

**Olena Shumkova, PhD, assistant professor**  
**Viktoriiia Shumkova, PhD, senior lecturer**  
**Sumy National Agrarian University, Ukraine**

## **Marketing management of investment and innovation activity of agricultural enterprises**

**Abstract:** The article focuses on the issues of marketing management of innovation and investment activity of the agricultural enterprise. The authors determined that marketing is the best way to study market needs of innovations, to form the demand for new technologies, analyze the opportunities of agricultural enterprises and the needs of customers. It is noticed that innovative marketing is a reliable source of fast gaining of the most possible profit for the agricultural enterprise. The issue of strategic planning of marketing innovative activity of the agricultural enterprise is explored. The practical aspects of management of innovation and investment marketing in the agricultural enterprise are presented. On the basis of the conducted researches the recommendations for effective management of marketing activity of the agricultural enterprise in the context of innovation and investment activity are given.

**Key words:** innovative marketing, investment marketing, marketing activity, innovation and investment activity.

**Statement of the problem.** Marketing helps to prepare goods, works and services, deliver them to the market and place them in such a way which will help to maximize sales and get maximally possible positive feedback on them. Marketing allows to investigate the market's needs in innovations, to create demand for new technologies, to analyze the possibilities of the enterprise, to identify the needs of customers and to offer the innovative product that will be in demand in the market. In an innovative activity of the agricultural enterprises one of the keys of its successful work is the availability of the actual or potential demand, or the possibility of its formation. Therefore, in carrying out innovation

activity, the agricultural enterprise must be aware of and take into account the practical features of marketing, which accompanies the development and introduction to the market of innovations, in particular products.

**The objective** of this article is to study the process of marketing management of investment and innovation activities of agricultural enterprises.

**Analysis of recent researches and publications.** Theoretical and methodological principles of marketing and marketing of innovations are investigated in the scientific works of such famous scientists as O. K. Abramov, T. Ambler, G. Armstrong, M. Baker, D. Boyet, L. V. Balabanova, S. Ya. Verghegel, A. V. Voychak, N. I. Volkova, V. G. Gerasimchuk, P. Doyle, S. M. Ilyashenko, V. Ya. Kardash, F. Kotler, V. P. Kutkov, J.-J. Lamben, M. Porter, O. O. Radko, A. O. Starostina, O. Walker, P. Cheverton, A. P. Chelenkov, M. M. Shevchenko.

**Presentation of the basic material.** Innovative marketing, as a special, modernized type of innovation activity, despite the high probability of risk, is a reliable source of fast gaining of the maximum possible profit for an agricultural enterprise. Innovative marketing is a part of the strategic plan of such type of enterprise.

Innovations in the marketing activity of an agricultural enterprise can be implemented according to the elements of the marketing mix, which are:

- innovation “place”, which is in the marketing research, segmentation and positioning;
- innovation “product”, which is in the marketing product policy;
- innovation “price”, which is in the marketing pricing policy;
- innovation “promotion”, which is in the marketing policy of communications;
- using the combined innovative marketing.<sup>1</sup>

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<sup>1</sup> Тарнавська, Н. П. (2012). *Управлінські інновації у забезпеченні конкурентоспроможності суб'єктів господарювання України*. Управлінські інновації, 1. 42-43.

It should be noted that innovative marketing as the strategy of the agricultural enterprise is oriented towards solving problems of the planning in innovation activity of the enterprise, which are:

- planning of product and market portfolio of the enterprise, such as product nomenclature, product lines, individual product units;
- forming a package of product and market innovations and innovative offers and selecting the most rational of them;
- preparing of the indicative schedule of work on the developing, producing and promoting the innovations in the market.<sup>2</sup>

The main objective of the strategy of innovation marketing in the agricultural enterprise is to develop an innovative plan to enter at the new market or more firmly establish on the existing one. To achieve this goal the agricultural enterprises must use investment tools.<sup>3</sup>

Below we will consider the process of marketing management of investment and innovation activity on the example of the Private Agro Firm named after T. G. Shevchenko.

Private Agro Firm named after T. G. Shevchenko is located at the Chernigiv region., Pryluky district, village Sergeevka, Sheygusovskaya street, 1-A.

