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The use of Balanced Scorecard and the Cognitions of Dialectical Systems Theory as an Opportunity for Innovative Renewal of Company Operations

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I. INTRODUCTION

In the article, we will focus on the renewal of business processes triggered by the introduction of Balanced Scorecard (BSC) as a managerial system/tool into the business practice of companies. Cognitions available in theory and practice will be upgraded with cognitions of the Dialectical Systems Theory (DST) which we believe can help in solving organization–developmental dilemmas companies are facing in today's operations in competitive environment.

The holistic concept of the renewal of business processes with considering the principles of DST in conditions which the majority of companies operate in is an opportunity if not a necessity as DST directs people toward more holism of approach and wholeness of outcomes with the help of creative interdisciplinary cooperation. Taking into consideration the significance of intangible assets indicates a more holistic approach, as it is an essential condition for the existence of each company. The basic challenge of today's management and leadership in companies is how to use intangible and tangible assets in favor of measurable results or

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how to, finally, increase the value of the unit of ownership capital (value per share or unit of business share). BSC illustrates a strategic managerial system (i.e. an instrument) which is also a communicative tool and a system of measurement at the same time and it largely deals with intangible assets and the use of more holistic approaches in realizing business strategies than companies have been using until now. BSC as a balanced system (i.e. complex entity) of indicators has been through more phases, each being more perfected than the previous one. The first phase was used between 1990–1992 (indicators as an assessment tool or an improved system of measurement), the second phase was in use from 1992–1996 (the development of indicators from top to bottom into a management tool), the third phase has been in use since 1996 (indicators as a strategic communicative tool). The fourth generation of a balanced system of indicators, which is supposed to additionally focus on the internal control of companies' operations, is now in the preparation or completion phase.

The indicated co-use of DST cognitions in the renewal of business processes which are a result of BSC implementation opens a possibility of reflection on a new paradigm of companies' operations in the sense of considering the demands for sustainable development. It is about the connection among economic, social and environmental aspects of operations in an individual company. Management in companies would transform itself into values-oriented sustainable management, which presents the basis for a sustainable development of each company.

II. A STRATEGICALLY ORIENTED COMPANY—AN INNOVATIVE COMPANY

A strategic – innovative company is deemed able to transform strategies into actions, use synergies in operations, understand the defined strategy as everyday work and carry it out as a continuous process. The use of BSC enables all that. Problems in most companies arise at the point when companies using BSC realize they have to renew their predominating habits in order to renew their business processes and

use a new strategy to preserve their competitive advantage in the market and satisfy the expectations of all involved. Regarding cognitions of DST on the point when we decide to renew business processes is useful from the viewpoint of sustained development of the company. In the past, it applied that a company (with the use of BSC) with new focus, adjustment and learning achieved nonlinear successfulness, which means that the whole was actually a lot bigger than the sum of individual parts (Kaplan, Norton, 2001). The shortcoming of the past was too little wholeness, which was a characteristic of companies, which did not succeed in becoming strategically oriented. Today's innovative companies need management mastering strategies, not only tactics.

III. THE IMPORTANCE OF INTANGIBLE ASSETS IN INNOVATIVE RENEWAL OF BUSINESS PROCESSES IN A COMPANY

In companies operating in developed market economies tangible fixed assets have not been a subject of economic analyses for a long time, or at least they do not play an important role in connection with company evaluation or feasibility study of individual projects. They play a more important role only with bank calculations of companies' credit standing. Management in innovative companies is aware of the fact that tangible assets (tangible fixed assets) in balance sheets of companies are too often overvalued, as these are specific assets which cannot be entirely used in business processes outside the respective company. This fact causes that the recoverable value (fair value lowered for costs of sale) is substantially lower than net book value in most cases. After the year 1995 there has been a distinctive trend of growth in the significance of intangible assets. The data on the increasing share of intangible assets in the value of companies show bigger and bigger influence of intangible assets. The average share of intangible assets in the value of companies in the year 1982 was 38 %, in 1992 it was already 62% and recently 75 % (Niven, 2006). Intangible assets are fixed assets as they are parts of a company within the basic activity and are assets which are held long-term for the production or provision of products, services, leasing or office needs, but do not exist physically (SRS, 2 Jan. 2006).

