Managing Intellectual Capital and Innovation for Sustainable and Inclusive Society 27-29 May 2015 Bari • Italy

Management, Knowledge and Learning Joint International Conference 2015 Technology, Innovation and Industrial Management

# UNDERSTANDING THE VALUE OF ORGANIZATIONAL LEARNING: THE UNUTILIZED INTERNAL RESOURCE

Tihomira Trifonova Strategma Agency, Bulgaria t.trifonova@strategma.bg

Yavor Markov Strategma Agency, Bulgaria jmarkov@gateway.bg

### Abstract:

This paper is the result of research performed for the purpose of designing a service that consults small and medium enterprises in Bulgaria, with potential enlarging the scope to other countries in the region, about approaches and practical steps to their organizational development. The applied research methodology was online standardized questionnaire administered among the companies to register their use (or lack thereof) of recognized OD methods. The research results disclosed a considerable gap between the world practice and the current situation of the target group. A major deficit of the Bulgarian SME is the missing link between the strategic goals, where they exist, and the actual performed activities, in particular in terms of management. The main cause we have identified for that is the missing practice of organizational learning and knowledge management. The paper examines two research questions: what would be the appropriate paradigm to introduce organizational learning for results and what factors will influence the choice. The first part makes a brief overview of existing OD models and their successes and penetration into the regular practice of SME in Europe and worldwide. The second part describes the current situation of organizational development among the target group of Bulgarian SME and analyses the reasons for this state of affairs. The third part explores the research questions and provides evidence-based options.

Keywords: organisational learning, SME, OD, knowledge management

# 1. INTRODUCTION

In his seminal work on organisations and innovation Chris Argyris (1965) said that the first step in developing a model of effective and ineffective interventionist strategy is to define more precisely the probable discrepancies in values and strategies between the client system and the interventionist. The environment in which the consultant has to perform tends to inhibit the factors, identified as facilitating the creation of valid information. And what happens is that she may be faced with a client system that may perceive her view of competent problem solving and effective systems as antagonistic to the client's view.

## 2. PENETRATION AND SUCCESS OF OD MODELS IN SME

In 1993 the leading American business consultancy Bain & Company launched a multiannual research project to collect quantitative information on the use of management tools and quality analysis of status and trends tools by the business (Rigby and Bilodeau 2005-2013, Rigby 1999-2003, Siddle and Rigby 2000). The data were collected with a questionnaire disseminated among respondents in more than 70 countries in North America, Europe, Asia, Africa, the Middle East and Latin America. In the period 1993-2000 the survey was annual and after 2001 it became bi-annual. In each survey Bain & Company identified 25 most popular and appropriate management tools and monitored the relevant management attitudes, expectations and behaviour. The total number of respondents for the period was around 12 000, and in 2013 they received 1208 completed questionnaires by a broad circle of international managers. The survey evolves from year to year and between 1993 and 2012 has incorporated a total of more than 60 techniques.

Those techniques are not of similar scope and can for methodological convenience be grouped in three functional categories:

- Tools addressing a specific management area, such as planning, measuring performance, monitoring, assessment etc.,
- Approaches covering related business processes of the resource management, customer management and relations, or quality assurance type;
- Complex methods addressing all the management aspects of an organization. Those will be (Lean) Sigma, Balanced Scorecard etc.

The average number of tools used by each of the interviewed companies varies, but there is a clear trend of business entities forming a portfolio of tools corresponding to the specific company needs. The data show that larger companies use broader sets of tools, and that the Asian and American companies use more tools than the European companies. The five most popular methods with the longest history of study appear to be strategic planning; customer relations management; benchmarking; outsourcing and defining the organisation's vision and mission.

It is evident from the survey results that the average number of tools used per company worldwide varies year-on-year throughout most of the period, but stays above ten, dropping slightly in the recent years. The data on small companies (here defined as companies with annual revenue of less than \$600M) disclose lesser numbers, dropping sharply in the last two surveys to 7.8 tools in 2010 and 5.5 tools in 2012. The analysts of Bain & Company interpret this in the following way, "Given the challenges to growth and competing demands for investments, companies now take a more thoughtful and strategic approach to tools instead of jumping on the latest tool fad".

