THE SINERGY OF ICT AND MANAGEMENT IN ORGANIZATIONS

Arturas Mažeika¹, Vilma Misūnaitė², Rūta Tamošiūnaitė³, Kristina Miliūtė⁴, Rimantas Petrauskas⁵

¹Mykolas Romeris University, Lithuania, arturasm@mruni.eu
²Mykolas Romeris University, Lithuania, vilma_mis@mruni.eu
³Mykolas Romeris University, Lithuania, rutamos@stud.mruni.eu
⁴Mykolas Romeris University, Lithuania, krmiliute@stud.mruni.eu
⁵Mykolas Romeris University, Lithuania, rpetraus@mruni.eu

Abstract

Opportunities created by the synergy effect are analyzed and implemented in large international enterprises widely, that act successfully as they manage synergy processes in the organization. Synergy effect can be even more crucial for the small and medium sized enterprises than for the large subjects that act in the international market. Small and medium sized enterprises dominate in Lithuania. It is the reason why little attention is paid to the synergy effect. Information communication technologies are working in everyday humans’ individual and working life, organizations are becoming as a huge network more and more but the importance of active social processes in organization do not decrease that is why it is necessary to coordinate employees’ demand for positive microclimate in organization and optimal use of ICT. As these processes are coordinated it is possible to move to the next stage – namely, to use microclimate and ICT synergy for generating benefit. This article analyzes circumstances that are necessary to ensure the synergy of ICT and positive organization microclimate.

Keywords: sustainable, organization management, social responsibility, synergy.

Introduction

In the period of information society information communication technologies (hereinafter – ICT) are necessary for business – users seeking to satisfy their expectation at the present moment look for information, goods, and services using wide world web actively. It gives opportunities to get desirable product from both the local sellers and foreign suppliers. Business subjects using ICT have the input advantage of management and manufacture economization as a great number of processes can be moved to the virtual space and virtual markets, namely to the markets without borders. On the basis of the analysis of e. business models, organizations’ culture, and social responsibility this article brings the analysis of the synergy of two separately acting organization’s factors, and the regulatory model of organization’s microclimate, which could induce organization economical benefit through organization’s inner communication optimization in social responsible way saving sustainable development of business, to which the European Union institutions (hereinafter – EU) pay special attention. Sustainable and responsible business is evaluated as one of the pillars that keep the base of harmonious society’s development by the EU. The EU concepts sustaining and competition are complementary since sustainable business is competitive, and seeking to become competitive business has to become sustainable.

Research method. Systemic and comparative analysis of scientific literature, synthesis, grouping and comparison of indicators, elaboration and summary of information. The analysis of empirical synergy concept in three organization sector (public, private, non-profit).

Research goal. Following the synergistic effects of two separate operating organization’s factors, the conditions formatted sustainable microclimate and the evaluation of e. measures on employees’ relations, the theoretical model of sustainable organizations’ microclimate is given.

1. Literature Review

1.1. Overview of Organizational Structure and Microclimate

Modern organizations seeking for efficiency and high economical profit are perfecting by management and implementation of principle “maximum profit by minimum cost”. This principle of management activity is urgent for all sectors of enterprises as all organizations’ have one goal – benefit which is different by its aspect. In public sector this benefit is society’s welfare and qualitative public services, in the sector of non-profit organizations it is the social integration of risky groups, and in commercial sector this benefit is expressed by economical profit. All these organizations seeking their goals are evolving by their improvements. On the basis of the evaluation research of modern organizations’ structure, processes and links the matrix of modern organization’s structure was created (see the 1st Figure). The successfullness in
competition and added value creation of the analyzed organizations is based mostly on: used human resources; the relationships of those human resources; the inner and outer processes of human resources and harmonization of all subjects’ communication and collaboration.

Figure 1. The matrix of modern organization’s structure

Every organization acts in some environment so it is impacted by many outer (government institutions, services’ recipients, and etc.) and inner (resources at the meantime, capabilities, and etc.) factors. The particular combination of those factors creates positive circumstances for subjects to both exist and develop, and fail. In outside organization is mostly impact by public sector through politics, legal regulatory and tax environment, opponents and users. Seeking to set in market organization has to interact with competitors and users, and to turn them to the favorable direction. That is the reason why these relationships are valuated as inner activity process in organization which is regulated by other inner processes. It creates opportunities to gain competitive advantage and to attract users. Evaluating the importance of organization’s inner harmony for competition, microclimate is highlighted as the urgent element for organization’s security and successfulness since it creates positive and negative circumstances to act for the most valuable organizations’ resources – namely, human resources.

