

UDC 338.2:631.11
JEL Classification: A11, D23, M10
doi: 10.15330/jpnu.6.3-4.15-21

FORMULATION OF A TYPICAL DEVELOPMENT STRATEGY FOR AGRICULTURAL ENTERPRISES (BY THE METHOD OF HOSHIN KANRI)

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Abstract. Modern conditions of business globalization, considerable limitation of resources, strengthening competition and acceleration of technological innovations demand from the agricultural enterprises' ability to adapt quickly to changing conditions of the external environment. The key to their successful product development is to ensure the most effective use of the available resource potential. In science and practice, there is a large variety of methodological tools that contribute to improving the functioning of economic entities. One such tool that ensures the achievement of effective development, forming a sustainable competitive advantage is a strategy. We are talking about a complex model that covers all processes in the enterprise. The use of advanced methods of strategy development by managers of agricultural enterprises is the key to its successful effective implementation and increase the competitive advantages of the enterprise in the market environment. The article analyzes the existing methods of strategic planning which are based on various methodologies of building strategies. The following methods are characterized: resource method, target method, extrapolation method, interpolation method, statistical testing method, criterion method, normative method, balance method, matrix method and strategic plan construction. The Hoshin Kanri method based on the application of the Deming cycle and representing the concept of cyclic control is investigated based on the studied sources. A typical strategy for the development of an agricultural enterprise in the form of an X-matrix has been developed. This strategy is designed for 3 years and includes strategic and tactical goals, processes and results, between which appropriate correlations are established. Among the strategic goals that are typical for agricultural enterprises, the following are highlighted: improving business efficiency, increasing the efficiency of sales activities, introducing innovative technologies into production and optimizing business processes. Accordingly, the management of agricultural enterprises can form a greater number of promising goals, based on the needs of economic entities. The obtained results form the basis for further studies of the mechanism of the development strategy formation and implementation in the agricultural enterprises.

Keywords: strategy, method, agricultural enterprise, Hoshin Kanri, strategic planning.

1. INTRODUCTION

In the conditions of high market competition, uncertainty, unpredictability and quick-changing external environment, the main task that the heads of agricultural enterprises face with is to improve the efficiency of the enterprise with the aim of its stable and progressive development in the long term. In addition, managers' excessive focus on achieving short-term financial results and solving current problems leads to insufficient funding for long-term projects and the creation of future values. In such circumstances, it is important to have foresight, strategic thinking and relevant knowledge to create an effective strategy for further development.

The agricultural enterprise must find new best practices to manage activities to adapt to the future of external factors that are constantly changing. The presence of the developed strategy makes it possible to achieve clearly defined goals, including: improve the resource availability of the enterprise, expand partnerships, improve the management system, and grow the number of consumers, which ultimately increases the profitability and financial independence of the enterprise.

2. RESULTS

In the conditions of dynamic economic development, it is increasingly difficult for managers of agricultural enterprises to gain competitive advantages only through effective financial management and a sufficient level of investment in tangible assets. The strategy is a long-term orientation of the enterprise and directs its efforts to achieve higher performance in relation to competitors. An important contribution to the development of methodological approaches to the formation of the enterprise development strategy was made by such Ukrainian and foreign scientists: Chi-Lin Yang, Min-Hsien Chiang and Chien-Wei Chen [2], Dara G. [3], Gorlachuk V. V. and Yenenkova V. V. [4], Grabovetsky B. E. and Pityk O. V. [5], Jackson T. [6], Karpishchenko O. I., Ilyashenko K. V. and Karpishchenko O. O. [7], Kutsyk V. I. and Chaus V. M. [8], Ridler N., Wowchuk M., Robinson B., Barrington K., Chopin T., Robinson S., Page F., Reid G., Szemerda M. and Sewuster J. [9], Tinbergen J. [10] and others. However, the existing issues on the development of an effective development strategy for agricultural enterprises using modern techniques remain open. That is why research in this area is very relevant.

