# PRACTICAL APPLICATION OF LOGISTICS STRATEGIES IN THE AGRICULTURAL COMPANY

# Natally STOYANOVA

University of Agribusiness and Rural Development, Plovdiv, Bulgaria, natally\_1971@abv.bg

### **ABSTRACT**

The purpose of this study is to reveal the role supply in strategic planning for agribusinesses to contribute to realizing the objectives and its strategy as a whole. There is a pro-active role: to influence the market supply through better stock management and optimization. The supply is present in everyday society whatever their field of activity. The role and significance associated so mainly to: increase the capacity of agrarian undertaking to respond adequately to the dynamically changing conditions and environment; Disclosure accompanying development opportunities and risks; ensuring the successful operation and the efficiency of it. It largely determines the development of the agrarian enterprise in operational, medium and long term. It can be defined as scientifically determine and maintain the required proportionality between the basic factors of production - land, equipment, labour, material and financial resources and develop a system of measures to ensure implementation of the planned tasks.

**KEYWORDS:** agribusiness, logistics strategy, optimization of stocks.

**JEL CLASSIFICATION:** G14 L1

### 1. INTRODUCTION

Logistics is synonymous with materials management and physical distribution. But as shown by the development of economic theory, logistics can not come within a simple management schemes, supply or distribution.

It is a way of thinking, logical reasoning, which gives good results wherever comprehensive coverage of the coming one after another in time processes in a given application allows its optimization.

Logistics system in turn integrated set of activities from the supply of certain raw materials, bringing the finished products to end users. Integrated logistics management in an enterprise should be focused on the realization of the strategic goals of the business activity.

The aim of integrated logistics management is to use all necessary resources for the production and delivery of product and services for customers in the most efficient and optimal manner consistent with the strategic intent of the company.

Therefore, integrated logistics management must cover the entire logistics system of the company. Logistics focuses not only on individual activity and the interaction of these activities through which it becomes possible optimal flow of material flow.

### 2. STRATEGIC OBJECTIVES SUPPLY IN AGRIBUSINESSES

Supply contributes to providing updated information about market supply and thus contribute to development of appropriate corporate and business strategy. Supply is functional strategy of business or corporate level and depends on the following factors:

- There is a greater limitation of certain types of resources;
- Increased globalization of markets;
- Increased competition.

These factors lead to failure in the short term to make deliveries at competitive prices. This forces companies to plan the purchase of materials in the long term and hence it becomes necessary supply to become part of the strategic planning of the company. Hence are obtained some advantages:

Perform connection between market supply and market realization of production, which
allows you to make more accurate forecasts for demand for materials and the needs of the
company for these materials.

Aims at senior management level:

- Acquisition of materials suitable quality from a suitable supplier, in appropriate quantity, time, location and services.
- These "n" s is not possible to be achieved simultaneously always tolerate some (giving priority, but to ensure a balance between them).

*Objectives of the functional level:* 

- To replenish the company's operations with a continuous flow of materials and services.
- To purchase competitively ie under more favorable conditions than its competitors.
- To purchase deliberately ie to achieve the best combination of quality and price and in accordance with needs.
- To develop efficient and reliable sources of supply
- To develop good relationships with suppliers and lasting relationships with active suppliers.
- To maximize integration with other departments of the company
- To manage pro-actively ie professionally and in a way that leads to cost reductions.

These objectives are a transformation of the objectives of the management level. To achieve these objectives, it is important that staff qualifications. Compliance with these rules depends on the development of practices and procedures for operation in supply.

Level of precise planning of supply (these are the objectives in developing the annual plan of supply). These are specific goals that must be precisely formulated according to the needs of the user, operating conditions and the market.

### 2.1. Strategy supply

Strategic planning process - steps:

1) Analysis of external and internal environment of the organization - includes study of factors that can signal significant changes in the environment.

- Study of factors: monetary trends, inflation, strikes, shortages, technological innovation, industrial overcapacities.
- Identification of materials sensitive to environmental changes and determine their impact:
  - o Impact on profits through indicators: volume of purchased materials % of the total purchase costs and impact on the quality of the product or business expansion.
  - Risk of supply in terms of availability, the number of suppliers competing demands, the opportunity to own production or purchase, storage risks, availability of substitutes.

