Ministry of Education and Science of Ukraine

Ternopil Ivan Puluj National Technical University

(full name of higher education institution)

Economics and Management

(faculty name)

Innovation Activity and Services Management Department

(full name of department)

EXPLANATORY NOTE

for Master's Thesis

(educational proficiency level)

topic: Development of an enterprise innovation strategy (LLC "Rempobuttechnica" plant as a case study)

Submitted by: sixth year student group IBUm-62

Specialism (field of study) 073 Management

"Management of innovation activity"

(code and name of specialization (field of study))

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Ternopil 2020

Abstract

Jimoh Kehinde Augustus: Development of an enterprise innovation strategy (LLC “Rempobuttechnica” plant as a case study) – Ternopil State Technical University: TNTU 2020.

The explanatory note to the master's qualification work consists of 79 pages, 4 illustrations, 16 tables. The structure of the work consists of an introduction, four chapters, conclusions to each section, general conclusions, a list of sources used, which consists of 20 items.

The work is devoted to the study of the Development of an enterprise innovation strategy (LLC “Rempobuttechnica” plant as a case study)

To implement the tasks in the study, the following research methods were used: analysis of scientific sources, comparative analysis, statistical method, method of own observations, method of generalization.

Key words: enterprise, analysis, workplace, organizational activity, economic activity, innovations.

LIST OF CONTENTS

Introduction

Around the world, innovation today is not a whim, but a necessity for survival, competitiveness and continued prosperity. In today's economy, innovation is becoming a paramount factor of perspective growth and development of enterprises. New products, advanced technologies largely determine leadership, provide effective long-term operation and competitiveness enterprises. At the same time, the innovative orientation of enterprises necessitates the improvement of mechanisms for managing their development.

Innovation can relate both to engineering and technology, and to the forms of organization of production and management. They are all closely interconnected and are qualitative steps in the development of productive forces, increasing production efficiency. Qualitatively new large-scale mastered technologies are able to provide a solution to complex production problems that are not solvable on the previous technological basis.

Industrial enterprises have also come to understand the need for the implementation of innovative activities. More and more innovations are considered by them as one of the most important ways to increase the competitiveness of manufactured products, maintain high rates of development and the level of profitability. Therefore, enterprises, overcoming various difficulties, began to develop on their own in the field of technological innovation. New technologies in this case act as an auxiliary material for their use in the manufacture of products.

An important task for entrepreneurs today is the development and improving innovation. Definitely to do that the task is to develop an innovative strategy of the enterprise. Extremely it is important to reasonably approach the choice and formation of development strategy innovative activity of the enterprise. At independent development of innovative strategy to the enterprise have to solve a wide range of problems related to science activity: study of the

innovation market as a whole; opportunity analysis enterprises; reasonable choice of strategy; introduction of appropriate standards, etc.

One of the most important tasks of economic development in modern conditions is the integration of Ukraine into the world economic space on a partnership basis. Its solution requires the development of problematic theoretical and methodological and complex aspects, which should be based on the results of in-depth research. In particular, this applies to the innovative development of domestic industrial enterprises. The complexity of solving the problem of their innovation is exacerbated by the uncertainty of the external environment. The problem of innovative development of industrial enterprises is closely connected with the choice of development strategies of countries, because it is its priority.

The object of the master's dissertation is an innovation strategy enterprise.

The subject of research is the innovative potential of the production activities of LLC “Rempobuttechnica” plant, theoretical and scientific-methodological provisions for the development of innovation strategy of the enterprise.

The purpose of the master's work is to develop proposals aimed at improving management, introducing innovative projects at the enterprise.

To achieve this goal, I will need to solve the following tasks:

- determine the role of innovation in the economic activity of the enterprise;
- to formulate a comprehensive concept of innovation;
- to investigate the organization of innovative activities at the enterprise;
- analyze methodological approaches to assessing the innovative potential of an enterprise;
- to analyze the degree of implementation of innovations in the technological process;
- to develop measures to improve the management of the studied enterprise on the basis of innovative activities.

To solve the tasks, the following types of analysis were used: SWOT-analysis, business model establishment, method of indicators of innovation enterprise activity, Mac-Kinsey matrix, method of expert assessment, the financial analysis, system analysis, analysis of quantitative and qualitative data. The collection of primary information for the study was carried out during the pre-diploma practice at the enterprise.

CHAPTER 1. THEORETICAL AND METHODOLOGICAL ASPECTS OF INNOVATIVE ENTERPRISE STRATEGIES

1.1. Meaning and definitions according to the topic

The definition of innovation is highly varied, possibly due to the fact that many different disciplines have focused on innovation from their specific perspective. Also, the concept of innovation has become more complex over time.

An early definition of innovation, from an economics perspective, was presented by Schumpeter. An innovation – by definition – "had a substantial economic impact. An innovation was something that changed the market place in a profound way. The innovating organization was, thus, likely to become the new market leader and to gain an immense advantage over its competitors" [4].

The 21st Century Working Group defines innovation as follows: "Innovation transforms insight and technology into novel products, processes and services that create new value for stakeholders drive economic growth and improve standards of living" [5].

Several different ways of categorizing innovation have been suggested. These include: types of innovation, newness of the innovation, impact of the innovation. Types of innovation can also be described as the end result of the innovation. This can be clearly seen from the following six different innovation types: new products, new services, new methods of production, opening new markets, new sources of supply new ways of organizing.

Baker states that a company's ability to support product and process innovation is no longer adequate and that a third type of innovation, strategy innovation needs to be introduced in order to provide further support. This type of innovation specifically emphasizes the importance of a longer-term view of the contribution of innovation towards competitiveness and success as a company. [3]

Hence three main innovation types can be defined. These are product innovation, process innovation and strategic or business model innovation.

