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ENVIRONMENTAL ACCOUNTING: A REVIEW OF SHAREHOLDERS VALUES AND ASSESSMENT

Onomuhara, O. Godwin
Department of Accounting College of Business and Management Studies,
Igbinedion University, Okada, Nigeria
fgoken2018@gmail.com

Josiah, Mary
Department of Accounting College of Business and Management Studies,
Igbinedion University, Okada, Nigeria

Idogei, S. Omonyemen
Department of Accounting College of Business and Management Studies,
Igbinedion University, Okada, Nigeria

Abstract

Environmental accounting shareholders values is the account that deals the recording, analyzing, summarizing and reporting of the activities of company which have impacts (pollutants) on the immediate surroundings and others environment where the company's products are used and how it affects the shareholders values. most industrial restiveness in the Niger-delta in Nigeria and other parts of Africa are as a result of mismanagement of relationship between the people, profit and plants. This paper review secondary contemporary issues with the objective to examine how Shareholders values are measure/calculated and to show standardization (if any) of environmental reporting and the value of information available to investor. It also evaluate the concept of shareholder's values drivers and to see the advantages and the disadvantages on the shareholders values drivers and how it can encourages positive outputs to the entity and the environment. Having review the papers we recommended that the traditional objective for operation of entity which is to increase the shareholders values can only be achieved through sustainability concept and accurate recording of all levels of involvement of

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environmental activities that resulted in environmental accounting principle. Also that Risk reduction model should be added to the shareholders drivers as key driving force when considering entity profit.

Keywords: Environmental Activities, Risk Reduction, Niger-Delta, Shareholders value, Drivers of Shareholders

INTRODUCTION

The Late 1990's and early 2000's were a turbulent period for the global investment community, with vast amounts of shareholder wealth being created and destroyed. Both multinational, national and retail investors have learned some painful lessons, those lesson lead to shareholders re-examine their assumptions about what constitutes tangible and intangible value, and widen their scope to consider characteristics that can lead to longer-term financial success (Thomas 1997). In the quest to finding solutions to the dragoon that is invading shareholders wealth creation an increased needs for "all" entity to disclose in the annual financial reports the component activities that generates the shareholders' value and their volume of expenditure into the environment sustainability.

Most painful is that, as the environmental financial reporting issues is becoming a fundamental and legal concern in the developed world the developing countries like Nigeria are dodging it this is because according to Iyoha (2010), in the developing countries the concern of shareholders of how efficient a company are is in terms of how much profits are made and how much dividend are paid, without recourse to whether the environment is damaged or not.

Asechemies (1996) noted that the absence of financial data relating to the actions and arrangements on environment in Nigeria is not in accord with the trend in USA, Canada and Europe where entity are required to comply with law governing corporate social conduct on capital expenditure, earnings and competitive position. Infact the upspring of militancy and youth restiveness in Niger Delta of Nigeria is as a result of neglects, and damage of the environment due to excessive crude oil spillage and non-rehabilitation of the used drilled site

However recently environmentalist have drawn the public attention to the hazard of by-products of industrial activities and dumping on waste toxic products in Nigeria especially in the riverine area of Niger Delta which made the federal government to establish the Federal Environmental Protection Agency (FEPA). National Environmental Standard and Regulatory Enforcement Agency (NESREA) for the purpose of monitoring industrial activities as the effect their environment and prescribe the necessary control measure.

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Asechemie (1996) applauded the federal government of Nigeria for established the agency but advised that it should go beyond establishing agency to require by law all organization to repots their scorecards on environment and their social issues, if this is done it will reduce the disruptions in companies operates, kidnapping, accusation and counter accusations of all the ill treatments of host communities.

Iyoha (2004) stated also that the society needs social accounting reports in as much the same way the capital markets require financial information supplied by financial accounting system so that the user of environmental accounting information know whether the entity is financially and environmentally responsible. Environmental accounting is supplement of environmental management accounting (EMA).

Jasch (2002) defined Environmental management accounting as a combined approach that provides for the transition of data from financial accounting, cost accounting and mass balances to increase material efficiency, reduce environmental impacts and risks and reduce costs of environmental protection.