The article aims to develop a typical development strategy for an agricultural enterprise by the Hoshin Kanri method in the form of an X-matrix, which is based on the establishment of different strength of impact (strong, significant, weak) correlations between strategic and tactical goals, business processes and expected results.

Modern economic conditions require the use of progressive methodological approaches to strategy development. A formed strategy should take into account all activity areas of the enterprise, all divisions and processes. Its development should involve employees of the enterprise, that is, use participatory management, which will ultimately contribute to its better implementation.

Nobel laureate Jan Tinbergen, developing models of economic development, formulated some methodological requirements for their creation, which can be taken into account in the construction of models of agricultural systems development. One of these requirements is the availability of clearly formulated forecasts or hypotheses based on which the model will change [10].

Among the methods of strategic planning, there are the following: resource method, target method, extrapolation method, interpolative method, statistical testing method, criterion method, normative method, balance method, matrix method and strategic plan construction.

Resource planning method consists of accounting for resources owned by the enterprise and assessment of management market conditions. This method is mostly applied in the case of low competition or the case of a monopolistic market position of the enterprise.

The target method of strategic planning, on the contrary, is used by enterprises in the presence of strong competition. In such conditions, the initial moment of planning is the demand for products and the needs of the market [8].

The extrapolation method is to develop assumptions that the rates and proportions achieved at the time of plan formation will remain the same in the future. This takes into account the dynamics of past years, which is the basis for further strategic planning.

The interpolation method, on the contrary, is carried out in the opposite direction, from the final value of the planned indicators and a certain goal with the calculation of intermediate values to the present state of the enterprise.

The statistical testing method consists of using the actual statistical data for the previous years and calculating on their basis the average values that form the base of the planned indicators.

The method of extrapolation, interpolation and statistical testing method are used mainly in enterprises where the indicators of economic activity are stable [4].

According to the criterion method, the planned indicators values are determined by calculating the influence of the most important factors that cause changes in these indicators. This method is used when planning production efficiency.

The most common and accurate method used for strategic planning needs is the normative method. According to this method, the planned indicators are calculated, taking as a basis the progressive norms of use of resources, taking into account the changes as a result of the implementation of organizational and technical measures in the planning period. Accordingly, the normative method provides for the creation of a certain regulatory framework at the enterprise, based on modern market conditions of management. Such a base is developed by the enterprises independently and is formed in the form of the automated system of standards [8].

The balance sheet method of strategic planning is a set of techniques used to ensure the consistency of interrelated indicators: planning needs and the necessary resources to meet them. This method involves the development of balances for different resources. Its goal is to achieve a balance between indicators [7].

The matrix method is used in the planning of multifactorial models and involves the construction of relationships models between production indicators and departments. The main advantage of balance and matrix methods is the prevention and elimination of imbalances, as well as the establishment of effective proportions [4].

B. Ye. Hrabovetskyi and O. V. Pityk highlight that “the strategic plan is a system of the relevant written documents that formalize the efforts of the entire team of the enterprise and aimed at the organization of the implementation of strategic objectives with a description of specific goals, deadlines and responsible persons for their implementation” [5].

Currently, different scientists and practitioners use different methodological approaches to strategic planning. Thus, Chi-Ling Yang, Ming-Xing Chiang, Chiang-Wei Chen in their works analyzed the impact of financial leverage on the strategic planning process using the methods of internal strategic analysis [2].

N. Ridler, M. Vovchuk, B. Robinson, K. Barrington, T. Chopin, S. Robinson, F. Page, G. Reid, M. Semerda, J. Sister and S. Boyne-Travis use scenario analysis and modelling techniques to determine the strategic development potential of enterprises in Canada [9].

Dara G. Schniederians investigated the relationship with consistent business process innovation between SQM and supply chain performance by the causal relationship method [3].

The Hoshin Kanri method involves the development of a strategic plan. It is a key element of the “Six Sigma” methodology, which is used in strategic management to improve the production process and manufacture the product with the smallest deviations from the specified parameters. Such leading world-known companies as Motorola, Toyota, General Electric and others use the Hoshin Kanri method in their operations. This method is also known as the policy deployment method.