Private Agro Firm named after T. G. Shevchenko specializes on such agricultural products as:

- Grains;
- Legumes;
- Wheat;
- Silage;
- Cattle;
- Milk.

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<sup>2</sup> Старицька, О.П. (2014). Інноваційний маркетинг як інструмент підвищення ефективності функціонування підприємств. *Інноваційна економіка*, 4. 244-250.

<sup>3</sup> Ілляшенко, С. М. (2013). *Інноваційний менеджмент*: підручник. Суми : ВТД – Університетська книга.

The agro firm has mostly grain specialization. In the structure of commodity products, the largest share has corn - 57.14%. The share of milk in the overall structure is 26.16%, wheat is 16.56%, and the growing of cattle is 0.15%.

The agro firm uses arable land and pasture and has 809 hectares of land for the conducting of its activities.

Table 1 presents the marketing complex of the agro firm.

Table 1

Marketing complex of the Private Agro Firm named after T. G. Shevchenko

Product, commodity unit	Price, UAH./ commodity unit	Place	Promotion
Wheat	366.62	The products are sold by netting and concluded agreements. Own sales network is represented by raw materials supplying to the markets of Ukrainians' regions and abroad. Also, there is practice of outbound trade, on specially equipped transport for trade fairs. Sales method - without intermediaries - extensive (retail and wholesale). Sales system is traditional (all participants are independent of each other).	For sales promotion the agro firm is using the following methods: - exterior design (stands, posters, diplomas and certificates set out in the lobby of the agro firm); - advertising in mass media. A sales promotion policy (general stimulation) is being implemented by using bonus discount and discount programs for customers. The moral encouragement and awards for the best workers are used for the stimulation of the staff.
Corn	268.20		
Milk	781.73		

In order to determine the direction of innovation activity of this agro firm and strategies for its implementation, it is necessary to conduct a marketing analysis of its activities using ABC analysis, BCG analysis and McKinsey matrix analysis.

Objective and exhaustive information is the key to economically viable marketing decisions of the agro firm, which will minimize possible risks.

ABC analysis is a comprehensive way of segmenting your customers or products to make sure that you get the most out of your time and your resources

when you're servicing them by breaking the items down into three easily distinguishable categories. ABC analysis is based on what is called the Pareto Principle or 80/20 Principle, an economic principle created by the economist Vilfredo Pareto. Pareto gained notoriety for saying that most economic productivity comes from only a small part of the economy.

For effective management of marketing activities, we will conduct an ABC analysis of the assortment of the Private Agro Firm named after T. G. Shevchenko with using output data from the table 2.

Table 2

Output data for conducting ABC analysis of assortment  
of the Private Agro Firm named after T. G. Shevchenko

<b>№</b>	<b>Product</b>	<b>Volume of sales, thousand UAH</b>
<i>Crop production</i>		
1.	Wheat	1107.20
2.	Corn	3822.10
<i>Livestock production</i>		
1.	Milk	2897.10

Based on the data in Table 2, we have been distributing the assortment of the agro firm according to the groups of priority (Table 3).

Table 3

ABC analysis of the assortment of the Private Agro Firm  
named after T. G. Shevchenko by the volume of sales

<b>Product</b>	<b>Volume of Sales, thousand UAH</b>	<b>Specific Weight, %</b>	<b>Cumulative Share, %</b>	<b>Group of Priority</b>
Corn	3822.10	48.84%	48.84%	A
Milk	2897.10	37.02%	85.85%	C
Wheat	1107.20	14.15%	100.00%	C

We can rate the assortment of the Private Agro Firm named after T. G. Shevchenko to the following groups:

- group of priority A - corn;

- group of priority C - milk, wheat.

Also based on the research we have built Pareto chart (figure 1).