The newest research assigns or forecasts only 15 % share in the market estimate of companies' value to tangible assets. When discussing the significance of the Balanced Scorecard as a managerial system of companies, one needs to be aware that until recently only technological innovations played an important role; non-technological innovations which, combined with technological ones, are a motive power of development and an indicator of a company's innovative aptitude are (were) neglected. In its developmental cycle the

Balanced Scorecard slightly refers to non-technological innovations as well and also mentions them in the context of intangible assets. This refers to the aspect of learning and growth as well as the viewpoint of internal business processes, which enable a company to possess the infrastructure for achieving ambitious goals. This provides room for BSC.

IV. THE ROLE OF BSC IN INNOVATIVE RENEWAL OF BUSINESS PROCESSES IN A COMPANY

a) *BSC as a Strategic Managerial System*

Gaining feedback and control over short-term businesses with the help of mostly financial and less nonfinancial indicators is characteristic of past operations in companies, which today operate as innovative companies in the extent in which they changed their management method, if today we understand the management as a coordination of processes in a company. BSC emphasizes that financial as well as nonfinancial indicators must be a part of an information system for employees on all levels. The goals and indicators of success in BSC originate from the process from top to bottom, which is led by the mission and strategy of a business unit (or wider: a company). BSC changes the mission and strategy into tangible goals and indicators representing balance between external indicators for shareholders and clients and internal indicators of key business processes, innovations, learning, and growth. Balance is also present among indicators of past success and future operations and among objective result-indicators and subjective motive-powers of their successfulness. Innovative companies do not use BSC as a tactical or operative system but as a strategic managerial system (i.e. network of instruments) within which the following processes are carried out (Kaplan, Norton, 2000):

- Explaining and realization of vision and strategy,
- Intervention and connection of strategic goals and indicators,
- Planning, goal setting and adjustment of strategic initiatives,
- More effective obtaining of strategic feedback and improvement of learning processes.

b) *Noticed Shortcomings Until Now*

In the period from the beginning of the BSC use in business practice at the start of the 1990's until today shortcomings in the BSC use as a strategic managerial system have been noticed. These shortcomings also came across the dilemma of connectivity of BSC as a managerial system with sustainable development of a company.

Fundamental starting points, which basically need to be focused on, are ethics of interdependence, forming a suitable culture of a company, and the use of systems thinking (Mulej et al., 2012). The present

business practice introduces the Balanced Scorecard into companies' operations too one-sidedly; therefore, the law of entropy stands out too many times, as interdependence is not taken into consideration enough. The problems companies face when introducing the Balanced Scorecard into their business practice in transitional countries is not found in literature yet. Empirical data are not yet available. In the USA, there have already been suggestions for completion and changes of indicators and criteria based on perceived shortcomings. These are (Brown, 2007):

- i. Many criteria are obsolete;
- ii. No criterion measures ethics;
- iii. There is still a problem in adjusting goals, strategies and criteria;
- iv. Criteria are still not arranged to lower managerial levels;
- v. Bonuses for the employees are still not connected with nonfinancial criteria;
- vi. A lot of goals are still defined freely;
- vii. Criteria measuring client satisfaction are still largely basic and need upgrading;
- viii. Criteria for evaluating human capital are not accounted for enough or are completely disregarded;
- ix. The use of pictogram is still intended for review only;
- x. The Balanced Scorecard never includes some of the external factors which could largely influence the company's success.
- xi. Shorty, criteria are no holistic enough, hence application of DST might solve this problem.

V. THE POSSIBILITY OF USING DTS COGNITIONS IN INNOVATIVE RENEWAL OF BUSINESS PROCESSES IN A COMPANY

a) *Basic cognitions of the Dialectical Systems Theory (DST)*

In contrast to the General Systems Theory, which draws its starting points from nature, DST results from the human being's work process and the role of the human being in reality. Unlike the general systems theory DST represents its upgrade and criticism at the same time. It is about an attack on one-sidedness of viewpoints about solving (in our case) business problems in favor of holism. We get wholeness if we comprise systemics, systematics, dialectics, materialism at the same time (Mulej, 1996). Therefore, as Mulej pointed out, DST presents a way of thinking which tries to attain proportional wholeness with the use of a system of all essential and only essential viewpoints of object under consideration. In a word, modern treatment of modern complexity asks for combining specialization and systems thinking and operations into a capability that is trans-disciplinary in order to exceed the borders of individual sciences and bad connectivity of sciences

in order to practice creative cooperation in terms of requisite holism.