The Hoshin Kanri method is based on the application of the Deming Cycle, or PDCA, and is a concept of cyclic control. PDCA stands for “Plan-Do-Check-Act” and is a continuous process of improving every aspect of the company. To develop a Hoshin Kanri strategy one needs four groups of teams, namely, Hoshin team, tactical team, operational team, and execution team. The Hoshin team is generally responsible for strategic planning. It develops and manages a long-term strategy (5 to 100

years), a medium-term strategy (3 to 5 years), and an annual Hoshin plan (6 to 18 months). Tactical teams, which are formed by the Hoshin team, are responsible for developing specific tactical initiatives (for a period of 6-18 months) at functional levels: production, financial, marketing, and so forth. Operational teams are formed by tactical teams and are responsible for operational projects (3-6 months' duration) aimed to improve specific products and processes. Teams of executors are formed by the operational teams and are responsible for the realization of specific projects (from 1 week to 3 months period) implemented in order to apply new tools and technologies in everyday standard work operations (kaikaku) and short-term operations (in real-time) related to shortages, errors, failures and other deviations arising. They are also responsible for the implementation of improvements proposed by employees (Kaizen) [6]. The Hoshin Kanri method requires all teams to work together to achieve the ultimate goal, which is accomplishment a long-term strategy.

The fundamental document of Hoshin Kanri method, which records all strategic, tactical, operational objectives and the relationship between them, is the X-matrix. The main advantage of the X-matrix is the ability to present the entire process of strategy development on a single page of A3 format.

The strategy is the main factor in the matrix, it is written to the left of the letter "X". Here are the main strategic objectives of the enterprise. Depending on the strategic goals, tactics are formed within the framework of current projects and initiatives, which is written at the top of the letter "X". Tactics require the implementation of specific processes to improve the activities of the enterprise. Those are placed on the X-matrix to the right of the letter "X". With high-quality process management, you can get the corresponding results, which are recorded in the lower part of the x-matrix. It is also necessary to calculate the financial effect of investments in business processes and enter them in the column to the right of the results. In "Team members" block fit the names of the people responsible for the implementation of tasks. The block "Scope of responsibility/accountability" makes it possible to record the most significant relationships between people, teams, departments, as well as partners. The blocks that belong to the "Correlation" part of the matrix record the relationships between the most essential factors of the entire business strategy.

The use of the A3 format according to the Hoshin Kanri method is an indicator of integrity, conciseness and simplicity. Besides, it enables top-level managers to collaborate with lower-level managers and directly with employees, thereby involving all people in the company in the process of strategy development and implementation.

The main advantages of the Hoshin Kanri method are simplicity and functionality, personnel involvement and interconnection of all levels of management.

In the conditions of dynamic state of market, globalization of the world economy, rapid pace of scientific and technological progress, agricultural enterprises should set a goal of further development and use such a management system that is able to ensure sustainable and most effective functioning during the current period and form a high potential for development in the future.

Given the rapid pace of development, predictively in 5 years, agricultural enterprises should use more progressive methods of building the strategy. This is precisely the Hoshin Kanri method. This method is complex in its structure but very effective and representative in the strategy implementation. For this purpose, a typical development strategy of an agricultural enterprise was developed based on the given x-matrix template (tab. 1). This strategy is designed for 3 years and includes strategic goals, tactical goals, processes and results.

Among the strategic goals that are typical for an agricultural enterprise, we have identified the following:

- 1) increasing business efficiency;
- 2) increasing the efficiency of sales;
- 3) introduction of innovative technologies in production;
- 4) business-process optimization.

Managers of agricultural enterprises can form a greater number of strategic goals based on the needs of enterprises. According to the outlined strategic goals, tactical goals (project programs) were formed, which are detailed according to what needs to be done.

The tactical goals that ensure the implementation of these strategic goals include:

- 1) to improve the efficiency of operating and investment activities;
- 2) to increase productivity;
- 3) expand the product range;
- 4) expand the existing market and enter new markets;
- 5) improve sales efficiency (increase margins, conversions);
- 6) implement employee development training programs;
- 7) introduce innovative technologies into production;
- 8) to optimize business processes.