Organization’s inner microclimate is described as the whole of psychological and managerial circumstances that influence the effective team activity, productivity, the development of individual, and the quality of employees’ life (Atkočiūnienė, 2007). Analyzing employees’ needs it is noticed that the tendency to highlight positive organization’s climate is arisen more than motivation by material means (Šalkauskienė et al, 2006; Patakaitė, 2009). Seeking to explore organization’s inner atmosphere and factors, which influence it, it was set the interaction of individual, group and all organization climate (Zohar, 2003; Zohar & Luria, 2005; Hofmann et al, 2000; Luria, 2008), the link between innovations and positive microclimate (Chaveerung & Ussahawanitchahit, 2008; Arvidsson et al, 2006; Watts & Henderson, 2006) and other small microclimate’s element not joining them to the whole. The analysis of more valuable issue of microclimate creation in the country was not found. Author Rekaštė–Balsienė (2005) suggest the method of microclimate evaluation, which “let evaluate good and needed to be more perfect features of organization’s climate, describe it and compare what different employees groups think about their organization”. However, this method does not evaluate difficult links between microclimate and other components and processes of organization (information system, the processes of human relationships, and etc.), without whom the microclimate that encourages competition can not be ensured.

1.2. Overview of Sustainable development

Aras & Crowther (2009) exploring society’s influence, the impact of geophysical environment, organizational culture and finance management in organizations set that sustainable development in modern dynamically economical profit seeking business sector is still difficult to achieve. The concept and importance of sustainability is not understood correctly in the highest level of organization, and it became the basic reason of this result. These authors consider sustainability to be the result of organizational behavior (included society’s influence, the impact of environment, culture, and finance), and highlighted the importance of human resources that have excellent technological and social skills. The dominant concept that
the harmonious environment of organization is based on economical, social and environment factors is followed by authors Čiegis (2002), Bagdonienė et al (2009), Misiūnas & Balsytė (2009), and others. Sustainability as the process was analyzed by authors Ong & Ismail (2008), Ishak et al (2009), Mostafa (2008) who agree that optimal regulation of organization’s inner processes is important for sustainable development of organization. Evaluating sustainable organization’s advantages did not highlight growing technical benefit of ICT but characterized the positive impact of ICT and human resources integration, intellectual capital growing, the importance of knowledge management in organization. The role of national regulation in the development of sustainable growth was explored by the research of Slėburytė & Ostasaveičiūtė (2009), Bernatonytė et al (2009), Khaledabadi & Magnusson (2008), and etc. Decisions made by government institutions can both induce and stifle initiative for sustainable progress as the basis of sustainable development is the equal growth of all subjects, and economical level is often different and always changing in different parts of the country.

In conclusion, organization’s sustainable development depends on government’s regulation in some region and the regulation of social processes in organization.

2. Synergy and Microclimate in Organization

Resources of organization can be divided in the most optimal way, and the use of resources has to be based on the principle of maximum value for organization. At the moment of synergy joining resources to various combinations collective intellect is being created, namely, general head of organization. Synergy is the effect integrated physical (communication systems, other technologies, and technical capabilities) and not material (organization’s microclimate, motivation, and motivation systems, expressed and not expresses knowledge) resources. Synergy is considered as the capability to create new, unique, valuable information for organization’s elements, which are influenced by various inner and outer factors of organization and employees. Generally, it is possible bring to the fore such important factors that influence the creation of synergy effect: capabilities, motives, activity. Analyzing already made researches connected to inner factors that make impacts to business efficiency through the impact to employees it was noticed that such tendencies as organization’s attention to every employee, to his or her needs, the growth of economical benefit through the growth of employee’s motivation, strong impact of organizational culture and relationships with colleagues on employee’s motivation, the impact of optimal regulatory of organization’s inner processes, especially communication, on both sustainable and competitive development of organization.

