



## The Role of Information System Flows in Fulfilling Customers' Individual Orders

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**Abstract.** Being aware of the role that an information system in the company plays and its impact on individual processes, this article presents an information system used in the selected company. The first part discusses the essence of an information system, while in the second part of the article all the processes occurring in the studied company have been described, together with the information accompanying them.

**Keywords:** information, information system, enterprise, order, project.

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### 1. Introduction

Information systems are used by a man in almost every area of life, they allow for the proper functioning, not only the organization or company, but also everyday life. In the literature on information systems, there are many concepts and definitions concerning the substance of the information system. In the simplest terms, we can say that an information system is formed by the information itself. The diversity and multiplicity of occurrence of information contributed to the need for them together or categorize, which automatically led to a certain, separate groups of information which are formed into information systems. Among the most popular definitions of information systems, can be distinguished a definition given by A. Nowicki: information system is distinguished spatially and structured collection of information, information senders, recipients of information, news feeds,

and the technical means of transmission and processing of information, which is used to control the operation of the economic object (Nowicki & Sitarska, 2010). In turn, in the definition given by J. Kisielnicki and H. Sroka, an information system is a multilevel structure, that allows the user of such a system for transforming certain information input to the desired output information using appropriate models and procedures (Kisielnicki, Grabara & Nowak, 2005). A little different approach to information system presents P. Beynon-Davies, by him all information systems can be divided into three groups: technical, formal and informal. He stresses that such a distinction is beneficial for cognitive purposes, in practice it is quite difficult to distinguish which group it belongs to the system (Beynon-Davies, 2009). There is also a definition that specifies an information system as a fully organized combination of technical equipment, software, infrastructure and people to plan, control, coordination and decision-making in the company (Cashman, 2010). As is apparent from the figure above, information system is distinguished spatially and temporally structured collection of information, information senders, recipients of information, news feeds, and the technical means of transmission and processing of information, which is used to control the operation of the economic object (Grabara, 2001).

According to C. Abdullah information system is „a such as one in the opening scenario are combination of hardware, software, and telecommunication network that people build and use to collect, create and distribute useful data especially in organizational settings” (Abdullah, 2009).

The basic advantages, characteristics for the information system are as follows (Loch, Carr & Warkentin):

- A great facility in the performance of work,
- Update information in real time,
- Improving the quality of service by the company,
- The ability to store large amounts of information,
- The ability to operate 24x7 worldwide
- Creating new jobs.

But, information system has some disadvantages as well:

- Costs of the design and implementation of an information system,
- Failures and systems shut downs,
- The requirement for knowledge of computers and how they work,
- Privacy aspect,

Also, information system implementation may lead to the elimination of certain jobs and cause an increase in unemployment.

## **2. Information system in the enterprise**

In relation to the company as an organization consisting people, information, technical equipment and materials, information system is examined in structural and functional aspects. The main elements of the information system are the sender information (both primary and secondary), channels through which information are transmitted, sets of information (databases or directories) and the recipient information are at the end (Dima & Man, 2013; Vlăduțescu, 2014). To all these elements work together smoothly with each other, it is necessary to equip companies in the technical means for sending and processing of information. In aspect of functionality, the basic tasks of an information system can be identified meets:

- Gathering information,
- Storing information,
- The processing of information,
- The transmission of information,
- Presenting information.

Information systems in the enterprise are kind of "nervous system" of organization and play a significant role in efficient management, and therefore, in addition to the tasks mentioned above, the information system should also fulfill the following tasks:

- Being the main source of information, allows the execution of activities that shape the current situation the company and its further development,
- To ensure communication between the management system and production,

- Enabling corrective action findings in the areas of planning and communication between internal and external environment professionals,
- To contribute to the development of competitive products and services that can provide the company an advantage in the market.

### **3. Information flows in the enterprise X – a case study**

For research purpose, a service company, performing individual customer orders in the field of image processing and design, has been selected. Due to the nature of its activity and the number of ongoing contracts, the company used the information system whose components are:

- Data - all data about customers, orders, executed (and completed) projects and orders,
- People - employees of the company - graphic designers, managers, administrators, secretaries, and two directors,
- Hardware - computer equipment, printers, plotters, scanners, tablets, phones, telephone, cameras, photo
- Software - software for e-mail, database, and graphics software package for office,
- Telecommunication - e-mail, phone, fax,

The order's realization consists two phases - customer contact and the order receiving, and then the project realization and dispatch to customers.