Rappoport. (1996) say that environmental management and accounting can only be accounted for on the bases of what constitute environment management accounting which he called the "Shareholders Values", these values will help evaluate how well entity is fulfilling its social contracts, this will be accomplish if the companies reports it activities in its annual financial reports. However the generally accepted environmental reporting standard for which organization, government and environmentalist shall be adjudged to be true and fair in their reporting is a concern to the accounting professional.

Definitions of Key terms

Environment means the immediate surroundings, use resources and the impact on the nature. The effects of the company operations and the used resource on the surrounding.

Shareholders value here means the value generated by the company for the investor/ shareholders. This include the developments in the company's market value (stock-exchange value) and dividends been paid to shareholders (Austin and Sauer 2001). It is today value of shares of the future earnings that shareholders should expect to receives, most times shareholders value are equate with market capitalization. Market capitalization is financial market estimate of shareholder value however it is different from entity/enterprise value.

Risk Reduction means a model or clear method of calculating risk that will show the cost and benefits of investing in environment, not by forecasting

Niger-Delta is a region in Nigeria where oil and gas reservoirs are located. The region is made up of eight (8) states at of the 32 states that made up Nigeria.

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The objectives of the study

1. To examine how Shareholders values are measure/calculated
2. To show the level of standardization (if any) of environmental reporting and the value of information available to investors
3. To evaluate the concept of shareholder's values drivers and to see the advantages and the disadvantages on the shareholders values drivers and how it can encourages positive outputs to the entity and the environment

This paper shall base it research work on theoretical (conceptual) that are contemporary and comparing developed countries and our developing countries visa-vise our day to day environmental impacts within our close communities.

LITERATURE REVIEW

Conceptual and Empirical Review

Financial disclosure is supposed to be done through a framework called standard are set of rules that governor professional in carrying out their duties. It is the rules that regulates the accountants in the preparing financial reporting. The standard pinpoints the necessary events that should be disclosure when reporting to the financial statements users. It also show in a clear term what to be measure and how those measurement should be quantified monetary.

Timothy and Slaper (2003). in an attend to measure shareholder value came out with the model of "sustainability" by inputting a new framework to measure performance in corporations in America, he came out with accounting framework, called the Triple Bottom Line (TBL), which went beyond the traditional measures of profits, return on investment, and shareholder value to include environmental and social dimensions. By focusing on comprehensive investment results—that is, with respect to performance along the interrelated dimensions of profits, people and the planet—triple bottom line reporting can be an important tool to support sustainability goals. However the challenges of measuring the 3P, is the big question? Even when Profit is measure in terms of naira, what and how do we measure the peoples, how do accountants measure and quantify the environmental lost or gain. All these post a research question in the quest to establish a standard.

Slaper and Hall (2004) stated that another solution would be to calculate the TBL in terms of an index. In this way, one eliminates the incompatible units issue and, as long as there is a universally accepted accounting method, allows for comparisons between entities, e.g, comparing performance between companies, cities, development projects or some other benchmark. An example of an index that compares a county versus the nation's performance

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for a variety of components is the Indiana Business Research Center's Innovation Index. Although there are subjectivity even when using an index. The challenges is how are the index components weighted? Would each "P" get equal weighting? What about the sub-components within each "P" Do they each get equal weighting? Is the people category more important than the planet? How do we measure the 3P using dollars or using an index? If the users of the TBL had personal components interest, mostly in a developing nation like Nigeria where ethnic correlation play major parts in deciding the model of calculation by legislature and economist each sustainability measure would stand alone.

According to US Environmental Protection Agency (1995) Environmental accounting is the Identifying and measuring the cost of environmental materials and activities and using this information for environmental management decision.

Howes (2002) defined environmental accounting as the generation, analysis and the use of monetized environmentally related information in order to improve corporate environmental and economic performance.

Rogers and Roberta (2003), view environmental accounting as way of accounting for natural values gains or lost during gross domestic production in a definite environment but he said that environmental accounting does not only focus on internal and external environment accounting but make environment and financial performance more visible. They discovered in their work that environmental accounting and reporting enhances the quality of decision-making, requiring organization to establish a baseline (standard) of greenhouse gas emissions, energy usage, resource usage and other key environmental indicators. Environmental management and accounting cannot be sustained if there are no model and standard to measure and reports the activities.

This paper is anchor on two key words which are the Company environment, and Shareholder's value and the correlation of them.

