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To be or not to be a business responsible for sustainable development? Survey from small Czech businesses

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ABSTRACT

Sustainable development is influenced by the activities of both large businesses and small- and medium-sized businesses. The aim of this article is to identify the attitude of small businesses to sustainable development. The article presents the results of empirical research among managers of small businesses in the Czech Republic. A multi-criteria decision-making method (analytic hierarchy process) was used for the evaluation of relationship of these managers to sustainable development. A benefits, opportunities, costs and risks approach was applied for the structuring of the elements. The significance of the individual elements has been detected using Saaty's method. Three alternatives were formulated about the benefits to be a business that is interested in sustainability development. It was identified that the alternative, 'it is advantageous to be business interesting in sustainability development' is the most preferred. On the other hand, it was also identified, that managers will be responsible for sustainability development and their attitude must bring them benefits. This article contributes to the fulfilment of the research gap in the field of research related to small businesses and their surroundings. Identified impacts can be used for practical creation of conditions which would further encourage small businesses to take a proactive approach to sustainability development.

1. Introduction

The mutual linkage between phenomena concerning 'sustainable development' forces organisations, businesses and individuals to carefully economise their activities and to consider the responsibility (or the lack thereof) of their behaviour in the future. Such a trend is inevitable if we are to face the growing complexity of sustainability challenges.

There are many definitions of sustainable development. This research has accepted one which first appeared in 1987: Development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Our Common Future, 1987).

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It is generally accepted that sustainable development calls for a convergence between the three pillars of economic development, social equity, and environmental protection.

People concerned about sustainable development suggest that meeting the needs of the future depends on how well we balance these three pillars when making decisions today. Sustainable development has also gained currency in the private sector in the form of the corporate social responsibility (CSR) agenda.

While the concept is widely accepted, and sustainable development has been adopted as a desirable goal by many institutions, governments, businesses, and NGOs, the term sustainable development suffers from definitional ambiguity or vagueness. Although, the dominant view of governments and businesses is that sustainable development represents continued economic growth, the facts that it made it more environmentally sensitive in order to raise living standards globally and break the link between poverty and environmental degradation has to be taken into consideration. Economic growth is seen as a part of the solution, and markets and technology will produce a richer world, which is more ecologically stable (Hopwood, Mellor, & O'Brien, 2005).

In this article we will focus on the sustainability of development in terms of economic interests of a business. We reflect on the question if a small business can (or wants to) contribute to sustainable development. Is sustainable development attractive to business? Does a business take sustainable development into consideration? Indeed, the primary aim of any business is to produce profit.

1.1. Why small businesses?

This research focused on the owners or managers of small businesses. In accordance with Recommendation 2003/361/EC, the European Commission defines small firms as a firm with a fewer than 50 employees and a turnover/balance sheet total no greater than €10 million (European Commission, n.d.).

Why have been small businesses selected as an object for this research? Two basic reasons have been identified. Firstly, a responsible approach to the surroundings must be understood as a fundamental part of the competitiveness. This approach does not concern only large businesses. These ideas must be integrated into the activities of small and medium businesses as their economic growth has an increasing impact on air or soil pollution, etc. As the impact of small businesses on the environment increases, there is a need for effective environmental policies in order to sustain their development (Bazsová & Křížová, 2011). Under this condition, also small businesses must implement innovation to meet environmental regulations and to achieve environmental competitiveness in sustainability (Staňková, 2014). These activities are often very expensive.

Secondly, small businesses are often under-capitalised, often do not have the resources to ensure the operational running of the processes, etc. (Borbás, 2015). Therefore, short-term goals may prevail, interest in sustainable development can be pushed into the background of the purely economic reasons (lack of capital) (Mikušová, 2013).

On the basis of these assumptions, a research gap was identified and the objective of the research was established. The aim of the research is to find out the interest or willingness of small businesses' managers on the impact they might have on their surroundings, i.e., on sustainable development, and under what conditions.

2. Research objective

The article is based on the results of research conducted in the spring of 2015 regarding small businesses. The objective of this part of research was to determine what factors (elements) influence the attitude of small business managers on the issue of sustainable development.

Then the aim of this part of research is to find the answer to the question: To be or not to be a business which is responsible for the sustainable development?

The following alternatives were formulated:

- *A1: proactive approach to sustainability is advantageous for business*
- *A2: it is irrelevant whether business is proactive or not* (in relation to sustainability)
- *A3: proactive approach to sustainability is disadvantageous for business* (it diverts from the fundamental objective, i.e., from profit).

Simultaneously the evaluation of the significance of factors is done. Based on the evaluation most preferred alternative was identified. To accomplish these objectives, it was necessary to carry out empirical research on a representative sample of businesses, process the data and perform their interpretation.

3. Theoretical background – literature research in the field of business and sustainability relationship

It can be said that more and more organisations are taking responsibility for the future. Nevertheless, the following question comes to mind: Is a business actually responsible for sustainable development or is the concept merely in fashion right now?

The author believes that businesses are becoming more responsive towards and act with sustainable development in mind. It is a fact that many businesses contribute towards sustainable development only for as long as it is convenient. They cannot be blamed, as they do so to the detriment of their financial interests (Woo, Chung, Chun, & Seo, 2014).

The relationship between business and sustainable development is mainly focused on environmental protection (Bornstein & Davis, 2010). Research on environmental programmes are focused on understanding business motivations to adopt environmental initiatives (Sroufe, 2003). These initiatives especially include environmental management systems (EMS) and international environmental management standard ISO 14,001.

Research on business and environment focuses mainly on identifying a positive link between environmental care and profitability (Starik & Marcus, 2000). Davidová (2015) argues that green strategies enhance competitive advantage by attracting aware consumers. Also Žabkar, Čater, Bajde, and Čater (2013) argue that building competitive advantages through sustainable development is from the managerial perspective an appropriate environmental strategy. This argument can be connected to another, for example that new green technologies could allow business to increase the productivity (Majumdar & Marcus, 2001).