Based on the above two criteria we can divide the material into several groups:

- A) Strategic Units have a strong impact on profit and are associated with higher risk in the supply
- B) Critical Units they represent a "bottleneck" because of their low impact on profits and high risks in supply
  - C) Favorable (balancing) units, high profit, low risk.
  - D) Non-critical units low impact on profit and low risk in the supply:

2) Formulation of the strategy of supply: one can say that it is the mission of supplying the company, which must contain: basic purpose, how to achieve the objective basis of internal and external relationships, relationship with corporate strategy).

			Force to the user	
	Strength of suppliers	great	small	great
			A	В
		small	C	D

Figure 1. Positioning providers in the portfolio of market power

Figure. 1 is show graphically pozitiston on the providers in the area matrix portfolio of market power criteria:

- I. Features of need: share the need for total supply; annually increasing demand.
- II. Opportunities for actively shaping the market: through own production; by developing supplier.
- III. Granted in other corporate areas: opportunities to overcome the cost increases; revenues force commodity; costs of readjustment.

## 2.2. The principal strategic directions in the supply of agricultural company

Category I: (corresponds to the "A") - Strategy "Emancipation":

- Exemption from, or at least reduce the impact of the supplier;
- Actively forming and impact on the structural features of the market for the purpose of removal of goods from the critical category;

Category II: ("D") - "Implementation of chances":

- Use of market power to extract the most from favorable market circumstances;
- For this purpose and stimulate competition between suppliers;
- Consciously "manage" the supplier's impact on prices and conditions.

Category III: ("B") - "Commercial Partnership":

- Striving to maintain the equilibrium through mutual compromise and strengthen their position if possible.
- Maintain close personal contacts and readiness for cooperation
- Control of the comparability of mutual services.

Category IV: ("C") - "Adaptation and selection":

- Choosing the right provider, at least evil
- Adjustment relevant market circumstances through active market observation and analyzes.
- 3) Choosing a policy of supply.
- 4) Strategy Implementation steps:
  - Creating appropriate organizational structure, which will be assigned a place for the supply, allowing the realization of the strategy of supply.
- Allocation of financial, material, human and technological resources devoted to supply.
- Development of policies leading to the realization of the objectives to supply.
- Develop formal procedures for implementation of policies.

- 5) Evaluation and Control strategy to check whether this strategy is compatible with both developed supply purposes and to check whether the policies are in line with the strategy of supply. To assess the feasibility of the strategy developed in terms of the external environment and the expected changes.
- Evaluation of the strategy contributes to creating and maintaining a competitive advantage in the supply;
- Whether the strategy can be realized in terms of available resources and anticipated problems in implementing the strategy.
- Standards for the performance of activities under which measured results are individual, organizational and functional (personal evaluation of managers and contractors); organizational evaluation overall results of the supply function.

### Product balances.

When you prepare a business plan for a traditional product with mass production it is imperative to analyze the entry of the product in national and regional product balances. The choice of the analyzed product balance depends on the intended use, whether regional or national consumption.

Analysis of regional product balances is done when the product is intended for regional consumption - leafy greens, raspberries, grapes (causes, such as green leafy vegetables are lower quality in transport in wine grapes - is lost and the ability to produce wines claim of origin).

National product balance reflects the relationship between national resources and consumption. Usually inequalities between resources and consumption are balanced by imports or exports. For example, the excess of domestic consumption over the national production of a product may be balanced or expanding production or imports.

The excess of domestic production over national consumption can be balanced or exports or a contraction in production. Imbalance caused by excess demand, imports increased short-national decision which does not depend on agribusinesses. Agricultural company may seek a long term solution, based on planning and implementing manufacturing the product in compliance with the opportunities, resources, available facilities, technology and so on.

A similar situatesiatsiyata for most Bulgarian agribusinesses. Careful business planning would allow, to choose the right product for introduction into new or increase existing production, taking advantage of the state of higher prices of imported products in such a situation.

This would address the question of why Bulgarian agricultural market dominated by cheaper imports.

