Contemporary Issues in Business, Management and Education 2013

Implementation of sustainable development opportunities in the Lithuanian higher education institution

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Abstract

This paper presents an overview of the progress of implementation sustainable development philosophy in the strategy of one of the Lithuanian higher education institution. Purpose of this paper is to identify instruments and methods revealing sustainable development expansion opportunities in higher education institution of Lithuania. The methodology in paper is used logical and systemic analyze of scientific studies, situational analysis based on the comparative method and analyzes the results of an empirical study, based on a specific case. The paper contributes to a better understanding of the key elements of sustainable organization which implemented sustainable development strategy in its organization management processes.

1. Introduction

In recent years, sustainable development, organizational sustainability is becoming one of the most popular and most ambitious modern management concepts in the world. Sustainable development philosophy is aimed to the global objectives, that is to say global society and the natural relationships of harmony, thus ensuring the future of society and its well-being. However, all the global objectives can be achieved only through the pursuit of every continent, country and even the organization.

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Today the business and organizational environment is changing fast. The current global changes today in order to create and maintain a successful and secure organization's image is very important to strike a balance between the financial benefits of an organization, public welfare and environmental sustainability. Sustainable development philosophy and its implementation in an organization can be attributed to fundamental organizational management development. Organizations which manage to successfully implement and performing a coherent action across all three spheres of sustainable development (economy, social, environmental) assuring long-term benefits, business continuity, public support and recognition.

In most cases in the science literatures describe the three main levels of sustainable development: environmental, economic and social. About the importance of the three components of sustainable development in the context suggests many authors (Becker, 2010; Hopwood, et al. 2005; Jabareen, 2009). Principal often mentioned problem - how to reconcile the concept of sustainable development groups and use them as overall sustainable development of the instrument, which would help to ensure the coherence of development. Sustainable development as methodology and its understanding has become important instrument for change and development in organizations management.

2. Sustainable Development in the world and in the Lithuania

51 years ago (in 1962) Rachel Carson published a book called Silent Spring. The fact of publishing this book means the turning point in our understanding of the connection between the environment, economy and social well-being. It is believed that it was the moment when a successful journey to sustainable development began (International Institute for Sustainable Development [IISD], 2012).

In 1983 the United Nations General Assembly created the World Commission on Environment and Development (WCED) which in 1987 promoted the term of sustainable development in the report Our Common Future (United Nations, 2012). The paper presented a progressive approach to global independence and the connection between the economy and environment. The report discussed social, economic, cultural and environmental issues as well as global solutions. It was again confirmed that the environment exists not as an individual segment – it depends on the human actions, goals and needs. In order to develop his future existence, the human must realize that the environment is an inherent part thereof.

The first United Nations Conference on Environment and Development was held in Rio de Janeiro in 1992. Its agenda included issues on the environment and development in the 21st century. The essence and main direction of the conference was "the harmony with nature" which brought to the fore the first principle of the Rio Declaration: "Human beings are at the center of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature" (United Nations, 1992). Meanwhile, after a decade, in 2002 the Johannesburg Conference evaluated the achievements of sustainable development and it was decided to continue improving the mechanism of sustainable development through creation of sustainable development strategies and submission of reports on their implementation.

In 2003 the Government of the Republic of Lithuania approved the National Strategy for Sustainable Development. It includes goals and principles for sustainable development taking into account the local interests and peculiarities (the Ministry of Environment RoL, 2011). To align with the Western European countries Lithuania set a long term goal: to achieve the EU average level according to economic, social indicators, including population health and efficient consumption of natural resources and ensure clean and healthy environment by 2020.

On 15–16 June, 2006 the European Council adopted a renewed Sustainable Development Strategy and obliged the Member States to review their national strategies for sustainable development in order to ensure compatibility and consistency taking into account the circumstances of a specific country (EU Council, 2006). The renewed version of the Lithuanian National Strategy for Sustainable Development maintained the same main goal; however it focused more on the scientific progress, know-how, social responsibility of private enterprises and getting the society involved into the process of sustainable development to a wider extent. The strategic priorities and goals were formulated in accordance with the national interests, existing strategic documents, and strategic provisions of the United Nations and the above-mentioned EU Strategy for Sustainable Development (2006).

