The concept of an engineering platform solution for architectonically-oriented accounting and management of economic processes

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Abstract. The article outlines the concept of an engineering platform solution for the architectonically-oriented accounting and management of economic processes, aimed at creating the conditions for instant management decisions on accounting and control data obtained in real time.

Introduction
The beginning of a new era in business is certainly connected with artificial intelligence and cognitive computing. Digital progress is a major breakthrough of our time.

According to Douglas Carl Engelbart, the digital revolution is much more important than the invention of writing and even printing. The digitalization evolution now affects not only the technical functions of the organization, but almost all of its indicators [1].

Currently, the transformational change in the industrial environment, thanks to modern creative business models, is acquiring incomparable acceleration and scale.

The topic of the development prospects of a new economic society is relevant at many international conferences and world congresses.

The questions about the transformations in the world and their consequences for the planet are raised at all levels, including the World Economic Forum in Davos.

At the present stage of the industrial society development, a significant number of innovative business models are emerging. Traditional business models abandon the old worldview, are rebuilt, modernized, revolutionizing the basics of positioning in a highly competitive environment, trying to meet the new needs to accelerate the scientific progress. To replace the old activity areas, completely new activity areas of the latecomers with a restart of managerial thinking, appear.

Many organizations refuse radical changes in the management system and apply a balanced “bimodal” method of business planning, that is, along with the innovative model, they use the traditional one to carry out the ongoing transactions. [2]

The idea of innovative business modeling is based on a humanistic platform, on the desire to create the new benefits for the organization, customers, society and humanity as a whole.

The formation or transformation of a business model should cover the basic areas of the organization: communication with suppliers and customers, products, work or services offered, the architecture of the business and the indicators characterizing the success of the company. [3]
In recent decades, theoretical researchers, as well as many entrepreneurs, have paid much attention to modeling in business, but their main efforts are focused on changing the architectonics of an organization or on a value proposition.

During the data economy development in the field of accounting and management, many digital platforms have been developed and implemented: immunization, instrumental, monitoring, investment, transactional, fractal, payment, infrastructure, social, biometric, applied, industry. [4]

Main part

The concept of an engineering platform solution for the architecture-oriented accounting and management of economic processes is aimed at creating the conditions for the instant management decisions on accounting and control data obtained in real time. Typical properties of digital platforms are projected in the concept: area and type of activity; interacting parties; the predominance of the beneficiary interests; the widespread use of communication and information programs in the economic processes’ management; the presence of a single information field, a synergistic effect.

The engineering platform of architectonically-oriented accounting and management of economic processes is universal in terms of activities.

The processes of the platform counterparties’ interconnection are defined and described within the framework of programmed algorithms. The number of possible iterations is limited. The result can be expressed by the qualitative indicators, can have a quali-metric character [5].

The engineering platform of architectonically-oriented accounting and management of economic processes is characterized by eight tiers:
- hierarchy of interests;
- adaptive evolution;
- financial accounting system;
- management and strategic accounting;
- tax accounting;
- information field of activity;
- informational resources;
- management decision making system

The hierarchy of interests underlies the design of a platform-based accounting solution, change management and decision making based on the construction of an engineering architectonic-structured accounts chart. Consideration of the organization from the point of view of the interests’ hierarchy makes it possible to prioritize its managerial, economic, organizational, social political goals. Today, the agenda is not a question of improving the efficiency of activities, not of preserving property or capital, but of a radical change in business practices.

The foundation of the adaptation principle in the concept implies the systematic implementation of information technologies in various sectors of the national economy and the orderly restructuring of the existing business models. An organized translation into the figure of all accounting, control and management work will allow us to switch to the use of innovative mechanisms for the platform solutions [6].

The 3rd tier in the platform is outlined by the financial accounting system, which is conceptually determined by the financial accounting models used, the optics used, the chosen accounting methods and cost classification, designing in an engineering architectonic structured chart of accounts. Organizations of the new formation are a symbiosis of commercial opportunities and technological resources. The innovative business models, on the one hand, are large-scale, and on the other hand, simple and low cost.

Every business structure in the era of the impossibility of foreseeing changes in the near future should have a certain flexibility that allows it to make immediate maneuvers, in other words, pragmatically control chaos.

A distinctive feature of the organization’s readiness for digitalization is its clear vision of prospects. The organization mentality in the new economy is characterized by the ability to determine the right
strategic vector of development in a digital society, prioritize, determine the adjustments in order to adapt to an ever-changing environment.

The 4th level of the engineering platform of architectonically-oriented accounting and management of economic processes is represented by managerial and strategic accounting, focused on the adaptation of firms in the face of rapid changes in the business environment, including the management of financial stability, financial condition, costs, financial results, economic situations, property, risks, innovations, reserve system venture capital, types of strategic activity and reorganizations.

The 5th structural level of the platform is represented by tax accounting, which can be represented in three directions:

- tax accounting allocated in an independent direction of accounting. This method of organizing tax accounting is the least effective, because does not provide a link between the results of various accounting types. With this option of tax accounting, it is difficult to organize the application of accounting engineering mechanisms.
- a single accounting system that combines financial and tax accounting, this area is the least successful for a platform solution. It is not easy to combine the data of these two systems into a single information portal, since the basis of tax accounting is the cost elements, and financial - costing items;
- integrated tax and financial accounting, built on cost elements in accordance with the international accounting model, is determined by the most effective.

The 6th tier of the concept is represented by the information activity field. The information field of architectonically-oriented accounting and management of economic processes is a basic sub-platform, represented by an engineering architectonic-structured chart of accounts, which is highly analytical and organized on its basis, accounting, including: financial, tax, management, strategic, functional, transactional, adaptive, situational and other types of accounting.

7th level “Information Resources” includes three levels:

- infrastructure sub-platforms - special program paths, economic aggregates (mega-accounts), aggregated postings, algorithms of processes that solve professional tasks of economic entities, special structures that service infrastructure information technologies;
- applied sub-platforms are a variety of computer programs tied to architectonic-structured charts of accounts that exchange information between the platform elements and give an opportunity to manage the organization’s economic processes;
- instrumental sub-platforms combine electronic reference systems, regulatory and legislative documents, software libraries.

The 8th tier is focused on managing the changes with their fixation and reflection of their influence on the organization’s capital. A key component of this tier is the system of managerial decision-making (operational, tactical, strategic) and their impact on the ownership of the company. In this case, the main indicator is the organization’s net liabilities indicator.

Summary
The task of accounting and management is primarily to determine the business development vector in conditions of external uncertainty and unpredictability of destabilizing macroeconomic factors. Conceptually, the system of engineering platform solutions for the architectonic-oriented accounting and management of economic processes is characterized by interactivity, maneuverability, the ability to conduct several strategies at the same time, a high degree of analyticity, optimization, adjustment of the development course and security.

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