In entrepreneurial business practice the Dialectical Systems thinking/behavior means that leaders and other influential people may not allow for the prevalence of a traditional way of thinking if a company is to master modern conditions. Thus, the following may not happen (Mulej, 2000):

- Co-workers, equipment, raw material are not complementary enough by their difference,
- Equipment, raw material, knowledge and values of people are not updated enough,
- Co-workers and organizational units are isolated from one another instead of cooperating creatively as much as possible and needed,
- Anyone demands that only one person is always right instead of being always prepared to listen to others, mostly to those who are specialized in different fields, have different opinions and suggestions,
- Anybody turns down new ideas too quickly instead of allowing them to be developed gradually and offering possible and required help,
- Anyone claims that nature is something else than people; therefore, it is not necessary to perceive mankind as an important part of nature and natural environment as an important part of human life, a source of raw material and a dumping ground.

Within the innovative renewal of business processes DST offers a general methodological basis of work with which we attempt to consider all essential and only essential characteristics of the discussed phenomena, including its environment and their changing (the same applies to interconnections). The structure of DST is the following (Mulej, 2000):

- Three elements: two systems of guidelines (for subjective starting points which can be influenced and play an extremely important role, (1) to define objectives, (2) to realize objectives) and the methodology for modeling creative cooperation and
- Three relations between them: the law of hierarchy of succession and interdependence, the law of entropy, the law of requisite holism.

Consideration based on the cognitions of DST can be particularly useful within the process of innovation inside the viewpoint of internal business processes, where it is basically about defining the client's needs and later satisfaction thereof. Quality definition of clients' needs and innovative offer of products and services in the market with which one outruns competitors presents the basis for suitable organization of internal business processes including operative processes. It refers to searching »voids« and opportunities by using the general methodological basis of work. The process of innovation presents the basis of company's competitive advantage.

Table 1 : One can create at least 40 types of innovations

Inventions and (potential) innovations – 3 criteria	Results of inventions, potential innovations, innovations		Official duty to create inventions, potential innovations, innovations	
	1. Radical	2. Small	1. Duty	2. No duty
Content of inventions, suggestions, potential innovations, innovations				
1. Business program	1.1.	1.2.	1.3.	1.4.
2. Technical-technological	2.1.	2.2.	2.3.	2.4.
3. Organizational	3.1.	3.2.	3.3.	3.4.
4. Management style	4.1.	4.2.	4.3.	4.4.
5. Methods of management, work and cooperation	5.1.	5.2.	5.3.	5.4.
6. Market operations style	6.1.	6.2.	6.3.	6.4.
7. Management procedure	7.1.	7.2.	7.3.	7.4.
8. Values, culture, ethics and norms	8.1.	8.2.	8.3.	8.4.
9. Our habits	9.1.	9.2.	9.3.	9.4.
10. Habits of others	10.1.	10.2.	10.3.	10.4.

b) *Innovation of Values, Culture, Ethics and Norms in a Company*

There is a lot of literature on 'knowledge management', but the fact that the use of knowledge depends on its user's values remains overlooked. For example: if one has learned to shoot, it does not depend on the skill/knowledge whether one will shoot at a person or a paper target. Values of an influential person attract others and expand into culture, i.e. common values of the entire group, for example, political parties, professional societies, circles of friends, and similar. When a culture prevails in wider circles of people it becomes ethics, i.e. a system (i.e. complex network) of prevailing society values, e.g. democratic, Hitler-style, Stalin-style, Christian, Islamic and the like. When ethics prevail, prevailing norms arise and, therefore, regulate the conduct of individuals wishing to be acceptable in their social environment (In more detail in: Mulej, Ženko, 2002).

Values, culture, ethics and norms can be progressively oriented, that is in the way that enables people to use their knowledge and other skills to promote good quality of life by means of supporting and carrying out invention-innovation-diffusion processes. They can also be oriented reactionary, meaning that they obstruct invention-innovation-diffusion processes in order to preserve old relationships which they probably benefit from.

In the modern global market, which nobody can hide from anymore, innovations are indispensable that do not apply only to knowledge and resulting products and procedures, but also and mostly to values, culture, ethics and norms on which it depends for which purposes people use their knowledge.

At this point, it is useful to use the seven principles with which the European Union built systems behavior into practice by the use of ISO 26000 on social responsibility (EU, 2011; ISO, 2010; Mulej idr, 2012a;

Mulej, 2012b). Here principles are summarized in short; they are fully available in ISO (2010), and translated in Slovenian in (Mulej idr. 2012a).

i. *(Official) Responsibility = Accountability*

The principle is: an organization is supposed to be officially responsible for its influence on the society, economy and natural environment. It says that an organization is supposed to accept suitable rules and the responsibility to follow them.

Official responsibility addresses the responsibility of leaders to react when an organization wants to control them and the responsibility of an organization to react to legal authorities when laws and regulations are concerned.

