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Concept of Improving Management Efficiency of Oil Enterprises Under Transformation of The Digital Economy

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Abstract: This article covers the concept of improving the management efficiency of oil enterprises. Also, effective management of the enterprise and rational solution of the existing problem, and the main goals in the field of production were widely studied and analyzed. In addition, the main functions of management systems and the influence of modern concepts and technologies on the process of enterprise management are widely evaluated. In addition, the concept of integrated supply management, which emerged in the last decade, has been widely analyzed as the concept of related flows such as "design - purchase - production - distribution - sales - service" in the integrated business structure. The connection between ISO 9000 and the concept of TQM is scientifically based on the need to combine orders from different suppliers into one delivery, instead of delivering small batches from different suppliers on time. Conclusions and suggestions on improving the management efficiency of oil enterprises are given.

Keywords: Digital economy, transformation, digital technologies, oil enterprises, management efficiency, effective management of the enterprise, Concept of ISO 9000 and TQM, enterprise strategy.

Introduction: In the conditions of globalization, the competition in the vegetable oil market is actively introducing information technologies into the management process of oil companies. Providing the enterprise with high-quality raw materials has a special place in improving the management activities of the enterprise. Satisfying the oil company's demand for raw materials by using modern methods in the purchase of

raw materials depends on the presence of important factors of increasing the business efficiency of the company. Improving the management system in enterprises requires modern tools for studying the process, learning new management methods, at the same time focusing on expanding the scope of analysis, applying the principles of resource theory. Enterprises are forced to rethink production, marketing, supply, transportation, warehousing and information systems in the transition to the digital economy [1].

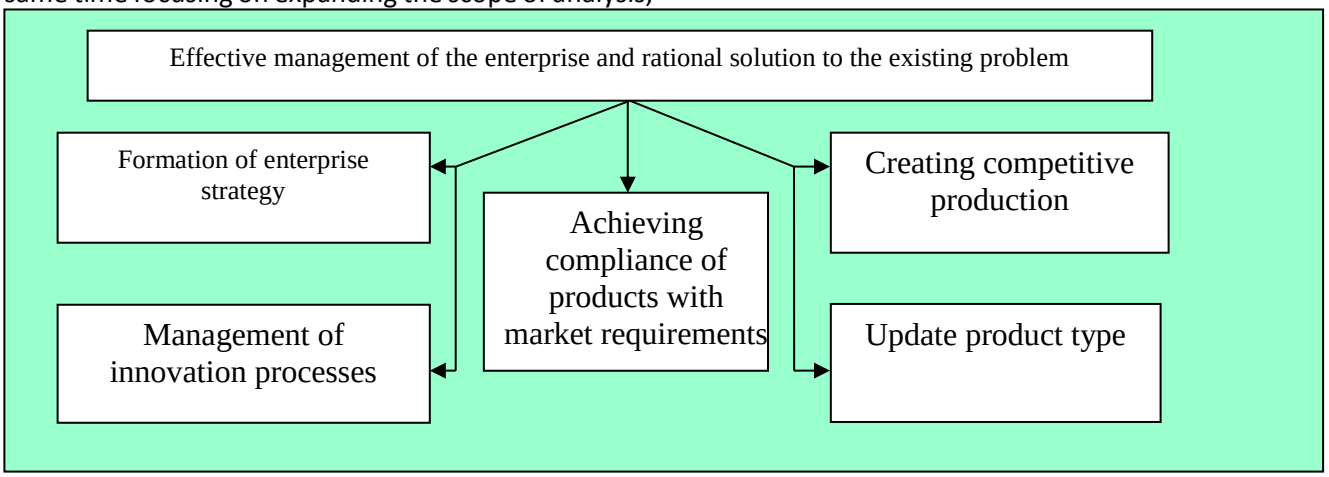

Figure 1. Effective management of the enterprise and rational solution to the existing problem[2]

In the conditions of the digital economy, the role of food enterprises as an economic object is significantly manifested. In the conditions of economic reforms, previously unknown problems appear, which require effective management of the enterprise and a rational solution to the existing problem. (Figure 1).

