

LOGISTICS AS A PART OF INNOVATION PROCESS

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Abstract: The paper deals with the importance of logistics in innovation process. The issue is focused on management of different logistic processes building on the innovation and on innovation process. However, logistics is an essential part of this process. The results describe logistics chain within innovation process for the satisfaction of customers' demand and fulfilment of customers' requests on the innovation. This approach involves "7S of logistics" which means: "create proper innovation, in the proper quality, for the right place and in the right time, as well as, with the proper price and package".

1 Introduction

At the present time, there is a high level of competition as well as fast changes on markets and only companies oriented on customers [1], [2] within open system of innovations could be successful [3].

For the innovations success in the market it is necessary to generate them in the way, that they represent an added value for customers, as well as environmental output and product quality. To accomplish the above mentioned requests as an innovation for a company, it is necessary to implement all innovations' activities effective and originally. In this way logistics plays an essential role for a company.

2 Process Management with Respect to the Innovation

If companies want to implement a new product they need to define a process where output will be some desired innovation. In this case company has to implement new elements to the organization process. Davenport defines process as a structured complex of a sophisticated set of activities. These activities are designed to produce a specific output for specific customers or markets [4].

Activities in the process are interconnected and have a clear structure. The process is characterized by a grouping of work activities across time and space, beginning, end, clearly defined inputs and outputs. They are closely

linked to the management system planning, synchronization, realization and control of internal and external material and information flow from point of origin to point of consumption aim of which is to satisfy customers' requirements [5].

The process is simply structured, sophisticated set of interrelated activities, which has a beginning and an end. However, these processes change one or more inputs to the outputs with values for the internal or external customers. It is very important to understand the business processes and procedures for their management with respect to the innovation. It is necessary to know more than the general principle of the operation. In case that company try to introduce a procedural approach it should be able to recognize who is the customer for a specific process. After that company has to manage process which customer requires as an output - innovation. Obviously, it is also important where the process starts and ends. Due to that fact it is important to understand the basic attributes of the process and origin of customers. The customers can come from outside of the company (external customers), or even from their own company. Business processes can be correctly set and they can work properly, if we are able to understand the requirements of both above mentioned customers groups [6].

According to Štefko and Rákoš any company will not survive in the developed market economy, if it cannot

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satisfy customers’ requirements. These requirements can be known as model "7S of Logistics":

- proper product - innovation,
- the proper quality,
- in the proper amount,
- at the right place,
- at the right time,

- at the right price,
- proper packaging [5].

All the components of the “7S of logistics” are closely linked with the whole process of the innovation implementation because throughout the process we have to monitor the implementation of these components (Figure 1).

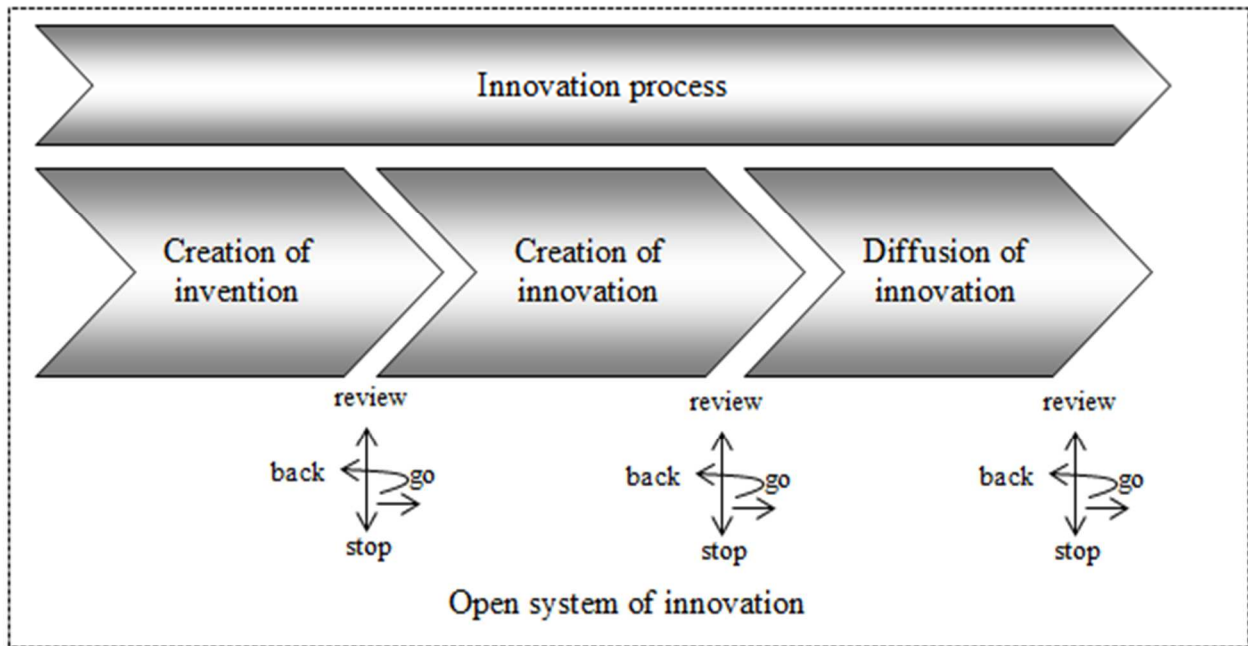


Figure 1 Process innovation management

Following the implementation of any part of the innovation process, the currently reviewed criteria for innovation are reducing the risk of failure in terms of changes in the customer requirements during the time of its implementation in the innovation process.