On 15 May 2012 the Parliament RoL approved the Lithuanian Progress Strategy "Lithuania 2030" ("Lietuva 2030", 2013). This strategy reflects a national vision and priorities for development as well as guidelines for their implementation by 2030. This is a roadmap to be followed in decision making and in drawing –up national plans or

programs. The strategic purpose is to create the environment which would make it possible for the progress-related values to spread. There are three key areas of progress: society, economy and governance. Developments in these areas will consolidate progress values and build on the principles of sustainable development. The progress -related values will become conscious human target in each area of progress; and as regards public policy –it will become the most important measurement indicator in strategic decision-making.

The Lithuanian Progress Strategy states that it is only a creative entourage that can empower an individual to unlock his creative potential and play a part in the smart society. Relying on the creative powers of society and smart economy, which is based on knowledge, entrepreneurship and responsibility, will generate high added value and create public well-being. Qualitative changes in society and economy will be facilitated through an efficient government that ensures the delivery of high quality services. Progress in these areas and sustainable development of the country require clean and safe environment, and an integral interaction between these areas ("Lietuva 2030", 2013).

The Lithuanian Government has approved the National Progress Program (NPP) for the period 2014–2020 on 28 November 2012 (the Ministry of Finance RoL, 2013). The program is dedicated to implementation of the Lithuanian Progress Strategy "Lithuania 2030". This program joins core provisions of the Lithuanian Progress Strategy "Lithuania 2030" and "Europe 2020" a Strategy for Smart, Sustainable and Inclusive Growth of the European Union and is progress-driven. It includes descriptions of tasks and guidelines for implementation of long-term national priorities and establishes the proportions for the EU financial support (Lietuva 2030, 2012).

2.1. Evaluation models of sustainable development

According to Čiegis and Ramanauskienė (2011) the ignorance of what is the sustainable development, where we are or where we are going makes our future more risk-exposed. The pursuit for compliance with the philosophy and requirements of sustainable development requires changes in the consumption model, approach and even the way of life. Whereas, speaking of organizations, we can use evaluation models in order to evaluate their sustainability.

It may be complicated for the organizations to define the sustainability, contribution to the initiatives of sustainable development, sustainable entrepreneurship or sustainable organization (Bagdonienė, Galbuogienė and Paulavičienė, 2009). These concepts are analyzed in more detail by the international sustainable entrepreneurship development organizations, scientists and researchers who present to the society approaches to sustainable development and sustainable organization in its broadest sense and the methods for implementing the philosophy of sustainable development in the organizations. Čiegis and Grunda (2007), in summarizing global research papers, distinguish several concepts of sustainable development and sustainable organization:

- UNCTAD (United Nations Conference on Trade and Development) defines the sustainable entrepreneurship as an entrepreneurship that does not lead to environmental deterioration;
- "Corporate Governance Charter" establishes 21 obligation grouped into five company business areas: employees, customers, suppliers, society, i.e. environment and shareholders, i.e. funders;
- ICC (International Chamber of Commerce) business charter for sustainable development which includes 16 principles covering the relevant health, security and product management aspects;
- IISD ((International Institute for Sustainable Development) sustainable entrepreneurship principles fall into three groups: internal sustainability, external reliability and use of own resources;
- G. Winter's management model is based on the concept that each employee of a company is "a living cell" of a giant organism of the company;
- The United Nations Global Compact established 10 principles of socially responsible business which must be followed by the companies supporting social responsibility. These principles fall under four categories: environment, human rights, labor and anti-corruption;
- The St. Gallen Management Concept states that business activities of a company are based on the future vision of the organization and it operates in accordance with the vision of sustainable organization provided that the management concept is applied in managing the sustainable development in the organization.

Based on Čiegis and Grunda (2007), Čiegis and Ramanauskienė (2011), Navickas and Navickienė (2009) in order to develop and successfully implement the strategies for sustainable development of an organization, state,

region or on the global scale, it is recommended to use the indicator systems reflecting various aspects of sustainable development. The authors recommend relating the indicators used with the specific tasks for achieving sustainable development and their implementation measures.

