Theoretical Foundations of Industrial Enterprise Management

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Abstract: The article investigates theoretical foundations of industrial enterprise. The authors define the basic principles and methods of industrial enterprise, styles and highlight the structure of industrial enterprise and also analyze the management of industrial enterprise.

Key words: Industrial enterprise · Enterprise management · Strategy · Competence-based approach · “The effect of the trefoil”.

INTRODUCTION

Management of industrial enterprise - is a complex process, which is of strategic importance. According to the definition of Johnson and Scholes, “strategy - a set of actions, including a description of those responsible for its execution and the resources needed to achieve the goal”. There are different styles of industrial enterprise management (Table 1).

On the basis of styles can distinguish different approaches to the management of industrial enterprise (Table 2).

To select the optimal approach to the management of industrial enterprise must focus on its strategic objectives and the specifics of the production process. The process of industrial enterprise is shown in Fig. 1.

As can be seen from Fig. 1, the process of industrial enterprise begins with the formulation of the mission and objectives of the company, as well as with the development of its development strategy. Then there evaluates the market position of the company and its competitiveness while analyzing environmental policy, environmental and socio-economic environment, as well as risk analysis implementation. After that there is a distribution of responsibilities and resources of the enterprise. Then the strategy is being implemented under the clear and systematic control of the company's management. If necessary, the strategy is corrected.

Structure of industrial enterprise includes:

- Production management;
- Risk management;
- Personnel management;
- Mobility management;
- Financial management;
- Marketing and sales management;
- Ensuring compliance with environmental standards and environmental protection.

Consider in more detail the elements of the governance structure of the industrial enterprise. These items are selected based on the factors of production steps and the production process. Production management of industrial enterprise assumes efficient allocation and use of resources. Among the methods of production management applies performance management and quality management.

Performance management in an industrial plant is provided by the distribution of responsibilities employees, as well as through the development of standards of productivity. Quality management involves constant monitoring of the quality of products,
Table 1: Styles of industrial enterprise management

<table>
<thead>
<tr>
<th>Style of industrial enterprise management</th>
<th>Organic</th>
<th>Mechanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>informal and decentralized</td>
<td>formal and centralized</td>
</tr>
<tr>
<td>Communication</td>
<td>lateral (in all directions)</td>
<td>vertical (up and down)</td>
</tr>
<tr>
<td>Ability to respond to changes</td>
<td>flexible and adaptive</td>
<td>inflexible, not adaptive</td>
</tr>
<tr>
<td>Organizational structure</td>
<td>flexible</td>
<td>high chain of command and clearly defined roles</td>
</tr>
<tr>
<td>Environment</td>
<td>dynamic, uncertain</td>
<td>Stable, defined</td>
</tr>
<tr>
<td>Result</td>
<td>creation</td>
<td>efficiency</td>
</tr>
</tbody>
</table>

Table 2: Approaches to the management of industrial enterprise

<table>
<thead>
<tr>
<th>Approach to management</th>
<th>Rational</th>
<th>Increasing</th>
<th>Free</th>
<th>Emergency</th>
</tr>
</thead>
<tbody>
<tr>
<td>centralization of management</td>
<td>Management top-down, centralized management</td>
<td>Management top-down, centralized management</td>
<td>Bottom-up management, decentralization of management</td>
<td>Management top-down, centralized management</td>
</tr>
<tr>
<td>Flexibility of the organizational structure</td>
<td>stable</td>
<td>flexible</td>
<td>flexible</td>
<td>flexible</td>
</tr>
<tr>
<td>Period for which the calculated strategy</td>
<td>Long-term (5-10 years)</td>
<td>Medium-term (3-5 years)</td>
<td>Short-term (6 months to 2 years)</td>
<td>Indefinite period (if necessary)</td>
</tr>
<tr>
<td>Degree of formality planning</td>
<td>formal planning</td>
<td>Less formal planning</td>
<td>Informal planning</td>
<td>Informal planning</td>
</tr>
<tr>
<td>Complexity and expenses</td>
<td>Highly complex and costly</td>
<td>Less complex and highly costly</td>
<td>More complex and less costly</td>
<td>Less complex and highly costly</td>
</tr>
<tr>
<td>Degree of flexibility</td>
<td>stable</td>
<td>flexible</td>
<td>flexible</td>
<td>flexible</td>
</tr>
</tbody>
</table>

Fig. 1: The process of industrial enterprise management

Fig. 2: The risk management process of the industrial enterprise

The Following Types of Risks of Industrial Enterprise:

- Risks operating activities, including risk stopping supplies of raw materials, the risk of new technologies, resulting in dramatically reduced the competitiveness of enterprises, etc.
- Financial risks consist of risk to a shortage of financial resources, the risk of insolvency, downside risk enterprise, foreign exchange risk, the risk of loss of financial solvency and bankruptcy, etc.;
- Security risks, i.e. risks of emergencies that have affected the company.

