

## AN ENVIRONMENTAL PROTECTION AT THE ENTERPRISE LEVEL

MARCELA KOŽENÁ<sup>1</sup>

**ABSTRACT.** An environmental protection is one of the global goals of mankind nowadays. An sustainable development strategy is a new direction of an evolution that has to be used especially at a level in witch most of the environmental weight arise – in the companies. There was used a method of marketing audit for an evaluation of the company's approach to an environmental protection that identifies a level of strategy of sustainable development application in internal and external company environment. This method was verified on the complex of Czech chosen companies.

**Key words:** sustainable development, strategy, key factors, verification, entrepreneurial environment.

### 1. Introduction

A problem of progressive exhaustion of unrecoverable natural resources, deficiency of energy, degradation of biosphere and also destruction of an environment belong among present global problems. The causes of environmental degradation were some unmanaged results of the scientific and technical revolution and economical growth whose results were above all mass production of different wastes [1]. New mode of development that offers a solution of this situation is a sustainable development that considering ecological tolerability of planned and realized activities.

### 2. A sustainable development

A sustainable development doesn't mean the stoppage of economical growth because a problem of poverty and retardation is not possible to solve without economical growth. In fact it requires less dependence on unrecoverable sources and more intensive utilise of energy. In the beginning, an English term "a sustainable development" was translated to Czech language like "continually sustainable development". In last years in view of the fact that it is not possible to assume the evolution of the society and because of a fear of too dogmatic ideas it is used rather shorter version "a sustainable development". A term "development" in Czech language is expressed by two expressions [2]:

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<sup>1</sup> Ing. PhD, Faculty of Economics and Administration, University of Pardubice, Czech Republic, marcela.kozena@upce.cz

- An evolution, evolutionary stage; it expresses qualitative dimension of the notion.
- A growth, growing season; it presents rather quantitative sign for examination of the environment.

A sustainable development represents complicated concept that shows mutually influenced areas and factors of evolution and progress – environment, social development and economical progress. Within a dimension of environment it is necessary to protect above all natural resources for obtaining an energy and foodstuff's production that are evidently conflicting goals because omission of their protection nowadays should mean dramatic lack in future. In social development division a strategy of sustainable development requires a stabilization of population because present rate of population growth lays significant claim for natural resources and for the possibilities of individual economic systems. From this point of view, a sustainable development means to prefer a development of a country, restrict a migration to the towns and develop new technologies that should minimize an influence of urbanization on environment. Also economic dimension of sustainable development is very important. There exist great differences among living conditions of individual countries in a world measure. Above all, especially developed countries have special responsibility for an implementation of a sustainable development strategy because these countries have available financial means and human and technical resources that are necessary for its realization.

A concept of sustainable development creates also new space for entrepreneurial sphere. State legal provisions regulate companies' behaviour with an aim to stop next degradation of environment. These provisions also determine specific scope within the companies must operate if they want to prosper in long term. On the other hand, a strategy of sustainable development creates very important opportunity for an entrepreneurial sphere [3]. Thank to this opportunity, the companies can raise their competitiveness so they will comprehend environment like one of their strategic goal and its principles entrench to all corporate' activities [6].

### **3. An application of a sustainable development strategy on a company level**

#### **3.1. A methodology for identification of a sustainable development application in a company**

An application of environment protection instruments and their successfulness depends on the fact if a sustainable development strategy was implemented to all companies' activities. It also means that this application must be respected already at reconstruction of a company strategy and its projection to the companies' goals. A dimension of external and internal company surrounding is very important for a selection of a optimal variation. Company management should know the strategic intensions of the competitors and the management should be informed about requirements of the present and potential customers and a management also should

implement them to its strategic conceptions. Intimate knowledge of a macro surrounding enable management to react timely on the state legislative requirements, respect demographic and social influences in its conceptions and it is not possible to omit the tendencies and signals from the world markets [5]. These are the reasons why the marketing audit method was chosen for the finding of a sustainable development application on a company level. This marketing audit method verifies in which scope and quality the companies secure the environment protection in relation to their internal and external surroundings around them.

Solution procedure [4]:

1. Determination of the key factors for application assessment.
2. Evaluation of these factors by the mathematic methods (fixing of the weight, relative frequencies, equations).
3. Verification of the methodology in the complex of selected companies.
4. Results of the research, evaluation.

### 3.1.1. A determination of the key factors for assessment of a sustainable development application

As I already stated, the key factors were determined to two or three levels: on a level of internal company environment, on a level of external company environment that is further divided into micro and macro environment.

