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**INFORMATION TECHNOLOGIES IN
ACCOUNTING AND MANAGEMENT
COMPANIES: MODERNIZATION AND
INTEGRATION SYSTEM**

**ІНФОРМАЦІЙНІ ТЕХНОЛОГІЇ В ОБЛІКУ ТА
УПРАВЛІННІ ПРОМИСЛОВИМИ
ПІДПРИЄМСТВАМИ: МОДЕРНІЗАЦІЯ ТА
СИСТЕМНА ІНТЕГРАЦІЯ**

Urgency of the research. Exactly during to apply innovative strategies and information technology occur fundamental changes in the technology business management, are optimized management decisions, especially in integrated systems.

Target setting. Role of information technologies in the modernization of management, implementation and development of elements of system integration in the context of build of information society in Ukraine leads to serious transformations in the system of accounting and management enterprises of industry.

Actual scientific researches and issues analysis. Problems of formation and use of information technology in accounting and business management was examined in the works of both domestic and foreign economists.

Uninvestigated parts of general matters defining. However, theoretical and methodological aspects on the issue of cooperation, integration and modernization of information technology in accounting and management of industrial companies requiring in-depth development.

The research objective. Consider the essence of system integration, and issues of interaction between, integration and modernization of information technology in accounting and management industry companies.

The statement of basic materials. Interest to the innovative solutions in the field of research increases, enterprises even more often resorting to unite all existing business applications to a complete and workable system of software services on hardware and software level, that ensures their functioning within a single business logic through one user interface.

Especially are felt the prospects of globalization in systems of corporate type. They are designed to meet the informational transparency of the enterprise, to form a common information space, which will combine information flows and to issue pertinent message to all levels of enterprise management.

Conclusion. Thus, the results of modernization and systems integration are: simplification and automation of business processes, effective interaction systems based on a common platform, the significant of decrease in expenses for further modification.

Keywords: information technology; accounting and management; modernization; system integration.

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Urgency of the research. Ensuring sustainable, efficient, balanced and proportional development of industrial enterprises in conditions of modernization requires justification of directions enhance

Актуальність теми дослідження. Під впливом застосування інноваційних стратегій та інформаційних технологій відбуваються докорінні зміни в технології управління підприємствами, оптимізуються управлінські рішення, особливо в інтегрованих системах.

Постановка проблеми. Роль інформаційних технологій в модернізації управління, упровадження та розвитку елементів системної інтеграції в контексті розбудови інформаційного суспільства в Україні веде до серйозних трансформацій у системі обліку та управління промисловими підприємствами.

Аналіз останніх досліджень і публікацій. Проблеми формування і використання інформаційних технологій в обліку та управлінні підприємствами розглянуто в працях як вітчизняних, так і зарубіжних економістів.

Виділення недосліджених частин загальної проблеми. Однак, потребують поглибленої розробки теоретичних і методичних аспектів питання щодо взаємодії, інтеграції та модернізації інформаційних технологій в обліку та управлінні промисловими підприємствами.

Постановка завдання. Розглянути сутність системної інтеграції, а також питання взаємодії, інтеграції та модернізації інформаційних технологій в обліку та управлінні промисловими підприємствами.

Виклад основного матеріалу. Інтерес до інноваційних рішень в досліджуваній сфері зростає, все частіше підприємства вдаються до об'єднання усіх існуючих бізнес-додатків у цілісну, працездатну систему програмних сервісів на апаратному та програмному рівні, що забезпечує їх функціонування в рамках єдиної бізнес-логіки через один користувацький інтерфейс.

Особливо відчуваються перспективи глобалізації в системах корпоративного типу. Вони покликані задовольняти інформаційну прозорість підприємства, сформувати загальний інформаційний простір і видавати доречні повідомлення для всіх рівнів управління підприємства.

Висновки. Отже, результатами модернізації та системної інтеграції є: спрощення та автоматизація бізнес-процесів, ефективна взаємодія систем на базі спільної платформи, значне зниження витрат на подальшу модифікацію.

Ключові слова: інформаційні технології; облік та управління; модернізація; системна інтеграція.

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effectiveness of their development by accelerating scientific and technological progress, activation foreign trade, improve their organizational and management mechanism. Addressing these objectives forms the need to apply innovative strategies and information technology. Exactly during their influence occur fundamental changes in the technology business management, are optimized management decisions, especially in integrated systems, which determines relevance and expediency of the research topic.