Organisational development [OD] is not a single comprehensive theory. It is a practical scientific approach where knowledge accumulates and develops in the context of its implementation. The models designed on the basis of exploring the practice are action-oriented. The organisations are constantly exposed to the influence of external factors, which affects them in full or in part. Even when partial however, this influence modifies the overall behaviour. For instance a change in just the technological level of the production demands respective changes in the human factor, the structuring of production and workforce etc. Thus the effectiveness of an organisation is in direct correlation with the relative balance between its status and the status of its external environment. In its essence OD aims to improve the way organisations interact with their environment and function internally, so that better results and higher quality of the working environment are achieved.

The strife of OD theory and practice is to improve the organisational processes for problem-solving and renovation. This improvement often has the form of more effective management and modernisation of the organisational culture and is realised through an agent of change or a catalyst. The term 'agent of change' is synonymous to the idea of a leader targeting the transformation process. OD means planned and coherently implemented change.

The scientific method is a key to organizational development and for achieving effectiveness. That means research, in-depth exploration of the reasons, and experimental verification of hypotheses and review of the results. It should produce a set of tools, behavioural methods, attitudes and an action plan that help the organization monitor its status so that it could undertake corrective action for renovation and development. The concept corresponds to the systemic concept of feedback as a regulatory and corrective mechanism.

The focus of OD has changed with time from internal to a growing attention to the surrounding environment where the business functions. Thus it aims to help the economic operators achieve their strategic goals, partly by aligning them with this environment.

In their interdisciplinary review of some 200 publications on change Van de Ven and Poole (1995) identified four ideal types of relevant theories. They signified them as "life cycle", "evolution", "dialectic" and "teleology", and placed the OD in the framework of the latter. The teleological framework describes the organizational change as a result of a targeted social construct of the organization's members. The driver of development is a cycle of goal definition, implementation, evaluation and change. The organizational change is driven by goals and the strife for change emerges when the people in the organization have the feeling that the current situation prevents them from achieving those goals. The focus is on processes that enable targeted actions for goals achievement. The framework is present in most modern theories of organizational change, such as the evolutional innovations (Salaman and Storey, 2002) and institutional advocacy (Minkoff 1994). The theories of leadership of change (Gill, 2003) also rely on it.

Regardless of its multitude in the past decade, the literature on OD shows lack of theory of the intervention processes, with the exception of the work of Argiris. The literature in this field is concentrated not in the academic community but in the action field of the management consultancies. Therefore they are predominantly instrumental and are rarely bound with the basic organizational science (Bushe & Marshak, 2009; Cooperrider & Whitney, 1999; French & Bell, 1998; Garrety & Badham, 2000; Shani, Adler, Mohrman, Pasmore, & Stymne, 2008).

In 1962 Livitt assumes that the organisations can be developed or changed by means of modification of one or more of three basic components – people, structure and technology. Twenty years later Peters and Waterman expanded the scope of the components in their 7-componential framework analysing leading American companies – known as the 7-s framework of McKinsey – that includes: system, strategy, structure, style, staff and shared values.

The latest applications of OD aim at such structuring of the organisations that corresponds at the same time to their strategic goals and to the environment in which they function. With the growing and faster, and more complicated changes in the environment radical changes are needed in the way the organisations construct and compete. In other words, OD is broadening the focus toward the entire organization and its competitive environment.

Deriving from the various aspects of corporate strategies, OD creates interventions for assessing the competitive situation of the organization when changes in the strategy are deemed necessary. This usually involves the so-called SWOT analysis. In its more recent forms OD also applies knowledge management to the organizational change in the framework of the "learning organization" paradigm. This helps the companies build capacity for learning lessons from their own actions and effectively using the accumulated knowledge, and in a changing and complicated environment it can provide a strong competitive advantage.

