

Rational assortment portfolio in accordance to the food security

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ABSTRACT

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Introduction. The aim of the article is consideration of the process of assortment portfolio forming in the context of ensuring of food security of the country, with further allocation of main types of assortment portfolios.

Methods. To confirm the hypothesis, authors used inductive method and groupings, deductive method, methods of analysis, monographic, abstract logical and graphic methods.

Results. Authors concentrate on the following issues. Separation of definitions rational, optimal and balanced portfolio assortment. Forming of rational assortment portfolio of enterprise and its effective management in accordance with the principles of food security. Exploring of the internal and external factors, which influence on the formation of assortment portfolio. Analyzing of the consumption standards of main food products by the population of Ukraine. Connections between the rational and balanced assortment portfolio are characterized.

Conclusion. The necessity of forming of rational assortment portfolio is proved in the context of ensuring of food safety of the country.

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Раціональний асортиментний портфель в контексті продовольчої безпеки

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Introduction

The essence of assortment portfolio planning, forming and management is that the company should promptly offer a certain set of products that are generally consistent with the principles of food security in the country.

The issue of portfolio management is discussed in the works of modern scholars, such as J. Blank, J. Dantsynh, J. Litner, H. Markowitz, Ya. Mossin, V. Savchuk, Dzh. Treynor, A. Shapkin. A separate inventory management issues addressed by scientists I. Ansoff, L.

Balabanovym, N. Kolyuzhnovoyu, F. Kotlyerom, V. Marin, V. Pavlovoyu, L. Sarkisyan, A. Shubinym and others.

Materials and methods

To confirm the hypothesis, authors used inductive method and groupings, deductive method, methods of analysis, monographic, abstract logical and graphic methods.

Results and discussions

Nowadays assortment of a company is a system of interrelated and interdependent elements, which can be named as assortment units. So for description supply of modern enterprises it is appropriate to use the term "portfolio" and the process of assortment management should be focused on achieving "rational, balanced assortment portfolio".

Portfolio is a set of orders for a number of products (or their various supply range), services, or work at the micro and macro levels.

Household portfolio is a set of independent business units, activities or products which differs significantly from the simple their sum [1].

Efficient formation of assortment portfolio of enterprise and effective management on it, as a balanced system of associated assortment units that are in various stages of the life cycle, meet the needs of the consumer market and necessarily correlate with the volume of orders is a key issue today. In an ever changing market environment, consumer preferences, reducing the standard of cycles, etc., companies are constantly searching ways of keeping competitive advantage on the marketplace.

Especially the management of assortment portfolio structure can be considered as one of the main ways of achieving the goal of enterprises. It is a complex process, the content of which is to select the optimal solution taking into account all existing and possible optimization criteria and constraints in the implementation of the various alternative scenarios for the company.

First of all assortment portfolio of the company is forming to meet the requirements of consumers, while its composition and structure must conform to a set of different levels of planning that company has. Permanent analysis of assortment portfolio with sophisticated marketing techniques, supplemented by studying the prospects of development of the individual and most significant assortment units, can be the basis of forming rational assortment portfolio.

Let us look at the question of forming assortment portfolio of the food industry enterprises in terms of food security in the country.

Today, in companies raises the question, what kind of assortment portfolio, rational, optimal or balanced, should be formed? For a clearer understanding of this problem we propose some definitions of the above mentioned economic categories.

Optimal assortment portfolio is a collection of assortment units, which according to the given optimization criteria and constraints will satisfy one or more of the requirements: to save resources for the development of new trends, increase profits at a constant or a reduced number of units of product lines, to satisfy customers' needs with minimal cost of their design, development and bringing to market and other.

In terms of broader searching of best performances of assortment portfolio, it should not borne in mind the optimal assortment portfolio, but finding of its balanced structure [5].

New Dictionary of the Ukrainian language gives the following definition. “To balance - equilibration, which means being in correct proportions (of mutually connected parts of something”.

Therefore we can say, that balanced portfolio is such assortment portfolio, which includes assortment units, which brought to an optimum value and are in equilibrium with each other, in accordance with the criteria and terms of general end-use, distribution channels, groups of consumers and others. Criteria can also be such as:

- ensuring of maximum load capacities;
- achieving of maximum profitability;
- increasing of the market share;
- compliance with demand, others.

