaitose, kad būtų galima ateityje tęsti įmonių darnumo vertinimo tyrimus.

Tyrimo tikslas - palyginus atliktų dviejų tyrimų rezultatus, įvertinti, ar informacijos, prie kurios galima prieiti bendrovių metinėse ataskaitose, pakanka verslo darnumui vertinti.

Tyrimo uždaviniai:
- apžvelgti darnaus vystymosi, darnaus vystymosi taikymo įvairiuose sektoriuose ir verslui vertinti tyrimus;
- apibūdinti atliktų dviejų tyrimų teorinį modelį ir tyrimo metodologiją;
- palyginti tyrimų aprašomąją statistiką ir rezultatus;
- įvertinti, ar informacija metinėse ataskaitose yra pakankama verslo darnumui vertinti.
Tyrimo metodai: literatūros loginė analizė, padedama kompiuterio kiekybinė turinio analizė, lyginamoji analizė.

Pirmoje straipsnio dalyje apžvelgiami Lietuvos mokslininkų tyrimai darnaus vystymosi srityje, taip pat tiriant įvairius verslus ir pramonės šakas. Apžvelgiami įvairūs verslo darnumo vertinimo modeliai, skiriant dėmesį modelių struktūrai, tiriamų įmonių kiekiui ir duomenų šaltiniams atliekant darnumo vertinimus. Antroje dalyje glaustai apibūdinamas siūlomas verslo darnumo vertinimo modelis, siekiant sukurti pagrindinę įmonių metinių ataskaitų tyrimų struktūrą. Trečiojoje dalyje aprašoma tyrimo metodologija: kokie duomenys buvo analizuoti, kaip jie buvo analizuoti, tyrimo struktūra. Ketvirtojoje dalyje pateikiami tyrimų rezultatai, paaiškinant, kokia informacija buvo dažniausiai rasta metinėse ataskaitose ir kaip dažnai ji buvo rasta.

Galiausiai rezultatai yra vertinami iš verslo darnumo perspektyvos, siekiant atsakyti į klausimą, ar pateikiama informacija yra pakankama įmonių darnumui įvertinti.

Tyrime taikytas verslo darnumo vertinimo modelis yra pagrįstas idėja, kad įmonės daro įtaką aplinkoje. Apžvelgus literatūrą, matyti, kad įtakos vertinimas yra plačiai naudojamas modeliuose. Iš įmonės ir politikos tobulinimo perspektyvos norėtųsi žinoti, kokiose srityse įmonės įtaka teigiama, o kokiose srityse - neigiama. Taip įmonė pati arba naudodama politikos pakeitimus teigiamą įtaką didintų, o neigiamą įtaką mažintų.

Tačiau ne visada įmanoma iš anksto įvardyti, ar tam tikra įtaka yra teigiama, ar ji yra neigiama, nes tai priklauso nuo tuo metu vertinamos įmonės. Todėl siūlome modelyje įtakos yra sugrupuotos į teigiamą, neigiamą ir situacinę.

Teigiama įtaka: darbuotojų mokymai, neįgaliųjų įdarbinimas, darbuotojų be darbo patirties įdarbinimas, priešpensinio amžiaus darbuotojų įdarbinimas, darbo saugumas, draugiška darbovietė, profsąjungos, mokami mokesčiai, mokamas atlyginimas, pelnas ir labdara. Neigiama įtaka: tarša, produktų gyvavimo ciklo pabaigos tarša, diskriminacija, korupcija, išteklių mažėjimas, medžiagų eikvojimas, vaikų darbas ir baudos. Situacinė įtaka: produktas ar paslauga, ir produkto ar paslaugos tiekimas apibrėžtai visuomenei.

Taikytas tyrimo metodas yra kompiuterio kiekybinė turinio analizė. Siekiant užtikrinti galimybę palyginti tyrimų rezultatus, abu tyrimai buvo atlikti taikant vienodą metodologiją. Atliekant pirmąjį tyrimą, analizuotos įmonių, esančių pagrindiniame Baltijos NASDAQ OMX biržos Vilniaus rinkos sąraše, metinės ataskaitos. Atliekant antrąjį tyrimą, analizuotos įmonių, priklausančių papildomam sąrašui, kas bendrai sudaro 100 % Lietuvos įmonių, esančių biržos sąrašuose, ataskaitos .

