

## The Informational System: Its Importance and Role in Inventory/Stocks Management

Maria-Andreia Iliescu (Ristea)

Marioara Avram

University of Craiova, Craiova,

Faculty of Economics and Business Administration, Romania

[andrea\\_yly@yahoo.com](mailto:andrea_yly@yahoo.com)

[marioaraavram@yahoo.com](mailto:marioaraavram@yahoo.com)

### Abstract

*In this article we want to present the importance of the informational system in inventory management. Due to the fact that inventories represent a significant part of the entity's assets, they have a great influence on the results of activities carried out by economic entities, but also on the value of balance sheet assets, since they participate in the continuous development of the activity. Information systems simplify work, reduce the likelihood of errors in decision making and increase efficiency. The interest of our research is theoretical, by defining the notions regarding stocks and the informational system, and methodological, by the research methodology used during the research, i.e. by the research stage.*

**Key words:** stocks/inventory, informational system, decision-making process

**J.E.L. classification:** M40, M41

### 1. Introduction

Stocks are important for an entity to operate in optimal conditions. Their importance also derives from the fact that they hold the largest share in the total assets of an entity. Because entities are exposed to uncertainties, they seek to preserve the levels of their inventory in a certain structure and quantity for a certain period. For this reason, the entities set up their safety stocks, in order to avoid stockouts. The existence of stocks is motivated by the fulfillment of the goal that each entity wants to achieve, i.e.: manufacturing the products and carrying out activities or providing services, but these objectives can be achieved with a minimum of costs, though it requires good inventory management.

For the entities whose object of activity is production, stocks are the primary element in the production cycle, because their lack would lead to the interruption of activity, which, in turn, could have major implications both on the results of the entity and on its relations with customers. It is recommended for the entities centered on production activity to have sufficient stocks so that the production process has continuity. For these entities, the operating activity consists of three sub-activities: supply of raw materials and materials; consumption of raw materials and materials and their consequent transformation into finished products for sale.

Informational and communication technologies play an important role in economic entities through their contribution to increasing efficiency and profitability. These technologies are often used as informational systems; they are useful in management, control, research, execution and have a supporting role in the decision-making process and execution activities. The informational system assists the decision-making within the entities. These systems help decision makers to determine where they are, where they are heading and where they want to go, in other words these systems help the management of economic entities in outlining certain directions regarding the activity of entity.

The purpose of this study is to highlight the strengths of the implementation of an information system in obtaining performance in inventory management. We want you to answer the following questions during the study: What is the purpose of building stocks? and How do information systems help us in optimizing inventory management? To demonstrate this, we will argue the importance of stocks and the implementation of information systems within economic entities.

## **2. Literature review**

Stocks are defined, from an accounting point of view, as a set of raw materials, materials, etc. intended for production, respectively semi-finished products, finished products, and goods for sale (Bugan, 2007, p. 64).

Stocks are the positions in the balance sheet that generate most of the income and expenses in the profit and loss account, where the watchful eye of any investor looks for details of what is happening to see if there are transactions and if the existing values are higher or lower compared to those from the beginning of the financial year (Jianu et. al., 2010, p. 180). In other words, the authors state that stocks represent the starting point of most activities carried out by economic entities and with the help of a simple data analysis of balance sheet and profit and loss account one can have a clear image about the success of the activity carried out by the analyzed economic entity, because it can be observed the incomes and expenses that the stocks generate from one period to another, since they represent the main sources generating transactions within the entity.

In Vitalie Ignat's study, *Analysis of the Efficient Use of Materials Stocks*, stocks are defined, from a financial point of view, as the allocation of capital that can be recovered only after these stocks go through the entire operating cycle and are capitalized by sale and collection of the value related to the products and works performed or the services provided by the entity (2016, p. 59).

In the paper entitled *The Importance of Stocks and the Mission of Accounting*, the author, Bugan Corneliu, point out that stocks, at the entity level, are assigned to objects that require large capital investments, so they are a determining factor in the decision-making process. (2007, p. 64).

