IMPLEMENTATION OF INFORMATION POLICIES IN LOGISTICS DEPARTMENTS IN LARGE ENTERPRISES

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Abstract: This paper presents the selected information technology tools, including corporate portals, and analysis of their functionality in logistics departments in the context of formation of informational policies in large companies on the basis of the conducted investigations.

Keywords: corporate portal, information policy, logistics information system

1. Introduction

Implementation of information policies calls for coordination of flow of information from all the units within the organization thus it is necessary to find solutions which allow for an advanced refinement of such flows.

The actions taken in order to ensure efficient management encompass the whole domain of operation in companies, the most important including determination of the scope of responsibility for members of organization i.e. managers, employees, citizens and consumers. In private companies, accountability to shareholders (especially to majority shareholders) is confronted with accountability to managers, customers, creditors, employees and suppliers.

2. Role of Information in Corporations

Efficient flow of information should be smooth and possibly fast so that it provides managers with complex knowledge. Information flowing throughout the enterprise must meet several conditions which determine their usefulness for the process of decision-making. They include:

- fullness (completeness) of information, which depends on the methods of measurement, their accuracy and disturbance level,
- reliability of information, affected by the features of reception of input and output signals, types of channels and decision rules typical of receivers,
- usefulness, i.e. significance to medium-rank and senior managers [1.].

Care for collecting and generating information of highest value should be focal point in each company since the quality of individual pieces of information underlies the quality of the whole information stream. However, information flow combines elements of each subsystem in business entity with management system and a set of algorithms for data processing and comprises information system being a base for company's operation. Information system is a

multilevel structure of an element of decision chain functioning in management system, allowing, through suitable procedures and models, processing of particular initial information into the expected output information. In a more generalized form, information system in any organization is a set of the following elements [2.]:

$$SI = \{P , I , T , O , M , R , \}$$

where:

SI – information system in the organization,

P – set of entities being system users,

I – information resources in real area,

T – set of technical tools used during collecting, processing and presentation of information,

O – set of system solutions for a centralized or market-based formula of management,

M – set of metainformation (description of information system and its informational resources),

R – relationships between individual sets,

Information system performs particular functions, such as:
- planning of individual logistics processes, such as demand forecasting, material resource planning, relationships with customers,
- coordination of flow throughout product flow chains,
- monitoring and control over logistics processes, such as: purchasing, sales, collecting and storage of stock,
- control of processes at operational level, particularly in the area of supplies, transport and warehousing.

Information-related activities resulting from the abovementioned functions change in relation to specificity of the processes that occur in a particular company. Cz. Skowronek and Z. Sarjusz-Wolski [6.] listed three main combined information and decision-making functions:
- planning/scheduling functions, developed in the processes of purchasing, production and distribution. During the process of decision-making, major role is played by information tools used for demand forecasting, market research, master production scheduling and material resource planning. These processes are of dynamic nature, thus the created databases should be continuously updated and developed in order to allow for flexible satisfying of customer needs and efficient cooperation with suppliers.
- coordination functions, which play an essential role in logistics processes. Their complex nature resulting from flow of supply stream and information throughout a number of organizational units in the company calls for coordination of a number of individual events and processes. This allows for high performance of the whole logistics system. However, use of computer systems is necessary, not only in the company but also in relation to suppliers and customers.
- monitoring and control of logistics processes, which concerns a wide range of events which are described in computer system databases. This function encompasses record-keeping for inventory, supplies, sales figures and costs, which brings opportunities to gather information used for assessment of efficiency of logistics processes and realization of other functions of information system, which also include planning and control of logistics processes.

M. Christopher [7.], however, points to four functions which are supposed to be performed by logistics information systems (LIS), containing a set of data which allow management for simplified analysis of the logistics processes. Depending on the needs, this means general analyses or more detailed statistical analyses. The most important functions to be performed by the system include:

- **planning** – one of the most fundamental features of logistics information system is its ability to forecast customer behaviour patterns and their demand for particular products. Therefore, the possibility to forecast the demand is necessary. Having prognosis-related information about the time necessary for realization of supplies, the enterprise can plan its resources.
- **control** – this function consists in control of all the logistics processes that occur throughout the whole logistics system in the company, including, in particular: customer service, sales, supplies. Suitable standards for realization of processes are defined and the data for them are collected,
- **coordination** – this function is responsible for establishment of cooperation between particular actions towards sales, according to the standards of customer service adopted in the company, and control of their performance. Coordination calls for efficient flow of information between the cooperating departments in the company.
- **communication and customer service** – in order for the tasks imposed by the customers to be executed by the enterprise, it is necessary to organize efficient communication on the basis of telecommunication and ICT communication channels. Importance of communication becomes particularly apparent in the case of urgent non-standard and irregular orders, when flow of information determines enterprise's ability to perform these tasks.