Official responsibility for general influence of decisions and actions for society and natural environment also means that an organization must react differently to those it influences with its decisions and actions and to society in general, regarding the nature of its influence and circumstances.

ii. *Transparency*

The principle is: an organization is supposed to ensure transparency of its decisions and actions which influence society and natural environment. An organization is supposed to reveal in a clear, exact and complete way and on a sensible and sufficient level the policy, decisions and actions which it is responsible for, including its known and fairly probable influences on society and natural environment. This information is supposed to be available at all times, directly accessible and understandable for those who were or could be under an important influence of the organization. It is supposed to be timely and in accordance with facts as well as presented in a clear and objective way in order to enable the stakeholders to exactly estimate the influence of decisions and actions of an organization on their interests.

iii. *Ethical Practices*

The principle is: an organization is supposed to act ethically.

The practices of an organization are supposed to be based on values of trust, fairness and integrity. These values indicate care for people, animals and natural environment as well as a way that it addresses the influences of its actions and decisions on interests of the stakeholders.

iv. *Respecting the Interests of Stakeholders*

The principle is: an organization is supposed to respect and take into consideration the interests of stakeholders and react to them.

Although goals of an organization may be limited to interest of its owners, members, clients or founders, other individuals or groups may as well have rights, demands or special interests which are supposed to be considered. Collectively such individuals or groups form stakeholders.

v. *Respecting International Norms of Conduct*

The principle is: an organization is supposed to respect international norms of conduct and at the same time comply with the principle that it respects the rule of law.

When the law or its application does not ensure proper safeguard for natural environment and society, an organization should attempt to respect, as a minimum, international norms of conduct.

In countries where law or its application is in conflict with international norms of conduct an organization should attempt to respect such norms in the widest extent possible.

vi. *Respecting Human Rights*

The principle is: an organization is supposed to respect human rights and recognize them as important and universal.

The use of such principles is essential because the global market is being misused by the most influential. For better understanding let us summarize only three such misuses because of which the innovation of values, culture, ethics and norms toward more dialectically-systemic or – in other words – socially responsible behavior is essential for the existence of modern mankind.

a. *Monopolization Instead of Free Market*

By studying 30 million commercial organizations Vitali, Glattfelder in Battiston (2011) discovered the reality of network of the most influential companies, where all threads originate from ownership in transnational companies. Answer: the most influential 'players' have ten times more power/command/control as could be expected according to their wealth. 737 supreme holders of command accumulate 80 % of control over the value of all transnational companies. Among these 737 most influential groups are 49 mutual funds. The authors estimate that 40 % of control over

transnational companies is handled by only 147 companies. Thus the stakeholders in these core companies as well as these 147 companies hold actual power in the global network of companies.

b. *Indebtedness of Developed Countries*

Stojan (2012) indicates the levels of gross national debt of some European countries in percentage of GDP (source: OECD Economic Outlook, December 2011): it is higher than ever, often much beyond 100%. The total amount of national debts in the world is equal to the entire annual world GDP (Stanovnik, 2012). If the debts are to be covered, there is nothing left for daily life or investments. In 2011, the USA postponed the problem of national bankruptcy by the Senate raising the level of officially allowed indebtedness (this issue is tabled in 2013 too). There is no clear and useful concept for the recovery of the USA's economy: domestic demand is weak, the demand elsewhere also does not increase, but the debts do (Kenda, 2012, Roach, 2012, Roubini, 2010, 2012).

c. *Bank Imperialism and Tax Evasion*

By the help of leading world banks the world elite of super-wealthy people is hiding unbelievable 21 thousand billion dollars (perhaps even 32 thousand billion) in tax oases – the amount of GDP of Japan and the USA combined (Plešnar, 2012). These are some emphases from the report on the research by James Henry, former leading economist in the consulting firm McKinsey, published by the British newspaper The Observer. The money was invested in tax oases by around 10 million individuals from all over the world; however, some 10 trillion are in the hands of only 92,000 people or only 0,001% of the world population. If these super-wealthy people paid taxes on their 21 trillion dollars in bank oases, the entire Africa could recover and problems of Euro area could be solved. Ten leading private banks are managing 4,000 billion of such investments or almost three times more than five years before. Four biggest British banks have 1,200 branches in tax oases.

Renewal of values, culture, ethics and norms and support to it with renewal of business processes is needed. BSC can support it.

VI. THE DEFINITION OF BUSINESS PROCESSES AND THEIR RENEWAL

a) *The Definition of Business Processes*

The basic division of business processes is focused on key, support, and management processes. All are important in company's operations, particularly management processes, which monitor and direct the key and support processes.