Note, that if we talk about the balance of the portfolio, we mean keeping a balance between its components according to specified criteria. This is to some extent implies the desire to be as close as possible to the axis of balance and be maintained in such condition as long as possible. It means that desire to balance provides a degree of stability.

However, an assortment portfolio of the company is a dynamic structure that undergoes constant influence of internal and external factors of the company under pressure which varies. The presence of dynamic changes and elasticity causes the ability to live for portfolio, its ability to compete in the market. That is why, we can confirm that balance required, but not uniform requirement for assortment portfolio of the company. And there is a broader concept, part of which is the balance. We think it is rationality and respectively - rational assortment portfolio.

Rationalism (from Latin ratio - mind) is a philosophical point of view that emphasizes the primacy of reason and competence (logical line of reasoning) in search of the truth. It is prudent attitude to life, sanity in actions. Dictionary of Russian language S.I. Ozhegova gives such definition of the word rational. "Rational – reasonably justified, expedient".

So, we can call assortment portfolio as rational, when set of assortment units that compose it is balanced, reasonably justified and expedient. It is actually better satisfy reasonable needs of different market segments, provides the highest quality of life at the level of science, engineering and technology, that meets the needs of all consumers, of current legislation and ensure economic efficiency of enterprises.

Rational assortment portfolio achieves most or even all of the strategic goals of the company, as at current stage, as the long term goals. Formation of such portfolio provides the most efficient:

- using of raw materials;
- increasing of producing;
- capacity utilization;
- increasing of market share and sales volume, others.

Rational assortment portfolio is a dynamic structure that depends on the demand, trends of scientific and technical progress and on international and national law. Formation of rational assortment portfolio should be considered as one of the modern management instrument and utensils as the possibility of adapting the assortment of enterprises to market requirements, which depends on the behavior of the most active part of consumers audience.

Formation of rational assortment portfolio that meets the relevant market trends is the foundation for the enterprise of competitive strategy. This process is more evolutionary than revolutionary. It is impossible to set the speed of achieving results in the formation of assortment management portfolio. But it is possible to determine the factors that influence on its formation and learn how to use them in order to achieve some goals. The process of

forming a rational assortment portfolio is influenced by favorable and unfavorable settings. So that one will succeed, who will be able to simultaneously manage all of them. Key factors affecting the formation of rational assortment portfolio include the following:

- attractiveness of the market, its volume, dynamics, maturity, flexibility, especially the registration process, the impact of government regulations, etc.;
- ability to predict market trends as a whole and its parts into different categories;
- industrial and technological capabilities;
- ability to carry and protect investments;
- geographical orientation;
- development of new technologies;
- ability to analyze product portfolios of other companies;
- actions of competitors;
- analysis of the actions of competitors;
- ability to track products that are in demand of consumer and is included in the product portfolio of competitors;
- ability to copy the mutual actions of competitors;
- changes in the life cycles of products that make up the portfolio;
- the right balance between the products in the product portfolio;
- structure of relationship between different brands inside portfolio;
- "harmony" of products in the portfolio;
- different products sold in the market in its various segments;
- classification of products according to the stage of the life cycle;
- importance of different products for consumers and producers;
- changing consumer preferences and demands;
- time of being product on the market;
- availability of specific products that meet the new trends in the market and are made for specific groups of consumers [2,3].

Today, a lot of manufacturers of the same industry have products in their portfolio, which may overlap each other. That is why development and implementation of unique products is a dream of every enterprise. When introducing a new product for assortment in addition to these factors of influence, following factors should be considered:

- expected sales of a new product;
- how will it be combined with other products in the portfolio;
- how quickly will it reach the top of sales;
- how will it compete with today's brands [2,3].

When forming rational assortment portfolio it is also necessary to remember the effect of synergy, which means a joint action to achieve a common goal. Products that are part of the portfolio should not be considered alone, but as components of a system. This system is consistent, and is more than the sum of its parts. The cumulative result of this system exceeds the performance of its components. This approach to portfolio formation can accelerate the introduction of new products, increase sales volumes and make management costs lower. In this context, different products have different roles such as some of them create cash, others work in the long term periods, and the third ones are additions to the basic ones because increase their competitiveness and volume of sales.