According to Chen (2014), companies understand the importance of monitoring and managing their environmental impacts and aim to integrate, with a consistent quality control, effective reduce-reuse-recycle programmes and risk prevention systems. Many businesses become eligible to be 'green' certified by constructing an integrated sustainable business and implementing development measures in order to meet environmental standards (Elkington & Hartigan, 2008). Companies may also consider recognising global views

on sustainability while following the best local practices (Borbás & Kadocsa, 2010). An integrated sustainable business with a development system in place involves the following practices (Miklošík, Hvizdova, & Žák, 2012): talent management, sustainable supply chain, strategies for effective resource leveraging, implementing social responsibilities, initiating innovative programmes for recycling, reducing and reusing, advancing its leaders' perceptions towards sustainability, reducing innovation barriers and engaging sustainable practices strategically.

On the other hand, studies on the link between environmental and financial performance show conflict (King & Lenox, 2002). This may be caused by difficulty of assessing the causality between financial and environmental performance or by the difficulty of measuring environmental and financial performance (Margolis & Walsh, 2001). Valackienė & Micevičienė focus on the interaction between the CSR and the performance of the sustainable business. They highlight the shift from the pure stakeholder's perspective of maximising profits to introduction of enterprise – level interventions in promoting socially responsible business.

Other streams of research identified additional motivations for business proactive behaviour. Vokounová, Korčoková, and Hasprová (2013) point out the role of government, media and environmental groups. The organisational psychology theory also provides contributions to this research. Researchers from this point of view highlight the way how top managers' beliefs and values influence corporate environmental management (Winn & Angell, 2000). Entrepreneurial behaviour in this way is also affected by the lifestyle of managers and firm owners (Jaouen & Lasch, 2013).

Responsible corporate behaviour is associated with the term 'business ethics'. According to Horváthová, Černek, and Kashi (2014) there are still many managers, businessmen, students and people who have doubts about the legitimacy of business ethics, including responsible behaviour, and they consider it as unreal and illusory in the market environment.

There are not many empirical studies about the access of small businesses to sustainable development, however we can mention, for example Chell (2007) who suggests that the definition of entrepreneurship might be modified to include the creation of 'social and economic value' and may thus be applied to both private, entrepreneurial ventures as well as social enterprises. De Clercq and Voronov (2011) focused on the balance between sustainability and small businesses profitability.

The study presents a different view on the relationship between sustainability and profitability and provides results from this area.

4. Process of research and methodology

4.1. Empirical research process

The managers of small businesses were chosen as the respondents for the research process. It was no surprise that in most cases they were also the business owners. The participants were selected randomly from all Czech regions. The Chamber of Commerce has provided contacts under the required parameters (see Table 1). Five thousand subjects were contacted electronically. Finally, 1050 respondents took part in the survey (Table 1).

The factors that influence the attitude of small business managers on the issue of sustainable development were identified using brainwriting. Respondents electronically submitted a summary of their ideas describing their views on sustainability development and relevant factors.

Table 1. The structure of respondents – the most frequented features.

Number of respondents	1050
Number of employees	30–50 (35%)
Annual return	CZK10m–20m (€360,000–720,000) (52%)
Business operates in: services/production	services (58%)
Business operates in the market (number of years)	10–20 years (78%)
Owner holds a high executive position	86%

Source: Author's research.

Relevance of each complaint was filtered in collaboration with top level executives and experts from environmental management. Opinions were aggregated into four groups: benefits, opportunities, costs and risks (BOCR). Saaty and Vargas (2012) call them BOCR merits.

A list of this aggregated summary was forwarded to all the participants for further comments, additions or exclusions. The final list of factors was made by the adaptation of their comments. The final summary has been elaborated so that it is short and comprehensible for further processing.

Another step was an evaluation of importance of each factor. For this purpose, Saaty's method was used by the respondents. For further processing of the obtained evaluation, final matrices were made by the median. Elements were inputted into the final matrix in order to identify the preferred alternative. The preferred alternative was identified by the application of the method analytic hierarchy process (AHP). After identifying the preferred alternative, a conclusion of a research project was elaborated.

4.2. Methods

Brainwriting. The 'brainwriting method' was preferred to 'brainstorming' for the identification of factors that influence the attitude of small business to sustainability. The basic version of brainwriting was used, which means everyone was working on their own (Heslin, 2009). The reason for choosing this method was primarily organisational. Respondents come from a variety of regions and it is not possible to work with them collectively. The method was therefore adapted to the situation.

Saaty's Method. Saaty's method was used for the treatment of obtained information. In this method, all the pairs are compared and the evaluation criteria are stored in the so-called Saaty matrix $\mathbf{S} = (s_{ij})$, where i, j = 1, 2, …, n. The elements of the matrix are interpreted as the estimates of the proportion of i-th weights (w_i) and the j-th (w_j) criteria (Saaty, 2009):

$$s_{ij} \approx \frac{w_i}{w_j} ; i, \, j1, \, 2, \, \ldots, n \tag{1}$$

$s_{ij} \in \{1/9; \, 1/8; \, 1/7; \, 1/6; \, 1/5; \, 1/4; \, 1/3; \, 1/2; \, 1; \, 2; \, 3; \, 4; \, 5; \, 6; \, 7; \, 8; \, 9\}$

The comparison determines whether one criterion is preferred to another but also to what extent. Saaty (2009) recommends the use of the 9-point scale.

Saaty's matrix $\mathbf{S}$ is a square matrix of $n \times n$ (number of criteria), for whose elements *s* the relationship is valid:

$$s_{ij} = \frac{1}{s_{ji}}; i, j = 1, \, 2, \ldots, n \tag{2}$$

Thus the matrix **S** is reciprocal. Before calculating the importance of criteria, it is necessary to verify that the specified matrix of paired comparisons is mathematically consistent.

