

# VIRTUAL ENTERPRISE AND PERFORMANCE MEASUREMENT SYSTEMS. NEW CHALLENGES FOR MANAGEMENT ACCOUNTING. A RESEARCH PROPOSAL

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## Abstract:

This extended abstract is aimed at the presentation of a concept of a new research, the factual substantiation of which results from dynamic changes in the forms of business pursuit and is connected with the necessity for verification of performance measurement, broadly used in practice. The title problem is included in the research trend on the issues related to the information systems supporting corporate management and performance measurement systems [Karmańska, 2003; Karmańska, 2006]. The reason behind the proposed research is the curiosity about the extent of validity, in view of common virtualisation of human activities, including economic activity, of the findings presented 10 years ago by K.M.Gupta and A.Gunansekar in the publication: *Costing in new enterprise environment. A challenge for managerial accounting researchers and practitioners* [Gupta, Gunansekar, 2005]. A conviction is to be expressed here that the answer to this question will allow for the assessment of a peculiar conceptual acceleration in the title area and possibly (depending on the research result) for the creation of a verified or new proposal of performance measurement of a company operating in the conditions of the management dictate of *value creation*.

*Keywords: IT, virtual enterprise, performance measurement, costs measures, managerial/ management accounting*

## 1. ANALYTICAL CONTEXT

In relation to the 2006-2016 decade the characteristics of the *new enterprise environment* may be best summarised by terms like *cyberspace* and *digitalisation*. They carry connotations with virtual enterprises, i.e. the ones operating and experiencing successes or failures in the virtual space as well as those which, operating in the real space, make use of the virtual space in order to communicate with their customers and partners or to manage different databases repositories.

The virtual environment, thanks to a powerful IT capacity, accelerates business pursuit, supports cost optimisation of many processes and favours the rationalisation of corporate potential use. It creates opportunities to implement extremely sophisticated, and so far unimaginable, business concepts giving rise to the generation of extraordinary benefits having incurred decisively lower costs.

Simultaneously, the cyberspace and digitalisation create conditions for criminal abuse of virtual space resources, which is connected with the specific risk factors related to this space. They require new, often technically refined and expensive risk management methods and instruments, or sometimes on the contrary very simple ones (usually being socially unaware yet).

The range of the problems referring to the performance in the time of universal digitalisation and advancing IT technologies was well illustrated by the discussion held on 23 November 2016 in the Warsaw School of Economics in the course of the Accounting Forum, organised by the Institute of Accounting, devoted to the issue of "Cyberspace and Accounting" [Klimczak, 2016]. One of many issues raised during the Forum was the question about the direction of changes in business pursuit or in management style, and consequently changes in accounting and the related effects, in particular with regard to the so-called virtual enterprise. It was found out that the virtual space allows for business initiatives inaccessible or hardly accessible in the real space, giving birth to the relationships between the company on the one hand and customers, other companies, fiscal institutions or institutions particularly important in business turnover on the other.

## 2. RESEARCH THESIS

A virtual enterprise, which the title problem refers to, is „ad hoc alliance of independent experts (consultants, designers, developers, producers, suppliers, etc.) who join to pursue a particular business opportunity. Virtual enterprises have little or no physical presence or infrastructure, rely heavily on telecommunications and networks such as internet, and usually disband when their purpose is fulfilled or the opportunity passes. Agile, flexible, and fluid, they are extremely focused and goal driven, and succeed on the basis of little investment requirements, low startup and overhead costs, and fast response time. Geographically dispersed members of a virtual enterprise collaborate on the basis of their core strengths from wherever they are and whenever they are able to do so, and may become competitors in pursuit of another opportunity.” [www].

Bearing in mind a specific character of virtual enterprise, we formulate a thesis in the present research proposal that the verification of current business cost measurement models and consequently performance measurement is indispensable in the contemporary accounting, posing a great challenge at the same time. It requires developing new concepts of performance and cost measurements, in particular those which require pursuing the managerial imperative of value creation, which is a key to success of virtual enterprises.

## 3. RESEARCH CONCEPT AND METHODS

The proposed research includes the following analytical steps:

1. The indication of milestones in the development of cost and performance measurement concept and the creation of the image of change determining factors. It is possible to identify the events and business situations which changed the face of business pursuit significantly enough to necessitate the introduction of new performance measurements. The review of these measures, in relation to the factors causing their evolution, will allow for a critical analysis of their usefulness with regard to virtual enterprises.
2. The tracking of changes – on the time axis – in the functions performed in practice by the system of management accounting. What is being observed is a shift in the status of management accounting. A comparative study of features of traditional and virtual enterprises, the idea of which is depicted accurately (and concisely too) in the statement: “A satirical abstract model of a 21<sup>st</sup> century enterprise envisages only two employees, a person and his/her dog. The man will be there to feed the dog. The dog will be there to keep the man from touching the equipment.” [Hotler, 2002]. The study will allow for the identification of the areas of difference requiring a new approach with regard to the measurements in question. It should be conducted on account of economic and at the same time global changes, important for the development of business activity environment.
3. as an information system performing management supportive functions towards a system aimed at active participation (even partnership is mentioned) in the decision making process. The review will allow for finding the way in which the "participation" of the management accounting system in decision making may be implemented.
4. A thorough examination of the issue of *value creation* in business pursuit. A proposal of performance measurements in the conditions of the *value creation* imperative, which is an ultimate goal of the presented research concept, requires a prior review of solutions and instruments aimed at value creation as well as the monitoring of their application effectiveness.
5. Undertaking conceptual work to present a proposal of performance and cost measurements appropriate for virtual enterprises. One may expect the development of the measurement conceptual framework and proposals of approaches/methods/ measures adequate for virtual enterprises.

The planned research will make use of the following research methods: literature study, critical comparative analysis, selected environmental interviews or conceptual projects.

#### 4. CONCLUSIONS AT THE STAGE OF CREATION OF THE RESEARCH CONCEPT

The research is being proposed as it should undertake a current issue important in managing business entities. It refers to the value creation and cost management, which are at present the key determinants of financial success in business.

In order to conduct the research, a team with interdisciplinary competences is to be built. It is absolutely necessary to thoroughly analyse the changes (their determinants and consequences) in the global environment, important nowadays in human business activity. It may allow for the extrapolation of further directions of transformations in the environment of human business activity.

Moreover, it is important to diagnose the ways of pursuing business and the styles appropriate for them, which are observed at present, including the focus on the specific character of virtual enterprises. It will allow for the mapping of connections between formerly established:

- a) features of the present business environment, saturated with digitalisation and need for personification,
- b) features of virtual enterprises, the embodiment of a new way of value creation in business,
- c) functions of management accounting connected with the concepts of performance measurement and cost management in the conditions of the managerial imperative of value creation.

The research is meant to be a workshop study of a conceptual dimension. It is assumed that it will be possible to present a proposal of performance measurement for virtual enterprises. Its empirical verification, despite the virtual character of entities to which it will refer, seems to be real.

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