



IMPORTANCE OF ENVIRONMENTAL SUSTAINABILITY FOR BUSINESS SUSTAINABILITY

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ABSTRACT:

Social and environmental issues that are imposed on companies in contemporary business in the upcoming period will turn out to be a great challenge for all economies. Environmental protection becomes an essential precondition for gaining the sustainable competitive advantage and integral part of proactive managing of companies. New tendencies in businesses have significant impact on the need for building stronger relationships and partnerships with all stakeholders which creates the complex entity, with the common goal of achieving a global impact on all aspects of human life. The research presented in this paper was carried out in Russia and Serbia. It is about attitudes of employees over the business' justification of implementation of the environmental activities within the new business agenda called "sustainability". For the collection of data, the structured questionnaires are used and data analysis was conducted by applying SEM (Structural Equation Modeling) methodology. Results show that environmental activities implemented as a part of sustainable management positively influence the parameters of companies' success.

Keywords: environmental protection, company's success, sustainability

INTRODUCTION:

Relationships in modern business are permeated with principles of ethics through social security, justice and equality with the permanent aspiration to the high level of welfare. But, these commitments are, in some way, imposed on companies by society because the foundation of economic development is tightly connected to the people and the environment. Many companies strive to generate profit and by increasing the well-being believe that they fulfill their responsibilities to society and the environment. However, acting in this manner is not necessarily environmentally sound and doesn't guarantee business success in the long run. The exhaustion of vital natural resources, accelerated consumption of goods, limited success in the attempts to

close cycles of energy and materials flow, increasingly damage the environment. Sustainability is the issue that connects awareness of necessity for long-term economic development with controlled influence on people and the environment. "The people" should be understood as workers, consumers, suppliers, shareholders, community, etc., that significantly influence the abilities of a company to function now as well as in the future. "The environment" stands for a climate systems, living condition and habitats, energy systems, resources depletion and availability and consumption in the manner that enables economic prosperity and earth's general health.

This paper explores how environmentally responsible governance influences the sustainability. It presents an empirical analysis of the state of implementation environmentally responsible and sustainable activities in companies in Russia and Serbia from the employees' point of view. Therefore, what has been explored, are companies that voluntarily accepted the environmentally responsible operating by implementing the measures for decreasing the negative environmental impact and how those activities influence the company's results.

The main question is according to the opinion of employees, whether the measures for mitigating the negative influences on environment affect the parameters that mean the long-term success of a company, namely, whether the environmental sustainability provides the business sustainability?

MODEL ASSUMPTIONS:

In definitions of sustainable development and their interpretation, there are a lot of varieties. The most common elements appearing are the meeting the needs of stakeholders without jeopardizing the future while fulfilling the economic goals, contributing to society and preserve the environment. Sustainability also defines a business model that encompasses many elements of companies' performances whit contribution to environmental and social progress. Sustainability is set as a multidimensional concept most precise defined by the United Nations that is implemented through taking in concern the three main pillars - environmental, social, economic. Other definitions basically converge to this fundamental definition with three pillars.

An important role in achieving the sustainability of a business is played by environmental protection. Generally speaking, the environmental sustainability should have the long-term perspective taking into account the evolution of business systems and feedback, the necessity to be flexible and adaptable, with constant attention to the local and global condition and respecting the living nature end biological diversity.

In the new business agenda sustainability becomes the new strategic direction of many companies. Also, seems to become growing managerial trend to include the sustainability in decision making. This is due to the emerging necessity for strategic managing the relationships with stakeholders and more severe demands from surrounding concerning the environmental issues. Also, many international organizations and governments emphasize that protecting the environment is an essential precondition for the aforementioned social justice and economic

development. Therefore, there are numerous signs of the companies' willingness to exceed the frames of their normative duties and to proactively put the efforts towards improving environmental conditions.

Company's dedication to environmental protection often goes beyond the legal requirements or, even, solving the problems caused by the company itself. By voluntarily implementing the activities on protection and improving natural surroundings, environmental sustainability becomes an integral part of strategic planning. Environmental sustainability synthesizes the economic growth and environmental protection in the way that means investments in resources saving and natural capital preservation with achieving benefits from the development of new cleaner sustainable technologies and production. Many authors dealing with this topic pointed out that besides financial benefits, intangible performances originated from spending financial resource for environment protection lastly worth the efforts.

