



Original Contribution

ALTERNATIVE WEAREHOUSES IN LOGISTICS

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Abstract: *The paper deals with the potential for meeting the requirements for proper storage in different firms and companies. It analyses the advantages of all kinds of storage, depending on the specific conditions. Different ways of compensating the disadvantages of certain storage are given. Different ways of cost reduction are suggested. Some of them include grouping the cargo units*

Key words: *Logistics, storage, alternative warehouse, goods, cargo units*

The demands for storage capacity can be met in one of the following ways [12]:

- building or buying an own storage and storage system;
- taking a store on lease or rent;
- renting a storage area or storage places in common storages;
- storage the stock on the road.

The decision depends on: the need for storage capacity (whether these needs are permanent or temporary, the size of capacity, etc.), the size of the capacity, the amount of the investments and the current expenses; the service which the company strives to offer etc.

The purchase or construction of a new storage system is connected with a single investment of large amounts of money for payment on the field, for construction work, for providing the

necessary equipment and facilities for the storage process, for the preparation of workers who will manage and implement the storage activities [11]. With the implementation of the storage system ongoing cost starts for maintaining and repairing, payment of employed work, for paying the employed workers, for storing the inventory and customer service. For the one-time expenses and operating cost the firm expects to achieve: high sales; maneuverability of supply and customer service, a quick turnover of stocks, lower overall distribution expenses; a permanent stock control and customer service, a quick return of the investment.

The maintenance of an own storage system has a risk and

responsibility for the company. If the potential is not materialized, the storage costs increase over limit (sales are below expectations, the storage turnover slows down, storage costs rise faster than income). When keeping an own storage system the firm takes the risk of technical and technological obsolescence before regaining its investments [6, 8].

When options are fewer than the risks the alternative is to rent a warehouse or storage the stocks in common warehouses.

The firms rent or lease one or more warehouses which they use separately and they themselves organize and manage the storage process and take all the risks. This alternative is appropriate when the need for keeping stocks is not permanent (for example having a seasonable character), or when the size of stocks varies between minimum and maximum because of production uncertainty and fluctuating, and demands changes. In the second case the warehouse is rent for a certain time, and later freed. Thus maintenance expenses are saved and losses of inefficient use of storage capacity are diminished.

Stock storage in common warehouses is widely spread practice of manufacturers and retailers. Such warehouses are kept by private shareholders or cooperative companies. They have one or more stores located in the common area or in different markets and they offer storage services for the producers and distributors. In the U.S. in 1996, one fifth of the goods stocks for private

consumption were stored in warehouses for general use [10]. They rent storage areas for limited time (depending on demand) against an agreed price of the service.

Warehouses for general use have a lot of advantages:

- Companies using their services, do not invest to buy or build their own store, they don't take the risk of underutilization of the storage capacity, the risk of increased storage costs or obsolescence of storage equipment and technology;

- The lessor can offer storage services which facilitate the process and save time. Those services can not be implemented more economically while maintaining an own storage;

- The lessor can offer a price of the warehouse services, which is more profitable than warehouse maintenance expenses. Since the turnover is bigger the common warehouse expenses are lower. The lessor can also decrease its profit level in respect of the stock turnover, but he can increase its mass at the expense of the large amount of received and sold goods;

- Warehouses for common use achieve greater flexibility in the management of stocks because of the established contractual storage period and the option to choose their clients at the quoted terms;

- Warehouses for common use, working with clients who keep stocks with different turnover and seasonal demand, provide optimal use of the storage capacity and reduce their storage expenses, since different turnover and seasonal demand allow

balancing of goods of different seasonal maximum -minimum. [14]

In our country this kind of stores are located mainly in duty-free zones of the transfer railway station [2]. There are a lot of producers and retailers and the cargo must be redistributed. Some of the storage complexes have such functions. These storage complexes are still state-owned.

This type of warehouse are very reliable because of the above mentioned advantages and because of their potential for huge storage capacity compared to those of separate firms (their conditions are more suitable for complex mechanization and automation of storage operations and the use of computer technology in financial and goods management), these stores have a great future.