The newness of an innovation can be described on a continuum from radical innovation to incremental innovation. “Radical innovations are those that produce fundamental changes in the activities of an organization and large departures from existing practices, and incremental innovations are those that result in a lesser degree of departure from existing practices”.

The impact of innovation can be described on a continuum from sustaining to disruptive. “Sustaining innovations improve the performance of established products or services. Discontinuous innovations bring to market very different products or services that typically undermine established products and services in the particular market sector”.[7]

In order to develop a comprehensive definition for an innovation strategy an understanding of the types and definition of strategy is required. In this section an explanation of the evolution of strategy is provided along with several definitions for strategy.

As with the definition of innovation there are several different concepts that are suggested in the many different documented definitions of strategy. There are definitions which consider strategy to be management’s action plan for running the business. Other definitions include the concept of competition, where the aim of a strategy is to gain a competitive advantage in the market. In several definitions the concept of determining long-term goals and objectives is included. The allocation of resources at a high-level is another concept used in the definition of strategy. The definition by A.D. Chandler incorporates the majority of these concepts. “Strategy can be defined as the determination of the basic long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for the carrying out of these goals” [14].

1.2 The essence and role of the formation of an innovative strategy of enterprises.

The innovative strategy is a coherent essence of management decisions that affect the innovation activities of the enterprise and have long-term consequences. Innovative activity is all scientific, technological, organizational, financial and commercial actions that really lead to innovations or conceived for this purpose. Some types of innovation are innovative in themselves, others do not have this property, but are also necessary for innovation. The innovation activity also includes research and development, not directly related to the preparation of any particular innovation. The innovative strategy ensures the dynamic development of the enterprise, influences the choice of the overall strategy, determines the type of the latter.

The following approaches are based on the development of an innovative strategy:

a) determination of priority directions of innovation activity, based on the goals and objectives of the firm's base strategies;

b) reducing the number of levels under management in order to accelerate the process of "research - production - sales";

c) maximum reduction of the terms of development of innovative projects and implementation of innovations, using certain principles of organization of work: parallel and integral innovation tasks. Strategic innovation management is part of innovation management. It solves a wide range of issues of planning and implementation of innovative projects and programs, which are designed for qualitative changes in the activities of the organization in the market, production or social sphere of the enterprise. The need to develop an innovative strategy arises mainly with sudden changes in the external environment of the enterprise (organization, association). These changes include: market saturation and reduced demand, radical changes in the technology and production technology,

diversification of production and as a consequence, expansion of the market range of innovations, the emergence of fundamental innovations on the market, the threat of new competitors.

The need for an innovative strategy arises and when demands from society through, for example, drastic socio-political changes force businesses to dramatically change their benchmarks. There are six main types of innovative strategy of the enterprise: offensive, protective, imitation, dependent, traditional, "on occasion". Offensive innovation strategy covers: marketing-oriented, Mail Merge Strategy acquisition strategy. Offensive strategies usually require credit investment, hence more are used in enterprises with sufficiently high financial potential, skilled line-up of managers and creative scientific engineering potential. This strategy envisages:

1) the firm's tight connection with the world achievements of science and technology;

2) direct dependence on scientific developments funded and carried out by the firm itself;

3) the company's ability to respond quickly and adapt to new technological capabilities.

But the offensive innovation strategy is quite risky, so most firms that can be attributed to highly innovative adhere to a defensive strategy. The protective innovation strategy reflects the company's response to the actions of competitors and is connected with the mastering of new technology and thanks to its access to new markets. The protective strategy requires the company:

1) high mobility;

2) pay a lot of attention to training your staff and advertising;

3) high science capacity and significant efforts of researchers;

4) paying much attention to the analysis of achievements and mistakes of partner firms;

5) promote its products to the market by providing maintenance and service.

The most important factor for the implementation of a protective strategy is the acquisition of patents. Defense firms are consumers of patents and suppliers of profits for "forwards" firms. The simulated innovation strategy is connected with the copying of the technology of production of pioneering firms. The use of this strategy is not very distant in time from the first use of basic innovation, and is usually associated with the purchase of a license to produce such a product. A dependent innovation strategy is the type of strategic behavior in which the nature of technological change depends on the policies of other firms that act as "parent" firms in cooperation technology links. Most often, "dependent" firms perform subcontracted work and do not change of their own products, as the requirements for the quality of products are set by the main company. Requirements for the development of scientific and technical features in such firms are minimal. Traditional innovation strategy means no technological changes at the enterprise. This strategy provides for a meaningful refusal to update products due to a thorough analysis of the market situation and the state of competitors, but does not avoid its own innovative behavior, because it is associated with improvement of the form and service of traditional products.

The innovative strategy "on occasion" in a long-term period of time is connected with the rapid mastery of information and opportunities that arise in the external environment of the enterprise. A characteristic feature of this strategy is the lack of its own scientific and technical activities. This type of behavior is also called the "niche strategy", because the advantage is to find a special niche in the existing markets of goods and services, which has a consumer with atypical but diverse needs. This strategy only makes sense when it is the first step to other strategies.