The introduction of standardization and certification systems in an industrial plant. Risk management of industrial enterprise is a continuous process (Fig. 2).
country and the world. When these characteristics are determined, compiled a map of risks of industrial enterprises (Table 3).

In Table 3, there are nine squares, which can fall in the risk of industrial enterprise. The higher the impact of the risk to the company and the likelihood of the risk event, the higher the level of threat and accordingly, the more attention and effort should be directed at preventing this risk. The main method of dealing with risk is insurance risk, which may be conducted by the enterprise independently, by forming a reserve fund or insurance company.

Personnel management involves building the organizational structure and the formation of organizational culture. Henry Mintzberg has identified four structural components of an industrial enterprise:

- Strategic vertex (top managers). They define the strategic direction of the enterprise, exercise central oversight and control over its operations.
- The middle layer of the hierarchy (middle managers). They develop tactics enterprise.
- Operational core (industrial personnel). It deals directly with the production of goods.
- Techno - layer hierarchy (support staff). He is responsible for training and development of innovation.

Charles Handy and R. Harrinson are four kinds of organizational culture of industrial enterprises based on the key qualities of the ancient Greek gods (Table 4).

J. Spolsky identifies the following methods of personnel management of industrial enterprise (Spolsky, 2014):

- Method of command and control (Command and Control Method) - is a militarized approach to business management based on management employees fear;
- Method Econ 101 (Econ 101 Method) involves only material motivation of staff;
- The method of identity (Identity Method) provides command and control style is based on ensuring that the objectives and goals of the company employees.

These methods are based on motivation and incentives for employees that is a fundamental method of personnel management of the enterprise. Technology management in developed countries is usually called mobility management company, as development innovation provides mobility of the production process. P. Drucker argues that the enterprise is difficult to determine which technologies will provide maximum benefit to the business in a few years (Drucker, 2014). Therefore, it is necessary to simultaneously develop various innovative projects, thus forming a portfolio of innovations of the industrial enterprise.

Once new technologies are researched and tested many times, you can get an idea about the prospects for their practical application and implementation in production. A myriad of new technological tools available and incredibly fast pace of their implementation challenges of modern industrial enterprises and contributes to the promotion of innovation. Technology serves as a tool to achieve the strategic goals of the company. Once defined strategic initiatives, identify technical solutions that could help in the successful implementation of these initiatives.
Financial management of industrial enterprise involves the use of techniques such as cost control, management of own and borrowed funds. The most important tool of financial management is pricing, which provides enterprise profit. Methods of marketing and sales management are research and analysis of the market situation, the choice of channels of enterprise, an advertising policy, brand building an industrial enterprise.

In today's world to get public recognition and state support is necessary to ensure compliance with environmental standards and environmental protection. In this connection, the company needs to use resources efficiently and ensure the accountability of the management of these resources to align the interests of enterprises and society / state. Are the following principles of socially and environmentally responsible business in an industrial plant:

- Transparency and timely payment of taxes and fees;
- Transparency of information on the activities of the enterprise;
- Create as many jobs and firing employees only in case of emergency;
- Compliance and the requirements of current environmental legislation;
- Commitment to meeting the needs of society as a product at the lowest price.

Compliance with the principles identified increases the investment attractiveness and loyalty to the industrial enterprise. Consider the principles of industrial enterprise. Charles Handy argues that the most important principle of industrial enterprise is the flexibility, which should be provided in all its structural elements:

- Operational flexibility (adaptability of production, lack of specialization);
- Financial flexibility (ability to minimize costs and additional financial resources);
- Numerical flexibility (the ability of companies to adapt quickly to changing levels of demand by increasing or decreasing the number of employees).

This approach examines the company trefoil consisting of the production process, personnel and finances, what has been called “the effect of the trefoil”.

The report of the European Commission “On the construction of managerial capacity” contains the following fundamental principles of industrial enterprise:

- Readiness at any moment to review our plans, including strategic, depending on market demand and existing technological capacity;
- Focus on long-term investment rather than short-term speculation in the financial management of the enterprise;
- Active marketing to best meet the needs of society;
- Orientation to the competence-based approach in the management of human resources.