Degree of consistency can be assessed in different ways, one of them is the consistency index (*CI*) defined as follows:

$$CI = \frac{(\lambda max - n)}{(n - 1)} \tag{3}$$

where λ_{max} is the largest eigenvalue of the matrix **S** and *n* is the number of criteria.

The appropriate consistency index is called random consistency index (*RI*). Comparison between consistency index (*CI*) and random consistency index (*RI*), or in formula

$$CR = \frac{CI}{RI} \tag{4}$$

is called consistency ratio (*CR*).

The matrix **S** is sufficiently consistent if the consistency ratio $CR \leq 0.1$. Calculation of significance from Saaty's matrix can be done in several ways. The default (Saaty's) procedure is based on calculating the eigenvector matrix *v* in accordance with the following formula:

$$S \times v = \lambda_{max} \times v \tag{5}$$

where λ_{max} is the largest eigenvalue of the matrix **S**.

One of the simpler frequently used methods is the determination of weights using a weighted geometric average of decision matrix **S** rows. By normalising these averages we get approximate importance of criteria w_i, by the following formula:

$$w_i = \frac{\left[\prod_{j=1}^{n} s_{ij} \right]^{\frac{1}{n}}}{\sum_{i=1}^{n} \left[\prod_{j=1}^{n} s_{ij} \right]^{\frac{1}{n}}}; i, j = 1, 2 \cdots, n \tag{6}$$

where *n* is number of criteria, *s* are the elements of Saaty's matrix **S**, where $s_{ii} = 1$, $s_{ij} = 1/s_{ji}$, $s_{ij} \in \{1/9; 1/8; 1/7; 1/6; 1/5; 1/4; 1/3; 1/2; 1; 2; 3; 4; 5; 6; 7; 8; 9\}$.

Method of Analytic Hierarchy Process. Saaty's method of significance determination is the basis for decision-making method AHP. The hierarchical structure of the AHP process is a linear structure containing several levels each of which comprises several elements. Individual levels of hierarchical structure correspond to the arrangement from the general to the specific. The highest level of the hierarchy contains only one element, which is the goal of the evaluation, the lowest level represents individual variants (alternative) solutions (Figure 1).

The first step after hierarchical structuring is *pairwise comparison* using Saaty's method. Pairs of decision elements at each criterion are compared with respect to their importance. The criteria themselves are also compared pairwise with respect to their contribution to the objective (goal). Pairwise comparison is performed in the framework of a matrix. At first a supermatrix of influence (i.e., unweighted supermatrix) is computed for each criterion. In this matrix *local priorities* for each element within its criterion can be identified. Local priority determines the importance of the element within its criterion.
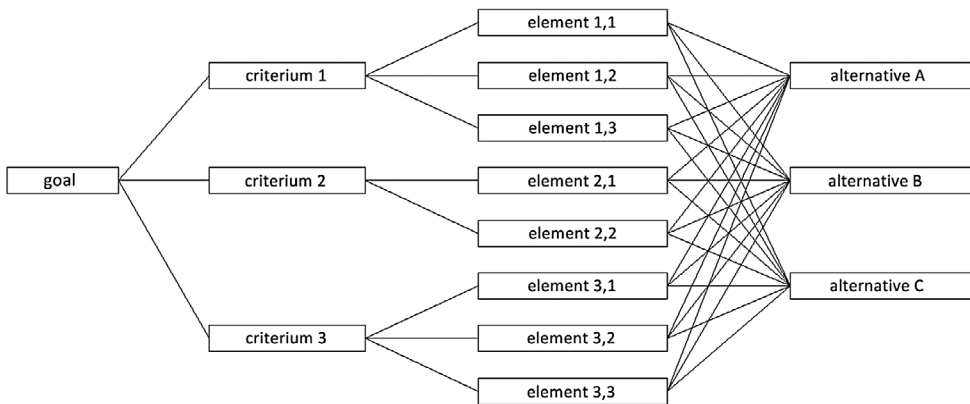
Figure 1. Hierarchical structure of the AHP. Source: own processing.

Next step is to obtain *global priorities*. The local priority vectors are entered in the appropriate columns of a matrix in the position based on the flow of influence from one criterion to another. Finally, each of these supermatrices is weighted by the priority of its control criterion and the result are global priorities identified in weighted supermatrix. Global priority delivers more valuable results than local priority because it determines the importance of the element within the overall system (all criteria). A standard form for a supermatrix is as shown in expression (7):

$$W = \begin{bmatrix} W_{11} & \cdots & W_{1k} & \cdots & W_{1n} \\ \vdots & \vdots & \vdots & \vdots & \vdots \\ W_{tk1} & \cdots & W_{kk} & \cdots & W_{kn} \\ \vdots & \vdots & \vdots & \vdots & \vdots \\ W_{n1} & \cdots & W_{nk} & \cdots & W_{nn} \end{bmatrix} \tag{7}$$

where W is default supermatrix, W_{11} up to W_{nn} are matrix that represent the impact of the criteria on each of the alternatives.

Raising a matrix to exponential powers gives the long-term relative influences of the elements on each other (Yüksel & Dağdeviren, 2007). This new matrix is called the limit supermatrix. After these steps the selection of the best alternative can be done. The alternative with the largest overall priority in the normalised limit supermatrix should be selected, as it is the best alternative as determined by the calculations made using matrix operations.