Advantages and disadvantages of innovative strategies

Advantages include providing the enterprise with competitive advantages in the market, focus on development and improvement risks associated with uncertainty and variability of the external environment Improving production efficiency, saving resources and improving the quality of products cost of the

latest means of labor and technology with a long term of self-payer, the ability to quickly adapt to the new requirements of the external environment, flexibility and use of alternatives under the available same resources, significant cost of time to develop , evaluation and verification of the effectiveness of the developed innovation strategy, as well as for research and experiments Better meet the needs and desires of consumers Science capacity and the need to find gifted highly skilled workforce Source: it is innovative strategies that are the basis of modern innovation management in the face of constant environmental changes. At the heart of the development of an innovative strategy should be strategic management decisions that are:

a) Oriented to the future and for constant changes in the environment;

b) Related to the involvement of significant material resources, wide use of intellectual potential;

c) Characterized by flexibility, ability to adapt to changes in market conditions;

d) Taking into account uncontrolled external factors. One type of innovative strategy is the research and development strategy developed at the functional level. This type of strategy reflects more specific ways to achieve innovative goals, i.e., developing and bringing a new product to market. Taking into account the fact that the goals of innovation activity of the enterprise influence the choice of development strategy, the research and development strategy, as functional, should meet the chosen strategies of the highest level. Therefore, the process of its development is a complex chain of processes to agree on the goals of strategies of different levels, their interelement and interconnection. In general, the process is represented by a set of targeted concerted actions for scientific research and research and development works, the result of which is represented by a scientific product in the form of documentation for a new product.

Management decision on the deployment of research and development in domestic enterprises is made, as a rule, in the following cases:

1) the main competitors have developed and released new products to the market;

2) requirements of customers are obliged to use the latest achievements in the scientific and technical sphere;

3) research and development work as proposals for product improvement for current customers.

The development of an innovative strategy involves the adoption of strategic tasks (goals), assessment of opportunities and resources for their use; alternat analysis; preparation of specific programs, projects, budgets; assessment of the strengths and weaknesses of the subjects' activities, taking into account the chosen objectives.

Procedure for strategy development Source: strategic diagnosis of studying the situation at the earlier stage of strategy formation and state of enterprise analysis of strategy for determination of strategic zones, analysis of environment, detection of external threats and opportunities formation of strategy choice of strategic direction, development of program, projects, budgets evaluation of programs and projects evaluation of the program, its compliance, innovation potential, implementation of strategy of strategic plan development, innovative structure control, control of strategy implementation, sequence of stages of strategy development :

1. Stage of development of goals: formation of mission-orientation and mission-policy of the organization, which emphasizes commitment to innovation activities; the purpose of innovative development of the organization is formed. A "goal tree" is being built.

2. The stage of strategic analysis: the internal environment is analyzed and innovation potential is evaluated; the state of the external environment is analyzed and the innovation climate is assessed; determines the innovation position of the organization.

3. The stage of choosing an innovative strategy: defines the basic development strategies and their innovative components; develop and evaluate

alternative innovative strategies; the choice and justification of the innovative strategy preferred.

4. The stage of implementation of the innovation strategy: a strategic project is being developed (a list of strategic changes and measures for their implementation) and a plan for the implementation of the project, especially taking into account the innovative nature of transformations; strategic control of the project implementation process is organized in) the effectiveness of the implementation process is assessed and the necessary adjustment of the project, strategies, goals. To implement the effective management of innovative development of the industrial enterprise, a real assessment of the level of its innovation potential at a given time and assessment of the dynamics of further development of the enterprise is required. The innovative potential is determined by the composition and level of development of its parts, their relationships and the ability to work as a single system of implementation of innovations, so it is necessary to distinguish components, measure them, identify the relationship between them and get a comprehensive assessment of the innovative potential of the industrial enterprise.

Characteristics of innovative development strategies

Understanding under the innovative strategy a particular model of the company's behavior in new market conditions, there are two main groups of strategies - active and passive. Active innovative strategies suggest that the company is at the heart of its innovation activity and lays down the development and market of a new products or new technologies. In other words, we are talking about new technological ideas for the production and implementation of the product. The second group of strategies; passive innovative strategies, involves passive marketing innovative strategies. In this case, we are talking about the fact that the company mainly uses innovations in marketing, organizational construction and, accordingly, concentrates more on this field of innovation. At the same time, the products remain traditional and the range does not change. The

offensive strategy is typical for firms that base their activities on the principles of entrepreneurial competition. It is connected with the desire of firms to achieve technical and market leadership by creating and implementing new products. This strategy envisages the firm's continued focus on world advances in science and technology, the availability of scientific developments funded and carried out by the firm itself, rapid response and adaptation to new technological capabilities. The peculiarity of the offensive innovation strategy is the active participation of the firm's employees in the creation and implementation of innovations. It is usually very rare when innovation "comes" to the firm from an external source in perfect form. Therefore, in the implementation of the offensive strategy, a special division of the firm, whose functions are research and development, plays a leading role. The offensive strategy can be used by both small innovative (venture) firms and large enterprises that are actively exploring the market to spread their influence over other attractive areas of activity. Thanks to powerful research departments, they are able to generate their own ideas and implement them, protecting their exclusive right to new products through the patenting system (Dupon, Microsoft, Antonov JSCB, etc.). The offensive or aggressive innovation strategy is related to the firm's desire to achieve technical and market leadership by creating and implementing new products.