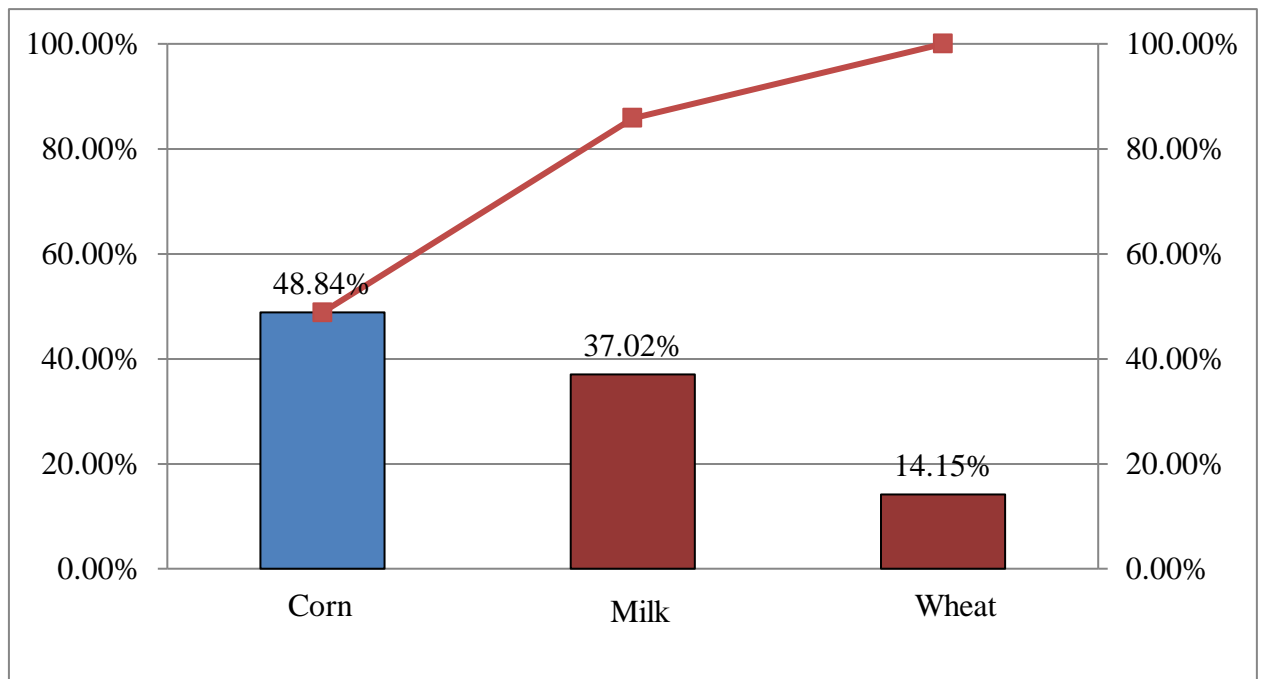


Figure 1. Pareto chart of ABC analysis of the assortment of the Private Agro Firm named after T. G. Shevchenko

As a rule, the main decision on the products of group of priority C is its exclusion from the assortment, but given the rather narrow specialization of the agro firm, the products of this group of priority should be transferred to the group of priority B by increasing the volume of its production and sales.

The BCG matrix (aka B.C.G. analysis, BCG-matrix, Boston Box, Boston Matrix, Boston Consulting Group analysis, portfolio diagram) is a chart that had been created to help corporations with analyzing their business units or product lines. This helps the company allocate resources and is used as an analytical tool in brand marketing, product management, strategic management, and portfolio analysis.

The BCG Matrix now is a well-known tool for the marketing manager. It has two controlling aspects; namely relative market share (meaning relative to your competition) and market growth.

To determine the product range of commodity units, the following data must be used (table 4).

Table 4

Calculations of the relative market share and market growth rates

Product	Volume of Sales of Agro firm, thousand UAH	Business Growth Rate, %	Market Share of the Strongest Competitor, %	Market Share of Agro firm, %	Relative Position (market share), %
Wheat	1107.20	12.0	5.88	0.49	8.32
Corn	3822.10	30.0	10.90	0.01	0.08
Milk	2897.10	22.0	3.10	0.31	9.93

To determine the belonging of each type of products of the Private Agro Firm named after T. G. Shevchenko to one of the marketing groups we will build the scheme (figure 2).