Atliekant antrąjį tyrimą, panašiai kaip ir atliekant pirmąjį tyrimą, kai kurios įmonės buvo išleidusios papildomas specialias ataskaitas (pvz., socialinės atsakomybės ataskaitas, arba gražesnio dizaino ataskaitas, skirtas daugiau reprezentaciniams tikslams). Šios papildomos ataskaitos abiejuose tyrimuose nebuvo naudojamos, tačiau tai sudaro sąlygas atlikti papildomus tyrimus, kurie apimtų daugiau informacijos šaltinių, specialiosios metinės ataskaitos, pranešimai spaudai, įmonės svetainės ir kt.

Galutinis tikslas - įvertinti įmonių darnumą - negali būti pasiektas taikant turinio analizės metodą, kadangi darnumui vertinti reikalingi įvairūs rodikliai. Kadangi šiam procesui reikalingas skaičiavimas, turinio analizės metodu, kuris atliekamas vartojant žodžius ar frazes, negalima suteikti tokių duomenų. Taigi šis tyrimas yra skirtas nustatyti, prie kokios informacijos galima prieiti metinėse ataskaitose, kad ateityje ji būtų panaudojama verslo darnumui vertinti.

Tyrimas parodė, kad informacija apie mokesčius, atlyginimus, pelną ir produktus ar paslaugas visose įmonių metinėse ataskaitose buvo rasta. Informacijos apie darbuotojų, neturinčių darbo patirties, įdarbinimą ir vaikų darbą nebuvo. Visos kitos terminų grupės šiose ataskaitose buvo rastos bent po vieną kartą.

Metinėse ataskaitose dažniausiai pasikartoja darbuotojų mokymų informacija, kuri sudarė 82 % metinių ataskaitų (34/39 ataskaitose). 72 % visų metinių ataskaitų sudarė labdara (28/39 ataskaitose). Informacija apie baudas sudarė 69 % metinių ataskaitų, informacija apie profesines sąjungas - 67 % ataskaitų, informacija apie taršą – 64 % metinių ataskaitų. Šios grupės buvo dažniausiai minimos metinėse ataskaitose.

Žvelgiant iš verslo darnumo perspektyvos, tam tikri terminai: "atsinaujinantis" ir "neatsinaujinantis", gali būti vertinami kaip esminiai. Atlikus pirmąjį tyrimą, terminas "neatsinaujinantis" buvo paminėtas vieną kartą, o terminas "atsinaujinantis" išvis nebuvo paminėtas nė vienoje iš penkiolikos metinių ataskaitų. Atlikus antrąjį tyrimą, kad terminas "atsinaujinantis" buvo kartą paminėtas vienoje iš dvidešimt keturių metinių ataskaitų. Terminas "neatsinaujinantis" iš viso nebuvo rastas. Tai rodo, kad atsinaujinančių ir neatsinaujinančių išteklių terminologija yra retai   vartojama   metinėse ataskaitose, ir kad naudojamų išteklių analizė nėra atliekama, arba bent nėra pristatoma metinėse ataskaitose. Tačiau tai nereiškia kad Lietuvos didžiosios įmonės priklauso tik nuo neatsinaujinančių išteklių, kadangi analizuotų įmonių sąraše buvo pateiktos žemės ūkio, pienininkystės, baldų įmonės, kurios daugiausia naudoja atsinaujinančius išteklius. Taip pat buvo pateiktos energetikos įmonės, daugiausia naudojančios neatsinaujinančius išteklius, tokius kaip nafta. Taigi, nors yra įvairių įmonių, atsinaujinančių ar neatsinaujinančių išteklių duomenų metinėse ataskaitose nerasta.

Tyrimų rezultatai rodo, kad dėl tam tikros informacijos stokos metinėse ataskaitose verslo darnumo vertinimo modelis turėtų būti supaprastintas ir duomenys, prie kurių negalima prieiti, būtų išbraukiami arba pakeičiami, taip pat kiti informacijos šaltiniai (įmonių svetainės, pranešimai spaudai arba interviu) turėtų būti naudojami surinkti trūkstamą informaciją verslo darnumui vertinti. Tačiau tam tikros informacijos trūkumas suponuoja galimybę atlikti empirinius tyrimus su tam tikrais apribojimais. Moksliniuose tyrimuose įprasta atlikti empirinius tyrimus, kurie dažnai yra apriboti reikalingų duomenų trūkumu. Taigi tolesni empiriniai verslo darnumo vertinimo tyrimai gali būti atliekamii aiškiai nurodant, kokia reikiama informacija nebuvo gaunama atliekant tyrimą.