# 3. PRACTICAL APPLICATION OF LOGISTICS STRATEGIES TO ACHIEVE COMPETITIVE ADVANTAGE

To achieve a competitive advantage in services is needed integration between marketing and the process of providing the service, which enables organizations to provide services to service level corresponding to or exceeding customer expectations. This is true regardless of what criteria are placed as a priority by the organization to achieve competitive advantage- the relationship between the elements that provide competitive advantages of the organization or vice versa - to its full collapse and ignoring the market. Marketing is usually responsible for advising clients on service delivery and the formation of consumer expectations about the results of the service. The operations are aimed at fulfilling these expectations and are responsible for evaluating a service by the customer. Feedback shows that if the results are not satisfactory or do not create competitive advantages, management organization may change or marketing strategy, or the system itself to provide the service. Moreover, it reflects the need to monitor the process of providing the service and controlling him, and timely adjustment related to mitigate or eliminate the negative effects before the customer has left the system.

Controlling the process of service provision and management of corrective actions based on standard management operations, such as redistribution of the duties of staff to respond to short-term changes in demand (for example, in supermarkets is considered opening additional cash by increasing the tail to four people); ensuring constant communication between staff and customers for timely response to a negative assessment of the service by customers. In many service organizations made available more direct recourse to the manager of senior management by the unhappy customer (Kurochkin, 2001).

One of the most commonly used methods for measuring customer satisfaction with their service is to consult their opinion. During the consultation, customers are evaluating every service from a prepared list and determine its quality in two directions - degree of importance and satisfaction.

The purpose of this consultation is the focus of the leadership of the organization to the factors that are most significant to the user of the service, and especially those indicated low satisfaction.

# 3.1. Developing policies to supply the agricultural firm

Main functions - supply policy is a guideline for deciding ie it sets the guidelines for the main activities in procurement. The two main functions that implement policies in supply are: to define the rules under which will take place interconnections with other departments of the company; policies represent a valuable information for employees in the sourcing department ie they are informed by the policies of what is expected of them during the activities.

- 1.1. Determining the fundamental rules interconnections of the Opposition supply with other departments of the organization and responsibilities of supply. In supply we can have centralized and decentralized management and they depend autonomy of decision.
  - a) Centralized policy associated with some advantages:
    - Elimination of duplication of activities;
    - Be able to get discounts on the purchase of materials and transportation as unite all the needs of the company;
    - Reducing the number of contracts for the purchase of material;
    - Developing a unified policy on purchasing;
    - Creation of specialists in supply;
    - Winning the favor of suppliers;

- Better inventory management based on centralized information on the level of the stock.
- b) Decentralized policy:
  - In volatile markets with varying prices (tobacco, leather, cotton);
  - For organizations dealing with research, design and manufacture of non-standard equipment.
  - In many organizations with factories in different countries or business units with relative autonomy.
- c) A combination between the two main policies;
- d) Implementation of the procurement process by teams.
- 1.2. Policies on relationships with suppliers and image of the organization:
  - A policy of fair and careful attitude to sales staff of suppliers;
  - A policy of honesty and fair auctions;
  - A policy of pre-sales technical service for which the company agrees to pay a reasonable price;
  - A policy of testing samples before ordering a large quantity of a material;
  - A policy of visits to suppliers in order to establish closer contacts.
- 1.3. Pricing and selection of sources of supply:
  - Influencing the development of relationships with potential and existing suppliers, and hence on the quality of the product and the cost of its production.
- 1.4. Policies on smaller companies:
  - Awarding of contracts to small companies;
  - Allocating resources for training staff in small firms.
- 1.5. Policies on ethics supply

Types of unethical behavior in the supply:

- 1) Reciprocity the application of barter transactions from larger companies pressure this reduces the prestige of big business.
  - 2) Acceptance of gifts and services:
    - Influence the choice of the most appropriate provider;
    - Determined policy of ethics, what is allowed.
  - 3) Swindle:
    - Deliberately misinforming the supplier in order to achieve certain advantages;
    - A requirement to offer from informal vendors in order to cost cutting;
    - Gathering information unfairly;
    - Release of information on tenders;
    - Offsetting the supplier for performance;
    - Capitalizing on difficulties in the supplier (financial);
- 4) Personal financial interests of the supplier (shares) procurement of friendly companies (Angelov, 2004).