The practical implementation of OD has two defining components:

- i. it is an endogenous process where the participants have to realize the processes they are included in;
- ii. the organizational processes are cyclical and each of them is dynamically changing in time.

One of the main challenges is that the efforts often encounter opposition because changes in the rules mean accompanying changes in the power relations. The process approach, established as the leading, takes into account the social character of the organisations and the fact that the way of performing activities is not less important than their achievements.

Very often people on management and leadership positions focus on the current problems and assume that it is the current problem that drives and determines the scope of the solution. When however the situation and the challenges are wrongly identified, the people with constructive attitude tend to focus on the desired situation. They start designing conceptual solutions at an early stage of the process because an ill-defined problem can be hard to comprehend without being linked to an ideal targeted solution, introducing new values and purposes in the construing process. According to Banathy (Banathy, 1996; Romme, 2003a) focusing on the system where the problem situation is implied closes the consultant in its current status, although the most effective solutions are often found outside the existing system.

If the solution can be suggested in the framework of the existing system, there will be no need for designing a new one. Therefore people with forecasting inclination can only identify the problem in the light of its solution. Thus in fact the solution informs them of the true problem.

Institutionalizing knowledge is considered an important means of transfer. Series of evidence exist however suggesting that the high levels of standardization and codification of knowledge undermine the processes of organizational transformation (e.g., D'Adderio, 2004; Garud & Kumaraswamy, 2005; Orlikowski, 2002). In other words, the high level of codified knowledge could suffocate the ability to discover effective proposals for interventions (Leonard-Barton, 1992). An interesting example is the attempt to design and implement knowledge management practices in Infosys Technologies, a global software service company. In the early 1990s Infosys began transforming the knowledge of its employees into a source that was meant to secure access to every learning opportunity in the company for every officer. The project was organized around a central portal and an accompanying email, a newsletter panel and storage of marketing, technical and project-oriented information. In order to motivate the employees to make a contribution to the portal, Infosys introduced a system of incentives, including money awards. This had several unintended effects – information overload, reduced quality and value of the proposals and the culture of free knowledge exchange began falling apart (Garud & Kumaraswamy, 2005).

Other studies showed that a certain level of knowledge standardization and codification can appear to be very useful. For instance manuals and software applications can help the officers adapt their routine activities by enhancing the agreement of dispersed officers about the way the intervention should be implemented and by assisting the ex-post evaluation for possible corrections (Zollo & Winter, 2002). Also the introduction of a common communication protocol is beneficial for the knowledge and information exchange.

There is abundant evidence that the dialogical approach to OD increases the quality of the results, but also the commitment to those results (e.g., Bushe & Marshak, 2009; Kim & Mauborgne, 1993; Oswald, Mossholder, & Harris, 1994). At the present stage the researchers have come to the idea of second-generation OD that includes organizational transformation; organizational culture; learning organization; total quality management; business process reengineering and quality of the work life.

## 3. BEST SCORING MODELS

While many models have appeared and disappeared, McKinney's 7-S framework has for decades now preserved its validity. The core idea of this model that seven internal aspects of the organization should be accorded if it wants to be successful makes it applicable in any situation: performance improvement, exploring the probable effects of future changes, according divisions and processes during restructuring and defining the best way of implementing a proposed strategy. The model can

also be used with teams and projects. The seven aspects are interrelated and divided into two categories: "hard" and "soft". Placing the "shared values" in the middle emphasizes the idea that they are crucial for the development of all the remaining elements. The structure, strategy, systems, style, staff and skills set derives from the idea of creating the organization and from its beliefs. Changing the values means changing all the other elements.

The *Total Quality Management* model and its modern interpretations like Six Sigma form the foundation of the second generation OD. The focus of this model is the client-supplier relationship, which is characterized by a series of processes. Success is determined by the organisation's commitment to quality and its culture. A key component of the recent formats of this model like Six Sigma is that before embarking on process improvement, the organization should achieve understanding of the processes. For the identification, measuring, prioritizing and improving the processes that determine the quality numerous instruments and techniques are used, among them DRIVE (Define, Review, Identify, Verify, Execute/ and the performance improvement model DMAIC (Define, Measure, Analyse, Improve and Control). Another Six Sigma methodology DFSS (Design for Six Sigma) is used for systematic development of new products and services that correspond to the clients' expectations and the quality level of Six Sigma.