According to the results of studies on the management of an industrial enterprise in the context of globalization, according to many scientists and experts, management is a complex, multifaceted, dynamically changing process. According to this definition, management is considered as an activity from the establishment of an enterprise to its vision [3,4].

In the conditions of the market economy, the process of optimal distribution of resources and actions in the economic organization, in accordance with the previously developed plan and constantly monitoring the results of the enterprise management;

According to another definition, enterprise management is "the process of planning, organization, promotion and management necessary for the formation of management-organization goals and its achievement", and it is intended to achieve the set goal based on the plan [5].

In general, summarizing the opinions of the experts mentioned above, we think that it is appropriate to define that "Based on modern positions, management is a continuous process of influencing the human group to improve the organization and coordination of the enterprise, as well as to achieve maximum results with minimum cost.". Because the main role of management is to maintain a balance between the main processes that take place inside and outside the enterprise, as well as to attract resources for their implementation [6].

Literature review

Issues of enterprise raw material management foreign scientists D. Bowersox, D. David Kloss, M. Christopher, D. Lambert, Dj. Stock, Michael R. Lindere, E. Harold, C. Skowronek, Thomas T. Stollkamp, D. Waters, D. Hadley, T. Whitin, E. Mate and others have been reflected in scientific research [7,8,9,10].

B. Anikin, V. Bautin, I. Bogomolova, D. Gavrilov, K. Kuznetsov, V. Lukinsky, E. Makarov, Yu. Nerush, V. Nikolaychuk, B. Plotkin, Yu. Salikov, V. Sergeev from the scientists of the CIS countries and others have made significant contributions to the study of raw material inventory management [11,12,13,14,15].

Some problems of managing the raw material stock of enterprises in Uzbekistan N. Yoldoshev, Ya. Karrieva, D. Rakhimova, Sh. Zaynutdinov, D. Suyunov, A. Hashimov, Sh. Ergashkhodjaeva, A. Fattakhov, T. Akramov, M. Eshov, G. Abdurakhmanova and studied in the scientific research works of others. The above-mentioned foreign and domestic scientists have conducted many research works in the field of management of raw material reserves of the enterprise. At the same time, problems related to methods of increasing the efficiency of raw material supply to food production, as well as issues of improving enterprise management on the basis of increasing the efficiency of production of raw materials, have not been researched as an independent research object. This determines the relevance of this dissertation research [16,17,18,19,20].

In our study, the approval of the President of the Republic of Uzbekistan No. PF-4947 of February 7, 2017 "On the strategy of actions for the further development of the Republic of Uzbekistan", No. PF-6079 of October 5, 2020 "Digital Uzbekistan-2030" strategy and measures for its effective implementation on" Decree No. PF-6096 of October 27, 2020 "On Measures to Accelerate Reform of State-Participated Enterprises and Privatization of State Assets", PQ-3484 No. of January 19, 2018 "Measure for Rapid Development of Oil Network -measures", No. PQ-4118 of January 16, 2019 "On additional measures for the further development of the oil industry and the introduction of market mechanisms in the management of the sector", No. PQ-4643 of March 18, 2020 "Agrarian and on measures to further improve the management system of the food industry" dated May 1, 2020 No. PQ-4700 "Enhancing food safety during the coronavirus pandemic provide, rational use of available resources, serves to a certain extent in the implementation of the tasks specified in the decisions on additional measures of state support for agriculture and other regulatory legal documents in this direction[21,22].

METHODS

To better understand the problem, we focus on the concepts of "resource", "source" and "material". In our opinion, resource means the materials used in the production process. They become finished products as a result of successive technological processing (processing). A resource is a tool necessary for the production of goods and services. Materials are referred to as all resources and individual components that make up the final product. Based on the given information, we were able to distinguish the concepts of "resource", "source" and "material". In the conditions of the market economy, the method of effective management of the enterprise with specific competitive relations is determined by studying the market conditions, forecasting demand and supply, ensuring product quality, delivery on time, and minimum costs[23].