The Benefits, Opportunities, Costs and Risks. Every decision is influenced by favourable and unfavourable or positive and negative elements. Saaty (2009) created four groups for these elements. The favourable or positive elements are centralised in a group called *benefits* while the unfavourable or negative ones are centralised in a group called *costs.* The uncertain elements of a decision are positive *opportunities* that the decision might create and the negative *risks* that it can cause. Saaty (2009) refers to the four groups as BOCR merits, having used the initials of the positive ones (benefits and opportunities) and negative ones (costs and risks). The outcome of the alternatives for each of the BOCR structures can be synthesised, to obtain their overall synthesis. Saaty (2009) suggests two expressions for

synthesising the composite priorities with the use of weights that allow accounting for differences in relative importance of the factors from a personal view, multiplicative and additive. In this research following additive expression is proposed (Wijnmalen, 2007):

$$w_b \times B_p + w_o \times O_p - w_c \times C_p - w_r \times R_p \qquad (8)$$

where B_p, O_p, C_p, R_p are normalised overall priorities of the alternatives on benefits, opportunities, costs and risks; w_b, w_o, w_c, w_r are normalised weights for each of the criterion.

Sensitivity analysis (SA). Uncertainty is one of the primary reasons why sensitivity analysis is helpful in making decisions or recommendations (Pannell, 2015). In presented research sensitivity analysis can give information such as: how robust the preferred alternative is in the face of different elements values; under what circumstances the preferred alternative would change (identifying critical values, break-even values where the preferred alternative changes, identifying sensitive or important variables, e.g., elements, developing flexible recommendations which depend on circumstances).

5. Research outcomes

The main objective of this research is to determine the attitude of managers of small businesses to sustainability development. In accordance with established research goals the results follow.

5.1. Benefits, Opportunities, Costs and Risks

The first task is finding the answer for the question:

What factors influence the attitude of small business managers on the issue of sustainable development?

Factors identified under brainwriting were in cooperation with the respondents classified into four groups: Benefits, Opportunities, Costs and Risks. Classification of individual factors into groups is following.

Benefits: good image as a responsible business; the owner of modern technology/machines/other assets (also intangibles); knowledge of latest technologies, procedures.

Opportunity: greater competitiveness (by new technologies, techniques, procedures); grow into other countries; actively participate in sustainability, in shaping the future.

Cost: financial: costs of assets for environmental activities (new technologies, assets, IT); social: staff education and training for new technology operating, to a responsible approach to sustainability; operational: costs of evaluation of the environmental and other relevant activities impacts.

Risk: financial: costs will be higher than benefits; social: failure to meet the expected benefits for the sustainability (wasted costs); economic: jeopardising the quality of production (due to greater attention to sustainability activities emphasis on other issues, including the quality is less).

The breakdown of factors, using the method of AHP, is shown in Figure 2.
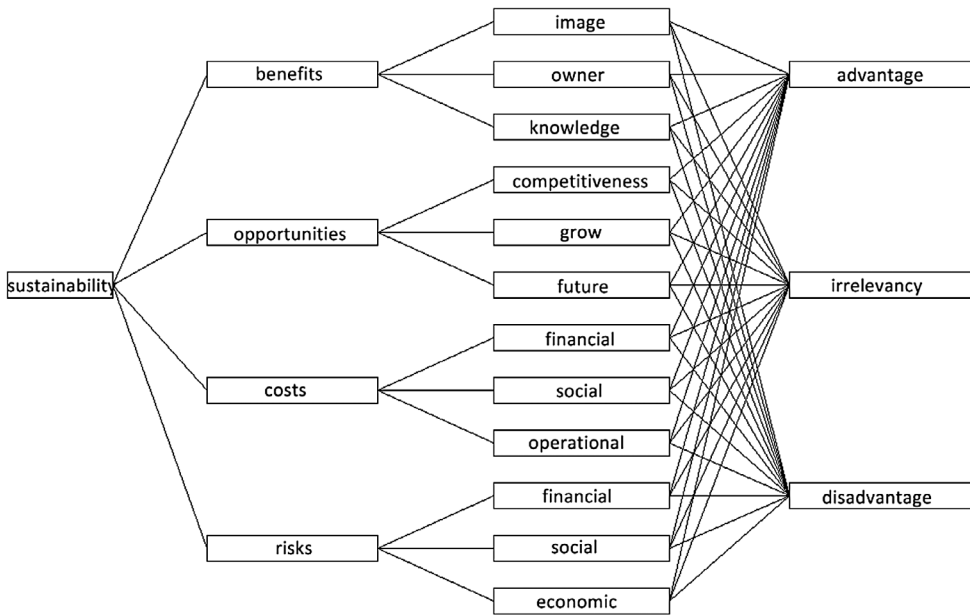
Figure 2. Breakdown of factors using the AHP method. Source: own processing.

5.2. Pairwise comparison of the significance of criterion and elements in the AHP/ BOCR frame

After identifying the individual elements and their inclusion in one of four groups the evaluation of their significance is followed.

The respondents assessed groups of elements at first and second level using Saaty's method to determine which factors are the most valuable for decision to be or not to be proactive business and take care about sustainable development. Since this is a frequency problem median was used for the final matrix creation. The following text focuses on the results obtained from these final matrices, which are also presented in graphical form. In this part, *local significance* is identified (see unweighted supermatrix).

5.2.1. Paired comparisons of the first level (criteria)

Saaty's final matrix is presented in the Table 2.

For better clarity, the weights are shown graphically (Figure 3) and the results are commented.

It is evident that managers consider especially risk and costs associated with a proactive approach to sustainable development. Despite the large difference, however, it can be noted that the positive aspects – opportunities and benefits reached a relatively large representation. Costs and risks can be put into context with the lack of capital to ensure the normal operation and development of the business, possibly with difficult conditions to obtain additional capital.

Table 2. Paired comparisons of the first level (criteria).