In domestic and foreign literature we found more definitions of business processes:

- Hammer (2002, 27) defines a business process as an organized group of connected activities working

together to create a result which represents value for the client.

- A business process is a sum of logically linked implementing and monitoring procedures which result in a planned product or service. The efficiency of the process can be defined and measured with the results of resource consumption, which are used to transform input into output quantities (Kováčič, 2002, 26).
- The process defines the flow and transformation of material, information, operations and decisions. Business processes involve coherent, successively structured above-functional activities with a very clearly distinctive start and end and with input and output (Kovač 1998, 209).
- A business process includes procedures, steps, technology and people who are required for carrying out an important part of operations inside a company. Usually a process intersects numerous organizational borders inside a production unit and demands the adjustment beyond these borders (Harrison, 1995, 67).
- A business process is a collection of activities, which requires one or more kinds of input and creates a result or effect, which means value for the buyer (Hammer in Champy 1993: 35).
- Davenport and Short (1990, 11–27) say that a business process is a collection of logically linked tasks which are carried out aimed at reaching a business result. They add that the process includes two important characteristics. The first one is that the process includes a buyer, the second that the business process exceeds the organizational borders and it is in general independent of any formal organizational structure.
- Pursuing company's activities is regarded as its business process. The latter is a precondition for the realization of the ultimate goal of a company, which is gaining profit. A company performs its economic task in the society with proportionately continuous repetition of a certain combination of work procedures, which is the essence of its business process called the process of reproduction in a company. In the production company the latter includes three phases: purchase of all business elements, production, and sales. In market economy one cannot carry out all three phases of the business process, if these partial processes are not continuously supplied with financial resources. Therefore, the integral part of the reproduction process in a company is also the process of financing (Pučko and Rozman 1992, 30). Humans and their satisfaction should not be forgotten about either (Šarotar, Žižek, 2012).
- Turk (1987, 198) says that a business process is a whole of interconnected partial processes, which

ensure the planned effects and a whole of tasks which are connected with ensuring efficiency and successfulness of these processes.

Regardless of which definition we find relevant, business processes undoubtedly flow through organizational structures and are many times invisible. When the company's management tries to renew the business operations in an innovative way, it faces all processes in the company (invisible ones included), which leads to the renewal of business processes in whole.

b) *Dimensions of Business Process Renewal*

There are reasons for each business process renewal. Many authors (for example Hammer and Champy, Kaplan and Norton, Child, Mchugh, Grover and Malhotra) defined different reasons of companies' managements for the business processes renewal, which is supposed to be as innovative as possible. In our view, Manganelli and Klein summed up findings best; they define three reasons for the renewal of business processes as follows (Manganelli, Klein, 1994):

- Management's concerns because of the downturn of profit, market share and similar,
- Fear of aggressive competition or changing of the market,
- Ambitiousness of the management that wants to increase the market share, enter new markets and alike.

The most often mentioned definition of the renewal of business processes is (Hammer and Champy, 1993): the renewal of business processes is a basis for a fresh consideration of business processes and their thorough remodeling with the purpose of achieving great improvements of key indicators of efficiency such as costs, product and service quality and speed.

Successful companies operate in a way that all their business processes can follow changes in business environment, which the company depends on. In order to be able to systematically start the renewal of business processes, different models of renewal have been developed. The advantages of business process modeling are (Davis, 2001):

- The intention-orientation and exactness,
- The united and consistent records,
- The integration of processes, systems, organizations, information and data,
- The enabling of checking and analyzing of connections,
- The help in assessment and testing,
- The basis for renewal of processes.

There are three difficulty levels of business process renewal (Regan, 1995):

- The business process improvement,
- The business process reengineering and

- The business process architecture (setting up new processes).

i. *The Business Process Improvement*

Based on the results of the analysis of operations and benchmarking, the management team portrays characteristics of the company's business processes and then decides which ones to improve. The choosing of the type of the process activity follows. They differ according to complexity of change, size, and needs for financial and human resources.

The improvement of operations processes is a set of activities, which is very limited in extent and it includes only a part of the process inside the chosen organizational unit. Here we define the starting and final points of the process, adjust the business plan and annual goals. The result of such project, which lasts approximately six months are improved operations, meanwhile, the mission of the department, organizational borders and structure do not change.

