

Ministry of Education and Science of Ukraine
Poltava State Agrarian University

**SECURITY MANAGEMENT OF THE XXI
CENTURY: NATIONAL AND GEOPOLITICAL
ASPECTS. ISSUE 3**

Collective monograph

In edition I. Markina, Doctor of Economic Sciences, Professor



Nemoros s.r.o.
Prague, 2021

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*Recommended for publication by Academic Council of
Poltava State Agrarian Academy
(Protocol No.15 dated 23 February 2021)*

*Recommended for publication by Academic Council of
the Institute of education content modernization of
the Ministry of Education and Science of Ukraine
(Protocol No. 2 dated 24 February 2021)*

*Recommended for publication by Scientific Institution of
the Information Systems Management University
(Protocol No. 1-21 dated 25 February 2021)*

The monograph is prepared in the framework of research topics: «Management of national security in the context of globalization challenges: macro, micro, regional and sectoral levels» (state registration number 0118U005209, Poltava State Agrarian Academy, Ukraine), «The concept of investment and financial and credit support of technical and technological renewal and development of agricultural production as a component of food and economic security» (state registration number 0120U105469, Poltava State Agrarian Academy, Ukraine), «Macroeconomic planning and management of the higher education system of Ukraine: philosophy and methodology» (state registration number 0117U002531, Institute of education content modernization of the Ministry of Education and Science of Ukraine, Ukraine), «Infocommunication aspects of economic security» (Protocol 1-21 of February 25, 2021, Information Systems Management University, Latvia).

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Eastern European Center of the
Fundamental Researchers,
Nemoros s.r.o.,
Rubna 716/24, 110 00, Prague 1

ISBN 978-611-01-2365-5

Nemoros s.r.o.,
Rubna 716/24, 110 00, Prague 1
Czech Republic, 2021

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IMPROVEMENT OF PROMOTION TOOLS FOR AGRICULTURAL PRODUCTS SALES IN THE FOOD SECURITY SYSTEM

Olena Savenko,

Ph.D. in Economics, Associate Professor,

Iryna Volovyk,

Ph.D. in Economics, Associate Professor,

Dnipro State Agrarian University, Dnipro, Ukraine

Market transformations in Ukraine have provided enterprises with opportunities for independent planning of their activities and at the same time caused challenges. One of such challenges is the lack of working capital and the lack of resources for quality product promotion. Combined research conducted in the field of operations management and marketing aimed at making time to see negative trends in terms of sales and respond to them by choosing the appropriate tools management.

In the food security system, sales promotion plays a special role for each group of countries, depending on their level of development. For high-income countries that are highly productive and produce more than they consume, stimulating efficient sales means reducing the cost of disposing of products that have not been consumed. For countries seeking to take a leading position in the world food market, including Ukraine, effective sales are part of the competitive strategy. In the world as a whole, according to FAO estimates, about 14% of food is lost in the stage after its production (post-harvest) before entering the retail system (FAO, 2019).

The system of stimulating sales of agricultural products has several dimensions: global, integration, national, regional, and micro-level. Each of them has its own tools and mechanisms that provide analytical, informational, marketing, and regulatory functions. We will focus our research on micro-level tools.

Advertising activity, which was actively developed for trade enterprises and other spheres of services, actively moved to the industry. Farmers, who are quite conservative about innovations in management, understand the need to attract and keep the interest of consumers and partners. Popular advertising and promotion tools are articles in specialized publications, exhibitions, television programs, and social networks.

The product life cycle mainly determines the choice of tools for its promotion. The level of competition, regulation of advertising at the state level, specification of product type, features of the target audience, etc. also have a strong influence.

For Olympus Agrotrade LLC, agricultural producer, we proposed to conduct an advertising campaign in a sequence of seven steps. Consider each of them.

Step 1. Identification of the target market.

Step 2. Defining the goals of advertising.

Stage 3. Formation of the advertising budget (Table 1).

Table 1

Advertising budget

| Cost components | Amount per year, thousand UAH |
|--|--------------------------------------|
| Advertising souvenirs | 7.5 |
| Participation in specialized exhibitions | 17.9 |
| Other costs associated with marketing activities | 20.5 |
| Advertising spending budget | 45.9 |

Step 4. Development of advertising message.

Step 5. Selection of advertising media. Developing an advertising appeal is important, but not key. The message begins to "work" only when it reaches the recipient.

To choose the media we need to understand the target audience, their preferences in communications. It can seem old-fashioned, but the local community prefers newspapers. So, to publish an advertisement in the local newspaper "Stepova Zorya" the company will need a very modest budget, less than 2000 UAH (Table 2). The newspaper is published once a week.