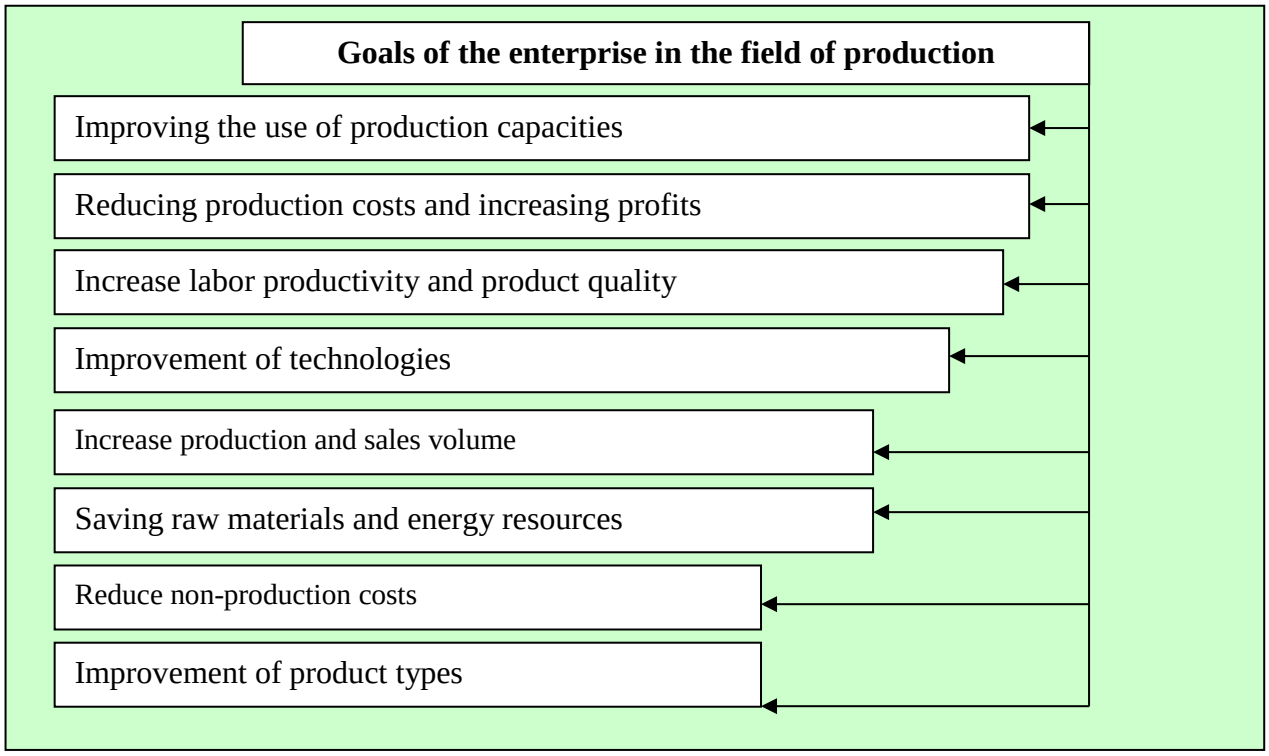

Figure 2. The main goals of enterprises in the field of production

The starting point of the management process consists in setting goals and determining the tasks to be performed based on the possibility of management actions to achieve them. The only goal of every enterprise is to increase its development and production efficiency, and the following can be cited as the goals of many enterprises in the field of production (Fig. 2).

In the above picture, the ultimate goal of enterprise management is the efficient organization of the production process, including production management, ensuring the enterprise's profitability as a result of the development of the technical and technological base. Enterprise profitability depends on the efficiency of production and marketing activities. production results are realized by minimizing production costs (raw materials, energy, labor costs) [24].

According to Henri Fayol, "Management is to lead the enterprise towards the goal" and the main direction of management is to define the goals. In such conditions,

the purpose of managing the enterprise is to constantly overcome dangerous situations not only now, but also in the future, to take quick measures for them and to adapt to changing conditions, a certain reserve and a certain independence are required in economic activity. The benefit of enterprise management is not the existence of the enterprise, but the result of its activity, and is a guarantee intended to create conditions for the successful operation of the enterprise in the future. Because only the profit will allow to create various reserve funds that can be accumulated in the enterprise for the further activity of the enterprise, to limit and overcome the risks related to the enterprise's activity. Goals and tasks of management in a general form is presented in Figure 3[25].

