

ORGANIZATION OF EFFICIENT PROCUREMENT AT THE INDUSTRIAL HOLDING COMPANY JSC «ARCELORMITTAL TEMIRTAU»

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The organization of procurement cargo-material assets in the JSC "ArselorMittal Temirtau". The algorithm of the process of procurement of material assets of the company. The procurement process has been made possible as a result of the deployment of a unified information system. By means of the created system of the management of internal business processes as well as business processes of interaction with partners is coordinated as a single whole. Documents circulation and budgeting process are optimized, duplication of data is eliminated, accuracy, speed of the account and information interchange are increased.

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The field of activity connected with purchasing supposes all functions which performance is necessary for continuous provision of a firm on a daily basis and in the long-term period. Therefore the activity of a purchasing manager includes the following tasks: definition of requirement for material resources; search for a prospective supplier; estimation of possibility of purchasing at several alternative sources; selection of purchasing method; establishment of acceptable price and delivery conditions; monitoring of a product till the moment of its delivery; estimation of supplier's goods and service.

If indeed one expands purchasing functions, inventory control, transportation, acceptance of bought goods and control at all these stages will be related to them.

Basic ends of activity in the area of organization and management of purchasing: optimal terms of delivery of material resources, finished goods and rendering of services. Delay in purchasing can disrupt the production schedule that will entail large indirect expenses, and the materials bought earlier the fixed term become an additional load on circulating assets and enterprise storage rooms; optimal size of delivery lot, i.e. ensuring the exact match between delivery size and requirements in them. Surplus or insufficient size of delivered products negatively influences the balance of circulating assets and stability of production output and, besides, can cause additional expenses at restoration of balance optimum; ensuring and increasing of quality. Goods, materials or services of a necessary degree of quality should be delivered; otherwise a final product will not satisfy the established standards that will lead to growth of logistical costs. Expenses for bringing quality to a standard level can be quite considerable. It is necessary to constantly increase quality of procurement and to provide

competitiveness of the goods and services at world level that requires paying attention to quality of bought materials; search and purchasing of goods and services at floor prices. This problem is urgent for all enterprises as purchasing activity demands great volume of circulating assets, and as experience shows, it is shortage of circulating assets that is one of the main problems of business. The profit received due to purchases at lower prices or owing to reduction of the total logistical expenses, can be very substantial; search for competent suppliers and development of relations with them. The success of purchases of department finally defines reliability of suppliers. The supplier's activity influences productivity, quality and competitiveness of the company-buyer more than the majority of managers fancy. Employee, responsible for selection of supplier, must conduct a thorough search and analysis of possible suppliers. Besides, the analysis should be made by several criteria, for example, by quality of offered products, possibility of timely delivery, price, service etc. Also the important criterion is the risk estimation at realization of purchases; increase in competitiveness of a company. The basic goals of research of the market of purchases consist in regular gathering and estimation of information with the aim of defining of a market capacity and creation of preconditions for optimization of purchases. As the impact to carry out research can become interest to definition of the sizes of expenses, changes in own distribution program, to introduction of achievements of technical progress, increase in a share of a firm at the market, competition, reliability of suppliers, supply size in the future and so on.

Certainly, the purposes of purchasing management differ depending on the specialization (industrial, trading, service) of a firm [5]. The main end of logistical management of

purchasing at an industrial company is reliable provision of industrial divisions of a firm with the material resources necessary for realization of production schedule [4]. The production schedule at that must be formed according to marketing and logistical strategy of the firm at the sale market of finished commodity.

The analysis of potential of increase of economic efficiency of industrial enterprises shows, that about 50% of optimization of financial expenses depend on cooperation with suppliers. While organizing process of purchasing and delivery to a warehouse of manufacture the raw materials the basic part of the cost price of end- product is formed.

JSC «ArcelorMittal Temirtau» is the largest metallurgical company of the world, controlling 10% of the world steel market at the end of 2015. It is registered in Luxembourg. It was formed in 2006 from the merger of Arcelor Luxembourg Company and Indian Mittal Steel, belonging to the Indian businessman Lakshmi Mittal. After the merger production capacities of the company were 420 mln tons per year. The company possesses a great many enterprises for iron ore, coal production and

also metallurgical enterprises including a large «Krivorogstal» plant in Ukraine [2].