The proposed parameters for evaluation of the environmental sustainability can differ dependently of institutions or scholars. For this research the concrete activities of the companies had been chosen for evaluation: the energy performance, using renewable energy source, product and process lifecycle assessment, maintaining the integrity of ecosystems through the efficient management of natural resources etc.

The production has a great influence on the environment due to the utilization of various natural resources, unused residues and waste. To alleviate environmental burden caused by operations, companies plan optimization of all stages of the product lifecycle including transportation and electricity generation. Lifecycle assessment assumes bearing in mind all phases from material extraction to disposal, and in the terms of sustainability, the environmental impact and possibilities for improvements in design and manufacturing that reduces it. Considering the theoretical framework following hypothesis can be defined:

H1: Dedication of companies to environmental protection cause increased implementation of measurements for decreasing the environmental impact.

Some authors don't believe that the most efficient way of achieving the sustainable business success goes through the managing the environmental consequences of operations and satisfying the needs of society. According to others, sustainability is a valuable approach that improves the competitiveness of the company. Companies that stand for environmentally responsible are more preferable as business partners because they gain higher profit and create greater value for different stakeholders. Also, the image of the company is improving resulting in positive market reaction to the company's environmental performance.

The adoption of environmentally sustainable initiatives often causes the change in product pricing and demand. The studies showed that consumers responses on the environmental performance of the company were positively correlated. The need for managing environmental impact often results with investments in innovations and generate the cleaner processes and products that are more desirable for customers. Preferences of the consumers are often directed to “green products” because they are perceived as of better quality therefore the demand depends on the manner of performing manufacturing activities and, although this aspect is often neglected, the modeling of the sustainable supply chain. Furthermore, placement of product before competitors and using resources more efficiently increase the company’s delivered value and decrease costs.

Striving to create value for all stakeholders through the development of ecological products, optimization of the production process using renewable energy sources and recyclable materials can result in increasing the awareness especially among consumers over the environmental responsibility of the company and influence their decision about loyalty to the company. In accordance with previous statements following hypothesis is been set:

H2: Implementation of measurements for decreasing the environmental impact positively influence the success and sustainability of company.

In order to address the mentioned questions and evaluate the hypothesis, based on reviewed literature, the following model was proposed, Figure 1. The theoretical model was developed based on 12 research items to assess the three constructs with established interrelations.

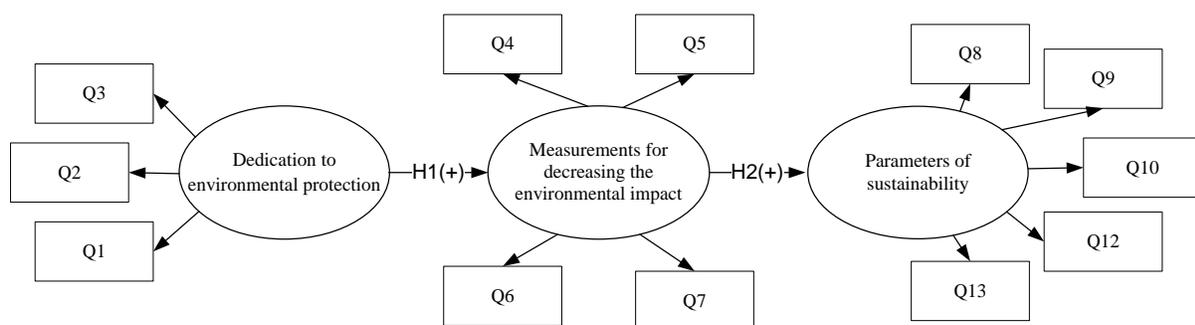


Figure 1. Conceptual model of the impact of environmental protection on sustainability of companies

METHODOLOGY:

In this survey were participating the employees from Russia and Serbia, where research was conducted from December 2016 to March 2018. Employees answered questions from a structured questionnaire where five-point Likert's scale was used for assessments of given statements (1 stands for absolutely disagree – 5 stands for absolutely agree). They were asked to assess the expressed dedication of companies toward environmental responsibility. Also, the implementation of measures for mitigating the environmental influence was evaluated, and finally, some indicators that represent long-term performances of the company had been rated. After data collection, the further analyses were carried out using SPSS v.17 and AMOS v.18 and the following results were obtained.