When speaking of evaluation of sustainable development Čiegis and Ramanauskienė (2011) state that a need for specific evaluation approaches of a particular case and place has been noticed. On the other hand, the authors believe that there is a demand for broader methods which would be available to a wider consumer group and for evaluation of different cases and circumstances. They also state that the need for particular standardized methods exists. However, it is important to note, that a proper method for evaluation of sustainable development will be selected only after the entire philosophy of sustainable development is taken into account (Čiegis and Grunda, 2007).

According to Navickas and Navickienė (2009) and Bagdonienė, Galbuogienė and Paulavičienė (2009) the majority of organizations world-wide and in Lithuania uses the following measures for evaluation of their sustainability, the level of expression of sustainable development:

- Drawing-up of specific reports on sustainable development within an organization which ensure the motivation for analyzing own actions and allow identifying additional possibilities for improvement and expansion of sustainable development activities;
- Joining the United Nations Global Compact and drawing-up progress reports which show the results of an organization in certain areas of sustainable development and social responsibility.

Despite the fact that Lithuanian organizations often use only several sustainable development measures, the evaluation of sustainable development has become a rapidly growing area in the recent years and a number of previously unused methods have improved, as well as a number of instruments applied in evaluation of sustainable development increased.

Some researchers argue that organizations require a paradigm shift to filter in more sustainable ways of thinking and behaving (Borland, 2009; Linnenluecke and Griffiths, 2010). Others contend that sustainability requires only moderate behavioral changes catalyzed by incremental adjustments to processes, procedures, and reward systems (Dunphy et al., 2007; Epstein and Buhovac, 2010; Harris and Crane, 2012).

3. Characteristics of sustainable development in Kaunas University of Technology: research object

Kaunas University of Technology (hereinafter referred to as KTU) was chosen for the empirical study since it is one of the largest national science and study institutions covering integrated sustainable development activities. The role of KTU, as an education institution, is of crucial importance to future generations and it is directly related to the philosophy of sustainable development that is being analysed and the development of expression of sustainable development in the future.

The main and most obvious activities of the analysed organization are directly related with the philosophy of sustainable development and are based on the philosophy of "*KTU – the green university*" (KTU, 2013b). This philosophy declares that the sustainable development promoting responsible, environmentally friendly behaviour and forming green culture is one of the top priorities of KTU. The university follows the approach that new know-how and technologies must serve not only for the human but for the well-being of environment as well.

The university is part of the QUESTE-SI project, funded by the Life-long Learning Program of the European Union. The main goal of the project is to promote sustainability (sustainable development) principles within the technical and engineering scientific areas. The strategy for sustainable development of KTU as well as its performance resulted in international appraisal by the European Union, i.e. QUESTE-SI accreditation.

The main and most noticeable activities of KTU – the green university include (KTU, 2013b):

- Green traditions. KTU follows deep environmentally friendly traditions. The university students initiate various campaigns, events, creative projects promoting green thinking and lifestyle.
- Green university badge – it was created to mark green actions of the university.
- Energy saving. The university has already launched implementation works of cost-saving electricity consumption. The project is greatly contributed by the KTU community and partners.
- Waste sorting. In 2012 the university began implementing a project on coordinated systematic waste sorting. The project is managed by the Institute of Environmental Engineering KTU (IEE).

The initial documents and public information announced on KTU web site suggest a conclusion that the organization is extremely concerned with the philosophy of sustainable development. The importance of application of this philosophy is part of the organizational strategy.

3.1. Questionnaire survey results

The initial stage of the research included a questionnaire survey. The questionnaire was posted on the web site. Approximately 150 e-mails were sent hoping for at least 80% feedback necessary for the successful initial research. However, only 50 respondents answered the questions. The questionnaire included 19 questions. The respondents were given a rather short and specific questionnaire with the majority of questions having simple and clear answering options. The answer alternatives were submitted in accordance with the nominal or ordinal scales.

1–4 questions were to clarify the general knowledge on sustainable development. All respondents (100%) have knowledge of sustainable development, yet only approx. 42% respondents apply it at work and share this knowledge with their co-workers and colleagues. Most often the respondents got their knowledge of sustainable development not through individual interest but at work or during seminars, conferences and it may result in lack of positive approach to the philosophy of sustainable development. Based on answers to questions

5–6 it can be concluded that the majority of respondents (approx.75%) are not sure whether they have sufficient skills to apply the philosophy and principles of sustainable development. However, all respondents think that it would be useful to deepen their knowledge.