Table 2

Advertising budget in the newspaper "Stepova Zorya"

| Type of advertising | Square, per sm² | Publications per month | Price, UAH per sm² | For 6 months, UAH |
|----------------------------|-----------------------------------|-------------------------------|--------------------------------------|--------------------------|
| On the first page | 5,4 | 4 | 7,72 | 1042,20 |
| Inside the newspaper | 5,4 | 4 | 6,27 | 846,45 |
| Total | - | 5 | - | 1888,65 |

Radio can be also useful for advertising during local and national fairs. Present outdoor advertising in the form of billboards can be considered as well. The main element of such advertising will be the positive emotional impact of text and illustrations, usually simple and easy to remember, which creates an attractive "image" of the product.

Step 6. Scheduling the advertising.

Step 7. Evaluating the effectiveness of advertising.

The importance of a system approach in promotion activities is often underestimated, and the marketing department has to be part of the management of any agricultural company. Consider the project of marketing department establishment. The purpose of the project is to increase the company's profit by streamlining the structure of sales channels, as well as streamlining the structure of marketable products.

It is planned to complete this project in 1,5 months: 18.02.2021 - 03.04.2021. The project budget is 1,5% of sales in 2020 (20,5 million UAH). The project cost-sheet is available in table 3.

Table 3

Cost-sheet for the marketing department

| Expenses, UAH per year | UAH |
|---|--------|
| Office reconstruction | 8700 |
| Additional furniture | 10800 |
| Devices | 35000 |
| Capital expenditures | 54500 |
| Salary | 120000 |
| Salary taxation | 26400 |
| Stationery | 2000 |
| Electricity and other services | 2000 |
| Telephone conversations | 3000 |
| Travel expenses (including travel and accommodation expenses) | 33264 |
| Advertising | 45900 |
| Total operating costs | 232564 |
| Total costs | 287064 |

The main project participants are:

- Customer - Olympus Agrotrade LLC;
- Investor - Olympus Agrotrade LLC;
- Project manager – Director of the company.
- The project life cycle includes:

Pre-investment stage (18.02.21 - 19.02.21); Investment stage (20.02.21–28.02.21); Operational stage (01.03.21 - 03.04.21).

Basic indicators for the project presented in Table 4. We assumed that marketing department will increase the total sales up to 5% per year.

Table 4*Calculation of the project efficiency*

| Indicator | 2021 |
|---|---------------------|
| Investments, thousand UAH | 54,5 |
| Additional sales, generated by the marketing department, thousand UAH | 1025 |
| Project operating costs, thousand UAH | 232,6 |
| Depreciation, thousand UAH | 10,9 |
| The highest deposit rate for companies (for UAH), % | 11 |
| Cash flows, thousand UAH | 803,3 |
| Discount rate | 0.9009 |
| Discounted cash flows, thousand UAH | 723,7 |
| Discounted benefits, thousand UAH | 933,2 |
| Discounted costs, thousand UAH | 209,5 |
| NPV, thousand UAH | 748,8 |
| Return on investment ratio | 13,7 |
| Benefits-cost ratio (BCR) | 4,45 |
| Payback period of the project, years | Less than 1 year |

1) Present Value of the project (PV) - the amount of discounted cash flows: 723,7 thousand UAH;

2) Net Present Value of the project (NPV) - the difference between the present value and the investments: 748,8 thousand UAH;

3) return on investment (ROI) - the ratio of NPV to the investment: 13.7 – very high;

4) benefit-cost ratio - the ratio of the amount of discounted benefits to the amount of discounted costs: 4,45:

5) payback period - less than 1 month.

Thus, the marketing department can be estimated as a high profitable reinvestment which can earn 3.35 UAH on each 1 UAH of current cost if the department will be able to increase the sales by 5%.

Time planning instruments can be implemented for our project development (Table 5). The task of calendar planning has an important place in project planning. Calendar planning is the process of compiling and adjusting the schedule, where the work carried out by different organizations are interconnected by time parameters and with the prospect of providing them with other types of all types of resources.

Let's build a network graph, which is built from left to right, graphically, with a logical connection between them.

Table 5

Output data

| Work code | Work | Previous work | Duration, days |
|-----------|--|---------------|----------------|
| A | Recruiting | - | 10 |
| B | Office reconstruction | - | 7 |
| C | Office preparation | B | 1 |
| D | Instruction for the team | A;B;C | 1 |
| E | Operation-process mapping and training | D | 1 |
| F | Data base | E | 2 |
| G | First working day | F | 1 |

Draw a graph of the precedence, where the works are presented in the form of rectangles, and the arrows show the logical connections (Fig. 1).