The *Balanced Scorecard* – a concept that measures the activities of an organization against its vision and strategies in order to provide the management with a comprehensive picture of its performance – identifies four reasons why a strategic plan may fail to produce results: (1) the middle management does not understand the strategies developed by the top management; (2) the goals of most of the staff members are not related to the organisation's strategy; (3) the organizational resources (time, energy and financial) are not channelled toward things considered a determinant for the organisation's success; (4) the management does not give sufficient time to the strategy at the expense of the shortterm tactical solutions. The Balanced scorecard has four main components:

- Financial perspective;
- Client perspective;
- Internal process perspective;
- Learning and growth perspective: the way the organization improves its ability to innovate, improve and learn.

The *"value chain"* model is another powerful tool used by the managers to identify key company activities that form the chain of value of the organization and have the potential of sustainable competitive advantage. The organisation's competitive advantage is in its ability to perform determining activities along the value chain better than its competitors. Whether a company will be profitable largely depends on how effectively it manages the activities along the value chain, so that the price that the client is ready to pay for its products or services exceeds the relative cost of those activities.

## 4. CURRENT SITUATION AMONG BULGARIAN SME WITH REGARD TO OD

The description of the situation in Bulgaria is based on primary research, a survey of 30 respondents from Bulgarian business organisations, mostly but not exclusively SMEs. The data collection method was an on-line questionnaire, completed with face-to-face interviews. It explored the level of awareness of established OD methods, the attitudes to them and the status of organizational learning, and tried to comparatively allocate the Bulgarian SMEs in the global picture. Most of the interviewed managers are generally familiar with the concept of organizational development. Their understanding of this notion however shows great variations, and collectively incorporates most of its aspects. Overall, we can state that the managers and experts realize its complexity because they most often define it as "an aggregation". The main components of OD quoted by the respondents were the processes; a balance between external and internal environment; internal company communications; introduction of good management practices. Nearly half of the interviewed were of the opinion that OD targets mainly the human resources and their management function, and therefore relate it to improving the capacity and skills of the staff members.

As regards specific OD methods, it is evident that the Bulgarian SMEs are familiar with a rather narrow range, especially when compared with the international companies. The most popular among them appear to be methods of generic character like strategic planning (SP), work process optimization,

change management, reengineering and job rating. Of the specific methods designed by the management consultants they were only able to name one or two at the most.

To complete the data we used available public information about the participants. A deeper look into it revealed that practically all of them use "Mission and Vision Statements" (MVS), but do not explicitly identify them as OD tools. MVS was the second most popular tool in the 1990's according to the Bain & Company surveys, and has declined in popularity since then. A number of participants in our survey also mentioned use of generic strategic planning approaches, and SP is consistently the most popular tool till today according to the Bain & Company surveys.

Most Bulgarian managers are convinced that in order to respond to the dynamic changes in their environment, they need to collect data systematically and continuously with the help of traditional methods and the modern information technologies. This data should be accessible at any time for analysis, assessment and, where necessary, initiation of change. The middle management representatives would prefer data collection at a set time period (1 or 3 years) rather than continuously.

From the point of view of their approaches to change the preferred option is a combination, where the main parameters of change are determined by the leadership based upon the proposals of the teams. This approach derives from the shared value system in the framework of the organization. A large proportion believes that the change should be rational and organized, planned, linear and driven by a data system, which means a top-down hierarchy. The followers of the bottom-up approach that engages more internal and external stakeholders with shared understanding and a focus on the "follow the leader" model was defined as less realistic. The preferred approach to established weaknesses in the company is an action plan for removing the failures. Also popular is the open dialogue with the broader personnel that generate more energy and motivation for positive changes. At this stage it is however more wishful thinking than a real-life practice. Development based on the strengths is much less preferred.

