# MANAGEMENT OF A VIRTUAL ORGANISATION FROM THE ASPECT OF CREATING BUSINESS PROCESSES

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**Abstract:** The creation of business processes is connected with a process organisation which includes a virtual organisation. The paper is an attempt to answer the question of whether the creation of business processes, as used in traditional organisations, can be also applied in a virtual organisation. The paper also deals with the aspect of creation of business processes using the concept of virtual organisation.
**Keywords:** management, virtual organisation, business processes

INTRODUCTION

Today's trend of changing conditions for conducting economic activity, coupled with increasing competition, globalisation as well as changing customer requirements, requires searching for new forms and methods for the management of organisations. This applies in particular to economic organisations for which achieving businessobjectives is the purpose of their functioning. Organisations transform their management systems, going away from functional management in favour of management of processes. For that purpose, they use methods and tools used in traditional organisations. However, apart from paradigms concerning reengineering principles [1], network organisations emerge with a virtual organisation as their representative. It is thus necessary to address the issue of methods and tools for creating business processes from the aspect of management of virtual organisations. This aspect is all the more so legitimate that it fits the prospective trend which allows for more and more flexible reaction to customers' preferences, which is reflected in the fact of the location of economic activity in a broadly understood area of e-business.

Information and communication technologies, the increasingly popular network paradigm in management, increasing virtualisation of business and related organisational innovations are significant trends impacting the shape and conditions of the modern business environment. On the one hand, these changes require constant update in the area of the management of an organisation. On the other hand, however, the emergence of virtual market space is conducive to organisational changes and the creation of completely new forms of activity of enterprises [2]. Strategic management faces particular challenges. The answer to the situation seems to be the concept of creating business processes. In this context, the paper points out difficulties with the identification and examination of business processes due to the high dynamics of their changes. As a consequence, it proposes the use of the concept of a virtual organisation in networks of business relations.

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VIRTUALISATION OF BUSINESS PROCESSES FROM THE ASPECT OF MANAGEMENT

The conditions of business environment are created to a large extent through development, diffusion and absorption of modern communication and information technologies by broadly understood business. This environment is subject to reorganisation in accordance with the rules of network paradigm, and emerging network organisations are increasingly undergoing virtualisation - thanks to modern technology an increasing number of elements and activities are transformed from the material sphere to the virtual one [3]. Resourceswhich are to be given virtual dimension, lose the aspect of being ascribed to a particular place and carrier, free themselves of physical limitations, and become ubiquitous, independent of space, hierarchy and time. This entails the necessity of restructuring an organisation, changing their missions and procedures [4]. Virtualisation contributes to diffusion of both cooperation and risk of activity as well as constant acquisition of key competences and access to required resources. The consequence of the above is continuous increase in the dynamics and unpredictability of the conditions of the functioning of organisations which are expected to constantly react to the turbulent environment and adapt to changing conditions. Moreover, the economy shows a clear tendency to create new values through innovativeness of products and services in the sphere of technologies. The market poses more and more challenges, and in order to respond to them, appropriate strategies have to be developed [5]. This makes it necessary to update the approach to management, in particular the strategic one.

Traditional strategic thinking is based on long-term planning and refers to the future, and thus its forecasting. In today's complex and highly dynamic conditions, forecasting carries a high risk of error, and forecasts are characterised by relatively low accuracy. According to Hahn and Taylor[6], strategic planning is a modern oxymoron that juxtaposes a strategy based on interactions with planning attempting to formalise this process, which leads to its loss during first attempts. However, planning, as something that is necessary and determines success of actions undertaken by organisations, cannot, under the conditions of difficulties with forecasting, restrain the flexibility of adjusting activities to the changing environment. In this sense, strategies become incremental in nature [7], as they are created based on signals coming from an organisation's environment. As such strategies become a process, we should expect limited formalisation from strategic planning and management, as well as orientation towards evolution instead of the imperative of the implementation of specific and formal recommendations.

CREATION OF BUSINESS PROCESSES FROM THE ASPECT OF THE MANAGEMENT OF A VIRTUAL ORGANISATION

With reference to the above-indicated dilemmas, the creation of business processes in the network paradigm, which opens the way to virtualisation that breaks spatial and temporal limitations and results in an organisation entering numerous networks of dependencies and possibility of fulfilling various roles in it seems to be an interesting issue, which makes it necessary for organisations to constantly modify their business processes. Creation of business processes is determined by the fact that they are subject to imitation, losing their uniqueness, which speeds up the pace of changes. As

the issue of creating business processes is strongly correlated with increasing virtualisation, the concept of a virtual organisation should be used for their analysis.