However, the level of process improvement hides traps. One of the main traps refers to the connections with other organizational parts. Local optimization may cause work duplication and, therefore, prolong the time for production and increase costs in another department if, for example, management eliminates shortcomings in one department only.

ii. *The Business Process Reengineering*

When the company's management is more demanding or it is not satisfied with short-term improvements, it chooses a more extensive group of process activities – reengineering. These projects are much more extensive, as starting and final points of the process are in other organizational units. Different departments cooperate in the project; they can cooperate partially or fully. The goal of this level of renewal complexity is to gain improvement, whose results will be evident not earlier than in three or four next years. The results of a successfully carried out reengineering as methods of innovation will enable better operations in the next medium-term period.

Typical reengineering in a company consists of two phases. The first phase includes identifying problems, data collection and the preparation of a process diagram (diagnostic review of the process) and it lasts approximately six months. In the second phase, the implementation of the suggested changes follows, which asks for a few additional months of work. The changes in the finished project are evident in the renewal of organizational borders; the present method of work and work instructions change and the employees' competences increase, which leads to decrease of at least one level of management. The mission of the organization, however, does not change. The employees have to learn a new way of working, which means that the role of middle management in reengineering is very much changed. What is the

greatest obstacle for reengineering to succeed? According to Keen (1997), it is the tradition. Re-engineering is directed beyond the borders of individual departments into the entire company. That means that managers are supposed to comprehend the business completely, i.e. requisitely holistically.

The comment of the article's authors: not only managers, but also their co-workers are supposed to comprehend the business. According to experience, there are most problems with middle managers: their position usually changes the most, according to their estimations for worse. Their co-authorial cooperation would prevent their feeling that the novelty is being imposed on them and the dislike caused by the imposition, foremost, the imposition of novelties, which overthrow the known habits. Among the before mentioned types of innovations, innovations of management style, organization, methods of co-operation, values and habits need essential attention (Mulej, Ženko, 2008).

An important key to success is visual picturing of the process. An integral part of projects is a process diagram, which illustrates obstacles as well as opportunities for improvement. A properly prepared diagram of activities and information flow will enable better understanding of problems, which will reflect in greater readiness to introduce changes. It is properly drawn-up when colleagues who the diagram applies to participate in its preparation and an advisor only methodologically helps. When preparing such a diagram, very useful methods are Mulej's USOMID, de Bono's Six Thinking Hats, Lateral Thinking and the like. (Mulej, ed., 2012). Three decades of practical experience illustrate that fact. We will return to this.

Reengineering is thus directed into achieving medium-term goals which are based on fierce market demands and increased pressure of the competition.

iii. *The New Business Process Architecture*

An integral part of the existing architecture of business processes in an individual company is its organizational structure. Organizational structure of a company is determined by different influential factors. This structure is determined by company' basic activities, on one hand, and on the other hand, by company's life cycle (Becker, Kugeler, Rosemann, 2003, 95).

The method of new architecture is the most comprehensive level of business renewal as it means focusing on the entire business rather than on individual departments or critical processes only. The project starts with a thorough analysis of market conditions, a review of a company's strategy and operations in whole, and appointing the renewal team. Additional information is gained by research and new technologies as well as by comparing with competitors inside and outside the branch (benchmarking). Information technology is crucial in this method; it will partially substitute

employees and eliminate procedures carried out manually before. The finished project will have a new organizational process structure with different technical demands. Here, the process architecture will be an important tool.

In the first phase, it is important to inform the management early, as its support and cooperation is essential for the project success. In the second phase, the restructuring of the employees follows, as there are considerable personnel inconsistencies. Thus, one needs an education and retraining program as well as an employment plan for new employees with entirely different knowledge and skills.

For successful usage of this method it is worth considering experience with the use of Mulej's and de Bono's methods; when renewing administrative work, methods of Ben Graham 'Paper Work Simplification', which have been used in the world for last six decades continuously, should be considered.

They can be well used also when the organization is introducing and improving the use of BSC.

VII. A POSSIBLE INNOVATIVE RENEWAL OF BUSINESS PROCESSES IN A COMPANY

When introducing BSC into the business practice, it is of essential significance to know the company (business policies in all extensiveness, company's life cycle, organizational structure, business processes, and human resources), as only in this way we are able to qualitatively introduce and later efficiently use BSC as a strategic managerial system or tool. Introducing internal indicators connected with internal business processes (definition of client needs, innovation process, operative process, process of after-sales service, meeting client needs), in broader sense, refers to the quality of a business process and a process of learning and growth (human resources, information resources, organizational resources). Dilemmas often arise in users of BSC or management; dilemmas about the suitability of individual business processes and consequently dilemmas about the suitability of an existent organizational structure. It refers to the opportunity connected with the renewal of business processes; however, the needs of a company operating in changeable business conditions must be foremost fulfilled by all employees from the viewpoint of their characteristics. Everything that is connected with human resources is included in the viewpoint of learning and growth; only a requisitely holistic approach in defining this viewpoint, by using DST principles, can enable defining real strategic goals and indicators whose reaching will essentially support the reaching of all strategic goals and indicators defined in the viewpoint of internal business processes. Based on the defined goals and requisitely holistically defined