	Benefits	Opportu- nities	Costs	Risks	Geomean	Weights w	$S \times w$	$(S \times w)_i / w_i$
Benefits	1	2	1/4	1/4	0.5946	12.45	0.5266	4.2298
Opportunities	1/2	1	1/2	1/4	0.5000	10.47	0.4477	4.2764
Costs	4	2	1	1	1.6818	35.21	1.4781	4.1980
Risks	4	4	1	1	2.0000	41.87	1.6875	4.0301
					4.7764	100.00	$\lambda_{max} =$	4.1836
					$RI=$	0.900	$CI=$	0.0612
					$N=$	4	$CR=$	0.0680

Notes: geomean = geometric mean; w = Saaty's weight vector (%); w_i = i-th element of vector w (weight of i-th criteria in %); λ_{max} = the largest eigenvalue of the matrix S; RI = random index; N = number of criteria; CI = consistency index; CR = consistency ratio (≤ 0.1).
Source: Author's research.
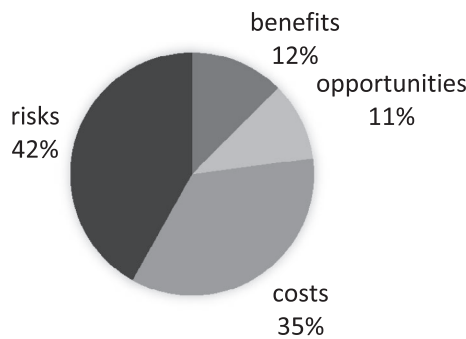
Figure 3. Paired comparisons of the first level. Source: own processing.

5.2.2. Paired comparisons of the second level (elements)

Factors at the second level are captured in Saaty's final matrices (Table 3, 4, 5, 6) and Figures 4, 5, 6 and 7.

Paired comparisons of the second level – *Benefits* (Table 3, Figure 4):

Ownership of new technologies, techniques, intangible assets, etc. is clearly a favoured factor in the criterion 'benefits'. It is gratifying that the factor 'good image' is evaluated as the last, but still can be seen that managers recognise the importance of having a good reputation.

Paired comparisons of the second level – *Opportunities* (Table 4, Figure 5):

Increasing competitiveness in domestic market is the highest evaluated opportunity. It is evident that economic interests are primary for managers. Opportunity to actively participate in sustainability and in shaping the future has the same rating as the ability to grow into other countries. Managers therefore prefer to be successful in domestic markets against the possibility of an existence in international markets. It is understandable for small businesses. The representation of factor 'shaping the future' can be considered as high and the access of small business to the environment and sustainability should be appreciated.

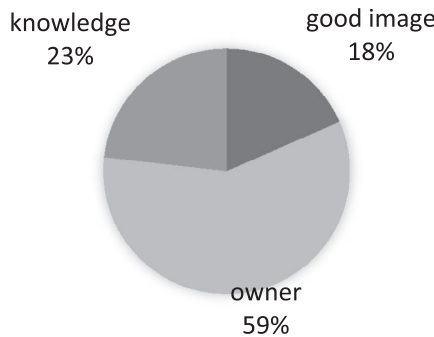Paired comparisons of the second level – *Costs* (Table 5, Figure 6):

The costs associated with the purchase of new technologies, assets, IT, etc. are the most important cost factor. This is expectable for small businesses. Managers are aware of the

Table 3. Paired comparisons of the second level (elements) – *Benefits*.

Benefits	Image	Owner	Knowledge	Geomean	Weights w	$S \times w$	$(S \times w)/w_i$
Good image	1	1/4	1	0.6300	18.40	0.5619	3.0534
Owner of assets	4	1	2	2.0000	58.42	1.7838	3.0533
Knowledge	1	1/2	1	0.7937	23.18	0.7079	3.0539
				3.4237	100	$\lambda_{max} =$	3.0539
				RI=	0.580	CI=	0.0268
				N=	3	CR=	0.0462

Notes: geomean = geometric mean; w = Saaty's weight vector (%); w_i = i-th element of vector w (weight of i-th criteria in %); λ_{max} = the largest eigenvalue of the matrix S; RI = random index; N = number of criteria; CI = consistency index; CR = consistency ratio (≤ 0.1).
Source: Author's research.

Figure 4. Paired comparisons of the second level (elements) – Benefits. Source: own processing.

Table 4. Paired comparisons of the second level (elements) – *Opportunities*.

Opportunities	Competitive-ness	Grow	Shaping	Geomean	Weights w	$S \times w$	$(S \times w)/w_i$
Competitiveness	1	2	7	2.4101	65.16	2.2387	3.4357
Grow into other countries	1/2	1	1/2	0.6300	17.03	0.5852	3.4363
Shaping the future	1/7	2	1	0.6586	17.81	0.6118	3.4351
				3.6987	100	$\lambda_{max} =$	3.4363
				RI=	0.580	CI=	0.2178
				N=	3	CR=	0.0375

Notes: geomean = geometric mean; w = Saaty's weight vector (%); w_i = i-th element of vector w (weight of i-th criteria in %); λ_{max} = the largest eigenvalue of the matrix S; RI = random index; N = number of criteria; CI = consistency index; CR = consistency ratio (≤ 0.1).
Source: Author's research.

costs of educating and training the staff to learn to operate new technology as well as the fact that the education of responsible approach to sustainability is often underestimated. The cost burden associated with the evaluation of the environmental and other relevant activities impacts are considered the least restrictive.

Paired comparisons of the second level – *Risks* (Table 6, Figure 7):

Managers are most concerned about jeopardising the quality of production (economic factor) and the possibility that costs will be wasted and, that they will not achieve the expected result (then the question is whether to be or not to be proactive businesses in
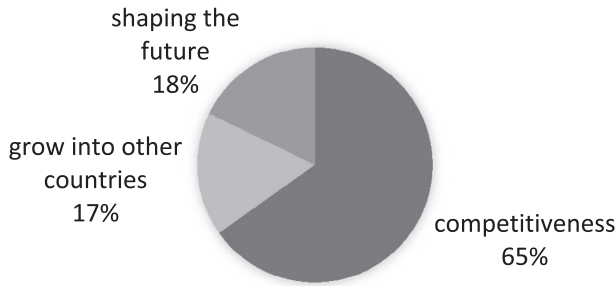
Figure 5. Paired comparisons of the second level (elements) – Opportunities. Source: own processing.