RESULTS:

Analyzed data pool consisted of 353 properly filed questionnaires, where 169 (49.9%) of respondents were from Russia and 184 (52.1%) of respondents were from Serbia. One of the descriptive characteristics of the sample was Age, where the most of respondents belonged to age group 26-35 years with 42.2%, followed with group 46-55 (20.1%) and 36-45 (18.1%). Considering Gender, 61.5% of respondents comprised women and 38.5% men. When it comes to Size of companies the employee is working for, the most respondents have been working in companies with more than 1000 employees 27.2 % then 21.8% worked in companies with 11-50 employees and the third group were the employees from companies with 51-100 employees, 13.3%. During the data collection, it was taken care of that respondents belong to different business sectors in order to achieve greater heterogeneity of the sample and thus better representativeness of data.

For checking the reliability of scales, Cronbach's alpha has been computed. For Dedication to environmental protection, the value of scale reliability is .792. The reliability of Measurements for decreasing the environmental impact has value .871 and for Parameters of sustainability, reliability value is .846. All scales have substantial reliability since the values of Cronbach's alpha are very high.

The analysis reported in this paper follow a two-phase procedure recommended by Anderson and Gerbing (1981). The first phase involves using confirmatory factor analysis (CFA) to develop an acceptable measurement model that provides an acceptable fit to the data. Once the tested measurement model shows that indicator variables effectively measure constructs of interest, the analysis goes to the second phase where the theoretical model and hypotheses are tested to show whether certain latent constructs predict other latent constructs.

The measurement model was estimated using the maximum likelihood method. First, χ^2 and χ^2 / df ratio were being observed to check the overall fit of the model to the data. The value of χ^2 for

proposed model is 127.696 with 50 degrees of freedom where the ratio $\chi^2 / df = 2.55$. Schermelleh-Engel and Moosbrugger (2003) stated that this ratio indicates good fit when it produces 2 or a smaller value while it indicates an acceptable value when it produces a value of 3.

There is no universal consensus which indices provide the best reflection of model fit. Instead, common practice entails reporting at least three goodness-of-fit indices, at least one absolute index, one parsimony index and one incremental index. CFI (Comparative Fit Index) values between .90 and .94 suggest adequate fit, but values greater than .94 are more ideal. In the case of the proposed model value of CFI is 0.961. The RMSEA (Root Mean Square Error of Approximation) value is .066 while values between .055 and .08 suggest fair model fit. RMR (Root Mean Square Residual) value less than .08 is generally considered a good fit. For the tested model value of RMR is .079. IFI (Incremental Fit Index) has value .961 while cutoff for good fitting models value should be at list .95. For TLI (Tucker-Lewis Index) general rule of thumb is more than 0.90 for acceptable and more than 0.95 for excellent fit. TLI for the observed model has value .948. As can be noticed the presented values provide a good indication that the overall structure of the model fits the data.

Next, the standardized factor loadings along with their respective t values had been observed. The standardized factor loadings range from .61 to .85, and their high t values in range 5.951 – 12.116 with statistical significance $p < .001$ for each. Before accepting the model as the final model, evaluating reliability and validity of constructs was performed.

The composite reliability (CR) for construct Dedication to environmental protection is .79, for construct Measurements for decreasing the environmental impact is .87 and for construct Parameters of sustainability, the value is .84. Composite reliabilities for all constructs exceed the required value of .70 as minimally acceptable level and even reach over the .80 as preferable level. Fornell and Larcker (1981) suggest that constructs should have variance extracted estimates greater than .50. Variance extracted estimates for the three studied constructs exceed the .50 criterion with values .56 for Dedication to environmental protection, .63 for Measurements for decreasing the environmental impact and .52 for Parameters of sustainability. The average variance estimate (AVE) is .57 across the factors. Convergent validity is estimated by studying the t-tests for the factor loadings. Since all factor loadings for the indicators measuring the same construct are statistically significant this suggests the convergent validity of those indicators. Discriminant validity is confirmed if for the two factors of interest both variances extracted estimates are greater than the squared correlation between them. In the study, discriminant validity is confirmed for all factors.