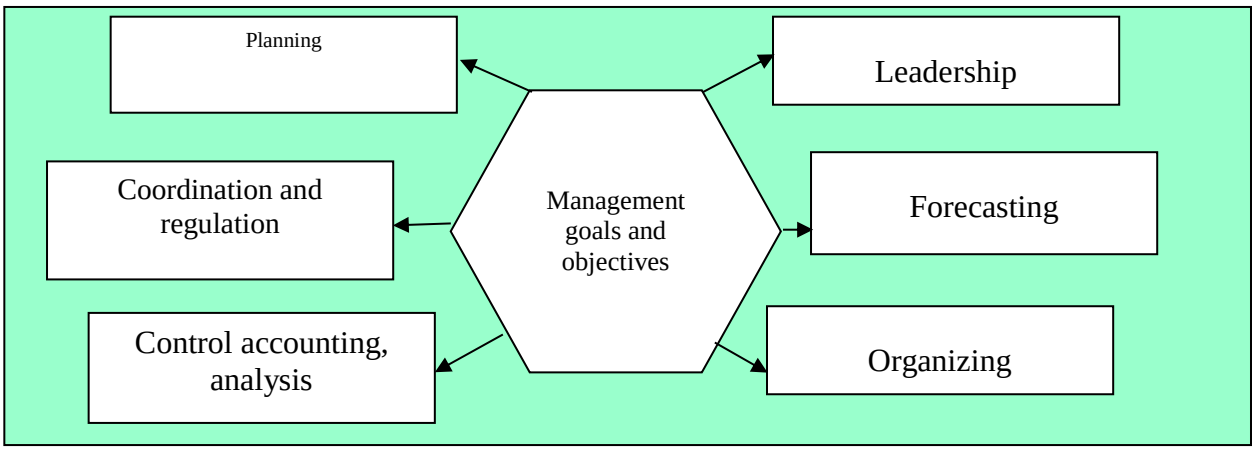

Figure 3. Functions of enterprise management

The above figure also shows the functions of enterprise management. In this function, management as a field of activity implies three stages of solving management problems in relation to the system and its parts [26]:

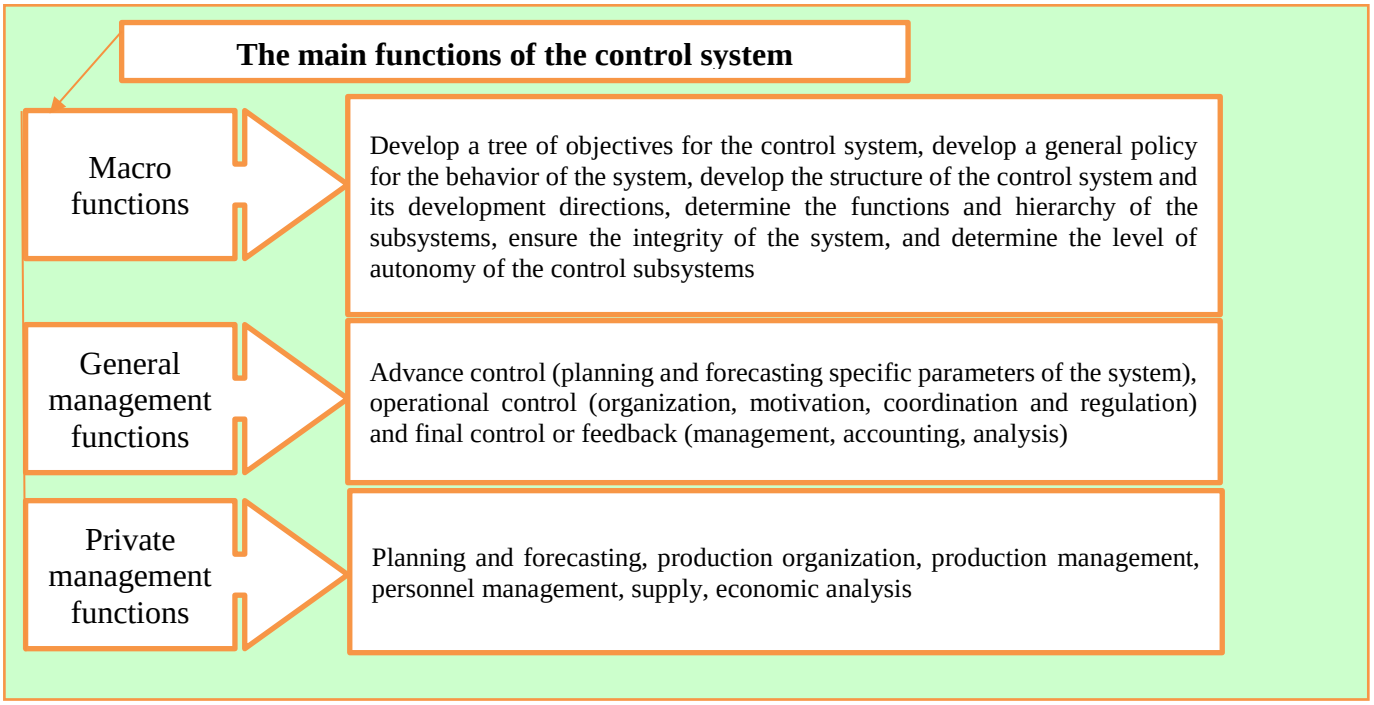

Figure 4. Main functions of control systems

1. Macro-level (meta-control), which includes solving the problem of self-organization of the control system. This is the policy of setting goals in general, the strategy of development of the management system, its structure and functions of subsystems.

2. Management of the effectiveness of the interaction of the object and object of the control system, the implementation of general management functions in relation to real goals.

3. The bottom level of the target tree.

The main functions of the management system are to manage the activities of certain management subsystems to achieve goals, or as they say, to implement certain management functions. The main functions of management systems are macro, general management and private management.

The main functions of management systems are shown in the above picture, and the most important factor that ensures the effectiveness of management systems is the effective supply of raw materials to the enterprise. In any field of production, it is necessary to solve the problems of providing raw materials for the normal functioning of a single economic entity and the economy as a whole.

To solve the problems of supply of raw materials, first of all, it is necessary to clearly define and define the main tasks and functions. Supply of raw materials is understood as the organizational structure of the enterprise, management methods, mutual relations with suppliers of raw materials, management that can effectively satisfy the needs of the enterprise for raw materials. The main goal of resource supply in developed countries is to meet production needs for materials with the highest economic efficiency.

RESULTS

The increase in the volume of production in the enterprise, the development of the raw material procurement and delivery process are closely related to its basic concepts. The concept of "concept" in purchasing 1) concept as a paradigm, guiding idea; 2) management technology - has two meanings, such as a standard sequence of execution of processes embodying a certain paradigm. In the first sense, it consists of raw material supply, marketing and integrated concepts [27].

The informational concept of raw material supply appeared in the late 60s and is closely related to the development of information technologies. The main idea of this concept is focused on specific functions performed in planning, purchase of raw resources, production, distribution, etc., within the framework of this concept, the task of optimizing the process of managing the volume of raw materials is not set. In the management of processes, information and computer technologies have a supporting nature, accounting, communication, management and decision-making information systems are used [28].

Practical examples of the use of the information concept are enterprise management technologies using widespread systems, information-software modules and inventory management models: DRP, MER I, MRP II, ERP, etc.

DRP (Distribution Requirement Planning) is a system of inventory planning and delivery of finished goods and materials in distribution channels, including intermediaries. DRP, given its uncertainty, is based on consumer requirements. The DRP system allows you to reduce the level of inventory, reduce the need for storage areas, and improve the coordination between the management functions performed in the distribution by accurately planning the volume and place of delivery. All this helps to reduce costs. DRPII (Distribution Requirement Planning) is a software module, a planning system using algorithms and decision-making models.

MRP II - planning of production resources - is a unified information system, the main task of the system is that the accounting unit needed for the production of the product is in stock at the right time, in the right amount. The system is designed to centralize, consolidate and process information in order to make effective decisions in planning, designing, and controlling costs in production [29].