**Table no. 1**

**Strategic areas and key factors of an environment protection in a company**

Monitored areas	Key factors	Variable
Internal environment	strategic conception of the company, management and owners, marketing, research and development, finance, human resources and the level of business management	X1, X2, X3, X4, X5, X6
External microenvironment	markets, distributions, suppliers, customers, competitors, public	Y1, Y2, Y3, Y4, Y5, Y6
External macro environment	policy and legislation, world economy, demography and lifestyle	Z1, Z2, Z3
Total		X + Y + Z

The answers of the specialists from selected companies were used for evaluation of these factors in a questionnaire like this:

- answer a) 2 points,
- answer b) 1 point,
- answer c) 0 point.

### 3.1.2. Evaluation of these factors by the mathematic methods

The relative frequencies were calculated and weights were fixed to respect the influences of individual factors.

**Table no. 2**

**A determination of the relative frequencies and weights**

Key factors (X, Y, Z)	Maximal score (MS)	Relative frequencies (RF)	Weights (W) (1/number of factors) / RF	X, Y, Z = W * RNP <sup>2</sup>
X1	6	0,1302	1,2803	
X2	8	0,1736	0,9603	
X3	12	0,2604	0,6402	
X4	8	0,1736	0,9603	
X5	8	0,1736	0,9603	
X6	4	0,0868	1,9205	
<b>Total</b>	<b>46</b>	<b>1</b>	<b>X =</b>	
Y1	4	0,20	0,8335	
Y2	2	0,10	1,6667	
Y3	2	0,10	1,6667	
Y4	6	0,30	0,5557	
Y5	4	0,20	0,8333	
Y6	2	0,10	1,6667	
<b>Total</b>	<b>20</b>	<b>1</b>	<b>Y =</b>	
Z1	6	0,3750	0,8888	
Z2	6	0,3750	0,8888	
Z3	4	0,2500	1,3332	
<b>Total</b>	<b>16</b>	<b>1</b>	<b>Z =</b>	

The companies were divided into four groups according to the results from written interviewings and also from the quantification of individual answers. The level of the sustainable development application in the companies will be evaluated in these four groups.

**Table no. 3**

**Percentage intervals for evaluation of a sustainable development on a company level**

o. Int.	Percentage extent	Point extent of the intervals				A level of a sustainable development application in a company
		X	Y	Y	Sum	
1.	100 - 75	<46,00 - 34,5>	<20,00 - 15,00>	<16,00 - 12,00>	<82,00 - 61,50>	Above-average state from a point of view of a sustainable development application
2.	74 - 50	<34,49 - 23,00>	<14,99 - 10,00>	< 1,99 - 8,00>	<61,49 - 41,00>	Good state, an assumption of improvement

<sup>2</sup> RNP – real number of points in selected companies

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3.	49 - 25	<22,99 - 11,50>	<9,99 - 5,00>	<7,99 - 4,00>	<40,99 - 20,50>	Below-average state, an assumption of radical provisions
4.	24 - 0	<11,49 - 0>	<4,99- 0>	<3,99 - 0>	<20,49 - 0>	Bad state from a point of view of a sustainable development application

**Note:** The intervals were stated for an evaluation of a sustainable development in internal company environment, in external micro and macro company environment. The companies were classified to the intervals according a point evaluation.

### 3.1.3. Evaluation of sustainable development strategy in chosen Czech companies

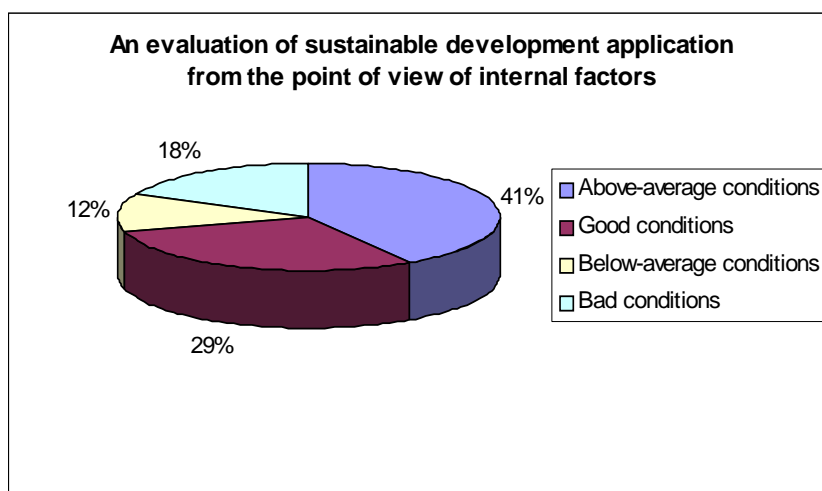
An evaluation of sustainable development application of individual companies is in following tables and charts:

**Table no. 4**

#### An evaluation of sustainable development application of the companies from the point of view of internal factors

Variable X	Number of companies	% of selected
<b>Above-average conditions</b> from the point of view of sustainable development application	7	41
<b>Good conditions</b> , there are presumptions for improvement	5	29
<b>Below-average conditions</b> , it requires radical provisions to improvement	2	12
<b>Bad conditions</b> , an sustainable development application is not used	3	18
<b>Total</b>	17	100

From a table no.4 you can see that 41 % of the companies show above-average conditions and 29 % of them show good conditions from the point of view of sustainable development application. This reality is very favourable and it shows that entrepreneurial subjects are interested in environmental protection and that they start with its realization firstly in internal company environment.



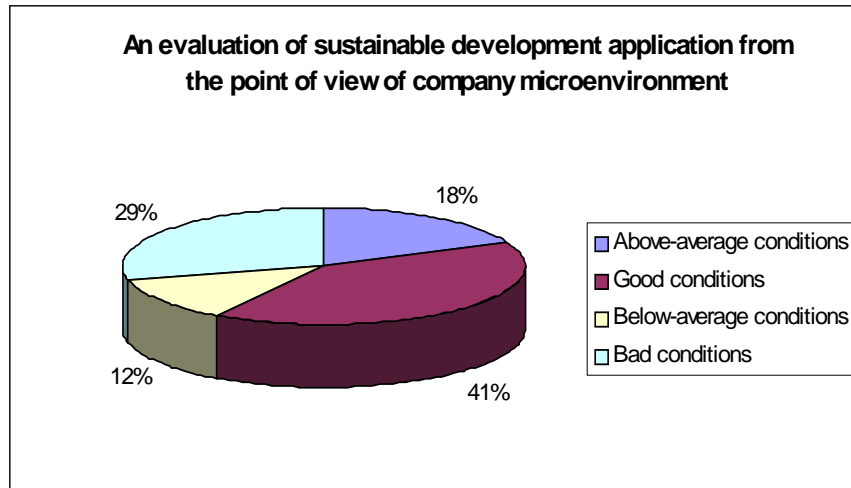
**Chart no. 1.** An evaluation of sustainable development application of the companies from the point of view of internal factors

**Table no. 5**

**An evaluation of sustainable development application from the point of view of company microenvironment**

Variable Y	Number of companies	% of selected
<b>Above-average conditions</b> from the point of view of sustainable development application	3	18
<b>Good conditions</b> , there are presumptions for improvement	7	41
<b>Below-average conditions</b> , it requires radical provisions to improvement	2	12
<b>Bad conditions</b> , an sustainable development application is not used	5	29
<b>Total</b>	17	100

The situation from the point of view of company environment is altogether positive even if 41 % of the companies show “only” good conditions with the presumptions for improvement and 18 % show above-average conditions. Unfortunately, there is relatively high percentage of companies that show bad conditions. The reason can be insufficient communication among companies and their customers, suppliers and competitors.



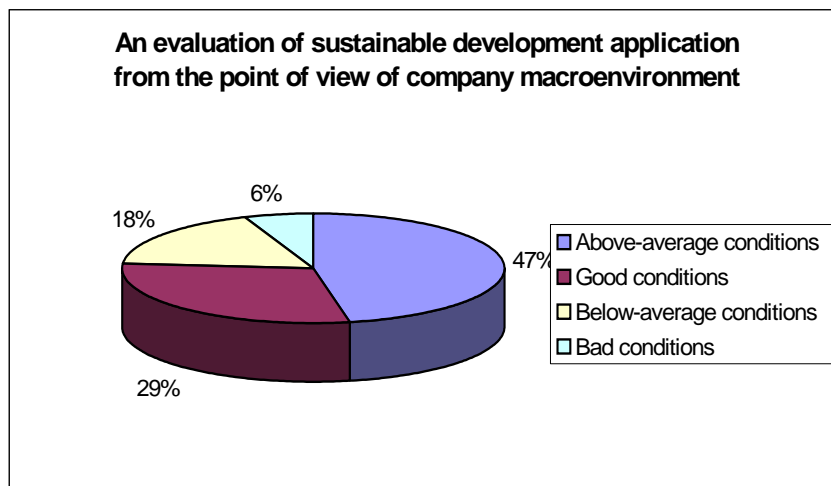
**Chart no. 2.** An evaluation of sustainable development application from the point of view of company microenvironment