Questions 7–11 were used in order to find out the respondent's opinion on KTU as a sustainable organization and the influence of pursuit for this image on the society and project activities of the organization. The majority of respondents (approx. 75%) think that KTU is only partially entitled to define itself as a sustainable organization; however it is impossible to find out from the questionnaire survey the reasons for such answer, therefore more detailed analysis of this question will be included into the interview to get a broader view of the respondents. QUESTE-SI PROJECT funded by Life-long Learning Programmed EU and waste sorting activities were mentioned as examples of KTU having features of sustainable organization. Meanwhile, some respondents failed to name any examples and it is difficult to identify whether they did not know any or it was simply due to the lack of knowledge as to what activities could be attributed to sustainable performance. All respondents unambiguously agreed that KTU's pursuit of becoming a sustainable organization has a positive effect on its public image and project activities. All respondents were also familiar with the mission, strategy and vision of KTU, they also knew about the existing connection with the aim of becoming the sustainable organization.

In question 12 the respondents were given a table where they had to evaluate the expression of sustainable development indicators in Kaunas University of Technology. Ordinal scale from 0 to 5 points was submitted for evaluation of expression, where 0 stands for the fact that the expression of this indicator is completely unnoticed in the analyzed organization, and 5 stands for the high expression of the indicator. 10 indicators were submitted for evaluation; they were to illustrate the expression of sustainable development within the analyzed organization. The respondents evaluated all indicators as relatively typical to the analyzed organization and defined their expression from 3 to 5 points. According to the survey respondents the efficient use of electricity and water is less noticeable in KTU as well as learning from experience of other higher education institutions in applying sustainable development in practice. All remaining indicators are more noticeable in KTU activities. Yet, based on rather similar evaluations of all indicators, it would be useful to expand the number of these indicators in further descriptive study so that it would be possible to guarantee the representativeness and correctness of the data.

In question 13 the respondents were asked to give some examples of measures to be taken by KTU in order to comply with the concept of the sustainable organization. Not all respondents gave an answer. While the proposals of the respondents who submitted the answer were the following:

- Analyses and take-over the good experience of other higher education institutions;
- Take clear and visible actions related with the development of social parameters;
- Follow the principle – think globally, act locally;
- Master new and existing EN and ISO standards.

Question 14 was aimed at finding out the respondent's opinion as to what factors are the biggest barriers to applying the philosophy of sustainable development in Kaunas University of Technology. Based on the answers of the majority (75%) of respondents it can be stated that the lack of knowledge, skills, experience and financial resources are the most constraining factors. Whereas, only one third of respondents state that the lack of positive approach to sustainable development and lack of understanding of benefits of sustainable development are the obstacles to applying the philosophy of sustainable development in KTU.

Question 15 revealed that the philosophy and activities of "KTU – the green university" are rather successful, since almost all respondents (92%) have heard about this philosophy and approximately half of the respondents could even describe it in detail. Questions 16–19 were aimed at getting general information about the respondents. The generated data show that the age of respondents varies from 34 to 65. The younger respondents often take the position of a project member in the projects, whereas the older respondents have the experience of the project manager as well as the project member. No connections have been identified between the age, sex of the respondents and their knowledge of sustainable development, therefore it could be concluded that it is influenced by some other factors.

The analysis of data generated during the primary study suggests that in order to succeed in descriptive study one must make the spectrum of the questions, given to the respondents during the interview, wider and not limit them with possible answering alternatives.

3.2. Results of the expert interviews

10 employees – experts of Kaunas University of Technology who have adequate practical know-how and skills, are familiar with the philosophy of sustainable development, have at least 2–3 years of working experience in project management, have taken the position of the project manager or are taking the position of the project manager and have participated or are participating in the projects of KTU scientific research and experimental development, International Study projects, "Santaka" or "Nemunas" projects funded by the structural funds of the European Union were selected for the expert interview. "Santaka" valley – is the international standards conforming to the national open-access research and development center, which will focus particularly promising areas – sustainable chemical and biopharmaceutical, energy futures, mechatronics, information and communication technology – science and research potential (Santakos slėnis, 2013). "Nemunas" valley is Integrated Science, Studies and Business Centre Lithuanian agriculture, to develop forestry and food sector (Slėnis „Nemunas", 2013).