The aim of work of department of technical procurement (purchasing) that is subdivided in its turn into bureaus according to kinds of materials and equipment – timely provision of divisions of JSC «ArcelorMittal Temirtau» with materials and equipment of required quality following range appointed to every bureau, according to orders and the business plan.

The kinds of activity of the purchasing department of JSC «ArcelorMittal Temirtau» are summarized in the Table 1.

The ISO 9001–2008 standard serves as a basis for all procedures [1]. The purchasing process is divided into subprocesses and for every subprocess there is a responsible person.

The standards, the norms and the working instructions on each kind of activity of the purchasing department are in the Table 2: normative legal acts, other guiding, methodical materials of higher and other bodies on supplies of materials and machinery; order of making up requisitions for materials and equipment, conclusion of contracts with suppliers, setting of limits on issue of materials and spare parts;

Table 1
Functions, duties and responsibilities by each kind of activity of an engineer of department of technical supply of JSC «ArcelorMittal Temirtau» administration

Kinds of activity	Functions, duties and responsibilities
Provide divisions with necessary equipment	<ol style="list-style-type: none"> 1. According to requisitions of divisions to make summary demand for equipment, to prepare documentation for the conclusion of contracts with suppliers in SAP R/3 system. 2. To negotiate and be in correspondence with suppliers. 3. To prepare documentation for carrying out of customs procedures regarding the received cargoes. 4. To prepare receipt documents in SAP R/3 system for acquired equipment and take them to a warehouse to be accepted by a storekeeper
Control fulfillment of contracts, analyze their economic efficiency	<ol style="list-style-type: none"> 1. To ensure timely preparation of documents to claim defaults on suppliers and pass the documents to Legal Department. 2. To keep receipt registration books and those of payment for the equipment. 3. To verify incoming accounts, provide with an acceptance and submit them for payment in the prescribed manner. To prepare the schedule of payment, pro forma documents for prepayment, bills of credit
Keep account of material resources and make reports.	<ol style="list-style-type: none"> 1. To participate in acceptance of cargoes by quantity and quality. 2. Make out receipt by statement of fixed assets by OS-1 form with the appendix of a card of the account of the fixed assets with description of total characteristic. 3. To keep inventory tags. To keep up warehouse stocks at the fixed level. 4. To take part in the commission to make an inventory. • 5. To prepare data for the statistical reports
Observe the labor discipline and house rules	<ol style="list-style-type: none"> 1. To follow instructions of the immediate supervisor. 2. Not to divulge commercial classified information of JSC«ArcelorMittal Temirtau». 3. To fulfil requirements of the acting quality management system at JSC «ArcelorMittal Temirtau». 4. To observe house rules

keeping records management of purchasing operations; standards, technical specifications, price-lists, range of used equipment, spare parts, products and consumed materials; basics of technology, economy and industrial engineering; basic of labor legislation; regulations and norms of labor protection and of fire safety.

There is the uniform system for making annual and operational planning, purchases, management of warehouses, and movement of materials is also controlled within it. At that, at all stages of planning and carrying out of project in on-line mode it is possible to get analytical reports at various combinations: company – project – measure – expenses – plan/fact that allows correcting strategy flexibly.

Realization of these approaches became possible as a result of expansion of the uniform information system consisting of the portal solution of SAP Company, registration systems on base IS and creation of mutual directories of materials, contractors, divisions, budget addresses and units of financial management for the whole company. Uniform protocols of integration are used for the whole company: the portal solution, introduced in the main company office, is integrated with systems of shops of the enterprise by the common scheme. Thus, the system becomes easily scalable: whatever many new divisions would appear, the accurate and reliable algorithm for integration is always used.

Thus due to the centralized keeping the reference data, nomenclature documents for the main company office and all its shops and dependent structural divisions (automatically updated directories “sew in” in their registration systems), continuous numbering of documents so data in all registration systems always correlate with each other. As a result each document has the history of appearance (requisition, plan etc.) which can always be traced. All this ensures uniform structure of work of divisions and practically completely excludes influence of the human factor on quality of the data stored in the system.

By means of the created system of the management of internal business processes as well as business processes of interaction with partners is coordinated as a single whole. The system promotes creation of a uniform information field. Documents circulation and budgeting process are optimized, duplication of data is eliminated, accuracy, speed of the account and information interchange are increased.