There are various definitions of informational systems, including: the informational system, as a set of separate components, which collects, processes, stores and issues information to support decision making, coordination and control in an entity (Laudon and Laudon, 2012, p. 15). By using informational systems, entities can more accurately measure their activities and help encourage managers to successfully implement strategies (Millar, 1984, p. 159). Informational systems include material, human and informational resources, as well as computer systems that have the role of solving tasks they have to perform in a certain period of time (Petrov and Petrov, 2017, p. 504).

In the paper entitled *Analysis and Design of Economic Informational Systems*, the authors (Oprea et. Al., 1999, p. 23) define the informational system as the totality of human and capital resources, invested in an economic entity, in order to collect and process the data necessary for the production of information, which will be used at all decision-making levels of management and control of the activities of the economic entity.

## **3. Research methodology**

For the realization of this study was used as a research method the analysis and interpretation of data and information from books and specialized materials.

## **4. The importance of stocks in economic entities**

Current assets are part of the patrimonial elements of an entity, in their structure being found the stocks. We can define the stocks as the provisions constituted by the entities for the purpose of their consumption in the production process or their sale in the following periods, so that the continuous flow of these processes (production and sales) is guaranteed. Inventories are an important part of an entity's assets, they include goods and services intended for consumption at first use, sale in the same condition in which they were purchased or sold after the production process is finished, as well as when production is in progress.

The economic entities, depending on the specifics of activity carried out, set up their stocks in order to continuously supply customers with quality goods and services, in this way the customer's loyalty being maintained. The main purpose of the stocks, from the economic entities perspective, is development of the activity in optimal conditions, which implies the continuous provision of raw materials and materials necessary to achieve the objectives the entity has proposed.

Stocks mainly perform two generic functions (Untaru, 2011, p.19):

- the regularization function, which involves absorbing the gaps between the sales flow and reinsurance flow, in fact between sales and consumption on the one hand and between production and purchases on the other;
- the protection function, which involves eliminating the consequences that the action of certain unpredictable factors could have on the entity.

In other words, the author wants to explain the dual role that stocks play, i.e. to create a balance between sale and consumption, on the one hand, and between production and purchase, on the other hand, but at the same time inventory has the role of ensuring the continued operation of the entity's activities by avoiding unforeseen situations, such as stockouts.

Stocks have certain characteristics due to which they are particularized in the structure of assets, namely: the successive and uninterrupted presence in the different phases of the production and sale process; they have several rotations along a management period; they are intended to be consumed at their first use or sold in the same state or after processing; they contribute to the achievement of the unit's turnover and to the capitalization of the capital.

## **5. The role of informational system in inventory management**

If in the industrial society, industrial production was the basis and capital was the strategic resource, in the informational society, the intellectual production represents the basics and information is the most important resource. This transition from the industrial society to the informational society was achieved through the "knowledge-based economy" (Pătruțescu, 2006, p. 11). The management of entities has become aware of the importance of information as a resource due to the pressure exerted by the competition and the need to remain on the market and to satisfy customers. It is accepted, both theoretically and practically, that there are a number of factors that influence the successful creation and management of entities. Some of these factors are: macroeconomic environment, political and legal environment - government regulations, social environment, internal environment, entrepreneurial skills, staff qualification, staff motivation, technology level, entity structure, entity staff, etc.

The role and importance of managers for economic entities is essential, because the success depends on their work and management. It is crucial for the entity's objectives to be clearly defined, so that the adequate activities can be established to achieve these objectives, mainly with the right people, at the right time and place. The performances registered by the economic entities are dependent on the managerial component; it exercises its function by providing the necessary information in the decision-making process, information provided by the computer system and implicitly by the informational system.

The entity's management uses the informational system in the decision-making process. The decision-making process represents the comparative evaluation of several possible variants of actions made by the management of the entity and the choice of the variant that ensures the achievement of the proposed goal (Pănuș, 2010, p. 220).

Within any economic entity, stocks play an important role and implicitly the information on stocks are those that lead to the movements, transformations and existence of goods, i.e. information helps the management of the entity in determining the economic optimum (Pătruțescu, 2006, p. 17).

We can define the stock informational system as the set of all the tools and methods that provide managers with information to support operations and make stock decisions. The role of informational system is to transform the data offered by the entity's activity and gathered from outside it into economic information useful for the entity's management, but also for external users. Systems can be defined as a collection of interconnected components that work together to achieve a specific goal, in our case stock optimization. Implementing an efficient and effective

informational system in each economic entity is essential, because it decisively conditions the performance of any economic entity (Moldovan & Moldovan, 2010, p. 35).