Activities in the area of logistics, which are closely related to other activities of management, require information gathered, collected and processed within the whole information system in the enterprise. The used information systems might contribute to improvement or delay in the process of decision-making at different stages of management. Difficulties to define proper information support for corporate governance in public companies originate from problems with determination of fundamental mission of the company – is it supposed to consist in maximization of shareholders value or to realize social and economic policies. States can strive for realization of both goals, which is often difficult to compromise. Proper corporate governance must be clearly defined, which is possible to be achieved through adherence to good disclosure standards. Performance of these tasks is possible through employing external auditing firms with good reputation to attract attention of shareholders to individual aspects connected with risk and poor results. Audits should be carried out according to international auditing standards.

Total disclosure of critical information in right time must encompass at least: financial results with clear explanation of unusual transactions; entire remuneration of all the directors and members of the board; key risk factors; details of the most important events and changes which might considerably impact on enterprise's results; enterprise goals; access of general public to information. In public companies, being entirely controlled by the state, typical aspects of corporate governance, such as enhanced enforcement of shareholders rights (especially minority shareholders) are of low priority. Independently of this fact, good practices relating to shareholders are a strong signal which proves how seriously the enterprise treats the issue of corporate governance. Considerable impact on corporate governance is from respecting procedures by the board of directors and management. In the case of public company, which is under total control of the state, the board is the only body which manages company's operation, being potentially able to guarantee themselves the scope of competence independent of state interests connected with implementation of its

policies and of interest of management appointed by the state. Proper governance also depends on transparently defined roles assigned to the directors and managers. Their ability of efficient work is also determined by the quality, experience, skills and qualifications necessary for holding particular positions. They should be capable of, and even obliged to make independent decisions to the best interest of the company.

3. Corporate Portals in the Process of Flow of Information

Considerable support of realization of the abovementioned tasks might be provided by corporate portals, being an information platform which integrates IT systems and technologies, data, information and knowledge functioning within the organization and its environment in order to allow users for a personalized and convenient access to data, information and knowledge, suitably to the needs that result from their tasks, in any time and place, in safe way and through uniform interface [3.]. According to C. M. Olszak and E. Ziemba, the most important features which should characterize corporate portals include:

- integration of heterogeneous data originating from the organization and its environment
- integration of heterogeneous applications,
- providing users with information, both automatically to the authorized users and each time at their request,
- adaptation of the portal interface to individual needs,
- supply of detailed information and knowledge concerning particular domains to individual users and groups of users,
- creation of opportunities of communications, information exchange and cooperation between individual users or groups of users,
- categorization of data, information and knowledge available through portal,
- publicizing and distribution of information and knowledge and its dissemination among employees.

Creation of IT infrastructure for the purposes of logistics management consists currently in implementation of information system with particular features. At first stage, it is necessary to define information needs in the context of the system of physical flow of materials, i.e. definition of the scope of necessary information for system users [4.]. During implementation of the system, it is necessary to consider, besides selection of the elements of the ERP class system structure, a new strategy of actions resulting from the implementation. Commitment of carfully selected and trained employees and managers, for whom properly selected information technology becomes an efficient management tool, is also essential. The systems become elements of supporting infrastructure, otherwise, if improperly selected, they delay the process of decision-making at different levels of management [2.]. Proper and efficient flow of information inside the organization is of considerable importance for its efficient functioning. Work standards, clarity of communication and procedures and the level of integration of employees significantly impact on efficiency of operation and the attitude towards external environment (market). The cheapest and the most efficient methods for formation of efficient organization with dynamic and motivated team is to properly manage information and internal communication. This requires creation of own set of principles of functioning and communication. This procedure determines individual features of corporation while their definition will allow for creation of own policies of internal communication, management of processes and resources. Creation of the procedures characteristic of particular corporation requires identification of the state of organization within the areas of information exchange and communication and then definition of the