The process of annual planning of material support consists of several basic stages: formation of measures; preliminary and finite requisition campaigns; making and correction of material support plans. At that annual planning is realized as uniform continuous process from the appearance of need till its write-off. Virtually all divisions of the company are involved in it: material and technical departments and purchasing department, participants of process

Table 2

The standards, the norms and the working instructions by each kind of activity of an engineer of department of technical supply of JSC “ArcelorMittal Temirtau” administration.

Kinds of activity	The standards, the norms and the working instructions
Provide divisions with necessary equipment	decrees, arrangements, orders regarding JSC «ArcelorMittal Temirtau»; approved business plan; quality policy, JSC «ArcelorMittal Temirtau» quality manual, enterprise standards and other documents of quality management system; Incoterms 2000
Control fulfillment of contracts, analyze their economic efficiency	instruction about the organization of export and import currency exchange regulation in the RK; Incoterms 2000
Keep account of material resources and make reports	results of checks of internal and external audit; Incoterms 2000; established order of keeping and preparing of documentation; established order of work according to SAP R/3 system; order of issue of equipment to JSC «ArcelorMittal Temirtau» divisions
Observe the labor discipline and house rules	regulations and norms of labor protection, of safety measures, of industrial sanitation and of fire protection; established order of circulation of documents, containing information being commercial classified one of JSC «ArcelorMittal Temirtau» – house rules; instruction about access and in-plant control at JSC «ArcelorMittal Temirtau»

of planning and realization of a production program, of capital construction, of maintenance works and repair of the equipment', of investment projects, of the account and control of deliveries and of transfer of inventories. As a basis of planning there is a measure due to it addressnes of each logistic process is achieved.

It means the following. Activity of all functional units in the company is considered from the point of view of realization of individual project in the specified terms. Each of them consists of a certain list of the measures which carrying out will allow realizing the project and thus to reach assigned goals. For example, as measures can be programs and subprograms of activity of divisions. So, for divisions of capital construction they are projects under construction and their subobjects. Thus each measure must be related to needs of capital construction, or to repair and maintenance needs.

Structural divisions and service enterprises form requisitions of primary requirements (annual requisitions) for inventories with linkage to measures and detailed description up to a concrete material or equipment with layout per months. The formed annual requisition is submitted for approval by the main specialist, then the summary requirement is formed and coordinated by all main specialists and further on by upward chain the need of the whole company. Coordination of the summary needs is done according to the register of requisition.

The system of authorities differentiates access to requisitions. Structural divisions have no access to the information regarding other structural divisions, and the main specialist – to the information about other main specialists. The superior employee additionally has access to the information of the junior ones. On the basis of the approved annual requisitions the planning and budgetary division forms the plan of write-off of materials and directs it to division on supplies of materials and machinery where the plan of financing of acquisition of inventories is automatically made.

All purchases of the company it is possible to divide into two groups: centralized purchases which are carried out according to a business plan, and decentralized, or one's own, purchases of divisions on supplies of materials and machinery on the basis of requisitions.

At the centralized purchasing after approval of the plan of material support the positions grouped by groups of purchases are sent to the central purchasing division of the main company office of JSC «ArcelorMittal Temirtau» for processing. Having received the register of orders the manager processes the positions

whether there are any at the market and if it is possible to buy them.

On the basis of the received requisition for a material, the manager of purchasing department makes a list of possible suppliers consisting of constant suppliers which long-term cooperation contracts are concluded with, and, probably, new, revealed by means of various information channels, including as a result of the analysis of some earlier received offers. Further one prepares the inquiry about the material which represents a request to the supplier to deliver the material, the identifier, needed quantity and terms of delivery are specified in corresponding positions of the inquiry form. The inquiry prepared and completed in appropriate way is coordinated with the head, and in case of need, corrections are made in it. The inquiry prepared and completed in appropriate way is sent to possible suppliers via e-mail.

At reception of commercial offers from possible suppliers their registration is made in the prescribed manner. Prices and delivery conditions of possible suppliers are registered to corresponding inquiry. For the registered offers a list with comparisons of prices and delivery conditions is made. If there are some questions about received commercial offers from possible suppliers the coordination by positions requiring explanation or additional information is made.

Further a tender takes place. The selection of the most suitable suppliers is made on the basis of the list with comparisons of prices and delivery conditions for the registered and approved commercial offers from possible suppliers, the presence or absence of long-term contractual relations with them at present, and also on the basis of the additional information on the company – the possible supplier. The selection of supplier and conclusion of contract with him is made on the basis of JSC «ArcelorMittal Temirtau» pricing policy. The notice for the supplier on inclusion in the system of the delivery order is done automatically by e-mail with the subsequent placement of the filled requisition form for payment to the repository of documents.

