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USING OF CBA METHOD FOR EVALUATION OF THE INVESTMENTS IN THE LINK WITH SOCIAL RESPONSIBLE BUSINESS

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Abstract

The paper presents knowledge from the area of economic efficiency assessment of the environmental investments, in the link with environmental management with context of social responsible business and their mutual connection, on the base of CBA method. CBA method creates basis for the software CBA1.1, which was created for the needs of business practise for the small and medium enterprises in the Slovak Republic.

Key words

Economic efficiency, environmental management system, the method of CBA environmental investment, Corporate Social Responsibility, CBA 1.1 software program

Introduction

Managers have to solve no only the operative tasks, they also have to solve tasks join with future of the company. This area contains mainly the questions of long-lasting investments, which can significantly influence the future of the company. This decisions are connected with sustain development of a company and its existence in the market. Reactions of a company on the market needs and the flexibility of a company can influence long-term perspective of the company.

Role of the companies in the society was rapidly changed during the last years. People consider the companies not only as a product and services providers, which only target is maximization of the profit. In the present days one of the condition for the successful company in the long term period is responsible behavior against the society in which the company acts.

However CSR is mainly focused on the satisfaction of needs of all involved sides, we do not forget to focused on the internal environment of a company, on employees, on suppliers and on customers.

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Corporate Social Responsibility (CSR) and Environmental Management

CSR we can consider as a way to the profit growth and as a path to moral and economic development of a company, production enlargement, improvement of production technologies, equipment modernization and growing the satisfaction of all stake holders through qualified, motivated and loyal employees.

Corporate Social Responsibility is the concept of business behavior. According the CSR, companies incorporated social questions and questions joined with environment in to the business activities and also in the relations towards the stakeholders. The implementation of the CSR in the company practice is based on the willingness of the company. Area of the environment offers the space for industrial companies for the penetration of the methods as a CBA and corporate social responsibility. CBA method helps the companies make decision for the investments to the environment and further for they successful realization.

We knows two regulations (3):

1. ***EMS according to international standards of ISO 14001*** represented by the certification standards ***STN EN ISO 14 001 „Environmental Management System".*** „Specification with guidance for use".
   Model EMS is based on performance individual components of the process:
   - Environmental Policy.
   - Planning.
   - Implementation and operation.
   - Controlling.
   - Management review.
2. ***EMAS, rule number. 1836/93 EEC,*** Scheme of systems of environmental management and audits used in the countries of EU (or regulation EÚ č. 761/2001 about the optional attendance of organization in the scheme of environmental management and audit).
   The mutual comparison of EMS (ISO 14001) and EMAS (table 1. below)

DIFFERENCES AND COMMONALITIES ISO 14001 A EMAS (7) Table 1

Scope	STN ISO 14001	EMAS
Management system	contained	Contained
Validity of the types of activities	all types	particularly manufacturing activities
Introduction of system	possibility in some parts or across the enterprises	just across the enterprise
Admission assessment	recommended	mandatory
Register of impact	required	required
Declaration of state of the environment	not required	mandatory
Finishing of process	**certification**	**verified statement of the status of the environment**
The cycle of audit	undetermined	more than three

Method Cost - Benefit Analysis (CBA)

Cost - Benefit Analysis (CBA) is methodical procedure, which gives answer for the basic question: "What the realization of project gives and what the realization of the project takes? " It is the direct comparison of costs and benefits. In the process of CBA should be compare disproportional of costs and benefits.

The sequence of steps in the processing method of CBA

According the Sakál [5] is necessary during the CBA processing, use these four steps:

1. First defining the nature of the project**.**
2. Second definition of the structure of beneficiaries.
3. Describe the differences between investment and zero alternatives**.**
4. Identification and quantification of all relevant *Costs & Benefits (C&B)* for all phases of the project.
5. The allocation of additional „of invaluable" *C&B* and their verbal description**.**
6. Design "-value" F & B cash flows.
7. Setting the discount rate.
8. Calculate the criteria variables.
9. Performing sensitivity analysis.
10. The project the assessed calculated based on the criteria indicators**,** of invaluable effects and sensitivity analysis.
11. The decision on admissibility and financing investment.

According Siebert during the CBA analysis focused on forecasting inputs for calculating of criteria indicators [7]:

a) the present value
b) the net present value
c) Internal rate of return (IRR)
d) The payback period
e) Index return.

Methodology for assessment of efficiency of the social focused projects "CBA"

The specification of the CBA method is on its focused on small and medium companies in the market Slovak Republic. Research made during the solving of dissertation project was focused on wide range of small and medium companies with implemented MES system. In a one hand analytic and synthetic method used during the research brought us the overall view on the current problem of economic efficiency assessment of environmental investment in the Slovak Republic but in the other hand we can also influence it through this method. On the base of the reached results from the dissertation project we are proposed the methodic which is described on the figure below.

Proposal of methodology for assessment of the economic efficiency of environmental investment consists of 5- phases Figure 1.