On the basis of these tendencies it was decided to suggest synergy effect created the model of organization’s microclimate, which is formed under the circumstances of ICT. The base of the model is compiled by qualitative communication and employees’ individual opinion.

![Figure 2. Synergetic links in modern organization matrix](image)

Bačkaitis & Barkauskas (2007) revealed the importance of competitive advantage to organization, and the process of its gaining to every subject for continuous bothering the strategic potential of their organization. On the basis of the results of the research it was formed the matrix of synergetic microclimate (see Figure 2) that suggests to take into account outer factors imperatively (especially the jurisdiction of government regulatory) not limited by inner organization’s environment. In the modern organization two types of processes exist, namely, the relationship between technological and human resources. The biggest
part of functions in this processes are made without dependence from each other but there are some processes where these types of processes crossed. Joined points appear during the most important, potentially useful processes for organization. That is the reason why creating capabilities to develop synergetic links the benefit for organization is increasing on this points. Seeking to ensure synergetic use (to crank growing synergetic spiral of use) very difficult task belongs to organization’s administration, which is responsible for regulated needed activities with ICT, ensuring technological unity in the organization, capabilities to use these technologies, the synchronization with communication system, and etc. For the practical use of this matrix organization’s human resources perception of synergy’s value and its giving opportunities has the urgent value. Sustainable organization’s microclimate must be motivated in order that human resources would look for circumstances to create synergy in their activities on they own. This synergy process will be included to the qualitative growing synergetic spiral, which gives better opportunities for organization to induce employees for looking for more possibilities to improve and optimize organization’s activity.

3. Empirical research

3.1 Methodology

Seeking to evaluate and set synergetic effect of ICT and management to organization’s microclimate in the 2nd-4th quarter of 2009 m. sociological empirical research was made. During it was collected by 10 organizations from every sector of country’s public, non-profit and commercial sectors. Seeking to get comprehensive data of research, organizations were collected for researches’ set by these criteria: the duration of activity (≥5 year), the number of employees (included voluntaries in non-profit sector) (≥100), processes related to the direct activity in the internet space (≥2 interactive services), the region of activities (not below municipal level). The match of stated criteria of organizations participated in the research is detailed in Table 1.

Table 1. The structure of research’s set

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Public</th>
<th>Non-profit</th>
<th>Commercial</th>
</tr>
</thead>
<tbody>
<tr>
<td>The duration of activity (year)</td>
<td>5–16</td>
<td>6–11</td>
<td>5–7</td>
</tr>
<tr>
<td>The number of employees (unit)</td>
<td>500–4000</td>
<td>100–150</td>
<td>120–200</td>
</tr>
<tr>
<td>The use of Internet means in the process related to the direct organization’s activity (year)</td>
<td>5–7</td>
<td>2–4</td>
<td>2–8</td>
</tr>
<tr>
<td>The field of organization’s activity</td>
<td>All country</td>
<td>Counties</td>
<td>All country</td>
</tr>
</tbody>
</table>

Seeking to ensure anonymity and circumstances for respondents to give their opinion comfortably, on time and openly the research was implemented by modern technologies giving questions in the virtual space. The questionnaire was made of three valuable questions’ groups that revealed the perception’s level of the concept of human resources’ synergy; synergy’s value for organization’s inner and outer processes; the perception’s level of the synergy’s impact on organization’s competition. 65,43 percent of questionnaires were back so the method of research is evaluated positively and research’s data are considered to be representative and based on.

3.2 Results and findings

The research of respondents’ activity creating synergy in different (see Table 2) revealed that in the public sector employees are interested in synergy and that its effect is known, valuated and implemented. The passivity in other sectors can be explained by different reason: no knowledge about synergetic effect and unwillingness to show it, no perception of wiki economy’s principles, and the lack of curiosity, etc. Such results in organization lead not qualitative education of human resources or the lack of skills, which make direct impact on the waste of organization’s resources and ignoring of making optimal decisions. Seeking to reveal the reasons of this passivity in non-profit and commercial sectors in detail it must be made further researches.
Table 2. The analysis of respondents’ activity in sectors