The main advantage of MRP systems is the formation of a sequence of production operations with materials and components that ensure the timely production of units (semi-finished products) for the implementation of the master production plan for the release of finished products. MRP and MRP II are considered the predecessors of enterprise resource planning (ERP). The marketing concept has been used since the early 1980s to create a management system that ensures competitiveness by optimizing product distribution decisions. (Figure 5).

Among the concepts widely used in the allocation and distribution of raw materials are demand-driven technical requirements / logistics (DDT) and several other options, including QP, CR, etc. In general, it is possible to observe the impact of many concepts on the enterprise management process.

QP (Quick Response) - the essence of "quick response" technology is to assess demand in real time and as close as possible to the final consumer. The implementation of this concept of procurement and inventory management was carried out after the development of relevant information technologies, introduction of electronic document circulation, electronic trade, bar coding, etc. Real-time sales data is generated by scanning barcodes, which is then communicated to suppliers and manufacturers delivered to producers [30].

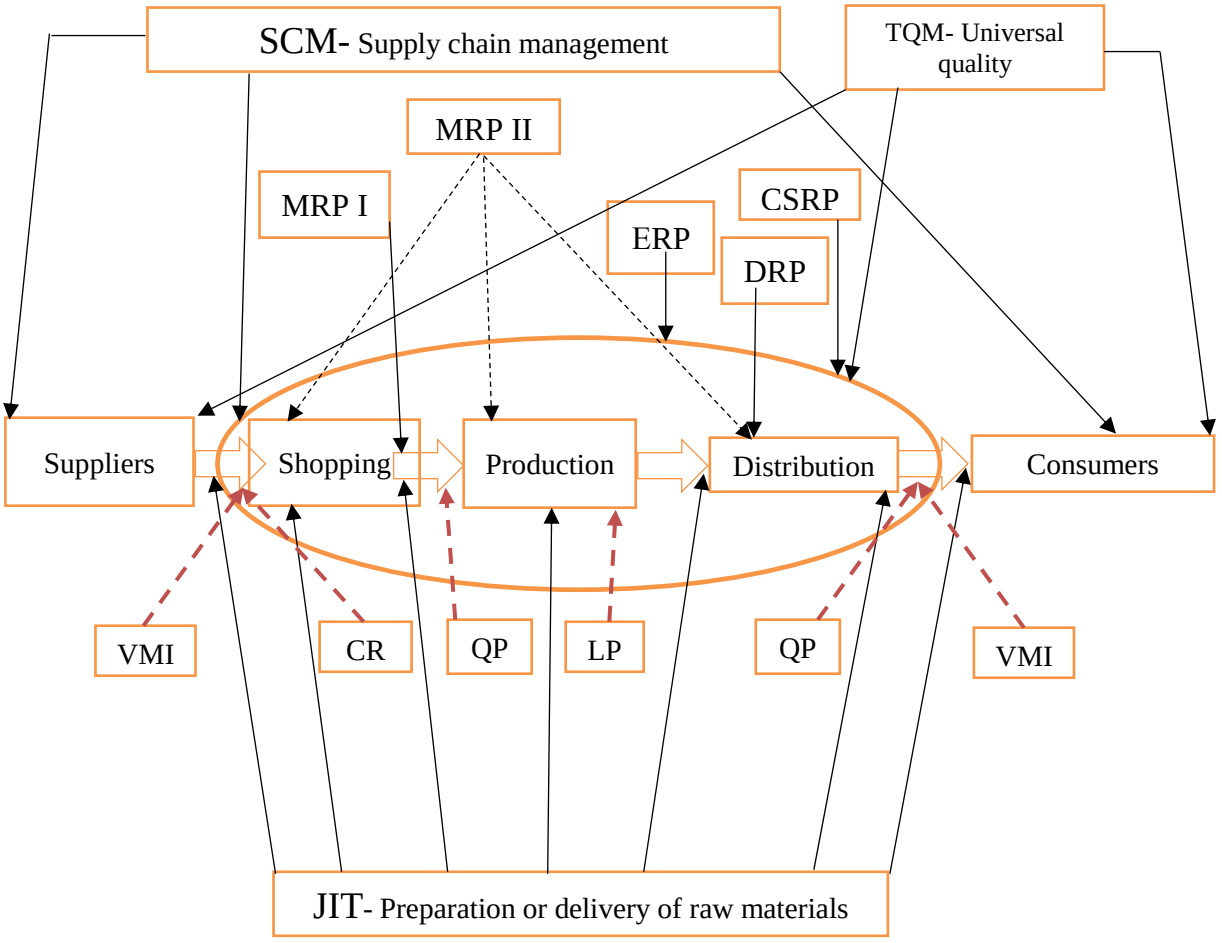

Figure 5. The impact of modern concepts and technologies on the process of enterprise management

QP is aimed at minimizing the reaction time of the raw material supply system to changes in demand, and the improvement of information technologies will help to use this method more effectively in the activities of enterprises. Based on demand information, the optimal level of inventory is formed.