When confronted with the need to change their human resource management, most of the respondents rely on improving the working environment and training the staff how to monitor their work and remove the deficiencies in the work processes. For the purpose of increasing the quality, the SME prefer to introduce established international standards or internal rules by adapting one or more of the methods recognized worldwide without formal certification.

Regarding the overall satisfaction levels, there is a marked difference between the situation worldwide, where SP and MVS consistently exhibit among the top satisfaction levels, and in Bulgaria, where the effectiveness of the methods seems to be perceived as vague. A possible reason could be the position of SP and MVS as parts of an integrated/holistic approach to OD in leading organisations versus a stand-alone/disjointed implementation in Bulgaria.

Anyway, it is a limitation of the study that it discloses the facts but provides little information about the their causes.

To sum up, in order to capture the expectations of participants regarding an optimal OD approach and in view of their lack of knowledge of and exposure to specific tools and methods, we provided descriptive multiple-choice selections of the possible main characteristics. The result was the following description:

- comprehensive (complex) approach to OD, which does not place the focus on a specific aspect, and is based on achieving sustainable high quality in the organization;
- a clear long-term vision and strategy for the development of the organization implemented by the management at all levels.

In more details, the approach as the Bulgarian SMEs imagine it should feature:

- a long-term perspective based on the formulation of a main strategic development plan, and an alternative;
- continuous monitoring and systematic data collection, using traditional methods and modern information technologies, and accessible tools for analysis, evaluation and, where necessary, change initiation;

- a combined approach to change the basic parameters of change should be set top-down and combined with bottom-up proposals, deriving from a common value system;
- tackling identified weaknesses through either an action plan, aimed at correcting errors and addressing weaknesses, or an open dialogue with all employees, generating energy and motivation for positive change (envisaged as less realistic);
- developing the human resources through improvement of the working environment and staff training on business process monitoring and error correction, or through periodic staff discussions of current issues, and proposals for their solution.

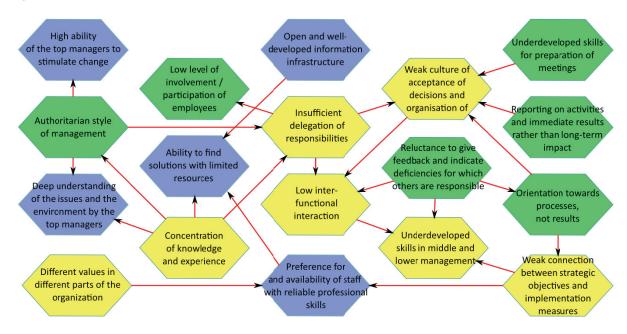
The outlined characteristics describe many of the complex, integrated, and holistic OD methods, addressing all the management aspects of an organisation. They however require specific implementation expertise and longer horizon for effecting positive developments. This situation is reflected in the Bain & Company surveys. Typical representatives of such methods, e.g. (Lean) Six Sigma, are well below average in popularity and below or about average in satisfaction levels. A different method, the Balanced Scorecard, has been rising in popularity in the last decade, reaching a top 5 status in 2012, and consistently having above average satisfaction levels.

Our study specifically asked an open question "In any recent changes made in your organization - regardless of their nature - who/what played the role of an 'Agent of change'?". The majority of the answers mentioned the business owners, the top management, and in two cases a parent international company. No cases of using external consultancy expertise have been registered. This shows that most of the management expertise is concentrated in the owners/ top managers of the companies, especially as regards the SMEs.