In our opinion, if we consider the question of forming assortment portfolio in the context of food security, we should talk about forming of rational assortment portfolio companies.

The definition of food security, which is contained in the law of Ukraine "On food security", states that food security - is the protection of vital interests of human and civil

society and the state, in which the state guarantees to the population the physical and economic access to quality essential food stuffs under of science-based food sets, maintains the stability of food supply and provides food independence [www.rada.gov.ua].

In science - based food kits is meant the rational consumption norms established by the Institute of Nutrition of Ministry of Health of Ukraine (2).

Table 1
Consumption rates of the main types of food in Ukraine, kg / one person per year

Index	Rate according to calculations Ukrainian Research Institute commissioned Ministry of Health of Ukraine	Consumer basket	Relative deviation, in %
Bread and bread products (calculation to flour)	101,0	123,4	18,1 (more than rate)
Meat and meat products	80,0	49	63,2
Dairy	380,0	80	59,1
Fish and fish products	20,0	13	35,3
Eggs (units)	290	220	25,2
Vegetables and melons	161,0	110	31,6
Fruits, berries and grapes	90,0	60	33,3
Potatoes	124,0	95	24,6
Sugar	38,0	24	36,8
Oil	13,0	7,1	45,4

Source: [compiled by author in accordance to www.ukrstat.gov.ua].

From the table we can see the analysis of the standards of nutrition of the population of Ukraine. If compare consumer basket of Ukrainians and regulations laid down by the calculations of Ukrainian research institute commissioned by the Ministry of Health of Ukraine, there is no match on them.

Rational nutrition is sufficient in quantitative and qualitative terms a complete nutrition; a physiologically balanced nutrition of healthy people taking into account their age, sex, nature of work and other factors.

Requirements for a balanced nutrition consist of:

- diet (it has to be balanced according to the number of intakes of human proteins, fats and carbohydrates);
- meals;
- terms of eating.

Requirements to the diet :

- the energy value of the diet should cover the power inputs of the body;
- proper chemical composition - the optimal balance between a number of nutrients;
- good food absorption, which depends on its composition and way of preparation;
- high organoleptic properties of food (appearance, texture, taste , odor, color , temperature);
- variety of food due to a wide range of products and different methods of cooking;
- the ability of food (composition, volume, culinary processing) to create a feeling of fullness;
- sanitary and epidemiological safety [4].

The basis of good nutrition is balance, which means the optimal correlation of food components. Such nutrition receives into the body various nutrients in amounts necessary for normal human life. But for nutrition to be rational it is not enough to be only balance. It is also necessary to include more treatment and feeding conditions.

Nutrition includes time and number of meals, the intervals between them, and distribution of dietary intake by energy intake, chemical composition and weight by eating, meal terms, such as appropriate setting, table setting, no distractions factors from food.

Conclusions

As we can see the balance is part of a rational nutrition. So when we speak about an assortment portfolio in the context of ensuring food security, we should associate it just with rational assortment portfolio of companies.

References

1. S.V.Mochernyi ta in (2002), *Ekonomichna entsyklopediia*, Akademiia, Kyiv.
2. Shafaliuk O.K. (2008), *Humanistychna kontsepsiia spozhyvacha v marketynhu. Monohrafiia*, KNEU, Kyiv.
3. Shafaliuk O.K. (2009), Suchasni pidkhody v optymizatsii asortymentnykh portfeliv ta arkhitektury brendiv pidpriemstv, *Marketynh v Ukraini*, 6(58). pp. 49-58.
4. Lora E. Burke, Rachel A. Froehlich, Yaguang Zheng, Karen Glanz (2013), *Current Theoretical Bases for Nutrition Intervention and Their Uses Nutrition in the Prevention and Treatment of Disease (Third Edition)*, pp. 141-155.
5. Simme Douwe P. Flapper, José Luis González-Velarde, Neale R. Smith, Luis Jacob Escobar-Saldívar (2010), On the optimal product assortment: Comparing product and customer based strategies, *International Journal of Production Economics*, 125(1), pp. 167-172.
6. Bogdan Rebiasz (2013), Selection of efficient portfolios—probabilistic and fuzzy approach, comparative study, *Computers & Industrial Engineering*, 64(4), pp. 1019-1032.