CR (Continuous Replenishment) is a technology developed to eliminate the need for "continuous replenishment" raw material replenishment orders and is a modification of QR. The purpose of the considered technologies is to develop a plan for the supply of products by various suppliers aimed at constantly replenishing stocks. Product replenishment is mainly carried out by the supplier according to the sales information provided by the buyer.

DISCUSSION

The concept of integrated supply management, which emerged in the last decade, began to be used to manage end-to-end related flows such as "design - procurement - production - distribution - sales - service" in the integrated business structure. This concept requires integration of various functional areas and their participants into a single management system for optimization. The concepts of JIT, TBL, TQM, LP, VMI, VAD, SCM, etc., ERP, CSRP systems are used in the concept of integrated supply management.

TQM (Total Quality Management) - universal quality management - TQM is presented in ISO 9000 standards as a concept that continuously develops over time and determines competitive quality without limitations for its improvement (Fig. 5) [31].

This includes the technical side of quality, as well as the philosophy of quality management based on the participation of company employees at all stages of this process, as well as integration with partners and consumers, suppliers.

JIT (Just-in-time) is a technology of organizing the process of development or delivery of raw materials in a separate functional area, ensuring the delivery of raw materials, unfinished work, and finished products in the required amount and on time. The application of the "just-in-time" concept allows to reduce stocks, reduce production and storage areas, improve product quality, reduce production time, make efficient use of equipment, and reduce the number of non-production operations.