Target setting. For most countries the development of the information society is one of the state priorities. Herewith an important factor in innovation development and a tool of socio - economic progress is a information technologies. Their role in the modernization of management, implementation and development of elements of system integration in the context of build of information society in Ukraine leads to serious transformations in the system of accounting and management industry companies.

Actual scientific researches and issues analysis. Problems of formation and use of information technology in accounting and business management was examined in the works of both domestic and foreign economists, including Butynets F. F., Huzhva V.M., Zavorodny V. P., Ivakhnenkov S. V., Kozlov O. O., Konnoli T., Makarova N. V., Rozhnov V. S., Semenov M. I., Tverdokhlyeb N. H., Trubilin V. S., Karakoz I. I., Kashayev A. N., Pushkar M. S., Sabluk P. T., Sopko V. V., Chumachenko M. H. and others.

Uninvestigated parts of general matters defining. At the same time many questions remain not disclosed and in need of in-depth of development of theoretical and methodological aspects on the issue of cooperation, integration and modernization of information technology in accounting and management of industrial companies.

The research objective. The purpose of this research is the justification of modernization principles and process of system integration of information technology into management of industrial enterprises.

The statement of basic materials. The new economy requires unorthodox, innovative approaches administered by economic activities in order to enterprises remain competitive in conditions of constant development of information technology and the emergence of new ways of meet consumer demand [1].

The globalization of information systems - is a process of worldwide informational integration and unification. In a broader sense - the conversion and erection of the term "information system" to the planetary, one that applies to the entire of Earth [2]. The globalization of information systems is reflected in attracting of all users to a single system. Society has felt the need for a free exchange of information between individuals, departments, companies, as therefore awareness of the importance of solving the problems of modernization and system integration of information systems is a vector of formation and development of the information society.

The essence of integration systems is that different systems work as one unit, in the output data one subsystem serve as input for another and at presence theirs the union can get more information via convenient way for a shorter period. System integration is the process of unification of different computing systems and software physically or functionally order to achieve maximum the efficiency of the system by establishment of effective interaction of its subsystems. The results of the system integration are simplification and automation of business processes, the most effective management of the organization, improving the reliability and safety integrated systems, the effective interaction of systems based on a common platform, the reducing costs for further modification [1].

The modernization of information systems in the context of the topic relates to all kinds of changes of systems, which are will improve their quality and work, and will allow in the future to integrate to form a unified information space. Combine a number of different types of systems - not an easy task through a number of problems: different data format, a variety of sources and others. Therefore, In order for integrate the systems into one, they must be first are modernized, to lead to certain of common standards. The second aspect of modernization concerns the of upgrade information systems in accordance to scientific and technical progress and, respectively, to the new requirements for these systems [3].

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Interest to the innovative solutions in the field of research increases, enterprises even more often resorting to unite all existing business applications to a complete and workable system of software services on hardware and software level, that ensures their functioning within a single business logic through one user interface. Especially are felt the prospects of globalization in systems of corporate type [1] (Tab. 1).