indicators describing a part of enterprise strategy tied to internal business processes we can decide whether an innovative renewal of business processes needs to be carried out and about the choice of the dimension of renewal regarding the characteristics of a company and environment where the company is active.

An analysis of the present given situation of knowledge, values, culture, ethics and norms, which are a given practice in a company, can contribute. This situation can be analyzed from the viewpoint of conformity of the given practice with the guidelines of DST and principles of social responsibility from ISO 26000. This can show us which characteristics of people we have to change. In the process of renewing these it is useful to use the method known as the Six Thinking Hats (De Bono, 2005). With this method we can find ideas how to renew these. In the next step, with methods from DST – USOMID we can put forward in practice the developed and chosen ideas without imposing them.

More procedures of cooperation are possible; the below summarized is very promising as it promises a lot of wholeness instead of one-sidedness which leads into oversights and they lead into failures; the combination of USOMID and Six Thinking Hats enables the use of creativity for innovation (Mulej in Mulej, 2006; Table 2). People in groups think under each hat separately.

Cooperation – steps Work – phases	Individual writing of reflections of all members of the team at the same time	Circling of created notes for additional individual writing of reflections of all members of the team at the same time – adding ideas to the already stated ones in order to strengthen the wholeness of cognitions	Discussion intended for rounding up the written cognitions	Records of jointly passed decisions which are later the basis for transition to the next step
S = selection of the problem for the research	All 6 hats	All 6 hats	All 6 hats	All 6 hats
R = record data describing the selected problem	All 6 hats (blue only that there is no variance in the procedure, in particular white)	All 6 hats (blue only that there is no variance in the procedure, in particular white)	All 6 hats (blue only that there is no variance in the procedure, in particular white)	All 6 hats (blue only that there is no variance in the procedure, in particular white)
E = evaluation of gathered data on the selected problem	All 6 hats (blue only that there is no variance in the procedure)	All 6 hats (blue only that there is no variance in the procedure)	All 6 hats (blue only that there is no variance in the procedure)	All 6 hats (blue only that there is no variance in the procedure)
D = decision on which among variants shown by the evaluation to implement in practice	All 6 hats (blue only that there is no variance in the procedure)	All 6 hats (blue only that there is no variance in the procedure)	All 6 hats (blue only that there is no variance in the procedure)	All 6 hats (blue only that there is no variance in the procedure)
I = generation (and if possible, practical implementation as well) of the chosen solution in order to change the old situation	All 6 hats with the restriction to the preparation of the realization (blue only that there is no variance in the procedure)	All 6 hats with the restriction to the preparation of the realization (blue only that there is no variance in the procedure)	All 6 hats with the restriction to the preparation of the realization (blue only that there is no variance in the procedure)	All 6 hats with the restriction to the preparation of the realization (blue only that there is no variance in the procedure)
M = maintenance (practical application of the chosen solution as permanent); transition to a new cycle	All 6 hats with the restriction to the preparation of the realization (blue only that there is no variance in the procedure)	All 6 hats with the restriction to the preparation of the realization (blue only that there is no variance in the procedure)	All 6 hats with the restriction to the preparation of the realization (blue only that there is no variance in the procedure)	All 6 hats with the restriction to the preparation of the realization (blue only that there is no variance in the procedure)

Table 2 : Combination of USOMID and Six Thinking Hats

Essence of Each of the Six Thinking Hats

- White = neutral, objective, facts without interpretation, like a computer;
- Red = feelings, emotions, intuition, irrationality, unproved feelings, no justification;
- Black = watching out, caution, pessimism, search for danger, doubt, critique; it all works well against mistakes and weak points of proposals;
- Yellow = optimism, search for advantages of proposals, search for implementation ways, sensitivity for benefit of the idea, constructive approach;
- Green = energy, novelty, creation, innovation, in order to be able to overcome all obstacles;
- Blue = organization, mastering, control over procedure, thinking about thinking.