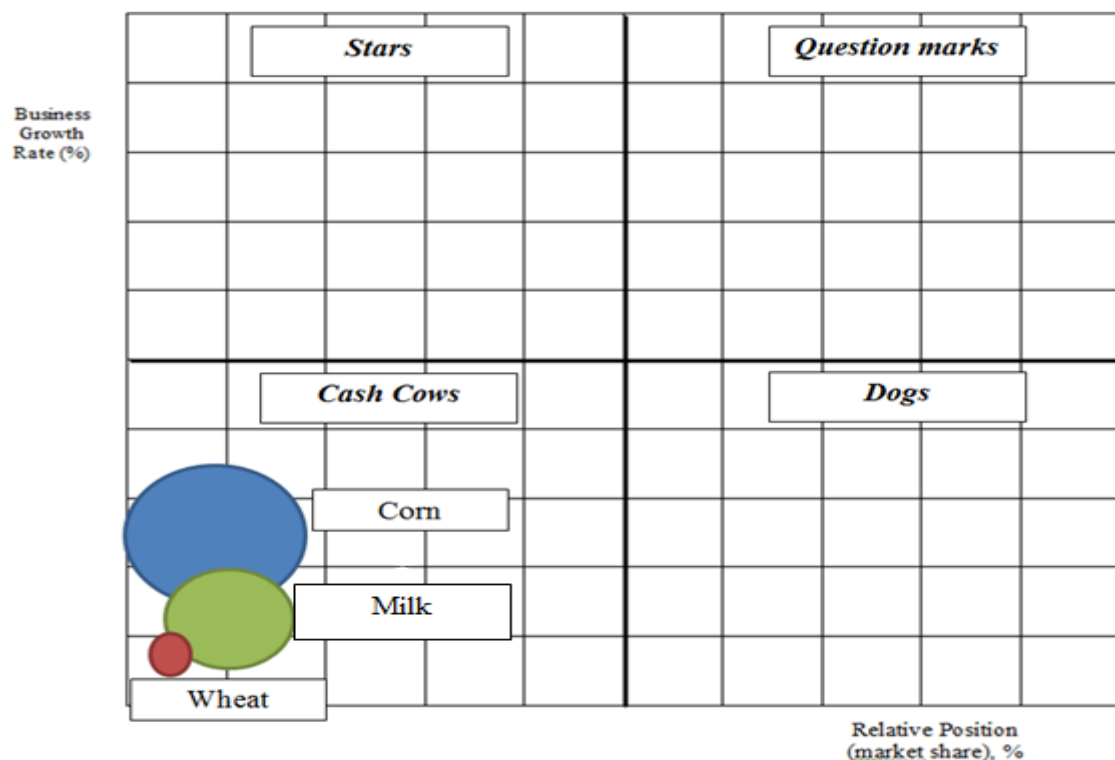


Figure 2. The BCG Matrix for the Private Agro Firm named after T. G. Shevchenko

Consequently, all products of the Private Agro Firm named after T. G. Shevchenko belongs to the category of Cash Cows.

An integral part of the marketing system is its expansion and improvement. One of the methods of implementing this is the introduction of new innovative projects into the activities of the agricultural enterprise. That's why the Private Agro Firm named after T. G. Shevchenko decided to open a line for cheese production, because the company produces enough milk for this.

The agro firm plans to invest 610 000.00 UAH. to buy a mini-plant for cheese production. The planned sales volumes will be 420 000.00 UAH. with a profitability of 25%. Figure 3 shows an analysis of cash flows for the implementation of this project.