Table 1

Characteristics systems of corporate type

Species	Functional purpose	Features of	Examples
ERP (Enterprise Resource Planning System)	Serve as to create a single information space of company (combining all departments and functions), effective management of resources company, which are related to the production, trafficking of orders, sales.	Of fundamental use of a single transactional systems for various operations and business processes enterprises. The versatility and the possibility of the take into consideration of sectors specifications. Modular principle of construction.	CIS " BiznesLyuks"; CIS SIKE; "Galakty'ka" ERP; MONOLYT SQL; "OPTIMA-WorkFlow"; CIS "Y'LADA"; AVARDA; Lawson M3ERP; DeloPro 4.0; Organic ERP; TRONIX and others.
CRM (Customer Relationship Management System)	Designed to improve and manage relationships with customers. Collects, analyzes and stores data about customers and their needs.	Executes functions by providing all available information to employee about a particular relationship with the client.	By`try`ks24; AmoCRM; ASoft CRM; Microsoft DynamicsCRM.
MES (Manufacturing Execution System)	Designed for organization of optimal distribution of resources, production scheduling, quality management, analyzes the efficiency, abbreviation of costs and increase profits.	It operates exclusively with manufacturing information and allows you to adjust and to rebuild the production schedule as many times as needed for one shift.	MES HYDRA; DIAMES; Zenith SPPS; IDbox; Инфокопт; IFS Applications; IT-Enterprise APS/MES; JobDISPO MES.
WMS (Warehouse Management System)	It optimizes and automates the work of the warehouse of company: the acceleration of product set, the providing accurate information on placement of goods in a warehouse, effective management of product with limited shelf life, the management of using warehouse and others.	Is issued in several editions: system the entry level (small shops and warehouses); "boxed" systems (warehouses with low turnover of goods, but 10,000 m ²); systems that adjust to (warehouses of 5,000 m ²) and systems that configurable (large warehouses with high turnover of goods and nomenclature).	Warehouse Expert; Oracle E Business Suite WMS; Warehouse Advantage; AldataWarehouse Management; RedPrairie DLxWarehouse.
EAM (Enterprise Asset Management)	Analyzes ways to reduce costs for equipment service, are optimized its work, logistical support, management of stocks, finance, quality, of human resource on maintenance.	These modules are part of the almost every general management information system, as well are specialized EAM, which focus on specific sectors.	IBM Maximo; Mincom Ellipse; Infor EAM; DPSI iMaint; SPP Spectec TRIM; SAP BusinessSuite; Galakty'ka TOPO.
HRM (Human Resource Management)	Manages all processes related to accounting, distribution and calculation with staff and reduces the percentage of staff turnover.	The technological side of the issue of automation HR - resources is the most difficult, because the parameters with which to work system is closely related to psychology and difficult transferred to the formal measure.	««Kompas:Upravlinnya personalom»; Alfa : Pidsy`stema Upravlinnya personalom; «1C:Zarplatnya ta Upravlinnya personalom 8.0»; «АиТ:Upravlinnya personalom»; Dynamics AX «Upravlinnya personalom»; Parus:«Upravlinnya personalom»; Flagman:Upravlinnya personalom; Dynamics NAV «Personal ta zarplata»; CIS «Trudovy`k».

* Source: developed by authors based on monitoring market of corporate information systems



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Similarly on the brink of MES and ERP are located the systems of intelligent management of production EMI (Enterprise Manufacturing Intelligence), which is a centralized system of data collection of production processes and their subsequent interpretation in a commercial context. EMI also provides automation of data entry of production and movement of materials in the resource management system (e.g., ERP).

Thus, the corporate system - a combination of hardware and software that implement the ideas and methods of automation of activity the company. The nature, size and features of production structures and of systems themselves stipulate a combination of various corporate systems in the overall structure of enterprise management information system [1].

Systems of this type carry out automation of functions of accounting and management in enterprises and are provide information for management decisions. They are designed to meet the informational transparency of the enterprise, to form a common information space, which will combine information flows, which runs from manufacturing with data of various of financial-business departments, and to issue pertinent message to all levels of enterprise management.

Conclusion. Thus, system integration is to develop integrated solutions, designed to achieve maximum efficiency functioning of system by establishing effective interaction of its subsystems. The results of modernization and systems integration are: simplification and automation of business processes, the most effective management of enterprises, improve the reliability and safety integrated systems, effective interaction systems based on a common platform, the significant of decrease in expenses for further modification.

References

1. Volot, O. I. & Zabrovska, A. I. (2016). *Modernizatsiya ta systemna intehratsiya informatsiynykh system i tekhnolohiy v obliku ta upravlinni pidpryemstvamy* [Modernization and systems integration of information systems and technology in accounting and business management]. International scientific and practical conference "Youth Science – 2015 : the socio-economic and humanitarian aspects of the development society". Chernihiv : Chernihiv National Technological University, pp. 54-57 [in Ukrainian].
2. Wikipedia. Hlobalizatsiya [Globalisation]. Retrieved from : <https://uk.wikipedia.org/wiki/Глобалізація> [in Ukrainian].
3. Wikipedia.. Systemna Intehratsiya [System Integration]. Retrieved from : https://uk.wikipedia.org/wiki/Системна_інтеграція [in Ukrainian].

Література

1. Волот, О. І. Модернізація та системна інтеграція інформаційних систем і технологій в обліку та управлінні підприємствами / О. І. Волот, А. І. Забровська // Юність науки – 2015 : соціально-економічні та гуманітарні аспекти розвитку суспільства : Матеріали міжнародної науково-практичної конференції (18-19 травня 2016 р., м. Чернігів). – Чернігів : ЧНТУ, С. 54-57.
2. Вікіпедія. [Електронний ресурс]. - Режим доступу : <https://uk.wikipedia.org/wiki/Глобалізація>.
3. Вікіпедія. [Електронний ресурс]. - Режим доступу : https://uk.wikipedia.org/wiki/Системна_інтеграція.

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