The need for storage areas and rooms can be offset against keeping the goods on road. It goes with goods whose physico - chemical properties make it possible to use slow transportation for long destinations. It is very important to choose the proper transportation and the right time, so that the goods are distributed just at the arrival. In this way no storage area is necessary. On the other hand, the cost of transportation should not exceed the savings on storage expenses. A very precise planning and operational management of stocks supplies and transportation is necessary so that the new delivery arrives just in time, when goods are finished and when it is the right time to execute the clients' orders.

Any business organization which needs storage capacity, selects an alternative, depending on the conditions [11]. The selection of an alternative for providing a storage capacity is a matter of professional strategy and evaluation of each specific situation. It is important to eliminate the factors which increase the expenses, to reduce the high expenses and to achieve the lowest possible total cost of the purchase, transport and storage of stocks, while maintaining a high level of customer service.

The main factors which influence the choice of storage system can be determined in following aspects [4, 14]:

- the amount of prior investments for land purchase storage construction and equipment; personnel training and recruit;

- operating expenses, including permanent and variable of the alternatives;

- the risk – when using leasehold warehouse or shared storage the risk is minimal; when keeping an own warehouse the risk is higher because of the likelihood of storage capacity inefficient use, obsolescence of equipment and storage technology, low productivity, high cost, etc.;

- the scale of warehouse operation - in common warehouses the scale of warehouse operation is much larger, because the stocks are stored for many customers. With individual companies the operation scale is smaller and it could result in bigger permanent and general expenses;

- storage costs - in common stores the costs are defined and determined in the contract; they are included in the price of storage services in individual stores. The period of 5-7 years (at least). This is the equipment and technology obsolescence period [11]. The results should be taken into consideration when assessing the advantage and disadvantage of keeping an own warehouse or renting shared warehouse. The expected additional profits from the use of an own stock depreciation should be added to the obtained results. Only then we can determine the alternative, where the final financial profit is bigger.

The need for storage capacity can be met by combining two or more alternatives[8, 11]. It is more profitable to keep own warehouse to provide maintain level of supplies. In this case the sales should be high enough so that the transportation and storage expenses are lower than the profit. It is reasonable to rent warehouses or storage area only when the level of sales is low and unstable, and it is not worth keeping supplies whose expenses are higher than the sales profit. This alternative is suitable for delivery and temporary storage of very large stocks (seasonal; for special purpose), but it is important to remember that current costs rapidly increase with the extension of storage time. They should be estimated and compared with the storage cost in an own warehouse and then the decision should be taken.

expenses also depend on the use of store capacity, labor productivity, of service and etc.

Each of the above mentioned criteria should be calculated for a The delivery expenses of the goods depend on characteristics of freight. Any changes of the load parameters change the cost of delivery. Producers and consumers prefer smaller loading unit because it saves additional money for cargo processing [2, 7]. Transportation companies and big warehouses prefer to work with bigger cargo units. Packaging is a way or combination of ways which provide the goods preservation and their further transportation storage, and sale. Small units are put into a big one for making a group packaging It is done in case boxes packages etc. It is mandatory for saving some transportation, storage expenses connected with:

- transporting cargoes by means of different transportation and transshipment (from rail to road, from water to rail or road, etc.);
 - performing of grappling , packing, palletizing and container load;
 - use of grappling, packing, palletizing containing of loads;
 - use of handling equipment;
 - goods storage in warehouse and terminals;
 - returning empty pallets and containers;
 - risk of damage and cargo insurance;
 - payment of the hire personnel.
- Grouping of cargoes, storage and further processing during transport

and storage are interrelated activities which form the overall distribution costs. That's why they should be managed in a parallel way. The distribution functions are:

- to protect goods from damage and wasting;

- to help the identification of the goods, to help transportation, to help customers in the distribution network, to save time, labor and cost.

Consolidation of transport handling units protects goods from mechanical, biochemical and weather damages. It also protects them from

intentional abuse in their passage through the distribution channels. It lowers or even completely eliminates losses from wastage, damage and waste. It also improves control over the protection of consumer value. This advantage of consolidation is highly appreciated by the participants in the distribution channels.

The increased number of transport handling units (pallets, containers), which are used in domestic and international markets prove that.

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