3 Logistics in the Innovation Process

The innovation requires more than simply coming up with a new idea – an invention is a process of finalization ideas into a practical use. The innovation process is a

process which involves activities from a research, through the application of results to a commercial use. Many authors [7, 8, and 9] devote the innovation process into three basic parts: a creation of an invention, an innovation and diffusion of innovation. Each of these parts can be divided into phases, which include several activities. Therefore, different parts and stages of the innovation process could continuously follow each other. It is essential to use different logistic principles to ensure the flow of information, material or the other (Figure 2).

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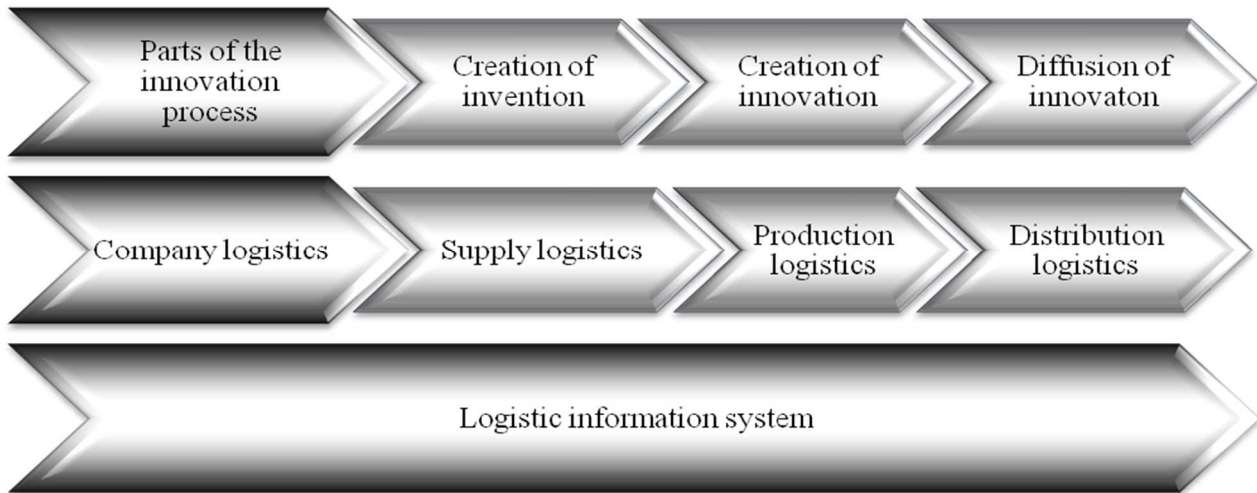


Figure 2 Management of the logistics chain in the innovation process

As already outlined, in the different stages of the innovation process it is necessary to continuously monitor market changes and adapt the innovation to implement the 7 S of logistics. This approach can be provided by logistic information system [10, 11]. We can consider it as a modular system connected with information about sales, purchase, supply, production, maintenance, quality management, etc. This system provides a flow of information during the implementation of the innovation process.

Furthermore, it is necessary to implement enterprise logistics including production and distribution logistics. The supply logistics provides resources for the innovation process. These may be materials, semi-products or services that are necessary for the following production of a prototype or they are necessary for the production of the innovation itself. On the other hand, intangible resources are even more important before the production, when they represent information for inventions and a feasibility study of these inventions. Consequently these new inventions are drawn to new innovative projects.

In addition, different areas of logistics present activities related to the physical and administrative handling of these resources, such as receiving and controlling, storage, protection etc. The production logistics plays a key role in the production of prototypes and their innovation. Logistics represent management intra-movement of material, prototypes and products from suppliers to the enterprise, to the individual workplaces. Finally, this movement is connected with the distribution logistics for final consumers. In that way it ensures a

bargain and sale, as well as, reliable and rapid transfer of innovations to the customer.

Conclusions

Based on the above mentioned issues we can conclude that logistics is currently effective instrument of the innovation process management. Well-organized logistic chains in the innovation process represent a high chance for successful innovations implementation. This approach can decrease costs and increase profits with respect to all dimensions of the corporate social responsibility. Companies will provide a high chance of the success on the market if they manage the logistic chain in the innovation process.

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