existing practices and standards and, at final stage, map out the possible simplifications and new processes. During realization of these tasks, the attention should be paid at opportunities to implement standards and procedures within internal corporate portal as a key tool for information and communication management within the organization. Changes in organizational culture and communication policies rest not only on communication of new values but mainly on acceptance and understanding of these values by employees. Without open communication, the employees will not develop and thus they will not be able to be up to market expectations. Ensuring efficient communication is possible through application of Workflow tools used for control of electronic flow of information in order to modify, assess or to confirm it. First step is a 'spark event', after which consecutive events come, whose completion initiates starting another one. Most of the systems of this type implement possibility of definition of critical moments (*deadlines*), reminding key persons about tasks which must be performed. It is also possible that they are informed about non-performance of any of the stages within the particular time, after which the system moves to the realization of the next step [www.bcc.com.pl]. Application of the system of information flow management during the process of flow inside corporations considerably shortens its course while its individual stages are closely defined, which allows for simplified control of them. The system might be of open nature, which allows for extending its functionalities over external modules. Creation of comprehensive statistics and comparisons becomes possible while integration and data exchange with external systems is simplified. Performance of each set of actions taken by users within the system is called document workflow system order. A variety of types of order can be defined in the system. All these orders can have different set of flows (document workflow) between order states. Simultaneous work of a number of users at different levels of authorization will also be possible. Example solution focused on interrelating the participants of information exchange is presented in Fig. 1.
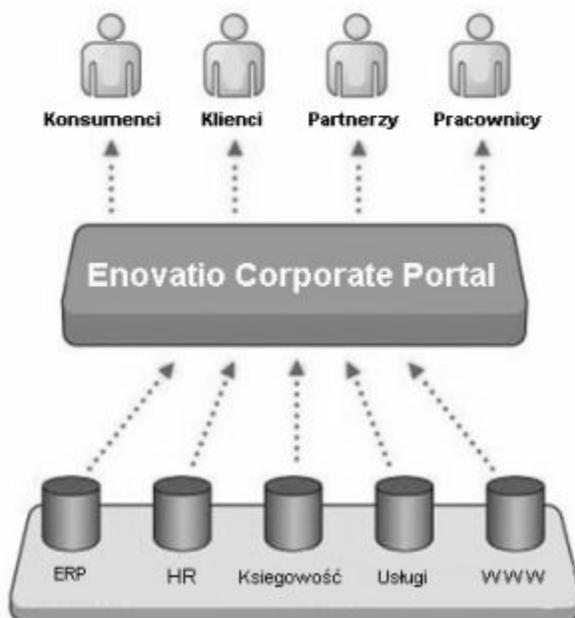

Figure 1. Enovatio Corporate Portal
Source: http://www.enovatio.com/Default.aspx?portal=1&lang=1&tid=11

Enovatio Smart Portal Solutions corporate portal is an intelligent platform which provides access to information resources and corporate applications. It also gives access to external data sources and provides platform for communication with company's environment. The presented portal is one of a number of solutions available in the market. All the currently used solutions are subordinated to realization of joint goals, such as:

- ensuring direct access to key information necessary for realization of the process of decision-making,
- shortening of time for searching of necessary information,
- access to knowledge from scattered users,
- good work organization through integrated access to information,
- reduction of costs of information flow.

4. Opinion Poll on Expectations Towards Employees of Logistics Departments Responsible for Information Policies

The investigations carried out among 300 large companies which operate in domestic and international markets, aimed to define employers' expectations of employees from logistics departments in their companies, allowed for recognition of not only actual state in relation to the analysed domain. They also focused on attempts to determine the level of commitment and emotional attitude among study participants towards to the problem of expectation and requirements for employees in logistics departments. Respondents from individual groups of enterprises such as: production (PP), commercial (H), service (U) and others (I) found perfect command of computer applications for support of logistics management to be the most critical. Percentage of answers is presented in Table 1.

Table 1. Percentage of answers in individual groups of companies concerning command of logistics computer applications

PP		H		U		I		Total
%	No.	%	No.	%	No.	%	No.	%
	2	24.6	1	24.7	3	14.9	1	19.0

Source: own study

Next question requested listing four scientific disciplines used at logistics workplaces (Table 2.)

Table 2. Domains of science used at logistics positions

PP		H		U		I		RAZEM	
No.	%	No.	%	No.	%	No.	%	No.	%
1	14.1	8		1	19.8	4	12.6	3	12.9
6		1	15.8	3	12.9	1	16.2	2	13.8
5		2	14.8	9		7		6	
11		7		10		9		10	
9		3	13.9	4	11.7	5		4	11.3
2	13.3	4	13.3	2	19.6	2	14.0	1	15.0
10		9		5		8		8	
4	12.6	5		6		3	12.7	5	
8		11		11		11		11	
3	12.8	10		8		6		7	
7		6		7		10		9	

The following scientific domains were listed: information technology and use of computer applications (1), marketing (2), human resources management (3) and learning foreign languages (4).

The obtained results allow for the conclusion that IT tools in the investigated group of enterprises are emphasized as one of the key elements taking part in coordination of logistics activities with other areas of enterprise operation. Significance of modern tools brings the necessity to acquire, by the workers, abilities of suitable application for realization of logistics activities in the company.

5. Summary

Application of information solutions available in the market plays considerable role in realization of information policies in large companies. It allows for integration of information flows from a variety of sources and processing of these streams in order to use them by individual entities which participate in information exchange. Extension of instruments which support information flow, including corporate portals, allow for reinforcement of rationality and responsibility for actions taken during the process of decision-making inside organization, enables companies to process of data necessary for creation of coherent information policy.

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