Company's Environment: company environment is describe as the immediate surroundings and the nature within the surrounding of which the company carry's out it primary production or service as stated in the goals and objectives of the company. Company environment can be sub-headed into three, which are. The company environmental impact. The company environmental regulations and the company environmental work. These division to is necessary because each one have its peculiar impacts on the shareholders values

The Company's Environmental Impacts. The company's environmental impacts is the effects (Positive or Negative) that the company have on the surrounding both at the production environment and at the end user environment. This impacts can be classified into direct and indirect impacts.

The direct impacts is the consumption of resources as well as the negative emissions from production into the immediate environment. It is therefore paramount for the company to prepare green accounts report in line with the inputs of resources and the emissions and waste as stated by (Austin & Sauer, 2001)

The indirect environmental impacts of the company is the impacts the company will cause through its products outside the company premises. It is the direct impacts that the company products will have on the consumer's environments either through the disposal of the waste after use or the energy the products will consumed in the consumption environments, (Bennett, 2002). Example, Company that produces Television, Refrigerator, Car, Trucks. Can food, Can water and Pure water sachet have energy consumption impacts not on the production environments but on the consumers environment. The environmental impacts of a company is in a large extent determine by what it does, therefore the financial significance of the environment is different from sector to sector.

The Company's Environmental Regulation: this is the amount of regulations that a company is subjects to by the appropriate authorities due to its kind of production or service in an environment. That is the reason in most countries such as Denmark number of company are categorizes as pollution intensive on the basis of the environmental impacts of their production (Repetto and Austin 2001). The type of production will enable the authorities to issue the approvals, restriction, sanctions and reports on annual green account expected from the company.

A company environmental approval depends on numbers of conditions that the company must meet in its production process, some of the condition includes noise restrictions or limitations to emission of different pollutants, these conditions may mean that the company must invest on technology for air or waste water treatment, as well as general environmental legislation on chemical, toxic and waste disposal on unauthorized environments. From the underscore reasons company environmental regulations have direct cost influence on the company investment outlay thereby influencing the shareholders values.

The Company's Environmental Work: The level of environmental impact of a company can be reduced by the appropriate company's environmental works, this can be achieved through legislations and voluntarily deliberate commitments of the company to reduce the impacts by charting its environmental work condition, formulate environmental policy, designed a friendly environmental goals, prepare action plans to achieving those goals and periodically evaluate the plans if they are on cause to achieving the sets goals, the goal may that the company want to improve the environment through cleaning technologies or cleaner technologies. Beside

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However all these work plans influence financial investments which in return affects the shareholders values.

Shareholder's Value. It is the company objective that have shareholders wealth as its highest priority. Shareholders value means try to keep improving the value of the shareholders returns irrespective of the environmental impacts. Rappaport (1986). Refer to it as maximizing the long-term returns to the shareholders of the company, the return must correspond to the development in the market value of the company (stock-exchange price), Shareholders values is today's value of the future earning streams that shareholders may expect. It can be said to be the shareholders' value as the value generated by the company for its investors

Calculation of Shareholders values

The values of entity operation is measure by examining the sales, earning and profitability data generates during the period of the operation. Shareholders values is a conventional investment calculation used to assess financial asset.

In technical terms the shareholders values is mathematically stated as Vsh, it is the discounted net current value of a future free cash flow

$V^{SH} = \sum (n=1)$ VFCF / (1+ i) n-VBC)

Where V^{SH} = Shareholders value

V^{FCF} = is the free cash flow in the n

V^{BC} = is the market value of borrowed capital

i = is the discount rate.

The concept of the shareholders values depend on the expected free cash flow that is used to arrive the value.

Rappaport (1996) came out with his own environment accounting model which is the recording of financial activities from environmental management and analysis, summarized and report to shareholders on the real value of their investment after the environmental cost has be mathematized. Measure the financial involvement in the management of an entity operations in an environment by the used of the free-cash-flow model. The model is as follows

Shareholder value = ∑FCF. 1/(1+i)n-BC

Where;

FCF is the number of cash flow,

n is the number of period,

i is the discounted rate and

BC is the borrow capital.