Table 5. Paired comparisons of the second level (elements) – *Costs*.

Costs	Financial	Social	Operational	Geomean	Weights w	$S \times w$	$(S \times w)/w_i$
Financial	1	5	7	3.2711	73.96	2.2292	3.0141
Social	1/5	1	2	0.7368	16.66	0.5021	3.0138
Operational	1/7	1/2	1	0.4149	9.38	0.2828	3.0149
				4.4228	100	$\lambda_{max} =$	3.0149
				RI=	0.580	CI=	0.0071
				N=	3	CR=	0.0122

Notes: geomean = geometric mean; w = Saaty's weight vector (%); w_i = i-th element of vector w (weight of i-th criteria in %); λ_{max} = the largest eigenvalue of the matrix S; RI = random index; N = number of criteria; CI = consistency index; CR = consistency ratio (≤ 0.1).
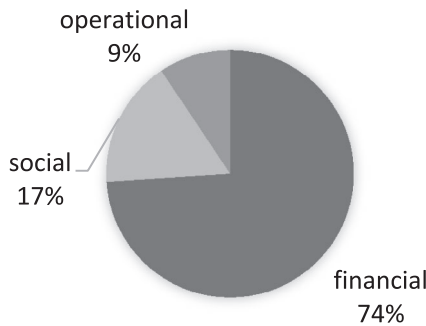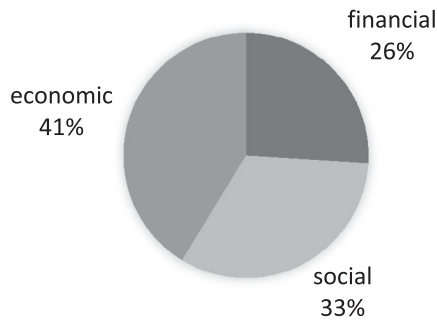Source: Author's research.

Figure 6. Paired comparisons of the second level (elements) – Costs. Source: own processing.

Table 6. Paired comparisons of the second level (elements) – *Risks*.

Risks	Financial	Social	Economic	Geomean	Weights w	$S \times w$	$(S \times w)/w_i$
Financial	1	1	1/2	0.7937	25.99	0.7937	3.0527
Social	1	1	1	1.0000	32.75	1.0000	3.0534
Economic	2	1	1	1.2599	41.26	1.2599	3.0536
				3.0536	100.00	$\lambda_{max} =$	3.0536
				RI=	0.580	CI=	0.0268
				N=	3	CR=	0.0462

Notes: geomean = geometric mean; w = Saaty's weight vector (%); w_i = i-th element of vector w (weight of i-th criteria in %); λ_{max} = the largest eigenvalue of the matrix S; RI = random index; N = number of criteria; CI = consistency index; CR = consistency ratio (≤ 0.1).
Source: Author's research.

Figure 7. Paired comparisons of the second level (elements) – Risks. Source: own processing.

Figure 8. The evaluation of alternatives (AHP/BOCR). Source: own processing.

relation to sustainable development). However, for the managers the decision to be proactive in relation to sustainability and the possibility that costs will be higher than benefits has the least significant.

5.3. The preference of alternative

These results were found using software Criterium Decision Plus (n.d.). The preference of alternatives in terms of synthesising the outputs of all elements of the network was obtained by normalisation of the values. Total outcome of this part of research, i.e., the overall synthesised priorities for the alternatives is presented in Figure 8.

It was found that managers slightly tend to the alternative 'take a proactive approach to sustainable development' (weight 0.376). This attitude, however, does not differ much from the position that it is 'irrelevant to be proactive business' (weight 0.368). The third alternative (it is a 'disadvantage to be proactive') was assigned the lowest value (value 0.256) (see Figure 8 and Table 7).

5.4. Matrices for the evaluation of the elements influence on the alternatives

The presentation of individual factors in the individual alternatives is shown in Table 7. Selected outputs from matrices (unweighted, weighted, limit) are presented there.

In the line 'Local weights' weights of the significance of individual elements within their criteria are placed. In the line 'Model Weights (global weights)' the weights of the significance of individual elements within the whole model are presented. In the last three

Table 7. Criterion, elements and alternatives (AHP/BOCR).

Criterion/priority	Rating set (elements)	Local weights	Model Weights(global weights)	A1 advantage	A2 irrelevancy	A3 disadvantage
Benefits0.125	owner of modern technology	0.584	0.075	0.540	0.297	0.163
	good image	0.184	0.024	0.715	0.187	0.098
	knowledge	0.232	0.030	0.400	0.400	0.200
Opportunities0.104	competitiveness	0.652	0.070	0.691	0.149	0.160
	shaping the future	0.178	0.019	0.584	0.232	0.184
	grow into other countries	0.170	0.018	0.540	0.297	0.163
Costs0.352	costs of assets	0.740	0.264	0.443	0.387	0.169
	social: education and training	0.167	0.059	0.571	0.286	0.143
	costs of the evaluation	0.094	0.033	0.400	0.400	0.200
Risks0.419	costs will be higher than benefits	0.260	0.106	0.413	0.327	0.260
	social: wasted costs	0.327	0.134	0.149	0.474	0.376
	economic: jeopardising the quality	0.413	0.168	0.059	0.471	0.471
	preferences of alternatives	–	Σ1.000	0.376	0.368	0.256

Source: Author's research.

columns, the division of the significance of each element in the different alternatives is presented. Creation of the limit supermatrix from these values can lead to the preferences of the individual alternatives.

For example: Under the criteria 'benefits', element of the highest importance is 'owner of modern technology' with a value of 0.584. In the context of the whole model significance (overall weight) is reduced to 0.075.