A distinction must be made between the stock information/computer/IT system and the stock informational system because there are a number of characteristics that differentiate them, the main feature being the components that make up these two systems.

As a comparison between the two systems, in terms of components, the inventory IT system includes: hardware equipment for storing and processing inventory data; software programs used in the processing and dissemination of stock information; processed data on stocks and theories that represent the basis of data processing algorithms, while the informational system has as components: data and information about stocks; information flows, circuits and procedures and means of processing information. In other words, the inventory information/IT system is a part of the inventory informational system. In terms of beneficiaries, the direct ones are the beneficiaries of inventory information/IT system, i.e. the staff responsible for entering the data on stocks and the staff that implements it, while the inventory informational system has as beneficiaries the organizational system and management system of the economic entity (Petrov&Petrov, 2017, p. 504).

Strategic informational systems configured the position and competitive strategies of an entity. Thus, these strategic systems can be any kind of informational system that uses technology to help an entity gain a competitive advantage, reduce its competitive disadvantage, or meet other strategic objectives of the enterprise (O'Brien & Marakas 2006, pp. 40-42).

Accounting informational systems play an important role in the economic and social system due to the fact that these systems are useful to all present and future managers in order to use the system for a proper inventory management and business implementation. Informational systems are considered vital for the decision-making process within economic entities.

## 6. Findings

Economic entities build up their stocks because the supply made at short intervals is very expensive, and the additional stocks can be used in the conversion process. The existence of stocks is also given by the fact that supply and consumption are activities very difficult to synchronize, but they have the role of ensuring the activity of the entity with raw materials and materials between two supplying moments.

The existence of stocks in the entity is motivated by a multitude of aspects and, in this case, to ensure the development of the entire activity of entity as a whole (supply, production, sales), but great attention must be paid to the types of stock structure because the formation of inventories that do not motivate their existence or are in excessive quantities may produce additional costs for the entity.

The purpose of establishing inventories is to provide the entity with the raw materials and materials necessary to carry out the activity under normal conditions, thus avoiding the unpredictable situations that may occur during the activity. The need to build up stocks is given by the situations that require their formation, situations such as: periodicity of production; the occurrence of problems in deliveries from suppliers; the influence of climatic factors on the production activity.

An inventory information system proves its efficiency by:

- reducing the cost of goods or services;
- improving the supply chain: the costs of sales and marketing activities can be reduced by allowing customers to have access at any time to the entity's stock;
- ensuring an efficient internal control of stocks, meaning protected from fraud, errors, equipment defects;
- providing accurate information about the stock level at any time, so that the management of the entity can make the best decisions.

Informational systems help decision makers to determine where they are, where they are going and where they want to go, in other words these systems help the management of economic entities in charting certain directions regarding the activity of the entity. The main external users of the informational system are creditors, investors, managers and individuals of other organizations

interested in accounting information. Entities implement and use informational systems as means of management, for various reasons, such as: specific features of the activity, number of employees, etc., but turning the activity more efficient is the main purpose of using informational systems.

## 7. Conclusions

The existence of inventories within economic entities is motivated by the fact that inventories, a significant part of the entity's assets, have a great influence on the results of activities carried out by economic entities, but also on the value of balance sheet assets, they participate in continuous business.

Based on the information on stocks, entities can determine very important economic and financial indicators, such as: stock turnover rate, immediate liquidity, need for working capital, etc., these indicators being used in the economic and financial analysis of entities.

We believe that with the development of technology and the use of advanced management methods, competition has increased, and to reduce the cost of production or service and achieve a high level of quality, we need higher performance, speed and accuracy in decision making, optimization human, material and financial resources of the entities. For this reason it is necessary to implement and use information systems, which simplify the work, reduce the probability of errors in the decision-making process and increase efficiency. The implementation of an informational system in the field of stocks ensures the development in optimal conditions of the operative, synthetic and analytical records of the stocks.

We can conclude that the information systems of the stocks represent tools used by most economic entities, they have a supporting role in the decision-making and execution activity, and by combining these systems with the management processes, the efficiency of the activity is pursued.

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