This strategy envisages:

1) the firm's dense connection with the world achievements of science and technology;

2) direct dependence on scientific developments funded and carried out by the firm itself;

3) the company's ability to respond quickly and adapt to new technological capabilities. In the implementation of the offensive strategy, a special unit of the firm engaged in research and development. This strategy enables the firm to use the new technology much earlier than its competitors will do. And with the patent protection of the new technology, a temporary monopoly on the innovator's profits

is formed. Examples of offensive innovation strategy were the production of TVs, nylon, semiconductors. But the offensive innovation strategy is quite risky, so most firms that can be attributed to highly innovative ones follow a defensive strategy. The defense strategy is aimed at holding the firm's competitive positions in the existing markets. This strategy is followed by most firms that avoid excessive risk. They seek to move one step behind the "pioneers" and implement innovation, only to make sure of its prospects. But this is not a simple imitation of the novelty. As a rule, it makes significant improvements, which contributes to the introduction of innovations in other spheres, for other purposes or transfer to other markets. The main function of this strategy is to optimize the cost-issue ratio in the production process. The protective strategy also requires considerable effort in the research sphere, which allows only powerful high-tech firms to use it. After analyzing the achievements and mistakes of pioneer firms, improving innovation and legally protecting its new model, they start mass production and receive significant profits from it. For example, the firm IIM, using the most protective strategy, surpassed in the production of computers pioneering firm Sperry Rand. In turn, many computer firms have purchased a license from IIM and, in one way or another, improving its basic computer, that is, also using a protective strategy, flooded the world market with their products. A firm with a protective strategy should pay much attention to training its staff and advertising and promoting its products to the market through extensive service and maintenance. The protective innovation strategy reflects the reaction of the enterprise to the actions of competitors and is connected with the mastering of new technology and thanks to its access to new markets. The protective strategy requires the company:

1) high mobility;

2) paying a lot of attention to training your staff and advertising;

3) high science capacity and significant efforts of researchers;

4) paying much attention to the analysis of achievements and mistakes of partner firms;

5) promoting its products to the market by providing maintenance and service.

The most important factor for the implementation of a protective strategy is the acquisition of patents. The defense firms are consumers of patents and profit suppliers for "forwards" firms. Simulation strategy - used by non-pioneer firms in release to the market of certain innovations, but joined their production, acquiring a license from the pioneer firm. Sometimes imitation can take place without the permission of leadership firms, in a pirated way. At the same time, the imitator company not only copies the main consumer properties of innovations, but also achieves certain advantages in the production. Such advantages may be to reduce the cost by attracting cheap labor or local resources, the use of existing production facilities in the new purpose, etc.

Dependent strategy — the nature of technological changes in this case depends on the policy of firms that act as "parental" in relation to "dependent" firms that do not attempt to change their products, because they are closely related to the requirements for it from the main firm. Usually, we are talking about subcontractors. Small firms of this type are common in capital-intensive industries, their market success depends directly on the success of consumers of the main product of the main company. Such firms do not carry out innovative search independently, but provide high criteria for quality of work and flexibility to adapt to the requirements of new technologies and markets. Much of them are employed in the service business and in promoting products to new markets. In Ukraine, this type of innovation strategy is quite common. World leaders in high-tech industries come to our country through the creation of local firms of sub-manufacturers of components for their products. Thus, thanks to the "dependent" innovation strategy, Ukrainian firms can actively participate in the global innovation process. The "opportunity" strategy, or niche strategy, is a response from management to external market signals or institutional environments. The innovation activity here lies in the search information about the opportunities that appear at the company under new circumstances, the presence of special niches

in the existing markets of goods and services that have a consumer with an atypical but meaningful kind of needs. It is from this type of strategy that firms and countries trying to quickly enter the world markets begin using their traditional potential. Defense strategies are focused on maintaining stable positions of the organization in the market. These include simulation strategies, protection, operational response, expectations. The operational response strategy is typical for specialized small firms that work on individual orders and have the opportunity to quickly rebuild to create a new product. The peculiarity of the modern approach to the process of forming innovative strategies is the creation of a system of the so-called newly-called conveyor belt. The essence of this approach is to ensure the continuous introduction of new, more modern products into production; constantly reduce all kinds of costs; to increase the qualitative characteristics of innovation activity; competitive advantages in the market. To this end, for example, Japanese companies strive to manufacture any, even the most complex, products based on standards, easily controlled sets of operations that are carried out on a universal, flexible and wide range of re-equipped equipment. U.S. companies have bet on accelerating the computerization of all kinds of manufacturing and management processes through the creation of adaptive information systems, a complex set of optimization models and quantitative methods capable of quickly detecting and offering the option of eliminating any unplanned deviation at any stage of the manufacturing process. To determine the type of innovation strategy, the well-known classification of F. Kotler's strategies can be applied: "throwing a challenge", "guerrilla warfare", price leadership, product differentiation, rationalization, development and filling of the market niche, mergers and acquisitions, strategy of targeting small science-based firms. The goal of the strategy of "throwing a call" is to take the place of the leader. Financial or indirect attacks can take different forms: bypass strategies, encirclement, guerrilla warfare, etc. The attack on the strengths of the adversary can be conducted in any direction: a) price reduction; b) conducting a similar advertising campaign; c) providing the goods with new features (characteristics)

that will attract the attention of the competitor's consumers; d) creation of new capacities on the territory of the competitor; e) release of new product models that can replace competitor models (model vs. model). A classic example, as F. Kotler points out, is the attack of competitors by a firm that offers a similar quality commodity and at a lower price [6]. The strategy of "guerrilla warfare" involves the firm's implementation of trade outings and the planned perturbation of a competitor in their own markets. Such actions may encourage competitors to go to the appropriate agreement (coordination of trade actions, division of markets, etc. In defense of aggressive strategies of competitors, the firm-leaders put forward a strategy of premising strikes, which aims to defend a favorable position in the market. This strategy is carried out through the following measures: expanding production capacities in a larger amount than the market needs; establishing links with the best resource providers; preservation of the best geographical location; consolidation of the psychological image of the company from consumers. The strategy of price leadership involves reducing production costs by massively increasing its volumes and rationalizing production processes. Research and development strategy aim to improve positions organization on the market through association with user firms, supplier firms and competitor firms. its advantages - rapid entry into the market.