In the *weighted* matrix two elements are significantly predominant (Figure 9). These elements should be given a lot of attention when deciding and managing. These elements are 'costs of assets' and 'jeopardising the quality'. If the 'cost of assets' is the most important from negative elements, then the property of assets ('owner of modern technology, etc.') is the strongest positive element. Risk factors are assessed as relatively balanced. The data shows that managers are more cautious and consider the risks. Managers give priority to the domestic market, against the possibility of expanding into foreign markets.

5.5. The evaluation of the BOCR criteria influence on the alternatives

The following values were obtained using the software Criterium Decision Plus. The data from Table 7 are converted by a preference for alternatives.

Managers who see the advantage that their business is proactive in the connection with sustainable development mostly consider COSTS associated with sustainability activities (43%). In alternatives 'irrelevant' and 'disadvantageous' RISK factors prevail (Figure 10).
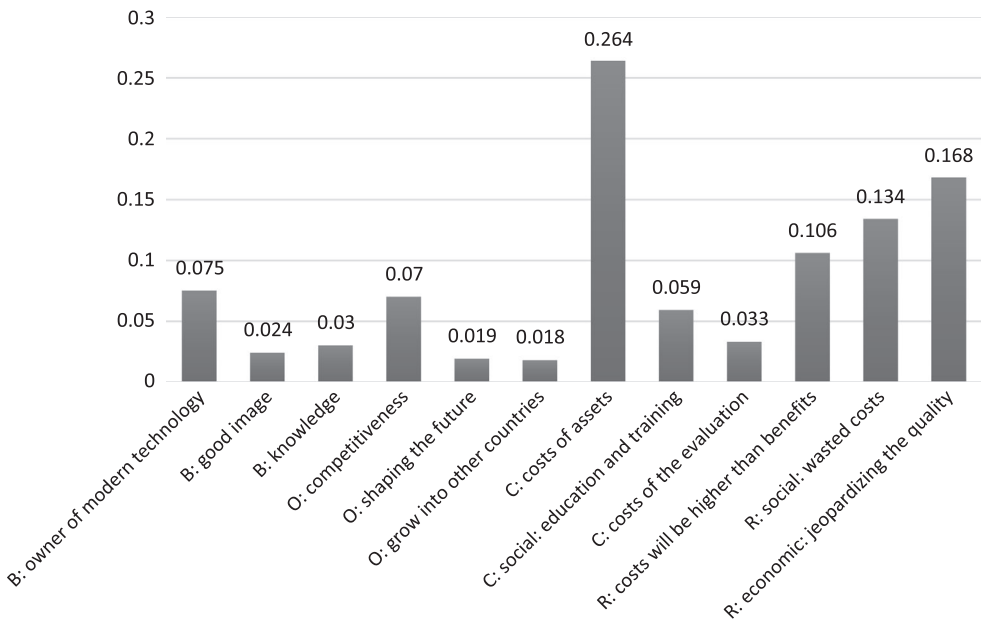
Figure 9. The evaluation of the influence elements (weighted matrix) – global impact. Source: own processing.
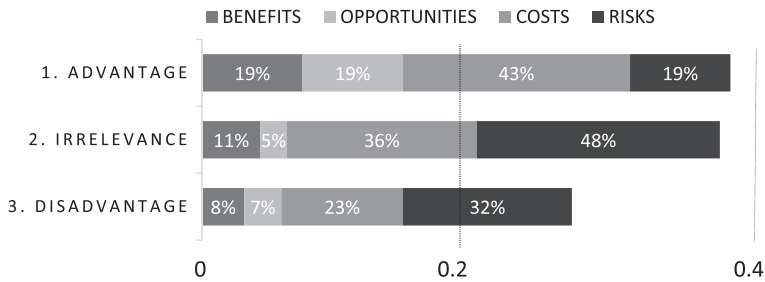
Figure 10. Contribution to the goal (selection of alternatives) from level 1 – BOCR criteria. Source: own processing.

5.6. Sensitivity analysis

To watch sensitivity of influence of the individual elements on the various alternatives is not interesting only from a research perspective. For requirements of practice, break points can be obtained from the sensitivity trends to determine choice between alternatives (see the white circle in the following figures). Knowledge of the trend also allows to influence the monitored elements which ultimately positively affect the relationship of businesses to sustainability development.

In the Sensitivity Analysis, it can be determined the sensitivity of the preferred alternative to changes in the criterion (elements) weights, or ratings values. Critical changes in the weights or ratings are those that cause a change in the preferred alternative and are those with which it should be most concerned. The x-axis represents the range of values over which the most critical weight is varied, and the y-axis represents the decision score. At the intersection of the priority value line and the alternatives lines, the decision score that is currently calculated for each alternative can be seen.

Cost of assets. The following picture shows the sensitivity of change of the various alternatives to change of element 'cost of assets' for environmental activities (Figure 11). These costs are the element with the greatest importance. The plot presents potential development of the individual alternatives.

From the Figure 11 it is evident that alternative A3 (disadvantage) will always have the lowest preference among alternatives, whatever the significance of element 'cost of assets' will be (between 0 and 1). With the growing significance of the monitored element, the value of preference of alternative A1 (advantage) decreases. Preference of alternative A2 (irrelevant) gradually increases. Break point is marked with a white circle. From this point the preferred alternative would be an alternative A2 (irrelevant).

6. Findings for discussion and future research recommendations

A brief summary of the results obtained in this part of the empirical research will be presented and commented on now.