From our survey data, as well as other referenced sources, we extracted the main features of the organizational environment in Bulgaria, and to a large extent in the region. Those are:

- Authoritarian style of management, which has both
  - positive effects: deep understanding of the issues and the environment by the top managers, good ability of the top managers to stimulate change, ability to find solutions with limited resources, and
  - negative consequences: insufficient delegation of responsibilities, concentration of knowledge and experience, low inter-functional interaction, underdeveloped skills in middle and lower management.
- Orientation towards processes and not results, which have major negative consequences: lack of connection between strategic objectives and implementation measures, different values in different parts of the organization, weak culture of acceptance of decisions and organisation of meetings.
- Short planning horizon for businesses 1 to 3 years at the most;
- Strengths are:
  - o open and well-developed information infrastructure; and
  - o preference for and availability of staff with reliable professional skills.

Links between the key components are illustrated in the following Figure, which is an adaptation of a graph in McKinsey.



#### Figure 1: Links between components of the organisational environment of Bulgarian SMEs

## 5. THE ORGANISATIONAL LEARNING PARADIGM

The concept of Organisational Learning (OL) includes structural and procedural arrangements, through which actions by members that are understood to entail learning, are followed by observable changes in the organisation's pattern of activities. These arrangements are called organizational learning mechanisms (OLMs). That is to say, OLM are institutionalized structural and procedural arrangements that allow organisations to learn non-vicariously - to collect, analyse, store, disseminate and use systematically information, relevant to their and their members' performance (Popper and Lirshitz, 1998). OLMs link learning in organisations to learning by organisations in a concrete, directly observable fashion. Therefore OL is the process in which the organisation's members actively use data to guide behaviour in a way as to promote the ongoing adaptation of the organization.

Depending on when and by whom they are operated, OLMs can be classified as integrated or nonintegrated and designated or dual-purpose mechanisms. We speak of integrated OLMs when their operators and clients are identical and of non-integrated when the operators and clients are nonidentical. With the designated OLMs learning takes place away from task performance, while with the dual-purpose it takes place in conjunction with task performance. The integrated and the designated organizational learning mechanisms are considered the lowest level of organisational learning.

OL is likely to yield productive learning, if it is embedded in an appropriate organizational culture, i.e. a normative system of shared values and benefits that shape how the organization's members feel, think and behave (Schein, 1990).

What conditions make organizational learning more feasible? Empirical evidence shows the following:

- a high level of environmental uncertainty: dynamism, i.e. rate of change (a basic component of uncertainty) requires adaptation, and successful adaptation is contingent on effective learning.
- literature results: without the operation of OL (in the form of training, information storage, retrieval and dissemination) information gathering increases uncertainty;
- costly potential errors: failures that are most effective in fostering learning are "intelligent failures";
- high level of professionalism: OL is facilitated by a norm, or mind set of professionalism. Professionalism is defined as the extent to which experts master and keep abreast of the knowledge pertinent to their field;
- strong leadership commitment to learning: needs managers' active and visible commitment to learning.

Unless some of these conditions are present, efforts to institutionalize OL are most likely to fail. The capability of real-world organisations to draw valid and useful inferences from experience and observation, and convert them into effective action is however the crucial step where they most often need external impetus and expertise to cope. In order to sustain the value hierarchy of a learning culture, they have to be supported at every stage of this hierarchy, until the OL actually becomes the dominant internal culture, and therefore an intrinsic feature of how the organisation approaches its tasks and performs its activities.

With this reference we come to the research questions of "What would be the most appropriate paradigm to introduce organisational learning for results?" and "What factors will influence the choice?" and will explore them against it.

Taking the world view, Bulgarian SMEs are in the group of European enterprises, which tend to use less OD techniques in the first place. But compared with the rest of Europe, they fall even further down the rank, because of much poorer familiarity with them. What is more, the majority are much smaller than the accepted definition of "small" and therefore their capacity to keep track of and employ modern management techniques is substantially more limited.

In the meaning of Bain & Company interpretation, they do take a more thoughtful approach to the use of OD methods, but for different reasons. This approach is driven by necessity and not experience, since they have never actually "jumped on the latest tool fad". The Bulgarian SMEs have not really gone through the first generation of OD. So a further question to examine will be whether this is a condition for successfully utilizing the second generation, i.e. whether a jump up is possible in the first place.