The strategy of product differentiation is based on the company's constant improvements, modernization and modification of the product with a high-quality design, better than that of competitors. The application of this strategy is possible if there is a set of characteristics of the goods, which are allocated and valued by the consumer, a variety of demand for the products of this assortment. if the product differentiation strategy is applied, the company risks falling behind in production technology, lower costs and enterprises can move into an attacking position. There is a danger of simulations of unique properties of the product. The strategy of development and filling market niches is to conduct scientific and technical research, active innovation activity and marketing. It is used with the greatest success in the conditions of rapid change of market conditions and

production structure. This strategy is also called the strategy of active research and development and offensive marketing, because its use requires a thorough study of the market, organization of advertising campaigns, ensuring organizational adaptation of the enterprise to changes in the environment. The strategy used by small science-based firms is one of the varieties of strategy to capture market niches. Small science-based enterprises work in the field of the latest high technologies and are called risky, or venture capital. Many of them are created either by those scientists developing a new innovative idea or with their direct participation. Venture strategy is aimed at developing new technological solutions for the implementation of growth strategy in the form of intensification and diversification of the market. Corporations strive to create internal venture capital units, the basis of which is an independent pioneering group, whose activities are related to commercial risk in the field of research and development strategy. The internal venture is the most balanced and at the same time an effective strategy for penetrating new industries. Defensive strategy. The goal of this strategy is to protect its market share by counteracting the biggest threatening competitors. This kind of strategy is typical of an innovator firm that opens up a new market and is attacked by rival imitators. There are various options for defense strategy:

a) introduction of innovations and technologies to improve the product in order to complicate the problem of competitors;

b) intensive sales and commodity policy, in order to cover all segments of the market. The update of the technical base is part of the defense innovation strategy, which is that the company directs its actions to maintain competitive positions of the enterprise in the existing markets. Such a strategy should be followed if the firm is not prepared for big risks. The peculiarity of the strategy is that the company is being held behind the leaders, but does not lose its position.

Defining strategies is a process that takes into account all aspects of the external and internal functioning of the enterprise. The strategy is to plan all the most important actions (entrepreneurial, competitive, functional) that need to be

implemented to ensure the continued success of the organization. Setting strategies, it should be borne in mind:

1) types of reactions to changes in conditions in the external environment (in demand, competition levels, legislation, etc.) both threatening and favorable: protection against negative developments and promoting the implementation of positive trends;

2) options for allocation of resources between subdivisions, departments and directions of activity for the most effective use of them in facilitating the achievement of strategic goals; `

3) methods of competition in each of the directions of the enterprise's activity to ensure competitiveness of the enterprise and adequate response to the threat from competitors (including timely "leaving" from those areas of activity where the company has no serious competitive advantages and where there is a potential threat of survival);

4) options for accumulation (loss) of the necessary internal capabilities of the enterprise to ensure the competitiveness of the enterprise due to the greater balance of individual parts (subsystems) of production potential as the basis for achieving synergy of strategic directions of activity. Planning in these circumstances is a process where intellectual, intuitive and rationalist techniques coincide, allowing you to combine formal and informal aspects of governance to ensure that strategies are implemented to achieve their goals.

According to the functional approach to management, the planning, which is the main function, should be determined meaningfully and organizationally, depending on the conditions of the operation of the enterprise and the views of managers in place, the role and value of this function for the development of the enterprise. Strategic planning can be seen as a system of actions and decisions taken at the top hierarchical level of management in order to develop a strategic plan for a certain perspective, which contains concrete steps to implement the strategic goals and objectives of the organization. The strategic planning process relies on the results of implementation of previous stages of innovation

management - analysis and forecasting of innovative development of the enterprise. The most important principles of strategic planning are as follows:

1) adaptation of the innovative enterprise to the external environment;

2) stability, which ensures the right choice of the direction of development of science as an internal component of production, as well as markets of products;

3) market validity;

4) selectivity, allocation of key factors, problems and tasks of certain strategic zones of management (market segments), which allows to determine the priority directions of the organization's development;

5) variant of planned calculations in terms of achieving the goals of the organization, constant competitiveness, financial support and other criteria.

Development and implementation of the innovative strategy of a small firm is impossible without investments, so that the innovation strategy acted as a significant factor of efficiency, small entrepreneurship should consider the possibility of making interconnected investments in various spheres of its activity (development or acquisition of technological innovations; creation of a modern organizational and production structure; creation of a sales and marketing network). In the process of innovation, if it is clearly oriented to a certain object and take into account the impact of factors of the external and internal environment. The most characteristic indicators of innovation are: novelty, possibility of modification, possibility of diffusion, progressiveness, competitiveness, adaptability to new production conditions, as well as indicators of economic, social and environmental efficiency. These indicators affect the final results of the company's activity: the cost and price of products, its quality, sales and profits, the level of profitability. The success of the innovative strategy of the small enterprise depends on the scope and availability of the necessary resources owned by the enterprise, on the ability to quickly change, the flexibility of management and its adaptation to new conditions, the eccentricity of the created innovative solutions, the ability to evaluate and predict the commercial benefit, the effectiveness of organizational and management mechanisms through which