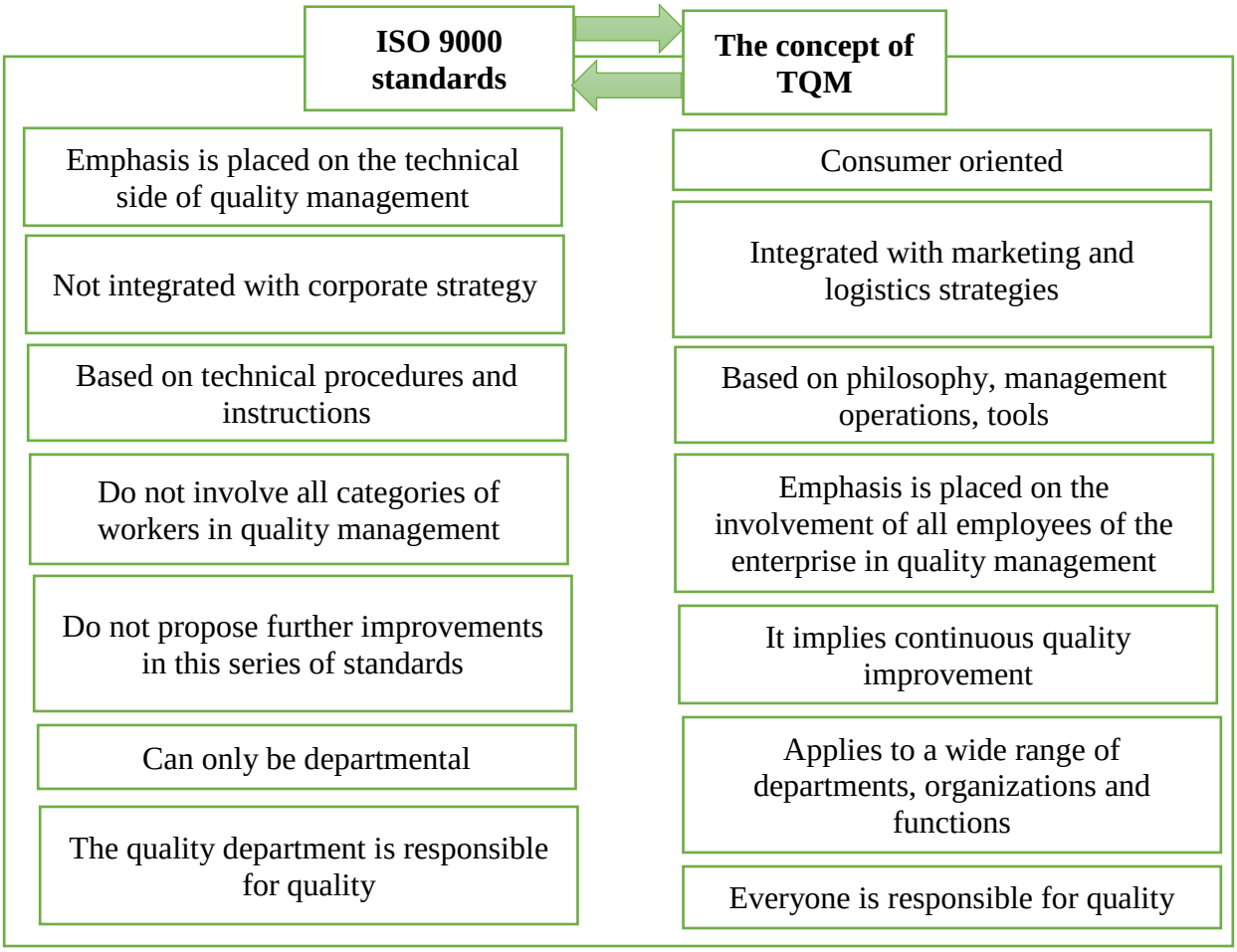

Figure 6. The relationship between ISO 9000 and the concept of TQM

Many researchers, in particular, M. According to Christopher, the concept of JIT is aimed at synchronizing the operation of all elements of the chain, early identification of requirements for the shipment of goods according to the order, ensuring a strict order of contractual relations. On the one hand, in order to avoid the accumulation of excess stocks and to optimize the overall logistics costs, on the other hand, the task of consolidating cargo is given priority.

Instead of delivering small batches from different suppliers just in time, orders from different suppliers should be combined into one delivery. In order to apply JIT technology, it is necessary to create the closest relationship between the buyer and the supplier in terms of information sharing and coordination of plans.

The JIT concept served as a basis for the development and implementation of supply management concepts (technologies) such as Lean Production (LP) and Value added logistics (VAL).

CONCLUSION

In conclusion, it can be said that the research conducted on improving the efficiency of raw material supply to the enterprise allowed the author to obtain the following results:

1. A systematic analysis of the relationship between the capabilities and goals of the enterprise supply department's design, production and delivery, internal and external enterprise management processes, comparing with similar functions of suppliers.

2. JIT concept "Lean Production" (LP) and "Value added logistics" (VAL) development of the supply management concept and the provision of raw materials to the enterprise by using the ERP system in its implementation are highlighted.

3. After determining the need for raw materials and components, the enterprise's action program is drawn up.

4. The starting points of the management process, setting goals, tasks to be implemented based on the possibility of management actions to achieve it were determined.

5. In order to effectively manage the enterprise's stock supply process, it has been proven that it is related to specific functions.

6. In order to implement the raw material demand planning system of the enterprise, a raw material distribution and management planning system was developed.

7. Compared to the traditional method of digitalization

of contracts for the supply of raw materials, the reduction of paper and, accordingly, administrative costs, the reduction of time for the storage of raw materials and the reduction of transportation costs allow to reduce the cost of delivery in the range of 5-8%.

8. As a result of improving the organizational and management mechanism of oil enterprises, recommendations were developed to assess the efficiency of management of total raw materials.

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