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MODERN ASPECTS OF METALLURGICAL ENTERPRISE MANAGEMENT

Modern problems of industrial enterprise management. We describe theoretical basics of modern industry management. We describe and analyze the processes taking place in work of large industry. We discuss the measures to improve the existing mechanism of industrial enterprise management, study funds required for the implementation of enterprise resource planning, assessment of efficiency of the proposed activities.
Keywords: *management, industry, enterprise resource planning, SAP R/3.*

Міскі-Оглу О.Г., Лєпорська Н.В. Сучасні аспекти управління металургійним підприємством. *Розглянуто сучасні проблеми управління промисловим підприємством. Наведено теоретичні основи управління сучасним промисловим підприємством. Описані і проаналізовані процеси, які відбуваються в роботі крупного промислового підприємства. Розглянуто заходи по удосконаленню існуючого механізму управління промисловим підприємством; обґрунтування засобів, які потрібні для впровадження системи управління ресурсами підприємства; оцінка ефективності запропонованих заходів.*
Ключові слова: *управління, промислові підприємства, корпоративні інформаційні системи, система SAP R/3.*

Миски-Оглу А.Г., Лепорская Н.В. Современные аспекты управления металлургическим предприятием. *Рассмотрены современные проблемы управления промышленным предприятием. Приведены теоретические основы управления современным промышленным предприятием. Описаны и проанализированы процессы, происходящие в работе крупного промышленного предприятия. Рассмотрены мероприятия по совершенствованию существующего механизма управления промышленным предприятием; обоснование средств, необходимых для внедрения системы управления ресурсами предприятия; оценка эффективности предлагаемых мероприятий.*
Ключевые слова: *управление, промышленные предприятия, корпоративные информационные системы, система SAP R/3.*

Formulation of the problem. In modern conditions of a market economy in Ukraine, issues of particular relevance to improve methods and styles of management of large industrial enterprises.

In order to ensure its stable existence and position in the market of products, companies need to use in the activity advanced scientific and technological progress.

One such factor is the use in the production activities, working with the material and energy resources of the latest developments in information technology. This implies the rele-

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vance and practical value of this work.

Analysis of the latest research and publications. In recent years, the problems of control of the modern industrial enterprise devoted a lot of foreign and domestic publications [1], where management activities are considered from different perspectives: management theory, the practical implementation of the production process, economic analysis, human resources, etc.

Significant contribution to the solution of these problems made by such scholars as M. Meskon, M. Albert, F. Hedouri, P. Drucker, Kotler, P. Fatkhutdinov, V. Okrepilov, Polyak and others.

Works cited authors are devoted mostly to the fundamental problems of plant facilities, while the use of modern information technologies require further reflection and improvement.

The purpose of this paper is the study and improvement of management practices largest metallurgical enterprise in order to achieve the most effective results of its production activities.

Presentation of the basic material. Management challenges associated with considerable difficulties, since along with the processes that are quantifiable (resource costs in volume and cost, power consumption, metal, etc.), there are others that can not be objectively quantified: efficiency existing methods to influence the collective impact of moral incentives and motivation on productivity, the value of administrative foresight and forecasting, psychological climate, etc. Analysis and evaluation of these phenomena are possible only after much experimentation with subsequent mathematical processing of the results.

Currently, the main thing for business leaders - the understanding of the key aspects of management in general and the new components of industrial management in particular.

Modern managers need to maintain maximum profitability when the company planned production volume on the range and number with the best technical and economic parameters. This requires enforcement of many parameters, such as the uniform output plots, shops, the plant as a whole, complete and efficient use of equipment and workers, the maximum reduction in cycle time, minimizing the amount of work in progress, etc.

That is why the manager must personally lead the informational and analytical business unit, which captures not only the first warning signs of emerging, sees the analytics and emerging strategic challenges and their solutions, but also can highlight the need for structural changes, and the rationale of organizational, technical, technological, marketing and other measures to improve the management of situations. This unit shall be the coordination of information flows of the company, the integration of information-providing units - information technology management, process control departments, divisions and other CAD.

The use of relevant scientific developments in the field of modeling business systems and implementation of an enterprise established on the basis of known and new mathematical models of information systems, the company provides a significant competitive advantage.

Construction of mathematical models, and the solution of optimization problems requires a large amount of computation. Therefore, the practical use of these mathematical models is only possible with modern computer technology into software systems.