The successful expert interview required a questionnaire consisting of 17 questions. The experts were asked open questions without any alternative answers. They were entitled to ask additional questions, if needed, comment on existing ones or discuss on one or another issue and in such a way give the information as broad, interesting and representative as possible. The respondents dedicated from 10 to 30 minutes to the interview. All respondents were specific enough and analyzed the information before submitting it, since they considered the assurance of confidentiality of their work in-progress.

The experts were asked how they found out about the sustainable development for the first time and 80% respondents answered that they have heard of this philosophy at work. From the above-mentioned it is possible to conclude that the society is not much encouraged, to take interest in new philosophies which form the basis even for our National Progress Programmed dedicated to the coming years. Maybe the society is provided with the plain fact as to what direction is pursued, however no details on how to achieve this or how to contribute to it, etc. are made public. On the other hand, following the downturn, modern society is more focused on work and reward; therefore people often ignore changes or initiatives taking place around them.

The experts were asked whether they had sufficient skills required for application of sustainable development principles and it was noticed that the answers split in two parts. Half of the respondents said they lack skills or they are not sure of the existing ones. The remaining respondents think that they have the basics of the philosophy of sustainable development, but they believe there is still area for improvement. As a result it was identified that 70% respondents would like to deepen their knowledge and have a positive approach to a continuous knowledge development, since they believe that it would be useful in their working activities or personal life. Whereas, 30% respondents would like to improve their knowledge of sustainable development provided that they could apply it in

their professional activities. It illustrates that the respondents wish the knowledge flow was targeted at its direct use in work.

The status of Kaunas University of Technology as a sustainable organization evoked triple emotions among the experts. Approximately 30% respondents think that KTU cannot yet be called a sustainable organization, since the organization fails to be completely sustainable in all senses of the SD philosophy. Meanwhile, 20% respondents believe that KTU can be partially called a sustainable organization; however there is still some work to do in order to fully justify this status. And finally, almost half of the respondents think that KTU is already a sustainable organization, however they recognize that the status requires continuous improvement. The experts were asked to give an example to illustrate that KTU possesses features of sustainable organization. Despite the fact that some of the respondents did not quite consider the organization to be fully sustainable all of them provided features of KTU as being sustainable organization. The main example for all the respondents was "KTU – the green university" philosophy and activities behind it: waste sorting, energy saving, production of ballpoint pens from recycled materials, etc. From the above-mentioned it is possible to conclude that the main association related with the sustainable development is barely environmental what shows a rather narrow approach to this philosophy. However, it is essential to note that several original examples were given which showed a broader understanding of sustainable development: KTU renewal program and welcoming of exchange students and helping them to adapt in our country.

All the interviewed experts unambiguously agreed that KTU's pursuit for sustainability is related with the involvement of each member of the academic community in these activities or at least efforts must be made to involve everyone. The respondents named one of the interferences blocking from succeeding in everyone being involved, i.e. the university is a big organization. Every large organization has a major distance between the employer and employee, and with this case in mind the distance is even bigger since the members of the community are the students as well. So, it can be concluded that it is difficult to get every member of the community involved. Also one should keep in mind that it is not enough just to try to get everyone involved, each member of the community must be motivated and must be willing to contribute to achieving the overall goals. On the other hand, it should be noted that the experts expressed their opinion that it would be relevant and valuable if the students were involved into the development of sustainability to a much bigger extent. The people representing this age group are often more enthusiastic and have more ideas which simply require to be used.

Based on the interviews and the unambiguous opinion of the experts it can be stated that the aim of KTU to become a sustainable organization has a positive impact on its public image.

The data collected from interviews suggest a conclusion that all experts are aware that KTU's mission, new strategy and vision are closely associated with the aim of becoming a sustainable organization. It shows the interest in organization where one works and in its organizational goals. All experts are familiar with the "KTU – the green university" philosophy.