The stated conviction of the managers that the best approach to change would be to train the staff to monitor their work in order to improve the organisational processes for problem-solving and renovation is knowledge-based. "We live in a world where there is a flood of information, but famine of knowledge", says Auroville. Self-monitoring is a very complicated procedure and, as the case appears to be, deprived of the scientific methods, which is a key to effectiveness, the probability of achieving the desired results is meagre. The majority of enterprises do make some attempts at data collection, but their ability is limited because it is not organised by any systematic logic. In this way data collection fails to produce knowledge generation.

Taken the considerable level of uncertainty of the environment, this is a crucial impediment to success. It is a distortion in the first stage of the process – the knowledge generation – that eviscerates the next stages of knowledge codification, knowledge retrieval and knowledge transfer. What is more, the registered approach to organisational change is more or less democratic, believing in the open dialogue with the broader personnel and its power to generate energy and motivation, but not truly dialogical. The reasons for this are twofold: on the one hand the management is not really heuristically prepared to manage the change and on the other, there is no readiness at the lower levels to assume responsibility for their decisions. As a result, the bottom-up approach to change is not considered realistic by most.

Overall, this study concluded as follows: (i) the SME managers' awareness level of OD methods can be defined as medium to low; (ii) there is a recognized need for what they describe as a scientific method; (iii) the level of satisfaction with the applied methods is low; (iv) the management expertise is insufficient and over concentrated in the owners; (v) management learns mainly from own experience and not from theory or ready-made solutions. Therefore we could assume, as defined by Argyris that in our case the client system perceives the consultant's view of competent problems solving as antagonistic to its own to some extent. It emphasizes saliently the lack of theory of the intervention processes, and this paper aims to contribute to filling this knowledge gap.

If we map the survey conclusions against the organisational learning feasibility conditions, as formulated in the literature, we can see that by those criteria it should be feasible for Bulgarian SMEs. At least three of the five are discernible to an extent: there is a high level of environmental uncertainly, additionally increased by the absence of literature results; there is high professionalism, coupled however with absent organisational commitment; and there is desire for strong leadership commitment to learning, but poor realisation.

In this situation intuitively the best paradigm to introduce organisational learning for results would be developing knowledge of the strengths-based development. A focus on the desired situation, rather than on the problems, may overcome the substantive barriers to the capability of the enterprises to learn from experience and available information, to transform the knowledge into action, and to transfer it across the organisation. Use of external assistance has not been and is still not part of the organisational culture of our target population of SME, but as consultants, it is our job to provide the missing expertise and create the impetus for SMEs to make this happen.