The information about material receipt initiates in the system accounting transactions regarding the debit of the account of reserves and the recalculation account credit, thus, quantitatively increasing a material stock. Together with receipt of materials the entering lot of material with classification of signs of the lot (receipt date, activity direction, etc.) is created. Processes of moving to structural divisions, write-off of materials to shops and the contract enterprises, and also gathering of actual expenses are also fixed in system.

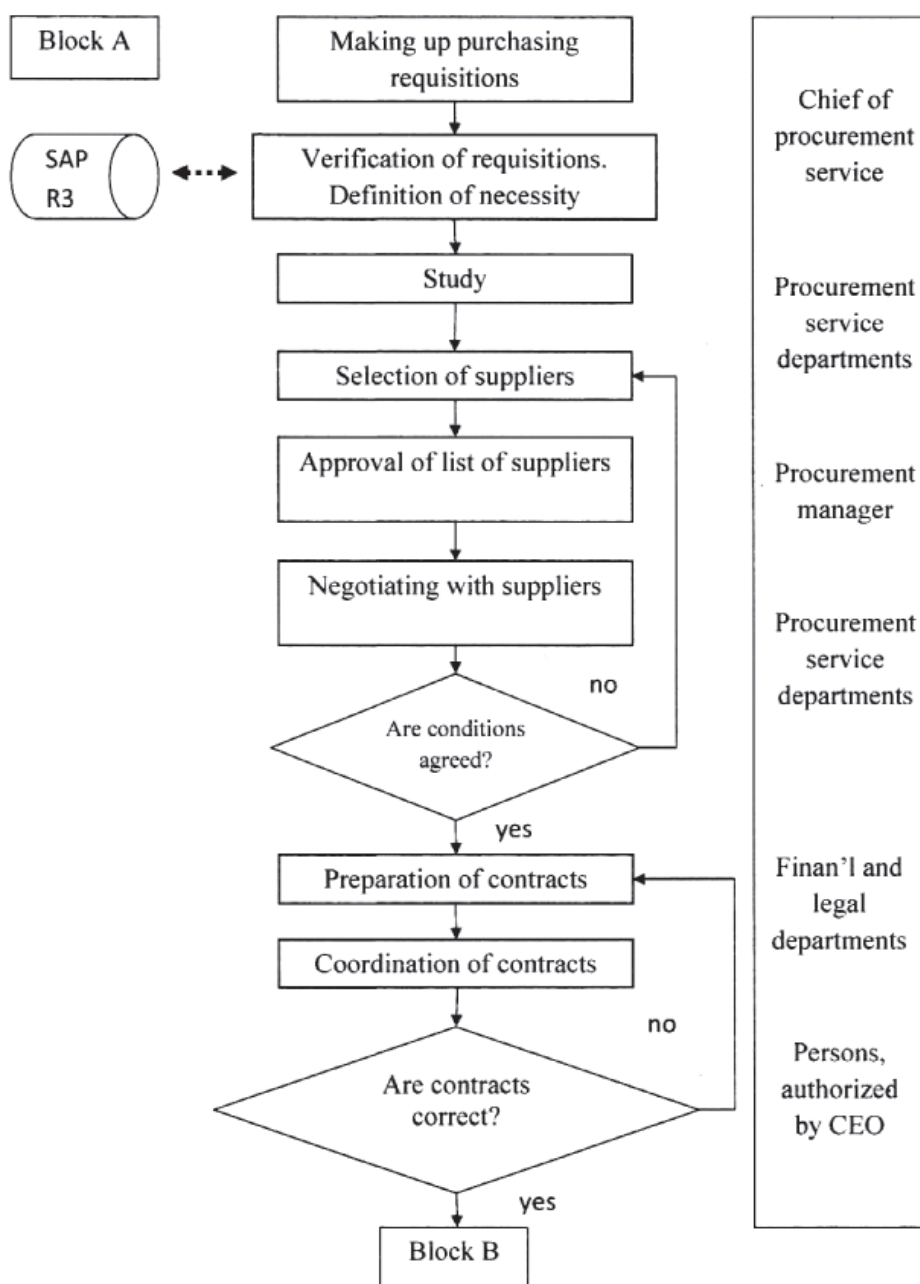


Fig. 1. The algorithm of the process of carrying out of purchasing of material means

The reason to make payments is an invoice of the supplier (the latter is created in its turn on the basis of a delivery order). For unpaid invoices assigns for payment are formed. Thus in the system accounting transactions for the debit of the recalculation account and the credit of the account of the supplier, and also transactions for the entering VAT are carried out, the account payable is formed. The given mechanisms allow organizing uniform cost and quantitative account of reserves of materials in a real time mode.

