

Anticipatory management of enterprises on the basis of weak signals

Olga Melnyk¹, Marta Adamiv²

1. Foreign Economic and Customs Activity Department, Lviv Polytechnic National University, UKRAINE, Lviv, S. Bandery street 12, E-mail: oliya_melnyk@ukr.net

2. Foreign Economic and Customs Activity Department, Lviv Polytechnic National University, UKRAINE, Lviv, S. Bandery street 12, E-mail: marta_adamiv@i.ua

Abstract – *The main purpose of research is to ground the conceptual principles of enterprises anticipatory management on the basis of weak signals. In the paper the actuality of anticipatory management as an objectively necessary element of the enterprise management process in today rapidly changing and unpredictable business environment is grounded. The sequence of enterprises anticipatory management on the basis of weak signals is specified. The typology of weak signals of potential events by kinds of enterprise activity is developed.*

Key words – anticipatory management, weak signals, technology, functions, methods, decisions, kinds of enterprise activity.

I. Introduction

The modern functioning conditions, which are characterized by a high level of dynamism, unpredictability and uncertainty, determine the new requirements for a management as the mechanism of ensuring the sustainable goal-oriented development of enterprises. It concerns a critical growing deficit of time and information resources for a decision-making process that strengthens a threat of the retarded or inadequate response to the changes of enterprises operation conditions. The forced development of the modern globalized business environment requires from managers of all levels to make decisions in maximally short time period due its intense changes and transformations. In addition, in the current functioning conditions managers and professionals are increasingly faced with not clear, understandable or incomplete by content data that require its accurate analyzing and interpretation. In management science, scholars interpret these informational messages as weak signals of the potential events in the business environment.

The situation described above causes a peculiar management dissonance because the necessary condition to ensure the maximum effectiveness of management activity is the implementation of a completed management technology that is based on the adequate information support and requires the appropriate time costs for its realization. One of the perspective directions to solve this problem is to use the anticipatory management as the actual addition to the enterprise's management system from the position of improving its interaction with the internal and external environment on the basis of increasing the level of enterprise's preparation to any potential changes in the operating conditions. Anticipatory management is aimed at identifying and analyzing the weak signals of possible changes, as well as predicting their future development to different potential

events in the business environment. It forms an enough time reserve for preventive decision-making process of exploiting opportunities or eliminating threats in the internal and external environment.

II. Main part of research

The rapid spread of current trends of increasing the uncertainty and unpredictability of operating conditions complicates the problem of timely and adequate response to any change in the business environment. It is caused by the growing deficit of resource support (especially time and information) of management processes at the enterprises, especially the decision making. In response to everything above mentioned anticipatory management provides a mechanism of anticipation the future events in the business environment that is based on the recognition of weak signals and interpretation of their further development to specific opportunities or threats of enterprise's operating conditions for timely respond to those changes in the business environment.

Having studied the literature on the problem [1-2] it has been proposed to interpret the anticipatory management of enterprises as goal-oriented activity that provides early identification of internal and external potential events on the basis of weak signals investigation and anticipatory scenario development in order to preventive decision-making for effective opportunities using or threats eliminating in operating environment.

Anticipatory management of enterprises is based on the classic sequence of process-structured management, but each stage is characterized by its specific meaningful to achieve the anticipatory goals. Therefore, anticipatory management of enterprises on the basis of weak signals is realized by such sequence:

1. Consistent realization of anticipatory management technology through implementation the concret functions (anticipatory planning, anticipatory organizing, anticipatory motivating, anticipatory control and anticipatory regulation).

2. Adequate forming of anticipatory management methods for developing and theoretical grounding the management mechanisms of influence on the controlled system to achieve the anticipatory goals.

3. Transforming developed anticipatory management methods into appropriate management decisions in order to implement effective management influence to achieve the anticipatory goals.

4. Implementation the unifying management function that includes all anticipatory management processes in order to ensure their effective realization.

Anticipatory management of enterprises is based on weak signals as key elements in implementation its specific assignment. The fundamental idea of anticipatory management is based on the fact that any potential event is characterized by a period of its development from weak signals to strong signals. Having studied the literature on the problem [1] it has been proposed to interpret the weak signals as early signs of future changes in operating conditions which are reporting about the potential events appearance and their sources in internal and external environments.