Implementation of an automated information system always involves a transition to a high degree of restoring order. Thus, as a rule, there is an increase transparency of business, including investors, implying standardization of enterprise business processes and the development of a clear system of accounting. Therefore, certification company quality standards ISO 9000 necessarily entails the introduction of ERP-system.

Consider the main ideas of this work by the example of PJSC «Mariupol Ilyich» (Mariupol).

To date, plant them. Illich - an enterprise with integrated steel, produce different shaped products. Among them, a thick and thin sheet ¬ hot and cold (including galvanized) strip (including ribbon) and leaves steel, plate bimetals for various corrosive environments, seamless

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hot-rolled pipes, cylinders for different work environments and pressures.

The plant is one of the largest producers of iron and steel in Ukraine, the largest producer of flat steel, galvanized cold-rolled sheets, seamless road and other steel cylinders for compressed gases.

PJSC «Ilyich Iron and Steel Works of Mariupol» - one of the largest enterprises of Ukraine with full metallurgical cycle. The plant's products are exported to over 80 countries.

MMK Ilyich Steel Division is a Group «Metinvest» and is running a high-stability [5].

The company specializes in the production of high-quality steel sheets for critical metal, shipbuilding, oil pipelines, gas and water pipes, tanks for the storage of compressed and liquefied gases.

Expanding range and improve consumer properties of products - a permanent, continuously operating process, which allows the company to compete successfully in the global steel market.

High quality products combine confirmed 50 quality certificates received from seven foreign certification centers for metal more than 200 grades of steel, as well as from domestic certification centers.

The composition of «Mariupol Illich» has four major industrial complexes: chemical-metallurgical production aglodomenny, steelmaking, rolling complexes.

The main activity of PJSC «Mariupol Illich» - the production of high-quality steel sheet a wide assortment.

The implementation and operation of the automated control systems of production at the plant is engaged in Information Technology Management (ITM). To date, this administration has eight departments and one office.

The structure of ITM includes the following departments:

1. Development and testing of information systems.
2. Design and implementation of information systems.
3. System administration.
4. Creating and maintaining computer networks.
5. Preparation and processing.
6. Maintenance plant floor systems.
7. Technical support of computer systems.
8. Service and information service.

Bureau, part of the ITM, is called a functional desk analysts and support of information technology.

Summarizing global experience and appropriate analysis, it can be the main conclusion of this work:

foundation of an effective and high-quality work of the modern industrial enterprise is the implementation and successful operation of the enterprise information systems.

Therefore, in order to effectively control problems of industrial plant is proposed to use modern corporate information system (CIS).

As with any information system, the current CIS [6] is used for the collection, transmission, processing, storage and distribution of information to consumers, and consists of the following components:

- Software;
- Information Security;
- Technical equipment;
- Staff.

Economic conditions of creation and use of CIS are [7]:

- Flexibility market strategy;
- Effective communication with partners;
- Effective work with clients;

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- Effective management of resources and processes;
- Prompt reliable information;
- The analysis of large data volumes.

Currently on the market are the most popular EIS following integrated ERP-system: BaaN, JD Edwards, Oracle Applications, SAP R/3.

The clear leader among these systems is the SAP R/3, which is today the greatest interest among managers and owners of large companies. In this work, it is proposed to use the system for solving actual problems of control of PJSC «Mariupol Ilyich».

The main arguments for this decision are:

1. The SAP R/3 has the largest number of installations and users in all the largest companies in the world.

2. PJSC «Mariupol Ilyich» is now part of the company «Metinvest Holding» with experience of implementation and operation of SAP R/3 at its leading enterprises and, in particular, in PJSC «Azovstal».

3. The structure we have in PJSC «Mariupol Ilyich» Department of Information Technology is part of a unit that on their function is designed to deal with the development and implementation of CIS - Centre of Excellence Enterprise Systems.

4. In the process of implementation and operation of this system to the leading enterprises of Mariupol (PJSC «Azovstal» and PJSC «Azovmash») was formed by qualified service personnel SAP R/3, which will certainly play a positive role in its implementation in PJSC «Mariupol Ilyich».

Here is a brief description of the selected system. The SAP R/3 is composed of a set of application modules that support different business processes and integrated with each other in real time.

The main modules of the system [8] are:

- Finance (FI);
- Budget Management (FI-FM);
- Controlling (CO);
- Materials Management (MM);
- Sales and Distribution (SD);
- Maintenance and repair of equipment (PM).