VIII. CONCLUSION

Business use of BSC as a strategic managerial system while simultaneously considering DST principles shows the complexity of business processes and their actual needs. One needs their innovative renewal in accordance with the needs of the environment where the company operates and for ensuring competitive capability of the company in long-term. The started innovative renewal of company's business processes can also lead to the change of the company's organizational structure. It is important to pay attention that such renewal is not in collision with the company's business policy (vision, mission, purpose and basic goals) defined by the company's top management and owners. The reasons for unsuccessful renewals of business processes are in people or management in companies and in their perception of holism and wholeness. Today, the concern for restoring sustainable development which would enable companies to attain not only competitiveness but survival in long-term period is becoming more and more important. BSC connects, in cause and effect way, financial and nonfinancial indicators and thus enables (while using DST cognitions) the connection between economic, environmental and social viewpoints of operations. There could originate a sustainable balanced system of indicators which could be a tool for value oriented sustainable management.

REFERENCES RÉFÉRENCES REFERENCIAS

1. Becker Jorg, Kugeler Martin, Rosemann Michael (2003), *Process management*. Springer verlag.
2. Brown Mark G. (2007), *Beyond the Balanced Scorecard*, New York: Productivity press.
3. Davis S. (2001), *Business Process Modelling with ARIS*, London: Springer, 4.
4. De Bono E. (2005), *Šest klobukov razmišljanja*, Ljubljana: New moment.
5. Hammer Michael in Champy James (1993), *Re-Engineering the Corporation: A Manifesto for Business Revolution*, Harper Business 35.
6. Harrison A. (1995), *Business Process: Their Nature and Properties, Examining Business process Re-Engineering*, London: Cranfield university, School of Management, Kogan Page 67.
7. Kaplan Robert S. in David P. Norton (2001), *Strateško usmerjena organizacija*, Ljubljana: GV založba.
8. Kaplan Robert S. in David P. Norton (2000), *Uravnoteženi sistem kazalnikov: preoblikovanje strategije v dejanja*, Ljubljana: Gospodarski vestnik, 101-102.
9. Kovač Jure (1998), *Razsežnosti procesnega pogleda na org. in poslovanja podjetja*, Kranj: Organizacija 4.
10. Kovačič Andrej in Peček Bojan (2002), *Prenova in informatizacija in poslovanja podjetja*, Ljubljana: Visoka pravna šola, Univerza v Ljubljani, 26.
11. Manganelli R. in Klein M. M. (1994), *the Re-engineering Handbook*, New York: Amacom, 5-310.
12. Mulej Matjaž (2000), *the invention-innovation process and knowledge management*, Maribor: EPF.
13. Mulej, M., and 16 co-authors (2012), *Dialectical Systems Thinking and the Law of Requisite Holism*. Goodyear, Arizona: ISCE Publishing.
14. Mulej, M., Dyck, R., editors (v tisku), *Social responsibility as a way beyond neo-liberalism*. Bentham.
15. Mulej, M. and N. (2006): *Innovation and/by Systems Thinking by Synergy of Methodologies "Six Thinking Hats" and "USOMID"*. In: Rebernik, M. et al, eds: *PODIM 26, Cooperation between the economic, academic and governmental spheres: Mechanisms and levers, 30-31 March 2006*. Maribor, University of Maribor, Faculty of Economics and Business (EPF), Institute for Entrepreneurship and Small Business Management.
16. Mulej Matjaž in Zdenka Ženko (2002), *Dialektična teorija sistemov in invencijsko-inovacijski management*, Maribor: Univerza v Mariboru, EPF, 15.
17. Niven Paul R. (2006), *Balanced Scorecard step by step*, New Jersey: John Wiley & sons.
18. Plešnar, J. (2012), *Skriti zakladi elite. Večer*, 23. 7. 2012: 7.
19. Pučko Danijel in Rozman Rudi (1993), *Ekonomika in organizacija podjetja*, Ekonomska fakulteta Ljubljana.
20. Reagan J. (1995), *Crunch time - how to reengineering your organisation*, London: Century business.
21. Slovenski računovodski standard (2006), *Uradni list RS, št/05*.
22. Stanovnik, J. (2012), *Address on the occasion of the day of the Slovenian insurrection against nazism and fashism. TV Slovenija 1, 27. April, live emission*.
23. Stojan, J. (2012), *Zlato pravilo bo zahtevalo krepke reze v javno porabo. Večer*, 31 Jan.: 11.
24. Vitali, S., Glattfelder J.B. & Battiston S. (2011), *The network of global corporate control. PLOS ONE 6(10): e25995. Doi:10.1371/journal.pone.0025995*.