innovative projects are implemented, the level of development of innovative infrastructure that supports the activities of enterprises in this area. The strategy of the enterprise can be submitted in the form of a set of hypotheses about the causes and consequences. the evaluation system should clearly and clearly define the correlation between the goals and criteria for achieving them in different directions, so that they are real and can be managed. As a result, the design defines a specific set of strategies, each of which can be implemented using different, well-known methods. Of these sets, as a rule, one strategy is chosen according to a certain set of criteria. Based on this, a slightly different way of implementing an innovative strategy is proposed, namely, building a new strategy, which will include elements from all possible strategies. The selection criterion will not apply to the entire strategy, but to its individual elements, thereby reducing the probability of error to a minimum value. It is this, newly constructed strategy, called combined, that will be an innovative strategy to be implemented. To build a combined innovation strategy of enterprises, existing strategies need to be divided into elements. Elements of the strategy are a set of measures that serves as an impetus for the management of the enterprise, that is, those measures that are carried out during the operation of the enterprise. A method known as a "balanced scorecard" (AFP) or Norton-Kaplan model is used to divide the strategy into elements. our task does not include the implementation of the strategy using this method, namely the construction of strategic maps, they are described in detail in the scientific literature. It is necessary to adapt the AFP for its own purposes, building a combined innovative strategy of the enterprise the main purpose of this concept is to implement strategic benchmarks of the company's management in the realities of economic activity, as well as the logical combination of a defined strategy with costly indicators and current activities. The study proposes as the most complete and appropriate for most Ukrainian enterprises the algorithm of application of a model of a balanced scorecard in the formation of an innovative strategy. Algorithm of implementation of innovation strategy with the help of AFP. Determination of key stages of activity of the

enterprise. To implement the innovative strategy of the enterprise, it is necessary to highlight the main aspects of its activities, selecting those that will be considered in the construction of the model. Norton-Kaplan's initial model contains four aspects; financial aspects, customer relationships, organization of internal business processes, training and development.

Norton-Kaplan model Source: compiled on the basis of developing innovative strategies, it is necessary to take into account the following features:

1) enterprise strategies are influenced by changes in the environment. They can shape these changes themselves with their active influence or respond in the form of a reaction (adaptation strategy). Environmental changes may be one that has already come, or are still only expected.

2) strategies provide an opportunity to establish how the existing potential can be put into effect, taking into account the existing and expected in future strengths and weaknesses in order to fulfill the intentions of the enterprise.

3) the company's strategies provide only a general direction in which the enterprise develops. Therefore, they should be supplemented with measures of tactical order.

4) The purpose of the company's strategies is to create a sustainable success potential taking into account its advantages over competitors. Technical re-equipment is becoming increasingly important for production in today's market economy. Competition in the market every year becomes more stringent and requires the manufacturer to strengthen its position in various aspects. In particular, an important point is the need for technical re-equipment. Thanks to its implementation, the production process is accelerated, costs are reduced and the quality of products is improved. It is due to the best quality that the demand for the company's products can increase. Technical re-equipment - a set of measures that are carried out in the absence of expansion of production, aimed at improving the technical and economic level of some productions, works on the basis of the

introduction of the latest technologies, equipment, automation of production, renewal and replacement of outdated equipment in order to improve the efficiency of the production process, improve production capacity, expand the range and improve the quality of products, which in turn will increase productivity, reduce the number of materials used and production cost , saving resources. The defense strategy helps to maintain competitive positions in the markets already mastered by the enterprise. A characteristic feature of this strategy is finding the optimal value of such indicators - "costs - result" in the process of innovation activity. The main goal of the defense strategy through technical re-equipment is the firm's timely response to the actions of competitive companies and the analysis of technical innovations in the field of enterprise activity.

According to the study, we can say that the innovation strategy is a coherent essence of management decisions that affect the innovation activities of the enterprise and have long-term consequences. The innovative strategy ensures the dynamic development of the enterprise, influences the choice of the overall strategy, determines the type of the latter. In nature, there are six types of innovative strategy of the enterprise: offensive; protective; imitation; dependent; traditional; "on occasion".

All these species are divided in turn into subspecies. Each of these strategies has both advantages and disadvantages. The development of an innovative strategy involves the adoption of strategic tasks (goals), assessment of opportunities and resources for their use; alternat analysis; preparation of specific programs, projects, budgets; assessment of the strengths and weaknesses of the company's activities taking into account the chosen goals. An important stage of developing an innovative strategy and planning. the main principles of planning are the adaptability of the enterprise to the chosen market; stability as the key to choosing the right strategy; market validity; selectivity, analysis of key problems and tasks; compliance with the strategy objectives to the objectives of the enterprise. Thus, the success of the innovative strategy of small enterprise depends

on the amount of necessary resources owned by the enterprise, on the ability to quickly change, flexibility of management, eccentricity of created innovative solutions, ability to evaluate and predict commercial benefit, efficiency of organizational and management mechanisms through which innovative projects are implemented, the level of development of innovative infrastructure that supports the activities of enterprises in this area. Summing up the above, we can conclude that the choice and development of a strategy is a complex process to which a reasonable approach is needed.

1.3. Factors affecting the organization activity

The external and internal environments are completely different in different enterprises, although they have certain common elements. For example, the external long-distance environment for enterprises operating in the same geographical region and in the same industry will be virtually identical. This environment creates a lot of uncertainty for enterprises and consists of a huge number of variables, combined in a complex set of dynamic factors of the environment. Each factor in such an environment has a different degree of permanence and frequency of change, and they vary from country to country. Each specific enterprise will evaluate these factors in its own way and, based on this assessment, form its own list of factors and their priorities for the organization.

Typically, the external far-funded environment highlights the following, common to all organizations, which are: political, economic, social and technological components. These components and will represent the main factors of the external long-term environment, having a significant impact on strategic planning in the enterprise. Each factor is a set of elements, and each particular enterprise determines its own set, the most significant elements for it, depending on the specifics of the enterprise itself. Businesses need to evaluate these factors not only at the moment, but also make long-term forecasts for future changes in these factors, with an assessment of their future impact on the entire organization, both collectively and individually.