The uniform system of supplies of materials and machinery management is integrated with subsystems of warehouse management, of planning and calculation of inventories. At that in the system real receipt of commodity positions and their location at warehouses are reflected. And while carrying out the next purchasing campaign it is possible to use effectively unclaimed residues of inventories, thus having reduced volume of the means spent for materials and equipment acquisition.

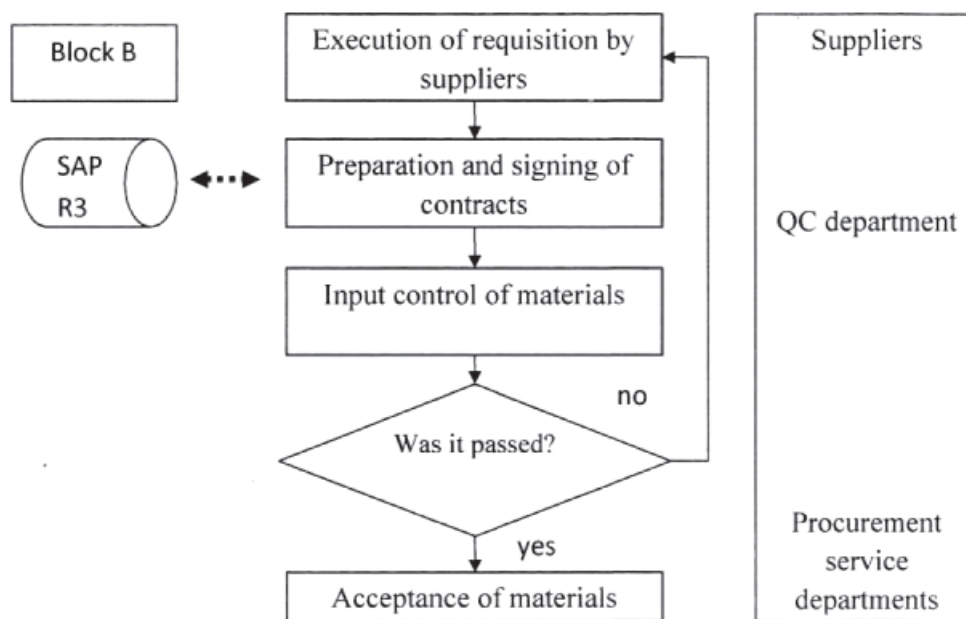


Fig. 2. The algorithm of the process of carrying out of purchasing of material means

The documents circulation concept installed in the system includes the whole “life” cycle of a contract from the moment of its creation till write-off of a product. Due to it mismatches between financial and logistic operations are eliminated, possibility to plan payments, delivery terms and works by contracts appears. All work on a contract is done in electronic form. For storing and searching for necessary documents (including scanned ones) the common register and archive of contracts are kept, and also common directories of contractors, materials, financial positions and units of financial management function for the whole company.

An analytic component allows constantly controlling and analyzing routes passed by documents as well as payments and budget performance at conclusion of contracts etc. Besides the system accumulates statistics and allows preparing reports: on carrying out of the contracts, on documents regarding purchasing contract, on budget performance including that of divisions.

The efficient management of purchasing process is impossible without receiving regular and reliable analytic reports. Within the limits of the common system there are different forms of reports within the framework of each stage of management process. So, as to reserves management there exist such kinds of

reports, as dynamics of unclaimed and illiquid property, regarding residues of inventories, dynamics of their movement for some period, on receipt and realization of inventories for some period. It enables to control daily purchasing process and instantly receive the information necessary for management of the given process and making decision on its optimization, and also effectively to realize such functions, as the control of payments and quality performance of contractual obligations. Moreover, there is a possibility to control budget performance, to analyze correctness of business accounting.

The algorithm of the process of carrying out of purchasing of material means by JSC «ArcelorMittal Temirtau» company is represented as a following scheme that is shown at Fig. 1 and 2 [3].

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