Function modules support a wide range of business processes, which brings together the company materials management, sales, maintenance, financial management, accounting and cost accounting into one, and increasing efficiency.

As part of this work include the following measures for restructuring of the current in PJSC «Mariupol Ilyich» structure of ITM:

1. Rename the «Centre of Excellence Enterprise Systems» in the «Center of implementation and maintenance of enterprise systems».

2. Abolish the department of development and testing of information systems.

3. Enter into the structure of the new Center two offices:
   - Functional software CIS;
   - Software CIS.

Staff of the workers in these offices staffed by the abolished department of development and testing of information systems.

Such an approach to reorganize the ITM will reduce to almost zero cost to recruit new staff to service the units proposed for implementation at the enterprise system SAP R/3.

Also a strong argument for this approach is that in currently at the plant already has the structure of ITM implementation and support of the proposed system (Department of the establishment and maintenance of computer systems, system administration, technical support of computer systems).

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According to the independent news agencies, with the right, carefully plan the implementation of the company can achieve truly meaningful results, shown in Table.

Table

Expected efficiency of ERP-systems

Name of indicators	Quantification, %
1 Reduced operating and management expenses	15
2 Savings Working Capital	2
3 Reduce implementation cycle	25
4 Reduction of transaction costs	35
5 Reducing insurance inventory levels	20
6 Decrease in accounts receivable	12
7 Increase in capital turnover rate of	25
8 Increase in inventory turnover	30
9 Improving the use of fixed assets	30

Over time, you may need to expand the system, not only geographically, that is, increase the number of staff working in it, but also extend the functionality of the application of the system, which requires no additional hardware costs, system and application software. Therefore it is very important when planning the project costs for all possible prospects of the system.

In conclusion, we note that the choice of an integrated enterprise management - not a simple event. And often it is not a question of money: should or should not invest a lot of resources in the implementation of ERP-system - is the maintenance of competitiveness and leadership in the market. Return on investment in the system will come from the company's ability to be the best with the new business processes.

Findings

1. The features of the control of metallurgical enterprises in the modern world.
2. Considered a comprehensive approach to business management.
3. Developed and submitted justification for the selection of funds for the implementation of management of modern metallurgical enterprise.
4. The features are the main stages of the project implementation of SAP R/3.
5. Develop practical measures for the reorganization of the Information Technology Management PJSC «Mariupol Ilyich».
6. Proposed performance evaluation measures for implementation of corporate information systems.

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НОВІ ВИКЛИКИ У РОЗВИТКУ ЛАНЦЮГІВ ПОСТАВОК

Проаналізовані тенденції в світовому просторі щодо розвитку ланцюгів поставок з метою виявлення пріоритетних чинників впливу на їх формування і удосконалення. Виявлені ключові аспекти досконалості сучасних ланцюгів поставок, окреслений глобалізаційний характер сучасних ланцюгів поставок.
Ключові слова: *глобалізація, ланцюг поставок, транснаціональні корпорації, досконалість ланцюгів поставок.*

Фалович В.А. Новые вызовы в развитии цепей поставок. *Проанализированы тенденции в мировом пространстве относительно развития цепей поставок с целью выявления приоритетных факторов влияния на их формирование и усовершенствование. Выявлены ключевые аспекты усовершенствования современных цепей поставок, очерчено глобализационный характер современных цепей поставок.*
Ключевые слова: *глобализация, цепь поставок, транснациональные корпорации, совершенство цепей поставок.*

V.A. Falovych. New challenges in the development of supply chains. *Analyzed trends in world space to develop supply chains in order to identify priority factors influence the formation and improvement. Identified key aspects of perfection of modern supply chains, globalization outlined the nature of modern supply chains.*
Keywords: *globalization, supply chain, multinational corporations, vehicles, aspects of supply chain excellence.*

Постановка проблеми. Глобалізація в світовому просторі сприяє формуванню більш складних ланцюгів поставок і створенню їх нових конфігурацій, а це, в свою чергу, вимагає впровадження нових підходів у веденні бізнесу і вибору оптимальної стратегії ланцюга поставок, тому постає задача проаналізувати світові тенденції у розвитку ланцюгів поставок з метою виявлення перспектив їх розвитку. Передусім це важливо для перспективної оцінки таких ланцюгів з точки зору ефективності та конкурентоздатності. Аргументом такої позиції є ускладнення типології відносин між суб'єктами ринку, поширення гібридних відносин «конкуренції+кооперації», що все

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