Every component of the external long-distance environment is of high importance in strategic planning at the plant. The political component, which is characterized by political stability within the state in which the enterprise operates, will be of great importance for the projected and sustainable development of the organization. A good understanding of the political environment allows the company to significantly reduce risks in the decision-making process. A detailed analysis of the political environment allows us to

assess and understand the direction of the state's policy-making and the tendency to change it in various areas and, above all, in those areas that directly relate to the economic activities of the organization. In addition, changes in the regulatory framework governing economic activity need to be constantly monitored, as well as the prospects for various legislative initiatives, to varying degrees, relating to the enterprise.

The economic component of the long-term external environment seems to be a large economic environment of the enterprise. It is clear that for any enterprise to operate successfully, the importance of the economic environment will be obvious and huge, and it is necessary for strategic planning in the enterprise to have an understanding of it. The view of the economic environment is based on its analysis and includes not only current macroeconomic indicators such as inflation, employment, GDP, GNP, etc., but also a forecast of their changes and impact on the organization. Also an important task of economic analysis is the task of determining the stage of the economic cycle in which the national economy and its individual industries are located, as well as the forecast of the transition to the next stage. The potential success of the company will largely depend on the accuracy of the definition of different parameters of the economic environment, as well as on the forecast of their further changes. And on the basis of the analysis of the economic environment, the appropriate component of the overall strategy of the enterprise will be formulated.

The sociocultural factors of the company's external long-distance environment, united in its social environment, also have a significant impact on the efficiency of strategic planning and, as a result, on the strategic development of the company. To assess the social environment, the company must conduct a detailed analysis of it, which pays attention to all the necessary indicators of sociocultural nature, such as population demographics, income levels and distribution by income, level of education, national traditions and customs, etc. It

is worth noting that not all indicators of the sociocultural environment are quantifiable.

The technological component of the external environment also has a significant impact on strategic planning at the plant. Based on the analysis of the technological environment, it is possible to draw conclusions about several aspects of the company's development, such as the company's strategy in the field of research and development, the forecast of the development of scientific developments in the areas of interest and the comparison of the technological and scientific capabilities of the enterprise with the capabilities of competitors. Characteristics such as government spending on science and research, government priorities in spending on science, public science policy, etc. will also be of significant importance in the analysis of the technological environment.

The data that the company receives from the analysis of the components that make up the external long-distance environment, as well as the various forecasts based on this data, allow the enterprise to carry out effective strategic planning and in unstable market conditions allow the organization to prepare for the projected changes in the external environment and use them to the maximum benefit.

The external long-distance environment is, in fact, common to all enterprises that carry out their economic activities in one geographical region, but in addition to it, the external environment of the organization includes a near-competitive environment, which is largely specific to each organization. This environment is a market environment of the enterprise, which is engaged in interactions between all stakeholders who are involved in its business activities in one way or another. And it is obvious that the external competitive environment will also have a significant impact on the strategic planning process in the enterprise. And the main factors in this environment influencing strategic planning are well described by M. Porter[6]:

The level of competition in the industry

1. The influence of buyers.

2. Supplier influence.

3.The possibility of new competitors.

4.The possibility of replacement products.

The level of competition in the industry is a basic factor of the external competitive environment in the implementation of strategic planning in the enterprise. This level is characterized by the struggles waged by industry organizations, and each organization strives for a better position and is ready to use all the tools at its disposal. Businesses are usually quite resilient to the current level of competition in the industry, they know their place well in the industry and their competitors. The intensity of competition in different industries is different and is determined by the large number of conditions:

1. Number of active competitors, their size and market share.

2. The growth rate of the industry.

3.The degree of differentiation of the products of the industry.

4.The level of fixed costs.

5. Industry product category. For example, if the products of the industry fall into the category of perishable, the cost of storing stocks of finished products is significantly increased.

6. The pace of growth in production capacity in the industry.

7. The presence of barriers to exit from the industry.

8. Differences in industry strategies.

Over time, the structure and composition of industries change, the rate of growth and the level of profitability change. Knowledge about these conditions is necessary for the enterprise for successful strategic planning, and it is necessary to be able to predict changes in these conditions in order to use them to their advantage.

Also, a significant factor is the degree of influence of buyers on the industry. In order to reduce prices or improve the quality of products of the industry, groups of buyers have a permanent influence on the industry. The ability of buyers to exert this influence will depend on a number of conditions:

1. Scale of purchases of buyers.

2.The level of differentiation and standard of the industry's products.

3. The level of the cost of the industry's products in the products produced by the buyers themselves, provided that the products of the industry are an integral part of the buyer's products.

4.The level of buyer costs associated with the purchase of industry products.

5. The quality of the industry's products is based on the products the buyer produces.

6.The ability of the industry's products to save the buyer's money.

7. Threats of re-integration, which buyers can implement, in the production of products of the industry.

8. Awareness of buyers about the cost structure of the industry.

All these conditions should be considered in detail when assessing the impact factor of buyers and taken into account in the implementation of strategic planning in the enterprise.

The impact of suppliers should also be taken into account in strategic planning. Suppliers are able to put significant pressure on the industry by increasing the prices of goods supplied and reducing their quality. They can significantly reduce the profitability of the industry and increase costs. The impact of suppliers on an industry will depend on a number of conditions:

1. Supplier numbers and concentration.

2. Degrees of differentiation and uniqueness of supplier products and from the level of switching costs.

3. The level of competitive pressure from other products.

4. Supplier opportunities to integrate forward into the business industry.

5.The importance of the industry to suppliers.

All these characteristics greatly help to understand the level of influence of suppliers on the industry. This information, of course, must be taken into account in order to achieve the maximum understanding of the environment in the industry in strategic planning in the enterprise.