The term "virtual organisation" was used for the first time in the early 1990s. Virtual organisations are business entities that formally do not exist. This means that they are not subject to entry into registers,anddo not have one common location or administration, although they fulfil the functions of real economic organisations. There is no clear management centre or formalisation in a virtual organisation, and the relations between partners are characterised by large autonomy. A virtual organisation is not a static or institutionalised structure, but it has the character of dynamic configuration that depends on needs and physical objectives. A virtual form of creating business processes, largely based on communication and IT networking, is characterised by high flexibility resulting from characteristics typical of a virtual organisation such as: geographical dispersion, key competences of members, reconfigurability of partner networks, temporality of an organisation, association of independent companies, trust and concentration on the customer [8]. The changeable and dynamic, especially dynamic, character of the reconfiguration of networks between business partners of a virtual organisation is presented in Figure 1.
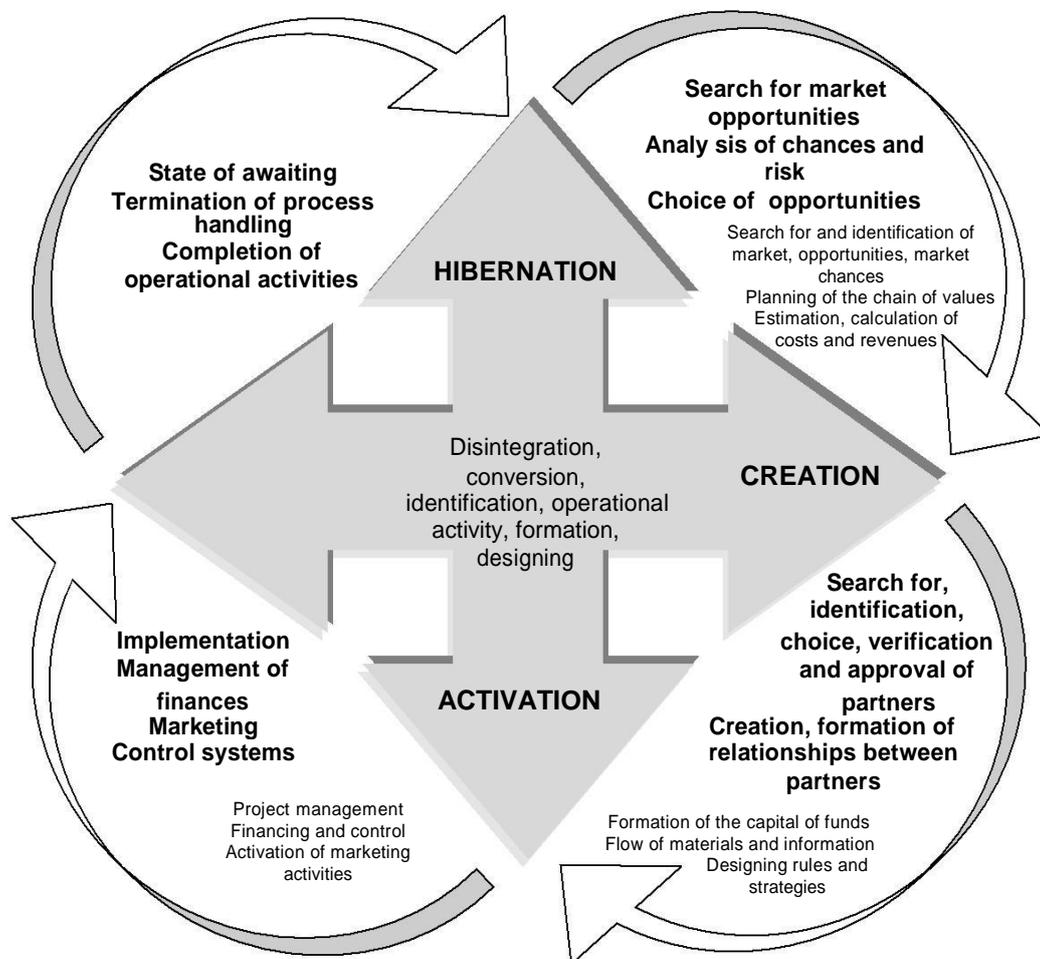


Fig. 1

Reconfiguration of a network of relationships between business partners of a virtual organisation. Source: own work based on [9].

Formation, functioning and dissolution of a virtual organisation should be treated as processes forming the subsequent phases of the cycle of its existence which correspond to its dynamic states, i.e. creation, activation, decomposition and hibernation. An impulse for the creation of a virtual organisation is an identified market opportunity. In the phase of identification, the management of an organisation involves constant monitoring of the situation in various segments of the environment and searching for market niches. Next phase is the formation of a virtual organisation which performs business processes aimed at looking for and identifying partners with appropriate competences. Once the processes connected with designing and forming are completed, a virtual organisation enters the phase of operational activity which comprises a range of processes connected with the preparation and management of operational activity. The implementation of the project is followed by the initiation of processes decomposing a virtual organisation, resulting in a definite winding up of the activity, going into the state of hibernation to await a new market opportunity or reconfiguring an organisation to meet the needs of a new task.

Creation of business processes from the aspect of comprehensive methodology for process design is addressed by Back and Ruf [9]. They present the basic assumptions of the definition of reengineering understood as fundamental rethinking and radical change in the creation of business processes in order to achieve effectiveness. Creation of processes is closely connected with their management, as management of processes involves linking such aspects as: identification of processes, their analysis, creation, simulation, performance, monitoring and optimisation. These activities constitute fundamental elements of the life cycle of business processes. The starting point in the creation of business processes is to make a map of processes, which is a visual set of processes and allows for getting a general view of the structure of processes and analysing any activities comprising processes [10].