To ensure the complex anticipatory monitoring of enterprises environment it has been systematized signals of potential events by kinds of enterprise activity:

1. Production - technical and technological signals about changes of the level of scientific and technological progress in the country and abroad, as well as the level of technical and technological base of the enterprise; marketing and logistics signals about changes in the behavior of customers, their tastes and preferences, the conditions of cooperation with suppliers, the level of efficiency of the enterprise logistics system; social and human signals about changes in the management efficiency of production, the level of staff qualifications, the level of main and additional wages, working conditions; financial signals about changes in the volume of financial resources for production; general economic signals about changes in market situation, the level of tax payments, exchange rates, inflation, the level of competition in the market and so on.

2. Activity for scientific and technological preparation of production - social and human signals about changes in qualifications and professional skills of staff that provides this activity, the level of main and additional wages, the level of management effectiveness in this sphere, the general level of population education in the country; technical and technological signals about changes of the level of scientific and technological progress in the country and abroad, as well as the level of technical and technological base of the enterprise for providing this activity; financial signals about changes of the enterprise financial condition, the conditions of cooperation with investors; general economic signals about changes in market situation, the level of inflation, market competition; political and legal signals about changes in government regulation in this sphere.

3. The financial and economic activity - social and human signals about changes in the efficiency of financial and economic management, the level of qualifications and professional skills of financiers, economists, planners; financial signals about changes of the enterprise financial condition, the conditions of cooperation with investors, banks, suppliers, customers, business partners and other financial institutions; general economic signals about changes in market situation, the level of tax payments, exchange rates, inflation, various stock market indices.

4. Marketing - marketing and logistics signals about changes in customers behavior in the market due to the impact of psychological, personal, social and cultural factors and situational influence factors, the behavior of competitors due to marketing mix, the conditions of cooperation with partners; signals about changes in the characteristics and parameters of enterprise products; social and human signals about changes in the level of staff qualifications, social and cultural level of the country, general economic signals about changes in market conditions, the level of market competition, etc.

5. Logistics - marketing and logistics signals about changes in the conditions of cooperation with suppliers, intermediaries, customers; social and human signals about changes in the level of qualifications of logistics staff; technical and technological

signals about changes of the level of technical and technological base of the enterprise, the quality of transport system, the quality and reliability of storages; general economic signals about changes in market conditions, the level of inflation, interest rates, rents and so on.

6. Social and human resources activity - social and human signals about changes in management efficiency, the level of professional skills and qualifications of employees, number of staff, level of material and moral incentives, the level of labor and technological discipline, cultural, technical and moral level of staff, working conditions; technical and technological signals about changes in technical and technological base of the enterprise and the level of scientific and technological progress in the country and abroad, etc.

7. Foreign economic activity - general economic signals about changes in the level of the exchange rate, inflation, interest rates, tax payments, conditions in the domestic and foreign markets, the intensity of competition in the domestic and foreign markets; marketing and logistics signals about changes in the behavior of customers, their tastes and preferences, the conditions of cooperation with suppliers and intermediaries; signals about changes in the characteristics and parameters of products for export, political and legal signals about changes in domestic and foreign state regulation of foreign economic activity; social and human signals about changes in the management efficiency, the level of staff qualifications; financial signals about changes in the financial condition of foreign partners, conditions of cooperation with foreign financial and credit institutions and so on.

Conclusion

The modern dynamic business environment, that is characterized by intense and at the same time unpredictable changes and transformations, requires from managers to change its position from traditions to innovations. It means to use progressive management instruments and mechanisms which are specialized on anticipating the potential changes of enterprises' operating conditions. Anticipatory management is aimed at increasing the level of enterprise's preparation to possible changes in the internal and external business environment on the basis of their early identification and consideration in the enterprise's future activity. That's why in this article the conceptual principles of enterprises anticipatory management on the basis of weak signals are described.

References

- [1] R. A. Rudenskyj, Ed., *Antisipativnoe upravlenie slozhnymi ekonomicheskimi sistemami: modeli, metody, instrymenty* [Anticipatory management of complex economic systems: models, methods, instruments]. Donetsk: Ugo-Vostok Publ., 2009.
- [2] O. E. Kuzmin, O. G. Melnyk, Ed., *Teoretychni ta prykladni zasady menedzhmentu* [Theoretical and applied grounds of management]. Lviv: Informatsijno-vydavnychij tsentr "INTELEKT" Publ., 2003.