The first flow of information in the enterprise is a contact made by client with an employee (1). This contact is the most often initialized by the phone call, e-mail less frequently and sometimes it happens that a potential customer arrives at the headquarters of the company. Then, during the meeting, the client provides information relating to the contract and the information gets feedback information about the offer presented by an employee of the company (2). When the customer decides to use the services of the company, and the first contact occurred through a telephone conversation or e-mail, the date of the personal meeting is setting up (3). At this point, information about the client: the basic data and a description of the

product ordered by him, are redirected to an employee, who personally will implement a project for a client. Such information are directed to the employee in form of an electronic document, but in addition, the paper is also written to the book of orders log (4). And customer gets an email confirmation of the meeting in the office (Siminică & Traistaru, 2013). During a personal meeting, there is not only the flow of information between the client and the worker but also from the company database to the worker. In the directions for running the client are contained details of his contract, while the information from the database contained details of finished projects implemented by the company, as well as details of the execution time of the order and the cost of its implementation (5). During this meeting a process to clarify the client's requirements regarding the contract and collapses final decision on the choice of the project takes place (6). All the determinations regarding the project are stored in the form of an electronic document on a computer disk belonging to an employee performing a given order and a copy is sent to the enterprise database. In contrast to the client is sent to confirmation receipt of the order to be implemented in the form of e - mail (7). After a confirmation followed by the preparation of the project, including the employee uses the information contained in the company's database but also with the information coming from the external environment, most often via the Internet (8 and 9). It may also happen that after sending the final version of the project, the client will report additional attention to its appearance, these comments are mostly reporting in the form of e -mail and sometimes during a call (12). In this case , those observations are recorded in the log procurement and e-mail with comments is sent to the top management of the company (Stavre, 2012; Drămnescu, 2013; Smarandache & Vlăduțescu, 2014). It may also happen that the first contact and the presentation of the offer, the customer will not happen resumes, in this case, the e -mails coming from him are deleted after a month of first contact (13). The above scheme presents the flow of information concerned the client, who uses the services of the company for the first time. However, in the case when the order is made the known client, the flow of information goes a little differently (Arhip & Arhip, 2012; Păun, 2013; Păun, 2014). At the time of establishing contact,

the employee goes back to the log of orders to obtain information about the client and where the contract relates to a project already underway in advance, contact the course is only for selecting the particular project (11). Information about the selected project also gets to log orders in the form of an e-mail to the employee responsible for the realization of the project (Vlăduțescu, 2013; Dima & Vlăduțescu, 2012).

At the time of completion of the contract, the project is ready to send to the printer, this is done via the internal computer network or project is manually transferred using the memory stick (1). After completion of the print quality control is performed - the results are stored in a text document, which is then attached to the whole contract documentation (2). If the quality control reveals shortcomings or mistakes, this information is sent to the person responsible for the project, and she/he, in turn, makes the necessary corrections (13). Again, the finished project is sent via the network to the printer (14). After printing, the order is being prepared for shipping. information at this stage are also sent via email to the client (3). Depending on customer preference, ready order is prepared for shipping, which involves the creation of documents for courier and enter the appropriate information into the system (in the form of a text document). If the customer prefers personal collection - employee by telephone or e-mail, tells the client that the order is ready to collect (12). Preparing for shipment includes two main activities - preparing the relevant documents - which are stored in the form of electronic documents, as well as stickers on the package containing the order (Vlăduțescu & Ciupercă, 2013). The same document is being also sent to the client (8) and after receiving confirmation of the received goods - they are sent to the database (9). In the process of transportation, the only information is a message to the client with, where he can expect a courier delivery (6) and then at the reception, followed by a receipt resulting contract (7 and 10). The receipt also is stored in the archive orders, the log of orders is evidenced completion of the contract and the relevant information are entered into the system (Bărbulescu, Țățu & Țățu, 2007; Dima & Man, 2012).

#### **4. Conclusion**

As with the scheme of reception, realization and supply to customers, ready orders, even in the case of the simple design, the whole process is accompanied by a range of information, the existence of which determines the efficiency of the whole process. Described in the article example vividly illustrates the important role of information systems in the enterprise functioning. Virtually every employee activities, leads to the generation, transmission or processing a certain amount of information. Without this information any business operations would not be possible. The information inside the company help implement the processes adopted in order, and the information coming from the outside, above all, allow the acquisition of new orders. In the audited company, few minor systems are used: for data archive, development projects and contacts with customers, but the basis for all these systems is the information system, determining and shaping the overall business.

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