Creation of business processes underlies the optimisation of the performance of processes taking place in an organisation. In this context, three fundamental stages should be distinguished. The first one refers to the assessment of the needs of an organisation, which in practice means the definition of areas in which processes will be created as well as determining their value. In this aspect, an organisation is subject to evaluation in terms of the choice of processes. The next stage involves the identification of business processes performed in an organisation and entities that participate in the identified processes as well as hierarchising processes. The third stage concentrates on the detailed definition of selected business processes in order to define the starting and end points of a process, indicate its links with other processes, define the owners of a process and recipients of its results, assign roles to performers of specific activities performed in a process, establish time for the performance of the whole process, specify sources of data significant for the individual phases of a process and establish the measurements for the quality of processes [11].

As has already been mentioned, the creation of business processes is connected, among other things, with improvement of the functioning of every organisation through the implementation of process management [12], including a virtual organisation. It should thus be stressed that the creation and functioning of such an organisation itself is a complex process, as every virtual organisation shows a cyclicity of the processes connected with its operation. Moreover, every virtual organisation is different, which depends mainly on the character and nature of undertakings implemented in it. Although the processes of the creation of a virtual organisation

itself are similar, specific processes may differ significantly. Most processes supporting the supply to the recipient are performed by independent, autonomous partners. This means that a virtual organisation is not their owner, which is a significant requirement when creating business processes. From the perspective of a member organisation, business processes can be divided into internal and external ones. Although all partners act jointly, the internal interest of organisation A is an external process of organisation B. Both internal and external processes are performed only for the organisation, but in reality, they are performed by its members. The members are their owners and the processes are created for the needs of their activity, regardless of whether they cooperate within a virtual organisation or not. In a virtual organisation, there may be common processes, i.e. those referring to all partners, therefore it will be relatively difficult to define their owner, although in many cases it is possible.

Bearing in mind the issues above, it is worth reflecting on whether and to what extent it is possible to create business processes in a virtual organisation. It seems that this could refer to processes of activation, decomposition and hibernation of a virtual organisation, i.e. processes directly connected with its life cycles. However, due to the fact that both the character of every virtual organisation and its life cycle are very different, a better solution would be to create reference business processes [13]. Processes of this type oscillate around methodological knowledge on the functioning of an organisation and represent a kind of instrument for managing the knowledge of an organisation and tools for the management of changes. Organisations that create business processes in this way may rely on experience of other organisations and may constitute a starting point for creating target business processes in an organisation. This approach definitely accelerates the implementation of a project, as economic links typical of a given industry are defined. Thus, in the creation of business processes, it is often sufficient to take into account only fragments of processes specific of a given organisation.

However, the ways of creating processes connected with a virtual organisation's life cycles may differ for different types of virtual organisations. An example of their variety may be an organisation that conducts its activity exclusively in the sphere of ecommerce (e.g. online stores) and an organisation functioning in the traditional way (e.g. an organisation formed to implement a project connected with a specific order). It should be noticed that while in the early period of the operation of a virtual organisation in the sphere of e-commerce it is not necessary for it to have its own supply chain and transactions may be made based on the manufacturing and logistics structure of other participants in the market space, it will soon turn out that the development of an organisation depends on whether it has its own appropriate technical and organisational infrastructure or well designed information processes.

An interesting case is the creation of common processes which include, among other things, the handling of receivables and liabilities with respect to an organisation's customers, certain logistics elements, handling of the flow of documents or marketing. However, also in this case, their creation should boil down to creating reference business processes instead of target ones. It is worth underlining at this point that the creator of a virtual organisation becomes the owner of these processes [14].

The issues of creating business processes from the aspect of the management of a virtual organisation addressed above lead to the conclusion that the creation of target business processes in a virtual organisation and managing it in this sphere is rather not

possible. One can, however, rely on reference business models. Common processes should be viewed in a similar way. Moreover, all other processes performed for the sake of the operation of a virtual organisation can be created as target processes, as they are never the property of a virtual organisation itself, understood as the organisational structure of an enterprise of special kind.

CONCLUSIONS

Changes observed as a result of the consistent transfer of business areas to the virtual space seem to be particularly important for organisations which, thanks to entering networks and combining key competences and other resources, gain new potential, remaining flexible at the same time. Viewing differently understood and highly dynamic business processes from the angle of the concept of a virtual organisation may contribute to the elimination of the main problem in the management of such an organisation, which is the integration and coordination of economic processes. The traditional methods and tools currently used to create business processes do not fully meet the needs of a virtual organisation. This is connected with the fact that the construction of a virtual organisation requires a much more complicated designing of business processes than in the case of traditional organisations. The issues addressed in this paper are significant especially because the virtual form of conducting business becomes more and more visible, and there are no documented methods or studies in the area of creating business processes of virtual organisations.

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