A. Fayolle believed that the most important requirements of the principles of management is their transparency and versatility and singled out the following principles of industrial enterprise:

- Division of labor. According to this principle, as far as possible, all the work should be divided into several parts and each employee should be responsible for only one part of the work in accordance with his abilities. Benefits of compliance with this principle are the effects of specialization in production, improve the quality of work, increase production speed, reduced resource consumption;
- Authority and responsibility. According to this principle, authority and responsibility are closely interrelated. This means that when a particular employee performs any work, he must be held accountable for the results of this work, which is possible only if he has enough authority to do so;
- Discipline. Discipline is necessary for successful completion of any work. Discipline means obedience, respect for authority and respect for the rules. Discipline can be established by providing good supervision at all levels of management and a clear explanation of the rules implementing the system of reward and punishment. The manager can present a good example for his subordinates, disciplining yourself;
- Unity of command. In accordance with the principle of unity of command, an individual employee should receive orders from only one boss who is responsible for them;
- Unity of purpose. This principle means that there should be one leader for one project for a group of employees who have the same goal. In other words, there should be one plan for a group of employees with one goal and should be one manager to manage them. Unity of command is important to improve production efficiency;
Subordination of personal interests common interests. According to this principle, the common interest or the interest of the organization should above all. Compensation of employees. According to this principle, employees should receive fair compensation for their work, which should be the responsibility of the manager. Proper remuneration depends on several factors, such as cost of living, the demand for labor and the ability of workers. To motivate employees, in addition to total compensation, they need to give some monetary and non-monetary incentives. Equitable remuneration provides dedication and honesty of employees;

Centralization and decentralization. According to this principle, the chiefs must take effective centralization instead of complete centralization or complete decentralization. Chiefs should have the authority to make important decisions, while the right to make daily decisions and decisions should be delegated to a lower value to their subordinates. Ratio of centralization and decentralization may differ in different situations;

Clear power structure (linear control structure). According to this principle, the need for a formal line of authority that moves from the highest to the lowest rank of the company's employees in a straight line. This chain must follow in order. This means that all connections have to move downwards and vice versa in a straight line. With a clear system of authority and communication arising problems can be solved faster. This principle has been designed to establish direct contact with the employee and equal status in the event of an emergency, in order to avoid delays in communication;

Organize and Reorder. According to this principle, every company should have two different order: the order of the material for natural resources and social order for human resources. Keeping these two orders in harmony ensures that all available resources in the organization will be used properly;

Equal treatment. This principle states that managers should treat their subordinates fairly and impartially so as to develop their sense of loyalty and attachment to their work;

Stability of staff. From a management perspective frequent changes of staff undermines corporate communication and culture, reduces the prestige of the organization and creates a sense of insecurity among workers, makes them hard to find new employment. Consequently, a sense of loyalty cannot be created between them. According to this principle, workers need stability to work effectively;

Initiative. The initiative is the ability to work, expressing their thoughts. Managers are responsible for the promotion of a sense of initiative among their employees to perform some work, or any decision, but within the limits of authority and discipline. This is possible only when the manager welcomes the thoughts and ideas of subordinates, for this it is necessary to abandon their false sense of prestige.

In this paper the following main principles of management of industrial enterprise:

- The principle of efficiency (maximizing revenues and minimizing costs);
- The principle of goal-setting and planning;
- The principle of division of labor;
- The principle of unity of command and stability control;
- The principle of environmental responsibility;
- Principle of social responsibility of the enterprise.

Consider these principles in more detail. The principle of efficiency is aimed at ensuring business profits, which is the main purpose of its existence. The principle of goal-setting and planning involves strategic management instead spontaneous decision. This is to ensure the stable and sustainable development of the company in the long term.

The principle of division of labor is intended to allocate responsibilities between the employees of the company so that each doing the work that he has obtained as well as possible and to bear responsibility for it. The principle of unity of command and control stability contributes to achieving the goals as prevents permanent changes in these objectives and to build a transparent organizational structure of the industrial enterprise.

The principle of environmental liability company assumes compliance with applicable environmental safety standards. Principle of social responsibility of the enterprise involves socio-oriented management style and individual employees of the enterprise management approach, as well as to comply with the conditions of workers.

Thus, we can conclude that the process of industrial enterprise management involves a comprehensive analysis of the possibilities and prospects of the enterprise, the formation of the strategic objectives of its
development and definition of methods and means of achieving them. This process is systematic and serves to coordinate the activities of various departments of the industrial enterprise.

In this paper includes such principles of industrial enterprise, efficiency, goal-setting and planning, division of labor, management stability and unity of command, environmental and social responsibility.

Modern industrial enterprise is very sensitive to the role of the manager who manages the production risk, staff mobility, finance, marketing and sales, provides environmental compliance and environmental protection. There are a variety of methods of industrial enterprise, which are inherent in each of these areas of management. Effective management of industrial enterprise achieves maximum coherence of the enterprise resource efficiency and high productivity, which in turn ensures high profitability and profitability.

REFERENCES