# **REFERENCE LIST**

- 1. Argyris, C. (1965). Organisation and innovation. Homewood, IL: Irwin
- 2. Argyris, C. (2004). *Reasons and Rationalizations: The Limits to Organizational Knowledge*. Oxford: Oxford University Press. ISBN 0-19-926807-X
- 3. Banathy, B.H. (1996). Designing social systems in a changing world. New York: Plenum
- 4. Blagutin, M., Keller, S., Price, C. & Tochin, A. (2014). *Organizational Vitality*, McKinsey Journal: Theory and practice of management, 31, Retrieved from http://vestnikmckinsey.ru/archive/nomer-31
- 5. Bushe, G.R. & Marshak, R.J. (2009). *Further reflections on Diagnostic and Dialogic forms of Organization Development.* The Journal of Applied Bihevioral Science. September, 45.
- 6. Cooperrider, D.L. & Whitney, D. (1999). *Collaborating for Change: Appreciative Inquiry.* Berrett-Koehler Publishers
- 7. D'Adderio, L. (2004). *Inside the virtual product: How organizations create knowledge through software*. Edward Elgar Pub.
- 8. French, W.L. & Bell, C.H. (1998). Organization Development: Behavioral Science Interventions for Organization Improvement. Prentice Hall
- Garrety K., Badham R. (2000). *The Politics of Socio-Technical Intervention: An Interactionist View*. Technology Analysis and Strategic Management. Special Issue "Political Processes in Management, Organization and Social Shaping of Technology" edited by Christian Clausen, Patrick Dawson and Klaus T. Nielsen 12
- 10. Garud, R. & Kumaraswamy, A. (2005). Vicious and Virtuous Circles in The Management of Knowledge: The Case of Infosys Technologies. MIS Quaterly. Special Issue
- 11. Gill, R. (2002). Change management or change leadership? Journal of change management, Volume 3, Issue 4
- 12. Kaloshkina, M., Turnbull, D. & Heywood, S. (2014). *How to manage the complexity within an organization.* McKinsey Journal: Theory and practice of management, 31,Retrieved from http://vestnikmckinsey.ru/archive/nomer-31
- 13. Kim, W. & Mauborgne, R. (1993). *Effectively conceiving and executing multinationals'* worldwide strategies, Journal of International Business Studies 24
- 14. Markov, Ya. & Trifonova, T., (2013). Report on the results of data clusterization and its interpretation. STRATEGMA Agency, NIF contract No. 6/μΦ-02-8/15.12.2012
- 15. Markov, Ya. & Trifonova, T. (2010). Bulgaria ICT RTD Technological Audit. European Commission, DG Information Society and Media.
- 16. Minkoff, D. (1994). From service provision to institutional advocacy: The Shifting Legitimacy of Organisational Forms. Oxford Journals, Social Forces, 72 (4)
- 17. Orlikowski, W. (2002). *Knowing in Practice: Enacting a Collective Capability in Distributed Organizing*. Organization Science, 13
- 18. Oswald, S., Mossholder, K. & Harris, S. (1994). Vision Salience and Strategic Involvement: implications for psychological attachment to organization and job. Strategic Management Journal, 15
- 19. Popper, M. & Lipshitz, R. (1998). Organisational Learning Mechanisms: A Cultural and Structural Approach to Organisational Learning. Journal of Applied Behavioural Science, 34
- 20. Rao, M. (Ed.) (2004). Knowledge Management Tools and Techniques: Practitioners and Experts Evaluate KM Solutions. Elsevier Pub. ISBN: 978-0-7506-7818-6
- 21. Rigby, D. (1999). Management Tools and Techniques: A Survey, Bain & Company, Inc.
- 22. Rigby D. (1999). Management Tools & Techniques 1999, Bain & Company, Inc.
- 23. Rigby D. (2001). Management Tools 2001 Global Results, Bain & Company, Inc.
- 24. Rigby D. (2003). Management Tools 2003, Bain & Company, Inc.
- 25. Rigby D. & Bilodeau B. (2005). Management Tools & Trends 2005, Bain & Company, Inc.
- 26. Rigby D. & Bilodeau B. (2007). Management Tools & Trends 2007, Bain & Company, Inc.
- 27. Rigby D. & Bilodeau B. (2009). *Management Tools & Trends 2009*, Bain & Company, Inc.

- 28. Rigby D. & Bilodeau B. (2011). Management Tools & Trends 2011, Bain & Company, Inc.
- 29. Rigby D. & Bilodeau B. (2013). Management Tools & Trends 2013, Bain & Company, Inc.
- 30. Romme, G. (2003). Organizational Development Interventions: An Artifaction Perspective. The Journal of Applied Behavioral Science, 47(1),
- 31. Salaman, G. & Storey, J. (2002). *Managers theories about the process of innovation*, Journal of Management Studies 39:2
- 32. Schein, E. (1990). Organisational Culture. American Psychologist, 45
- 33. Shani, A., Mohrman, P. & Stymne, B. (2008). *Handbook of Collaborative Management Research*. Sage Publications Inc.
- 34. Siddle, R. & Rigby D. (2000). Which management tools are most popular?, Bain & Company,
- 35. Van de Ven, A. & Poole, S. (1995). *Explaining development and change in organizations*. Acad Manage Rev
- 36. Zollo, M. & Winter, S. (2002). *Deliberate learning and the evolution of dynamic capabilities*. Organization Science, 13