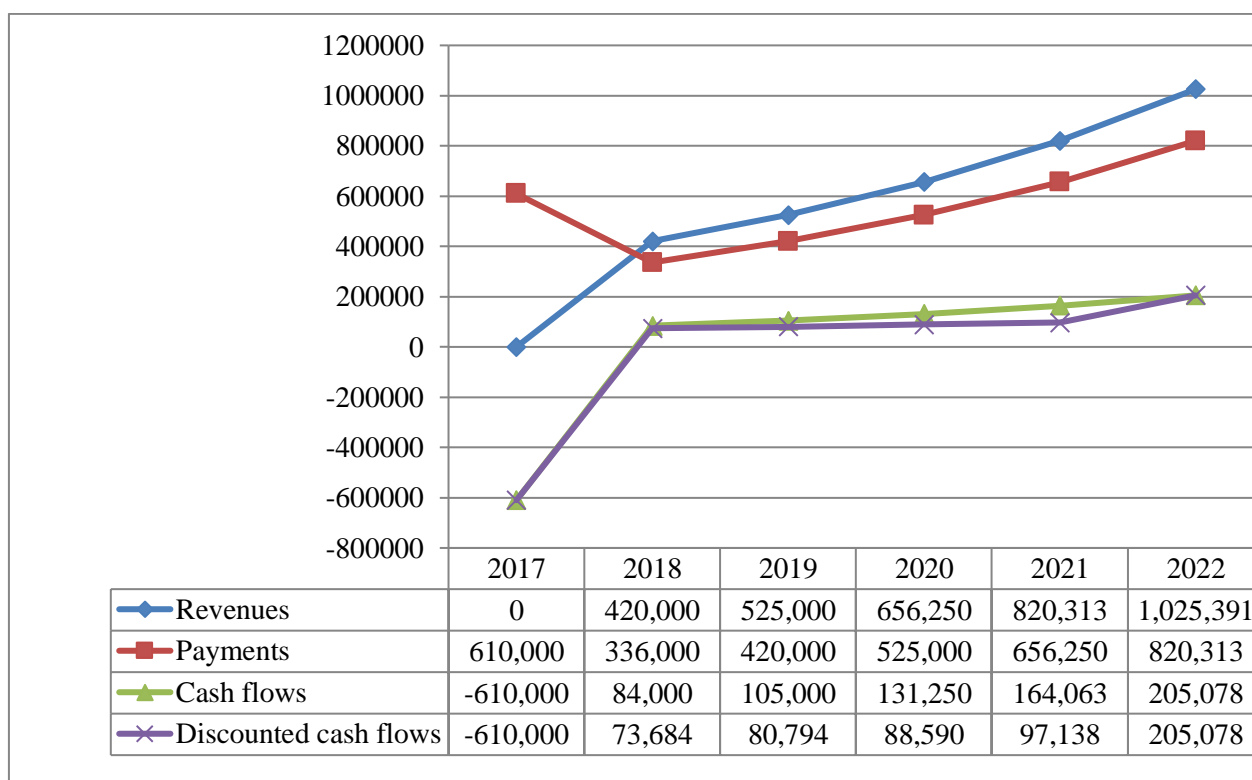


Figure 3. Analysis of the cash flows of the investment project of the Private Agro Firm named after T. G. Shevchenko

The next step in analyzing of the investment project's effectiveness is to calculate its payback period, net present value and internal rate of return (Table 5).



Table 5

## Indicators of the effectiveness of the investment project

<b>№</b>	<b>Indicators</b>	<b>Result</b>
1	Payback Period, years	6
2	Net Present Value (NPV), thousand UAH	81564.00
3	Internal Rate of Return (IRR), %	17

Having analyzed the indicators of the efficiency of the investment project on the purchase of a mini-plant for the production of cheese of the Private Agro Firm named after T. G. Shevchenko, we can conclude that the project will pay off for itself in 6 years, the net present value has a positive value and is 81564.00 thousand UAH, and the rate of internal rate of return is 17%. These results are positive and indicate the expediency of investing in this project.

According to the completed investment project for the purchase of a mini-plant for cheese production we developed a marketing complex (table 6).

Table 6

<b>Product, commodity unit</b>	<b>Price, UAH./ commodity unit</b>	<b>Place</b>	<b>Promotion</b>
Brynza	180.00	The products will be sold through retail stores in the region and delivered to local restaurants and pubs	To promote sales, the following techniques will be used: - presentation of products at exhibitions and fairs; - advertising in the region with the help of city-lights; - advertising through social networks and the Internet
Mozzarella	200.00		
Cheese “Adyghe”	170.00		

In order to determine possible outlook for agro firm with new products on a new market, we will analyze the market opportunities using the McKinsey matrix.

The GE/McKinsey Matrix was developed in the 1970s by the management consulting firm McKinsey & Co. as a tool to screen General Electric’s large portfolio of SBUs. The idea behind the matrix (a.k.a., the GE Business Screen or GE Strategic Planning Grid) is to evaluate businesses along two composite dimensions: market attractiveness (table 7) and business position (table 8).