### 3.2. Organization of activities in supply

The place is given to the supply in the organizational structure of the company to hang from many factors as follows:

- *I. Factors determining the role that is assigned to the supply within the company:* 
  - 1) The degree of integration in the supply chain of supply;
  - 2) The responsibilities entrusted to the supply within the logistics system;
  - 3) Degree of use of information technology in supply;

- 4) Degree of vision of new management concepts and systems that reduce costs, streamline operations in the supply and hence achieve better results for the company.
- II. Factors related to the specifics of materials that is purchased:
  - 1) Availability of materials relevant markets in low materials available on the market, their supply is controlled by a higher level in the company;
  - 2) The value of purchased materials high value if they achieve economies will directly influence on profits. Management of higher management level.
  - 3) The type of purchased materials whether they are standard or not.
- III. Activities of the Opposition supply:
  - 1) Purchase of materials and negotiating with suppliers often performed by specialists profiled types of purchased materials to achieve better results;
  - 2) Manage supply function:
    - a) development of procurement policies;
    - b) procedures for conducting activities;
    - c) the control and coordination of the supply operations;
    - d) to manage relationships with specific suppliers.
  - 3) Monitoring the implementation of the orders:
    - a) monitoring the implementation of contracts with suppliers;
    - b) maintaining relationships with them;
    - c) learning the information to perform a specific order;
    - d) to address problems.
  - 4) Strategic planning and conducting trials:
    - a) study of markets;
    - b) developing a supplier base;
    - c) conducting functional value analysis;
    - d) developing plans for partnerships with suppliers;
    - e) investigation of the possibilities of using alternative materials;
    - f) preparation and decision making the make or buy;
    - g) analysis of the information system of supply and suggestions for its improvement;
    - h) selection strategy and other.
  - 5) Administrative activities all operational activities carried out by employees of the department related to the preparation of documents, reports, data entry and more.

Based on this, the possible solutions for individual entrepreneur is limited to:

- $ightharpoonup rejecting the idea of a new production, where national production of the product reduced the export volume exceeds domestic consumption (<math>Fr \leq BC Out$ ). Not recommended the introduction of new production, since the product has to compete with imports.
- ➤ introduction of new production is recommended whenever domestic consumption exceeds domestic production adjusted to balance imports / exports

$$(Fr \ge CR + Vn-Out). \tag{1}$$

Where are using the following indications:

Etc. - national annual production;

*Fri* - national annual consumption;

*Im* - import for 1 year;

*Out* - export for one year.

- 1. Production introduced gradually, as in the first business year is done trial production;
- 2. The amount of pre-production is used for probing the market and answer the questions: how to accept the product (quality, consumerism study through a survey) which price the product is acceptable.
- 3. When the insured to the realization of the product (on the domestic or international market, through processor etc.) can be introduced into larger quantities. Strengthening the company's products depends on many factors, such as:
  - > level of competition;
  - > quality and price of the product;
  - > the degree of substitution of the product;
  - > quantity of product;
  - > durability of the product;
  - distributors and so on.

*Analysis of market and competitive positions.* The main tasks of marketing, depending on the purpose and nature of demand are summarized in Table 1.

Table 1. Tasks of marketing according to the nature of demand in the agricultural sector

Nature of demand	Type of marketing	The main task of marketing
negative	conversion	to reorient demand
absence of demand	excitatory	to form search
decreasing	remarketing	to restore demand
irregular	synchronization	stabilize demand
fully	supporting	to maintain a certain level of demand
overtime	demarketing	limit demand
unwanted	alternative	to reorient demand

Source: (Stoyanova, 2015)

Analysis of market and competitive positions of agribusinesses are focused on the identification of:

- the specific markets and possible market shares of the company;
- ways of realization and cost of the product;
- > expectations for the level and dynamics of prices;
- > position of competitors;
- compliance with existing standards (packaging, labeling, marking, etc.);
- > availability of raw materials and suppliers.

# 3.3 Relationship between effective demand, market potential and market volume

Surveying demand is performed for each product by analyzing statistical data, surveys, drilling market. Examines the state of the market, purchasing preferences and incomes.

To determine the *effective demand* (demand) using the formula:

$$E = P + P_1 - P_2 + S_0 - S_1$$
 (2)

where:

**P** is produced during production;

 $P_1$  - a level of imported product;

**P**<sub>2</sub> - level of exports;

 $S_{\theta}$  - the availability of the product at the beginning of the period;

S<sub>1</sub> - availability of the product at the end of the period.

The market capacity depends on market potential ( $P_0$ ) and the market volume ( $P_1$ ) of the company. The market share is a relative value and expresses the ratio between achieved by a production structure product in the market volume of the same item. In this respect, the market share shows the position of each company in the relevant market.