The experts were asked to comment on the factors are interfering the most with application of sustainable development provisions within Kaunas University of Technology. The results were as follows:

- In most cases the reason was the lack of knowledge. However, in this case it should be emphasized that it is not the basics of the philosophy of sustainable development that people lack; it is the elementary practical know-how on how to apply this philosophy at work, in their daily activities or even personal life.
- Lack of time was also often the answer. The majority of employees have major workloads and they do not have time to deepen new knowledge during working hours and they lack motivation to do that after work. Employees naturally give priority to their work tasks which, if not executed (or improperly executed) may have an adverse impact on their performance and they pay less attention to works which have no major influence on their activity.
- One of the reasons mentioned was lack of funding; however it is difficult to comment on validity of this answer since the exact data on funding the development of philosophy of sustainable development is confidential.

The expert experience was used in order to find out what measures should be taken by KTU to better comply with the concept of sustainable organization. In this case there were various useful ideas received, namely:

- KTU should follow the good examples of foreign universities, since in that case the measures applied would be immediately more efficient.
- KTU should make the "KTU – the green university" philosophy and especially activities behind it more public and inform on the practical ways to contribute to these activities.

- Certain individuals could be assigned to search for the ways of becoming more sustainable organization and informing the entire academic community of KTU on simple and practical ways how to become sustainable.
- KTU should get the students involved into the process of becoming more sustainable. It is essential to realize that by providing with targeted information and directing youthful enthusiasm to the right direction it is possible to achieve set goals or even find new measures to achieve them.

Lastly, after all questions were discussed, the experts were asked to evaluate the expression of sustainable development indicators in Kaunas University of Technology. For that purpose they were submitted a table with 25 indicators which would help to realize whether the analyzed KTU is moving towards the status of sustainable organization. At first, the table included 6 general indicators in order to realize the expression of sustainable development in KTU. Whereas, later the table included next 4 groups of indicators reflecting four dimensions of sustainable development: 6–12 indicators represented a social dimension, 13–17 indicators – environmental dimension, 18–21 indicators – cultural dimension and 22–25 indicators – economic dimension. These dimensions were based on theoretical knowledge and actual situation of the analyzed organization. It is impossible to clearly establish their efficiency since it would require expert experience in practical evaluation of sustainable development or the "good experience" from other similar organizations.
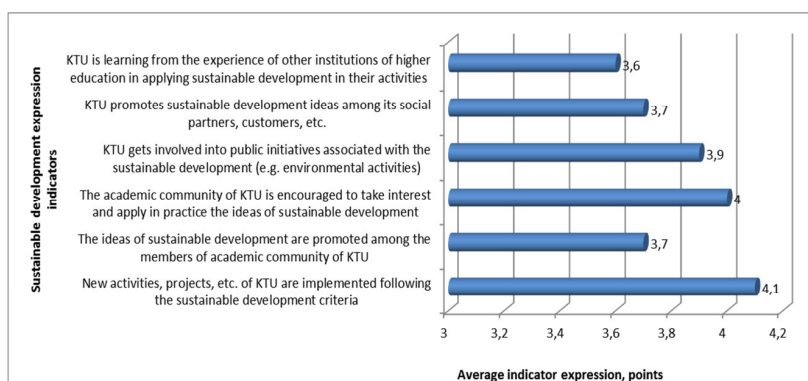

Fig. 1. General indicators of expression of SD in KTU

Ordinal scale from 0 to 5 points was submitted for evaluation of expression of indicators, where 0 stands for the fact that the expression of this indicator is completely unnoticed in the analyzed organization, and 5 stands for the high expression of the indicator. The respondents evaluated all indicators as relatively typical to the analyzed organization and defined their expression from 3 to 5 points. Average evaluation of each indicator was calculated in order to see more clearly the evaluation level of indicators. The graphical illustration is presented in figures 3–7.

In Figure 1 it is seen that the interviewed experts gave the best evaluation to the expression of the following indicators: "New activities, projects, etc. of KTU are implemented following the sustainable development criteria" and "The academic community of KTU is encouraged to take interest and apply in practice the ideas of sustainable development". Such tendency is confirmed by the factor that has been identified previously, that the interviewed experts are familiar with the new KTU strategy and realize the importance of applying the philosophy of sustainable development which is mentioned therein. Whereas, the weakest expression within this group of indicators was attributed to: "KTU is learning from the experience of other institutions of higher education to apply SD in practice" and "The SD ideas are promoted among the members of academic community of KTU". The latter fact was already noticed when analyzing the interview answers, since the experts mentioned that KTU should learn more from the SD related "good experiences" of other institutions of higher education and get the students more involved into development of SD philosophy.