Implementation of this development strategy of the agricultural enterprise will allow achieving the following results:

- 1) increase in profitability of the enterprise, increase of organizational culture level;
- 2) increase in the amount of investment, increase of ROI;
- 3) improvement the efficiency of the equipment;
- 4) compliance with commercial quality indicators;
- 5) improvement in production efficiency;
- 6) increase in labour productivity;
- 7) reducing the cost of core business processes.

To optimize the implementation of the development strategy, correlations between strategic and tactical goals, tactical goals and processes, strategic goals and results were presented.

Managers of agricultural enterprises are responsible for the final performance results and quantitative indicators arising in this case [1].

To implement the developed strategy, an agricultural enterprise should create a “smart” organization consisting of project participants who will be responsible for a certain area of work. By identifying project participants, it will be possible to establish subordination and correlations with project programs.

3. CONCLUSIONS

The article analyzes various methods of strategic planning based on the use of different methods of strategy building. It is established that under the conditions of formation of high-level strategic management at the enterprise, the implementation of the strategy will be successful and effective. Using the Hoshin Kanri method, a typical agricultural enterprise development strategy in the form of an x-matrix was developed. This strategy is designed for 3 years. It includes strategic and tactical goals, processes and results, between which appropriate correlations have been established. Managers of modern agricultural enterprises should form a new type of thinking and use progressive approaches to the formation and implementation of enterprise strategy.

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Received: 12.09.2019; **revised:** 15.11.2019.

Боришкевич Ірина. Розробка типової стратегії розвитку сільськогосподарського підприємства (за методом Хосин Канрі). *Журнал Прикарпатського університету імені Василя Стефаника*, **6** (3-4) (2019), 15–21.

Сучасні умови глобалізації бізнесу, значна обмеженість ресурсів, посилення конкуренції та прискорення технологічних нововведень вимагають від сільськогосподарських підприємств здатності швидко пристосуватися до мінливих умов зовнішнього середовища. Запорукою їх успішного продуктивного розвитку є забезпечення максимально ефективного використання наявного ресурсного потенціалу. У науці та практиці існує велика кількість різноманітних методичних інструментів, які сприяють покращенню функціонування суб'єктів господарської діяльності. Одним із таких інструментів, що забезпечує досягнення результативного розвитку, формуючи стійкі конкурентні переваги, є стратегія. Йдеться про складну модель, яка охоплює усі процеси на підприємстві. Використання керівниками сільськогосподарських підприємств прогресивних методів розробки стратегії є запорукою успіху її ефективної реалізації та нарощення підприємством конкурентних переваг в ринковому середовищі. У статті проаналізовано існуючі методи стратегічного планування, в основі яких лежить різна методика побудови стратегій. Проведено характеристику наступних методів: ресурсний метод, цільовий метод, метод екстраполяції, інтерполятивний метод, пробно-статистичний метод, критеріальний метод, нормативний метод, балансовий метод, матричний метод і побудова стратегічного плану. На основі опрацьованих джерел досліджено метод Хосин Канрі, що базується на застосуванні циклу Демінга та являє собою концепцію циклічного управління. Розроблено типову стратегію розвитку сільськогосподарського підприємства у вигляді Х-матриці. Дана стратегія розрахована на 3 роки і включає стратегічні і тактичні цілі, процеси і результати, між якими встановлені відповідні кореляційні зв'язки. Серед стратегічних цілей, що є типовими для сільськогосподарських підприємств виокремлено наступні: підвищення ефективності бізнесу, підвищення ефективності збутової діяльності, впровадження інноваційних технологій у виробництво та оптимізація бізнес-процесів. Відповідно керівництво сільськогосподарських підприємств можуть формувати більшу кількість перспективних цілей, виходячи із потреб суб'єктів господарювання. Отримані результати формують підґрунтя для подальших досліджень механізму формування та впровадження стратегії розвитку сільськогосподарських підприємств.

Ключові слова: стратегія, метод, сільськогосподарське підприємство, Хосин Канрі, стратегічне планування.