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Rappaport described Shareholder Value = Value of company (Corporate Value) - debt

Where the value of the company is calculated as follows:

Corporate value = Capital value of the free cash flow in the budget period

+ Capital value of the free cash flow after the budget period

+ Market value of non-operating assets at the start of the period

According to (Elling 1998) the Shareholder Value philosophy, management will choose between alternative strategies in order to maximize the free cash flow and thus the capital value of the cash flow which can be transferred to investors.

There are several ways of deriving the free cash flow

Derivation of free cash flow

Sales	X	
Less: operating costs		(X)
Operating profits		X
Add: depreciation		X
Less: cash tax on profits		(X)
Operating profits after tax		X
Less: investment in fixed capital		(X)
Less: investment in working capital		(X)
Free cash flow from operations		X

Technically, in order for the value of the business to be accurately determined, free cash flow for all future years should be estimated. In practice, however, a short-cut approach can be applied, whereby the future cash flows are divided into two time periods: those that occur during, and those that occur after, an explicit "planning horizon". This can be represented as follows:

Apart from the free cash flow method there are other methods that are used to calculate the shareholders values.

Economic profits (EP). EP approach can be traced back to the work of economist, it is one of the methods which in recent years have become more widespread for management of Shareholder Value. Economic profit describes the surplus earned by a business in a period after the deduction of all expenses, including the cost of using investors' capital in the business. EP shows the financial added value created by a company in a single year. If EP is positive, financial value has been added, while a negative EP means value has been lost.

Madsen and Barslev (2002) EP is composed of three main components:

- Net Operating Profit After Tax (NOPAT)
- Capital invested

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• Weighted Average Cost of Capital (WACC)

Economic Profit is calculated using the following formula:

EP = NOPAT - (Capital invested x WACC)

For example, assume that a company has a net profit after tax (NOPAT) of # 25 million. The question is NOPAT of # 25 million good or bad? This depends on the amount of capital invested and the return required by investors. If, as in example A, investors have a required rate of return of 10 per cent, and they have invested # 100 million, then there is a cost of capital of #10 million. When the cost of capital is deducted from the operating result of # 25 million, the economic value added is # 15 million. Thus the company has been able to make a higher rate of return on the capital than the rate required by the investors. Alternatively, if investors invest #400 million with the same required return, the economic value added will be -# 15 million. Thus, the company does not meet the return required by investors.

The Advantages of EP is that it can be used to evaluate and measure performance, it can also be used to adjust operating profit by adjusting the tax charges the charges will be deducted from cost of capital. EP set targets and track it from the company performance. The target can be reported in the balance sheet through the positive or negative position of the shareholders' value.

Total Business Returns (TBR) is the internal equivalent of the external total shareholder returns it considers capital gains and dividends received by shareholders. It measures the capital gain and dividend yield of a business unit or company plan as if the plan were known by the market or as if the business unit were publicly traded. The approach is claimed to overcome the principal weakness with any short term performance measure including cash flow. EP/EVA as it incorporates the long-term effect on the value of the business of decisions and actions taken in a particular period.

This is because TBR combines the cash flow performance of a business with the change in value that occurred during the period. Effectively TBR represents an internal rate of return measure that equates the beginning value of a business with net free cash flows arising in the period, plus the value of the business at the end of the period. The accuracy of TBR therefore depends upon the accuracy of the valuation of the business at the start and end of the relevant period.

Earnings Before Interest, Taxes, Depreciation and Amortization. (EBITDA) measure and compare net revenue, the resulting profit margin before depreciation. The operating profit margin is one of the seven Value Drivers in Rappaport's Shareholder Value concept, and it is also one of the key figures in the assessment of Shareholder Value. The EBITDA% is calculated

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as the profit before financial items and depreciation divided by the net revenue, and it is expressed as a percentage.

The formula for profit margin is as follows:

$$\text{EBITDA\%} = \frac{\text{Result before financial items and depreciation}}{\text{Net revenue}} \times 100$$

EBITDA% shows how much you can earn on each monetary unit of sales? The relationship between the environment and Shareholder Value is a good concept relating to the environment because it takes a forward-looking accounting view contrary to backward-looking accounting, which is the traditional view

Schaltegger and Figge (2000). Says EBITDA % harmonizes with the company's environmental work where the effect is not usually seen until well beyond the accounting year. It is on the popular view by shareholders that the environment activities are cost imposed on the company through legislation and requirements of different interest groups. However, this report illustrate that environmental actives results in both costs, savings and income and must therefore be controlled as any other financial activity of the company. If managements can incorporates environment affects as a Value Drivers and key figures in order for management to have a decision-making basis.