Based on the results presented in Figure 2 it can be stated that the employees are satisfied with the social guarantees and privacy of their personal information in the analyzed KTU. However, the organization should be more concerned with ensuring better conditions of working place, working facilities, professional improvement and career opportunities. This trend was also noticed during the interviews with the experts. Given the fact that the

majority of employees work in the sitting position by the computers their motivation could be improved if more comfortable working places were installed: better ventilated premises, more comfortable chairs, etc. So, it can be concluded that the analyzed organization requires more improvement in order to achieve higher expression of social dimension of SD. This factor is extremely important as the human resources are the main "source/resource" required by KTU to ensure successful achievement of set goals.
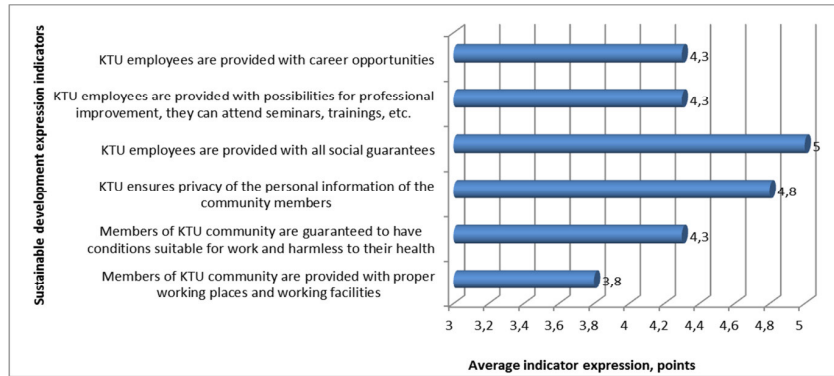

Fig. 2. Expression indicators of social dimension of SD in KTU

When analyzing the submitted indicators of environmental dimension of SD the experts gave a rather similar expression level to all of these indicators (see Fig. 3). In this case the analyzed organization would be recommended to consider more the more efficient use of electricity energy, water, etc., however implementation of such initiative often requires longer period as changes in consumption habits are essential. While, other indicators of environmental dimension of SD could ensure higher SD expression through making the philosophy of "KTU – the green university" more public, by developing and promoting its activities and continuing with successful implementation of projects on opening of integrated science, study and business center (valley) "Santaka" and development of integrated science, study and business center (valley) "Nemunas" .
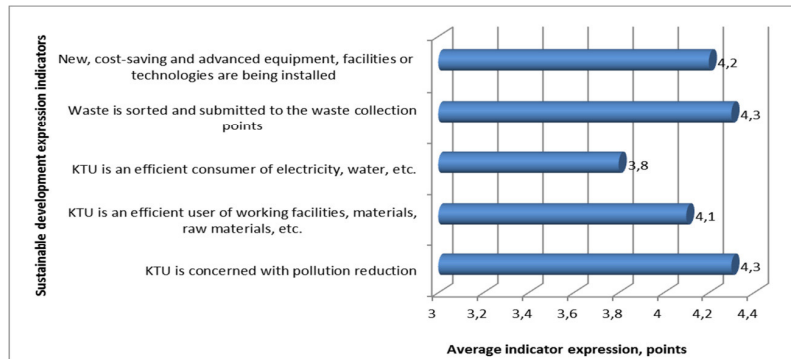

Fig. 3. Expression indicators of environmental dimension of SD in KTU

Based on the results provided in Figure 4 it can be stated that the members of the academic community of KTU are given complete freedom of thought, traditions and religion. And based on the previous survey results it can be mentioned that this freedom is ensured in respect of temporal members of the academic community, i.e. Erasmus exchange students. Whereas, the expression results of the remaining indicators of cultural dimension of SD show