The greatest importance in deciding whether to be pro-active business are the costs of acquiring new facilities, technologies, processes, etc. necessary for environmental activities. Managers are most afraid that if they focus on sustainability activities, it will affect negatively the level of quality of the product because they do not have as many resources as before (time, finance, human resources, etc.).
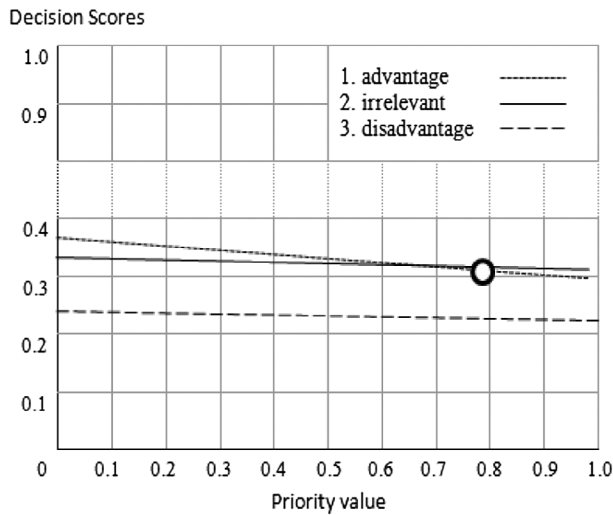
Figure 11. Sensitivity plot: costs of assets. Source: own processing.

Becoming an owner of modern machines, technology and other assets is considered the greatest benefit. Managers see the biggest opportunity in development of local competitiveness of their business. Element with the lowest value of the significance is the acquisition of opportunities to penetrate foreign markets.

Alternative A1 has the highest rating, but is only slightly higher than the A2 alternative. *Thus respondents are not quite sure whether responsibility for sustainable development is advantageous or irrelevant.*

The limitation of presented research can be considered relatively small number of elaborated elements that influence the managerial decisions. Larger number of elements could bring more multifarious results. On the other hand, there would be the risk that the respondents would be overwhelmed with information. Therefore, increasing contribution in this way could be disputable. A relatively simple method AHP has been used for the elaboration of data. The method is comprehensible and it brings relevant results. Its disadvantage is that it only compares elements within one criteria group. It does not take into consideration the fact, that the elements can influence or be influenced by elements from different criteria group. We will be dealing with these limitations in further research. In order to either confirm or reject presented results, either the method ANP (analytic network process) or other multiple criteria decision-making method will be used. For future research, it seems appropriate to execute comparative study in small businesses, not only in post-communist states. It could be interesting to find if the attitude of small entrepreneurs, in Germany for example, is different. The attitude towards the sustainable development is a part of wider framework of CSR. Specific indicators within the CSR can be determined for its monitoring and evaluation. Its creation and definition can be an inspiration for future research.

7. Conclusion

For businesses, sustainability is a powerful and defining idea: a sustainable corporation is one that creates profit for its shareholders while protecting the environment and improving

the lives of those with whom it interacts. It operates so that its business interests and the interests of the environment and society intersect (Mikušová, 2014). A sustainable business stands an excellent chance of being more successful tomorrow than it is today. Increasingly, businesses are expected to find ways to be part of the solution to the world's environmental and social problems. The best businesses are finding ways to turn this responsibility into an opportunity (Scofield, 2011).

The aim of the article was to explore the relationship between small business and sustainable development. On the basis of literary research, the conclusion has confirmed that: Managers of small businesses are interested in sustainable development, but their activity is dominated by economic interests. Small businesses are willing to participate in the activities of sustainable development, but prefer shorter-term benefits and expect economic benefits from these activities. The position of small businesses toward sustainable development was followed up by empirical research. Based on the evaluation of the data, it can be stated that small businesses managers recognise the importance of environmental protection and other activities related to sustainable development.

The finding, that the respondents are not completely certain if taking the responsibility for sustainable development is advantageous or irrelevant for the business (both alternatives have almost the same evaluation), is significant.

Identified research results also have practical implications: Accept the first variant, support the attitude of small entrepreneurs towards understanding their responsible behaviour for the future can be a challenge not only for themselves, but also for public institutions that can support this development not only from the educational view but especially from the economic view. It can be stated that the basic issue is to influence the diversion of small business owners from shorter-term benefits. This can be partially helped by public awareness and education. The role here is played not only by the state but also by various industries, guilds, entrepreneurial associations, nonprofit organisations such as Business Leaders Forum, Business for Society and the Czech Business Council for Sustainable Development, etc.

However, owners of small businesses, who very often have to deal with insufficient operation capital will be most interested in the economic incentives.

The significance of the element with the highest negative impact (costs connected with acquiring relevant assets) can be decreased by state policies aimed especially at small businesses and for a given area. For example, it would deal with providing grants for purchasing ecological equipment, investment incentives for green businesses, tax relief, providing loans or credit with low interest rates for relevant equipment, grants for salaries for selected positions, free consultant's services, arranging cooperation with experts, etc. All the above mentioned interventions will influence the impact of the most important risk element and will support the growth of the significance of the strongest positive element (ownership of mentioned assets).

The researcher's results comply with the conclusions of other research. The following examples can be mentioned: Cagnazzo, Tiacci, and Rossi (2014) also state that small business efforts towards sustainable development are closely related to their economic interests. Davis and O'Halloran (2013) highlight that small- and medium-sized enterprises tend to prioritise short-term financial and economic incomes rather than long-term social gains.

The lack of finance and experts is a problem not only for Czech small businesses. These barriers in sustainable development were also identified in small- and medium-sized

enterprises in the US (Natarajan & Wyrick, 2011). Pertaining to the state institutions' functions, according to Fernández-Viñé, Gómez-Navarro, and Capuz-Rizo (2013) Public Administration (PA) is a key stakeholder in sustainability development. PA could better use its tools to stimulate small businesses to improve their eco-efficiency. Among these tools we can name well known 'command and control' tools, such as legislation or taxes, but also price policies, green procurement, ecological education, eco-innovation support and others.

Despite project result the position of alternative A1 can be seen as the most convincing for the businesses, that there are benefits deriving from being a responsible organisation. Such organisations contribute to the sustainability of development on a wider scale while being competitive and sustainability aware (Epstein, 2008). Those links are realised by more and more businesses. Seeking to be responsive towards the future should become a strategic asset in business.

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