**Table no. 6**

**An evaluation of sustainable development application from the point of view of company macro environment**

Variable Z	Number of companies	% of selected
<b>Above-average</b> conditions from the point of view of sustainable development application	8	47
<b>Good conditions</b> , there are presumptions for improvement	5	29
<b>Below-average conditions</b> , it requires radical provisions to improvement	3	18
<b>Bad conditions</b> , an sustainable development application is not used	1	6
<b>Total</b>	17	100

Table no. 6 shows an evaluation of companies from the point of view of company environment. This chart states that 76 % of the companies show good till above-average conditions from the point of view of sustainable development application. The reasons probably are that the companies follow and utilize current norms and provisions in their company management. Even companies realize some voluntary activities to environment protection.

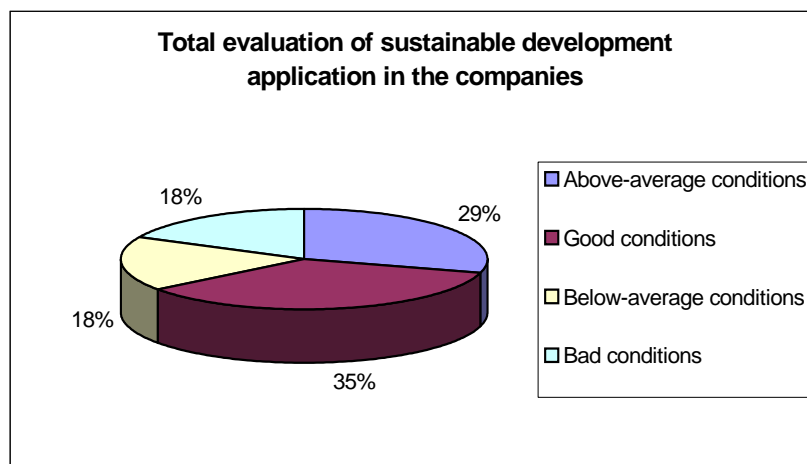


**Chart no. 3.** An evaluation of sustainable development application from the point of view of company macro environment

**Table no. 7**

**Total evaluation of sustainable development application from the point of view of company microenvironment and company macro environment**

Total environmental competitiveness	Number of companies	% of selected
<b>Above-average conditions</b> from the point of view of environmental competitiveness	5	29
<b>Good conditions</b> , there are presumptions for improvement	6	35
<b>Below-average conditions</b> , it requires radical provisions to improvement	3	18
<b>Bad conditions</b> , a company is not environmentally competitiveness	3	18
<b>Total</b>	17	100



**Chart no. 4.** Total evaluation of sustainable development application in selected companies

A sustainable development application is also evaluated positively. Most of them (35 %) reach good conditions that have the presumptions for improvement. Even 29 % reach above-average conditions that mean that the companies respect current legislative instruments in the environment protection division and also them in advance implement their own initiatives in environmental protection. The companies do that by their strategic conceptions.

#### 4. Conclusion

The aim of this article was to propose an methodology that could be used for evaluation of a strategy of sustainable development application on a company level. A method of marketing audit that is focused on evaluation of company strategy in relation with environmental protection on a company level was chose especially for these reasons:

- This method is complex and also it is focused on internal company environment, external microenvironment and external macro environment.
- This method follows present conditions and forecast future development.
- Individual strategic spheres are connected.
- The key factors of evaluation are quantifiable.
- This method is applicable in the condition of Czech industry environment.

A verification of this methodology documents a practical technique at a sustainable development application on a company level. From a research (executed within an verification) follows that the companies which the most participate in environmental pollution try to rectify this reality. These companies utilize the provisions that prevent and at least eliminate an environmental pollution. An

evaluation of sustainable development application in the companies was performed in co-operation with executives of marketing and ecological divisions of the companies that participated on fulfilment of the questionnaires about evaluation of companies' attitude to the environmental protection. Companies' interests in results of research show positive management approach to the voluntary environmental activities. The aim of these activities is to prevent environmental damages.

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