that the organization still has area for improvement in order to consolidate the community by getting it involved in activities giving general moral and spiritual satisfaction.
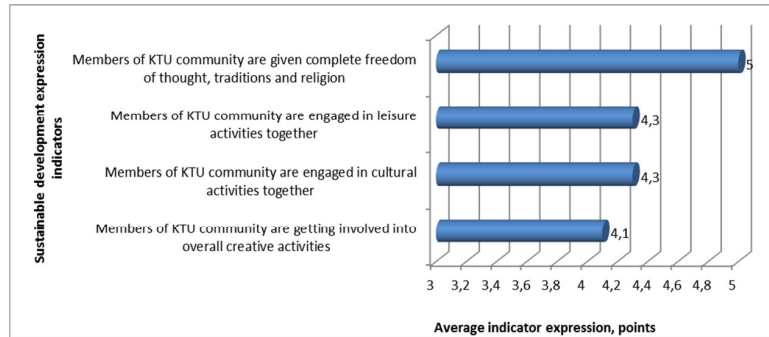

Fig. 4. Expression indicators of cultural dimension of SD in KTU

As seen in figure 5 all interviewed experts agreed that KTU activities and goals are long term. Whereas, the remaining indicators reflecting the economic dimension of SD are still open to improvement since they got lower evaluations. On the other hand, the lower evaluation of these indicators could be determined by the lack of connection between the philosophies on saving and reduced consumption of limited resources and KTU activities. However, KTU, as an institution educating the younger generation of our country, could take into account the above-mentioned philosophies and provide the students with more knowledge.
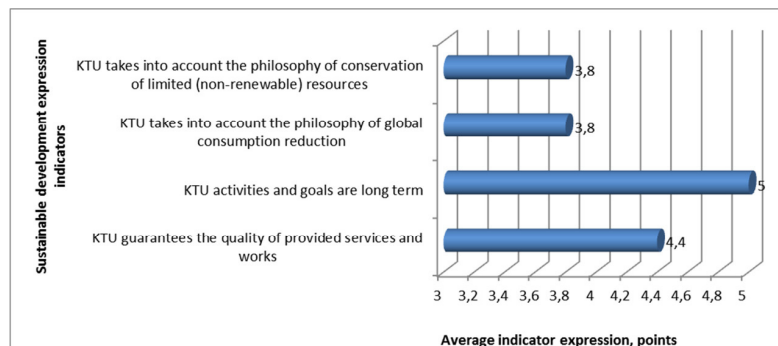

Fig. 5. Expression indicators of economic dimension of SD in KTU

To summarize the results of the empirical study, it could be stated that the interviewed respondents (it is likely the entire academic community as well) see the philosophy of sustainable development as an environmental issue. It is confirmed by the narrow spectrum of examples the respondents gave on KTU as sustainable organization what shows a narrow approach to the SD philosophy. It was also noticed that despite the positive ambitions the main SD-based activity, i.e. "KTU – the green university" has too little publicity and not much efforts are made to get the entire academic community of KTU involved into it. During the empirical study it was noticed that the lack of knowledge is the biggest factor which is blocking from applying SD philosophy in activities of KTU. However, it is not the basics of the philosophy of sustainable development that people lack; it is the elementary practical know-how on how to apply this philosophy at work, in their daily activities or even personal life. Based on the information describing the expression of indicators of sustainable development in KTU provided by the experts and the results of the entire empirical study it can be stated that KTU is adequately concerned with implementation of the SD philosophy and application thereof, however there is still space for improvement and there are areas where it is necessary to enhance the expression of SD.

4. Conclusions

Following the empirical research it was noticed that the expression of sustainable development in KTU is obviously visible and has advanced toward further development, however in order to identify the more specific level of expression of sustainable development the opinion of SD evaluation experts is essential, as well as use of good experience of other similar organizations. It was also noted that the proposed theoretical SD evaluation and development model must be supplemented with constituent parts of the stakeholders' program and the national progress program.

The conducted empirical research showed that the expression of sustainable development in KTU is obviously visible. Whereas, based on the new strategy, vision and mission of KTU the analyzed organization is aiming at further development of application of SD philosophy. Hence, based on the latter factors and the idea of continuous improvement of sustainable development through are satisfying the needs of the academic community and stakeholders now and without limiting the possibilities of future generations to get their needs satisfied.

In accordance of research paper results about sustainable development implementation in higher education institution (KTU) authors have notice such recommendations: to create a system for use of the projects as the tool for implementation of SD on the basis of the good experiences of other similar organisations; or reduce the lack of practical knowledge on applying sustainable development in work, daily activities and personal life of the academic community.

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