With all conditions fulfilled, the measurement model can be considered to have an acceptable fit. The second phase is a specification of relationships between variables and testing the proposed

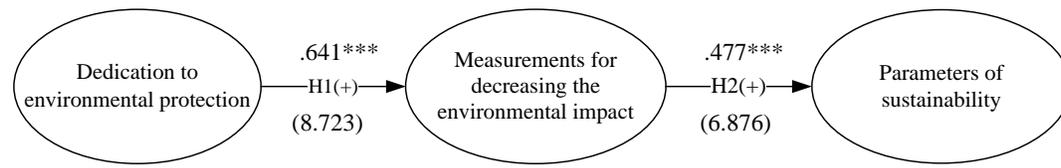
theoretical model by performing SEM (Structural Equation Modeling). First, the assessment of the fitting for the theoretical model was performed, that resulted in indices of fitting which were been in accordance with recommended values ($\chi^2=128.19$, $\chi^2/df=2.51$, CFI=0.96, RMSEA=0.066 TLI=0.95, RMR=0.082).

Table 1 represents the summary of path analysis and hypotheses testing. The hypothesis 1 (H1) assess more intense implementation of measurements for decreasing the environmental impact as a consequence of the dedication of companies to environmental protection. The path has a positive coefficient of .641 with the high level of significance $t=8.723$, $p<.001$, therefore the hypothesis H1 is confirmed. The path for hypothesis 2, that stands for implementation of measurements for decreasing the environmental impact which positively influences the success and sustainability of the company, has a positive coefficient of .477 with the significance level of $t=6.876$, $p<.001$, therefore, hypotheses 2 is also confirmed. Figure 2 depicts standardized path coefficients and t-values for the studied theoretical model.

Table 1. The results obtained from SEM

	Path			Standardized regression coefficient	t	Status
H1	Dedication to environmental protection	→	Measurements for decreasing the environmental impact	.641	8.723***	Confirmed
H2	Measurements for decreasing the environmental impact	→	Parameters of sustainability	.477	6.876***	Confirmed

*** statistical significance at the level $p<.001$



*** statistical significance at the level $p<.001$

Figure 2. Standardized path coefficients and t-values for the studied theoretical model

DISCUSSION:

The main goal of this paper was to investigate the influence of environmental commitment of companies on business sustainability. There is a general assumption that companies that take care of environmental impact and consequences achieve better business performances. The findings in this paper indicate the same through proving both hypotheses from the proposed theoretical model. The employees from Russia and Serbia are in agreement that expressed and demonstrated commitment of the company to preserve and not harm the environment trigger more investments in environmental activities which is proved with hypothesis 1. The environmental efforts are an important input in many aspects of companies' success and sustainability, proved with the hypothesis 2. This is due to the fact that those are very visible to the employees and improve the quality of products, work conditions and life. It is indicated that all stakeholders perceive the progress in the business system and consequently the companies are encouraged to act in a good manner toward nature and society.

By reviewing the individual influence of some items and their constructs can be concluded that the most important influence on latent variable Dedication to environmental protection has the observed variable "We participate in activities related to the protection and improvement of our natural environment", implying that the very important role for employees' perception is the demonstrated devotion of companies to environmental issues, not only declared. On factor Measurements for decreasing the environmental impact, that included different activities that company undertakes in the direction of environmental protection, the most influential activity is: "Management of environmental system" which is in accordance to the fact that employees better perceive the activities that are under their influence or directly influences on them.

CONCLUSION:

The emerging business model named sustainability successfully integrates limited economic resources with social concerns and environmental protection. Different stakeholders developed mechanisms to pressure the companies to consider all three pillars of sustainability in the decision-making process. Also, the company's performance measurement has been changed by moving, besides financial performances, toward more subtle measurements. This paper was dealing with the environmental devotion of company and the consequences of this behavior. According to the results of the SEM analysis can be stated that companies in Russia and Serbia integrate environmental concerns in their business practices and employees are very aware of those activities. The positive relationship between the implementation of environmentally friendly activities of the company and the company's results is also been confirmed. Summarized results point the justification of pressures on companies because pursuing the environmental sustainability in long-term, eventually, leads to better financial results and other preferable outcomes.

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