<table>
<thead>
<tr>
<th>Analyzed set</th>
<th>Sectors</th>
</tr>
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<tbody>
<tr>
<td>The distribution of respondents’ activity (unit/percent)</td>
<td>Public</td>
</tr>
<tr>
<td>668 (66.80)</td>
<td>414 (41.40)</td>
</tr>
</tbody>
</table>

The analysis of synergy’s links between ICT and implicated management methods in organization is possible only if employee’s knowledge about employees’ perception of synergy concept is analyzed and evaluated. Only 60 percent of respondents (see Figure 3) knew the concept of synergetic effect and the reasons why it is important. Seeking to filter individuals who are able to give their opinion about synergy in the scale of answers there was no possibility to choose the answer “I have no opinion”. These questions were asked to answer only those respondents who thought to know what the synergetic effect is and what its importance to organization.

Figure 3. The perception’s level of concept of human resources synergy analysis

The answers to questions about the impact of synergy’s link on organization’s inner and outer processes revealed very narrow respondents’ perception about synergy. The field of this effect is considered to be only the inner environment in organization. About 20 percent of respondents chosen the response option “Have no opinion”. It confirmed that respondents are unsure about their knowledge of synergy (see Figure 4).

Figure 4. The perception’s level of synergy’s value for organization’s inner and outer processes analysis

Seeking to act successfully in the market and supply qualitative services on demand it is important to know both what the users want and what the competitors can offer, what principles and methods of their activities. Only 20 percent of respondents think that they know about the use of synergy effect in their competitors’ activities. It shows that respondents lack of synergetic links evaluation. More than 50 percent of respondents assigned synergetic microclimate to the features of sustainable organization though asked “What is the sustainable organization?” the majority did not answer or compare it to the organization’s members relationship. It shows the lack of respondents’ knowledge about synergy’s issues.

Value-added interactions, created by synergistic links, were evaluated very differently. Non-profit and commercial sectors most likely to believe that the added value is not affected by synergy links, and synergy creation in the organization is the only value that contribute to the overall organization or the image formation. The competitive advantage of synergy is considered more significantly by the public sectors but the gap with the other two sectors is too small to be possible to keep the sector aware of their true synergy benefits (see Figure 5).

Figure 5. The perception’s level of synergy’s impact on organization’s competition analysis
Researches’ results showed that those who know about the sustainability creation in their organization and the concept of synergy evaluate these processes as very important and urgent for organization. It means that one of the most important steps for management is to give the knowledge about sustainability, synergy and to turn the organization to the direction of sustainable development ensuring synergetic microclimate in organization.

During the research it was set important limitation, namely, - the lack of competence in the field of synergy. That is the reason why the analysis of the synergy of ICT and management methods was unable. This situation shows what level of synergy application in organization is low so it is necessary to study these processes and induce their application in practice.

**Conclusion**

Synergy’s effect created in subject’s activity influences organization’s efficiency a lot. These effects may be reached combining various organization’s environment elements (environment and nature protection with social responsibility, technologies and collaboration’s forms, and etc.). The research showed that the synergetic interaction of ICT and management skills is one of the largest use given process, which needs employees to understand synergy and its given benefit. The research of the perception’s level of the concept of human resources’ synergy showed low level of knowledge about synergy as the method to optimize processes, its value to organization and the diffusion in non-profit and commercial sectors. Low education, weak motivation and inadequacy of employee’s and organization’s aims are the reasons of not knowing the possibilities to create synergy.

Seeking for organization’s sustainability organization’s microclimate should be created using at least two different organization’s factors, which could create synergy. Creating synergetic links modern organization’s microclimate should be based on the balance of technological and human resources processes as the modern competitive organization acts on the basis of the most modern ICT, whose efficiency is created by organization’s human resources. Unfortunately, the analysis of the perception of synergy’s value to organization’s inner and outer processes showed that respondents have very low knowledge about the possibilities of synergy creation, especially about synergy applying in the processes of organization’s relationship between ICT and human resources.

ICT, used in organization’s activities of communication and information management by competitive managers, who are able to integrate ICT and human resources processes fully, have a huge advantage against competitors, who do not use ICT systematically, and do it just for simple functions. Analyzing the perception’s level of impact of synergy on organization’s competition it was noticed that there is too low level of synergy application for successful study of these processes in practice.

**References**