The relationship between effective demand, market potential and market size can be represented as follows:

$$P_1 => P_1 \le E \le P_0$$
 (3)

The relative competitive position of the holding is determined by the ratio between its market share and market share of the biggest competitor or overall market share competition.

Decisions on the future development of the product, project or department using the ratio between the relative competitive position of the company and its market growth. Apply a variety of instruments:

- ➤ Boston matrix (ratio tempa growth of the market and the relative market share leader);
- ➤ Matrix Thompson;
- > matrix Hofer (ratio between competitive position and stages in product development);
- Ansoff's matrix (stratification of goods and markets the length of existence or timing of marketing); and others.

Using matrix "to increase share" product markets differentiate into groups to which can make an accurate assessment and propose appropriate marketing strategies. The positions on the matrix gives an idea of the supposed strategy for each product group / assortment of the company. Allow to assess the need for additional resources and potential profitability is known that profit is a function of the competitive position and the volume of financing is a feature most often the degree of maturity of the market / stage of the life cycle of products Products "Stars" from the Boston matrix and products ABCDE of matrix Hofer form a so-called "entrepreneurial windows".

*Market window* is a market condition in which there is an unmet demand. Agribusinesses can find its *market niche* that reflects real possibility and availability of capacity to cover vacancies.

## 4. CONCLUSIONS

## Main conclusions regarding estimating results of inventory controlling:

- 1. The total cost vary slightly in an area of importance to the contract close to optimum importance.
- 2. In order for the supply to achieve its objectives it is necessary to periodically measure and evaluate results. Dynamically changing environment of supply and the need to continually improve performance of supply leads to the need to develop a system of measures for these results. In management, there are preventive and follow-up:
  - a. preventive control to develop such policies and procedures to ensure correct and effective implementation of the activities from the first time ie to prevent the occurrence of problems;
  - b. subsequent control aims to monitor the implementation of activities through a system of indicators and measures of results and assess these results in terms of targets and developed plans thereby reveal problems ie deviations from standards developed for implementation of activities. As a result of these audits are remedial actions.
- 3. Indicators Activity supply department (they are mostly qualitative, as it is difficult to reflect the responsibilities and creative work of quantitative factors ie to concentrate on performance indicators of activity are indirect indicators of this activity:
- 3.1. Indicators for assessing the performance of management activities the assessment is largely subjective, so it is better to be done by an external consulting firm. Areas of evaluation:
  - Scope, swarm and place the tool supply management organization;
  - Training of management personnel in supply;
  - Organization of activities in supply;
  - Recruitment, employee turnover, training of staff;
  - Assessment of policies for activities in the supply;
  - Procedures for the efficient coordination of activities supply and operation of the department with other departments of the company;
  - Accounting and control activities supply.
  - 3.2. Indicators to assess and monitor the effectiveness of supply

Step instructions for developing a system of indicators:

Define the criteria and responsibilities;

- 1. Setting goals mention of the objectives of the organization how it will be achieved and identify key indicators against which to measure results.
- 2. Application of the method to compare "Benchmarking" to determine the best execution of certain activities within the company and within the industry.
- 3. Regulation of responsibilities and the cycle of reporting.
- 4. Measuring and monitoring results of implementation.
- 5. Check the results and definition of interim targets against which to compare the results of various stages of implementation of the program to achieve the ends.
- 6. Determination of the necessary corrective actions and assigning responsibilities for their implementation, to see where it is necessary to implement corrective effects.

## **REFERENCES**

- Angelov, A. (2004). Fundamentals of Management, "Amat Schedule".
- Kurochkin, A. (2001). Operatsionnыy menedzhment. Mezhregionalynaya Academy personalom controls. K. MAUP, 2000. 324-329.
- Stoyanova, N. (2015). Structural Modeling extensions In The the Marketing Assessment Of in Consumer Satisfaction for //, Science And Technology For the Sustainable Maritime Development // Naval Academy "Nikola Vaptsarov" Varna 14,15,16 May 2015 Varna
- Stoyanova, N. (2015). Product analysing of And Designing In The International, the Marketing // viii Mezhdunarodnaya Nauchnaya Conference "Innovations in tehnologiyana And Obrazovanii" //Kuzbasskiy Gosudarstvennыy; Technical University T.F. Gorbacheva / D. Beljovo 5-6 March 2015