Relationship between the Environment And Shareholders Values

Shareholders Value is a good concept relating it to the environment because it takes a forward-looking accounting view contrary to backward-looking accounting which is the traditional view (Schaltegger and Figge 2000). This harmonizes with the company's environmental work where the effect is not usually seen until well beyond the accounting year.

For proper accounting the recognitions of financial drivers is the starting point to enhancing the shareholders values in any organization. Rappaport (1986).Examine some drivers which effects of shareholder values which are the conventional investments method used in calculating the financial assets especially shareholder shares and the entity environmental investment, they are as follows.

Investment in fixed assets.

Investment in current assets

Sales, revenue and growth

Financing

Duration of value increase

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Investment In Fixed Assets: Investment in fixed assets can increase or reduce the shareholders values, if the cost of investing in fixed asset especially on the "end-of –pipe" fixed assets which at the short-run are capital intensive but may increase the shareholders' value in long run. They are capital intensive investment that impacts on both the cost of investments and the cost of capital (borrowing).

Investments in fixed assets can be divided into the following groups:

Installation for the remediation of harmful impacts on the environment.

Installations for pollution abatement.

Cleaner technology

Investment for the remediation of harmful impacts assets are meant to remedy contaminated production environment and also to install prevention assets as required by laws in order for the entity to continue its operations in the environment.

Installation for pollution abatement: This is again a huge investment into assets that are used to rehabilitate already contaminated area, end-of-pipe like water treatments, model desulphurization technologies which are highly capital intensive. A common example is the Ogoni cleaning and rehabilitation been embark on by both SHELL Nig and Federal government of Nigeria. It's involved the rehabilitation of the land that had been contaminated as a result of crude oil spillage over a long period on the land.

Cleaner technology: This is a broader concept of fixed assets investment most times it require the company to change the production system to a model and environmental greenhouse friendly technology that reduces the emissions pollutions into the environments,

When these fixed assets investment are huge over and above the cost of capital investment it impacts on the shareholder values negatively

Investments in Current Assets or Current Operating Capital: This kind of investment is investing into the recycling materials that are used for the control, prevention and rehabilitation of the entity production environments. It also includes the environmental accounting software's and hardware's and computer that monitors and the cost of reporting the environment situation and the man power inputs. If the cost of current assets are larger than the revenue generated it impacts negatively on the Shareholders values therefore it requires the investors to carefully understudy the environments to know the economic viability, the environmental regulation cost and the production outputs and sales volume before investment in an environments.

Sales Revenue and Growth: The impacts of the managements on the shareholders values is seen on the growth in the sales revenues, the sales margin is constrain by many variables such as products competitions, suppliers power of bargains and the response, threat from substitute product, marketing mix and the environmental disposition(whether it is customer friendly or it is

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hostile) the volume of sales of products impact on net revenue after the tax and cost of sales which determine the reserve, which will attracts the level of growth in investments.

Financing: The investments into fixed assets, current assets and the growth of the entity as a result of marginal positive sales return which determine the flow of shareholders values are all functions of the financing and the proper management of the cost of financing (capital) or Weighed Average cost of capital (WACC). When an organization net profits is higher than the WACC then the entity creates addition to shareholders value but when net profit is lower than the WACC the shareholders values is at risk line. Most time management's focus more on how to reduce the tangible cost than the risk of intangible cost. Surveys has shown the factors that increase the cost of capital mostly is environmental risk cost which are cost of accident on duty, cost of remedies, cost of rehabilitation, cost of settlement of royalty and restiveness, cost of fines from court suit and production legislature. In most cast the finance providers and insurance companies avert the borrowing to environmental risk company even when they do it attracts high cost of capital.

Duration of shareholders value: The values of a company is shown on the duration of it operations, finance and insurance institutions study company profiles with special remarks to the history of its operation and the possible future forecast of the operation. Rappaport (2002). Says that the Growth Duration Value of a company ranges from 15-20 years, when a company is able to operate in a going concern within that period in an environments then it is assumed to increase its value.