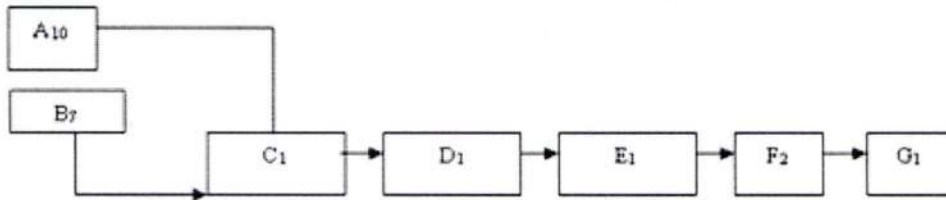


Fig. 1 . Precedence schedule

The calendar planning measurements in the simplest case indicate the start and end dates of each type of work, their duration and the required stocks. The critical path for this project is determined, it is the path in the network model, the duration of which is equal to the critical one and lasts 15 days (Table 6).

Table 6

PERT analysis for early start and finish

| Work code | Early start | Early finish |
|-----------|---------------------------|----------------------|
| A | Beginning of the 1st day | End of the 10th days |
| B | Beginning of the 1st day | End of the 7th days |
| C | Beginning of the 8th day | End of the 8th days |
| D | Beginning of the 11th day | End of the 11th day |
| E | Beginning of the 12th day | End of the 12th days |
| F | Beginning of the 13th day | End of 14th days |
| G | Beginning of the 15th day | End of 15th days |

The early start date represents the earliest date when work began. If the duration of work is added, then we get the date of its earliest completion.

Due to the fact that the work performed depends on its completion and some of its elements, then there is the last date when the work must be completed without interruption of the project.

The specified date is calculated by the sum of the dates of late start and duration of work (Table 7).

Table 7

PERT analysis for late start and finish

| Work code | Late start | Late finish |
|------------------|---------------------------|---------------------|
| A | Beginning of 1st day | End of 10th days |
| B | Beginning of 3rd days | End of 9th days |
| C | Beginning of the 10th day | End of 10th days |
| D | Beginning of the 11th day | End of the 11th day |
| E | Beginning of the 12th day | End of 12th days |
| F | Beginning of the 13th day | End of 14th days |
| G | Beginning of the 15th day | End of 15th days |

If the terms of the different beginning diverge, then the break when the work is to be started is called the possibility of time and is marked as the difference between the number of late start and the number of early starts. If the duration of work does not differ, then the difference between early and late beginnings and its early and late end coincides. Work with zero time is called critical, its duration is determined by the duration of the project as a whole. Critical duration is the shortest duration during which the whole complex of project works must be performed (Table 8).

Based on the network schedule, we build a calendar plan to which can be linked with resources and the matrix of responsibilities.

Documentation on the calendar plan package includes:

- comprehensive calendar plan;
- detailed calendar plans for performers;
- detailed calendar plans for work packages;
- information on resource needs;
- delivery schedules;
- plan for concluding contracts;
- organizational and technological measures to implement the plan;
- plan of control over the performance of works.

In order to stimulate the sale of agricultural products through more profitable channels, we offer advertising activities at the enterprise. Creating a marketing service at the company has long been the number one task. But Olymp Agrotrade LLC had doubts about the expediency of such organizational measures. We analyzed the effectiveness of the project

to create a marketing service and proved that such investments will be effective, as the payback period is less than a years, benefits-cost ratio – 4.45, and return on investment – 13.7.

Table 8

Determination of reserves

| Work code | Reserve, days |
|------------------|----------------------|
| A | 0 |
| B | 2 |
| C | 2 |
| D | 0 |
| E | 0 |
| F | 0 |
| G | 0 |

We offer to use network modeling when creating a marketing service. This will allow more efficient management of material, financial and labor resources. Thus, the implementation of the above proposals will significantly increase the efficiency of production and sale of agricultural products.

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1. The State of Food and Agriculture. 2019. FAO. [ONLINE] Available at: <http://www.fao.org/3/ca6030en/ca6030en.pdf>. [Accessed 21 March 2021].

TECHNOLOGY MANAGEMENT IN THE CONTEXT OF IMPROVING GOODS QUALITY AND SAFETY

Olena Kalashnyk,

Ph.D. in Technical, Associate Professor,

Svitlana Moroz,

Ph.D. in Pedagogical, Associate Professor,

Mykola Vovk,

Postgraduate student,

Poltava State Agrarian Academy, Poltava, Ukraine

Currently, when Ukraine is integrating into the markets of the European Union, the enterprises face a high level of competitiveness and specific barriers in this way. These processes motivate the Ukrainian enterprises to improve