This program was created for the needs of MSP for elimination of the manual work with the complicate calculations of criteria indicators during the method „CBA". The program is able to eliminate of complicated work with calculations, mistakes during the complicated

calculations and give a possibility for comparison of project variants on the base of various inputs:

- ***Cash flow***
- ***Profits and lost***
- ***Ratio***

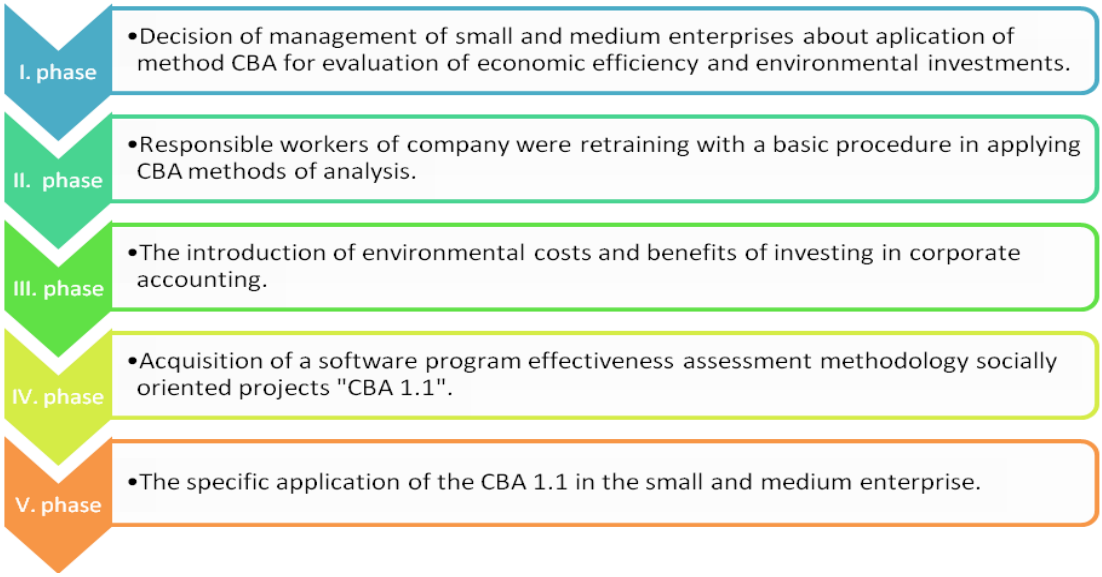

Fig. 1 *Proposal of methodology for assessment of the economic efficiency of environmental investment*

At the figure 2 is the first page of the program CBA1.1., which is entrance to CBA program.

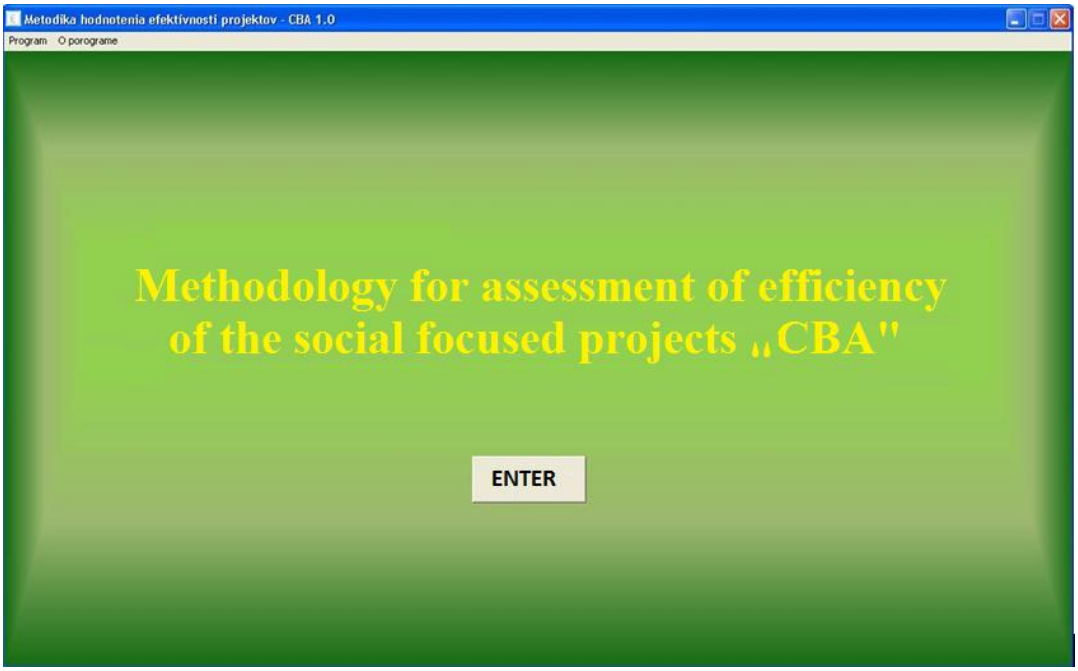

Fig. 2 *The first page of the program CBA 1.1*

Discussion

Advance of the CBA is its systematic process, which we are able to use successfully during the each project and also we can utilize CBA with full range of its theoretical and methodical potential for scanning of company finance system, on the base of definition of all effects of the company cash flow.

For the calculation and evaluation of criteria indicators during the investment project is necessary to enter the relevant data in to the dialog windows.

Advantages of program CBA 1.1:

- Speed and exact calculation of the criteria indicators
- Eliminate the manual calculations
- Further benefit is possibility to calculate the project on the base of three ways of data input ***(cash flow, profit and lost, ratio)***
- ***Complex summary of alternatives,*** assessment of the project on the base of the opportunity of the three ways of data inputs allows the user compare the calculation through the criteria figures.
- Comparison give us the feedback and information about the input data.

Conclusion

The main principle of the CBA 1.1 program is its speed and exact calculation for the calculating of the criteria indicators. The program eliminates the manual calculation of assessment of economical efficiency of environmental investments. The second benefit of CBA program 1.1 is possibility of project calculation of the three bases data input. (Cash flow, profit and lost, ratio). The CBA program usage can significantly influence the speed of managerial decision making. The program can provide relevant and clear information.

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