Table 7

## Market attractiveness

Factor	Brynza`s market			Mozzarella`s market			Cheese`s “Adyghe” market		
	Weight	Rate	W*R	Weight	Rate	W*R	Weight	Rate	W*R
Market Growth	50	0,5	25	30	0,5	15	15	0,5	7,5
Low Competition	20	0,7	14	15	0,4	6	15	0,8	12
Access to Distribution	10	1	10	30	0,2	6	45	0,6	27
High Profit Option	20	0,5	10	25	1	25	25	1	25
<b>Total</b>	<b>100</b>	<b>-</b>	<b>59</b>	<b>100</b>	<b>-</b>	<b>52</b>	<b>100</b>	<b>-</b>	<b>71,5</b>

Table 8

## Business position

C. S. Factor	Agro firm		
	Weight	Rate	W*R
Good Quality Product	35	0,5	17,5
Price	20	0,4	8
Customer Service	15	0,3	4,5
Good Reputation	30	0,8	24
<b>Total</b>	<b>100</b>	<b>-</b>	<b>54</b>

Using the McKinsey matrix we can choose the strategy for new products of agro firm (figure 4).

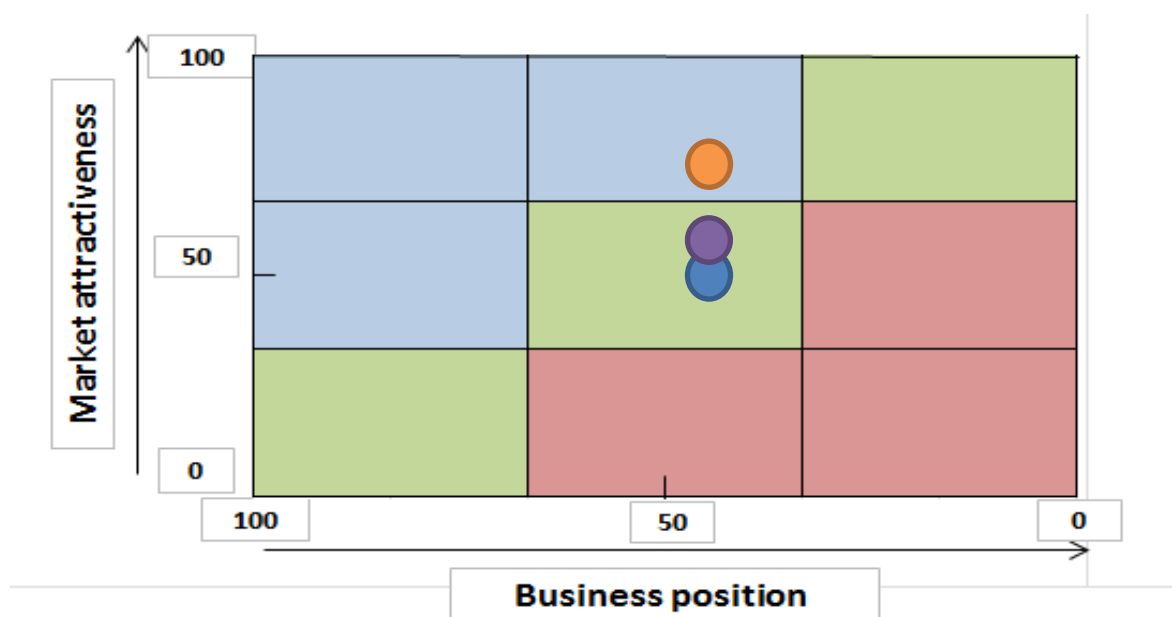


Figure 4. The McKinsey Matrix

From the figure 4 we can see that agro firm must choose such strategies:

- for Brynza`s market - invest if there`s money left and the situation of business unit could be improved;
- for Mozzarella`s market - invest if there`s money left and the situation of business unit could be improved;
- for Cheese`s “Adyghe” market - definitely invest.

**Conclusions.** Realization of economic activity of agrarian enterprise on the basis of investment and innovative marketing will allow the agricultural enterprise to find and realize market opportunities of innovative development for raising its level of competitiveness, strengthening of market positions, improving the efficiency of functioning, ensuring the conditions of long-term survival and development.

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