WAY FORWARD

Economic Profit is calculated using the following formula:

EP = NOPAT - (Capital invested x WACC)

This formula shows that returns is positive to shareholders values if the cost of capital is lower than the return on investments, however through accounting smoothening and earnings the shareholder value are always achieved which is the shareholder traditional concept of profit maximization however this accounting manipulation has brought neglect into the environment and reprobate to concept of sustainability. The challenges in this formula in the case of oil and gas sector such as Nigeria where most of the operating companies are multinational, the environmental accounting for conversion of host country money (Naira) to dollar measurements is another research questions. Therefore for accurate environmental accounting practice that will have positive impact on the stakeholders of environmental activities the accounting measurement must be in the host country money value not in dollar because after conversion most multinational hardly break-even.

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CONCLUSION

Environmental management and accounting can only be accounted for on the bases of what constitute environment management accounting which is "Shareholders Values" these values will help evaluate how well entity is fulfilling its social contracts, this will be accomplish if the companies reports it activities in its annual financial reports. However the generally accepted environmental reporting standard for which organization, government and environmentalist shall measure reporting is what is still an accounting challenges, but with the use Total business return (TBR). Economic profit (EP) and Earnings Before Interest Tax Depreciation and Amortization (EBITDA) % the shareholders values drivers and its relationship with the environmental cost can be calculated and fair reporting may be assess by the environmental accounting users and logical management's decision can be taken that can harmonize the cordial working relationship within entity and environments.

RECOMMENDATIONS

The traditional objective for operation of entity is to increase the shareholders values however it is clear that the objectives can only be achieved through sustainability concept, it is the accurate recording of the lever of involvement of entity in the environmental activities that resulted in environmental accounting principle, shareholders values drivers and other method of calculations

However the initial step in any investment process is to determine a company's investment risk, which is based on historical balance sheet date, earnings predictability, and stock price volatility. Understanding a company's risk profile is a critical first step in the investment process, since it determines what we should expect as an appropriate return on our investment based on this facts we recommend that "Risk Reduction Model" should be added to the shareholders drivers as key driving force when considering entity profit. Government should encourage compliance by granting tax holiday to a company that disclose fully its environmental cost and benefits in its annual financial statements not on the Note.

REFERENCES

Asechemies D.P.S. (1996). Elements of Corporate Financial Accounting and Reporting. University of Port Harcourt Press, Port Harcourt.

Austin & Sauer (2001). Changing Oil-Emerging Environmental Risk and Shareholder Value in the Oil and Gas Industry, Washington World Resources Institute

Boston Consulting Group (1996), Shareholder Value Metrics, ShareholderValue Management Series, Booklet.

Collins, J., &Porras, J. (2002). Built to Last: Successful Habits of Visionary Companies. New York: Harper.

Licensed under Creative Common

Elling, J.O., Krogholt H.C & Sorensen. (1998).Ole:"Strategiskregnskabsanalyse"(Strategic Financial Analysis), Denmark Forlaget FSR

Howes, R. (2002). Environmental cost accounting: An introduction and Practical Guide, London, The Chartered Institute of Management Accountants.

Iyoha, F.O, (2010). Social Accounting. An imperative for enterprise development, Nigerian Accountant: 43(1), 4-8

Jasch, C. (2002). The use of Environmental Management Accounting (EMA) for identifying environmental costs. Journal for Cleaner Production. Institute for Environmental Management and Economics, IOW, Rechte Wienzeile Vienna, Austria.

Madsen, A.C., & Barslev, L.(2002).How to create long-term added value - implementation of Economic Profit as a management tool, PricewaterhouseCoopers.

Rappaport, A. (2002). Why competitive advantage and shareholder value dovetail", The Business Times

Rappaport, A. (1999) Creating Shareholder Value: A guide to managers and investors, Free Press, New York.

Rogers K., & Roberta R. (2001). The Triple Bottom Line for Sustainable Community Development Local Environment, 6(3). 276-289

Schaltegger, S. & Figge, F. (2000). Environmental Shareholder Value: Economic Success with Corporate Environmental Management, (29-42). Eco-Management and Auditing nr. 7, John Wiley & Sons.

Timothy, F.,& Slaper, M. (2012). Economic Analysis, Indiana Business Research Center, Indiana University Kelley School of Business.

Thomas A. (2016). Human Resources Accounting, A suggested model for measurement and valuation, Department of Economics, University of Szczecin.

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