Such a factor as the possibility of new competitors in the industry must be taken into account in the implementation of strategic planning in the enterprise. With the advent of new enterprises in the industry, the situation can change radically, up to the shock of the entire market. With new enterprises, new resources and new production facilities, the level of competition and the position of individual enterprises can change significantly. The possibility of new competitors varies depending on the type of industry, its profitability and the

availability of barriers to entry. Porter highlights a number of conditions that affect entry barriers, and therefore the possibility of new competitors:

1.Savings by scale.

2.Product differentiation.

3.The need for capital.

4.High fixed costs.

5.Access to distribution channels.

6.Government policy.

7.The growth rate of the industry.

If the industry has real potential to counteract the emergence of new industry participants, it can also be an additional condition influencing the emergence of new competitors. Such potential may be the availability of large free cash, additional production capacity, well-established distribution channels, the potential for price reduction, etc.

The impact of the possibility of replacement products should also be taken into account in strategic planning. The emergence of substitute products will set limits for price increases in the industry and will significantly limit the industry's potential. The potential profitability of the industry will be more severely limited, the more attractive the ratio of "price-quality" of the substitute product. When planning, you need to pay attention and constantly monitor the industries that produce potential substitute products. It is necessary to monitor the level of competition in such industries, to monitor the level of prices there, as well as the introduction of various developments that can lead to increased quality and productivity. In such situations, the impact of products produced by these

industries on the products of the industry will increase sharply, which may negatively affect the situation in the industry in general and the situation of the company in particular. The possibility of replacement products for different industries will be different, and the development of the strategy should pay attention to this external environment factor to the extent that it is appropriate depending on the type of industry.

From a strategic point of view, information on environmental factors is necessary in order to respond as effectively as possible to various external threats and to use the available opportunities, to position ourselves in the market, in accordance with its shortcomings and advantages, to adequately assess their current situation and possible development prospects. Also, this information will allow to plan and implement various strategic maneuvers that will allow the organization to improve its market position. By predicting changes in environmental factors, as well as responding to these changes in a timely manner, the enterprise can gain a significant competitive advantage by choosing the most appropriate external strategy.

In addition to environmental factors, the strategic planning process will be significantly influenced by the company's set of benchmarks. These landmarks largely define the future of the enterprise and represent the ideals, goals and objectives facing the organization. Ideals are landmarks that encourage the organization to achieve a certain state that it will try to achieve but which, in fact, will never reach. Ideals are largely abstract and have no quantitative expression. But at the same time, they should be clear to all stakeholders. The ideals of the organization are a vision and a mission. Vision is a certain guiding concept or philosophy that defines the distant future image of the enterprise. This image is formed in the head of the top manager or owner of the company and conveyed to the rest of the managers. The mission is a well-defined raison d'etre of the organization, clearly understood by all stakeholders, both inside and outside the organization.

The goals, as opposed to ideals, are specific and defined guidelines of the enterprise. Achieving the goals is necessarily in full, as only in this case it is possible to move the enterprise to the planned state.

The internal potential of the company itself will also have a significant impact on strategic planning. Internal capacity is a large set of different elements, and each of these elements is a separate factor influencing strategic planning. By and large, the company's internal potential can be represented by a combination of its resources and competencies in various areas of activity.

Changes in the competence of an enterprise relating to its various activities, both core and subsidiary, can have a significant impact on both the organization's current position and its future. These changes may cover a variety of activities in the organization, including management, financial support, technology, manufacturing, marketing, logistics, and others. Accordingly, changes in the competency of the enterprise, and even potentially possible and/or projected changes in competencies, will also be significant factors that need to be taken into account in strategic planning.

Also, an important factor in the internal environment of any enterprise, influencing strategic planning, will be its resource potential. The resource potential can be represented by a combination of material, intangible and human resources. Material resources are divided into physical and financial resources. All of these components of the enterprise's resource potential, both individually and collectively, can have a significant impact on organizational strategic planning and must be taken into account in the development of an organization's strategy. To do this, all the company's resources must be properly assessed, not only in quantitative but also in qualitative terms.

Any organizational processes in the enterprise are subject to the decisions of certain people. The most significant of them, which includes strategic planning,

are subject to the decisions of senior business leaders. Thus, the personal and business qualities of decision makers will also be a factor influencing strategic planning. The manager will determine the allocation of resources available to the company in key areas of activity and on its decisions, knowledge, flair and skills will ultimately depend on the successful development of the organization and its future prospects. His decisions will form the foundation of strategic planning, they determine the very direction of this planning in certain areas of business.

An important factor in strategic planning at the company is the accumulated experience of the company itself. An integral and important part of any company is its past experience. This experience has an impact on all areas of the organization's activities, not excluding strategic planning. On the basis of past experience, strategic decision-making will be adjusted, because strategic planning is, at its core, the formation of a plan for the future, which is largely based on the past.

Thus, the combination of factors that have a major impact on the strategic planning process in the enterprise is a variety of factors in the external and internal environment. It is worth noting that there are a lot of factors, and it is not possible to reflect them absolutely everything. The number of these factors will vary significantly depending on the industry and the type of enterprise itself. However, the most significant factors in most enterprises will be roughly the same in nature and substance, although their influence and strength will vary greatly. The more such factors are properly studied, researched and evaluated, the more likely it is that effective decisions will be made in strategic planning.

CHAPTER 2. ANALYSIS OF THE ENTERPRISE'S ACTIVITY FOR DEVELOPMENT INNOVATION STRATEGY

2.1. General feasibility characteristics of the enterprise.

LLC “Rempobuttechnica” plant is well known to the indigenous people of Ternopil, although most of them are surprised that the enterprise is still operating. LLC “Rempobuttechnica” plant was re-purchased and renamed the OP Factory “Rempobuttechnika”, and on June 1, 1995 at the LLC “Rempobuttechnica” plant. This enterprise is located in the industrial zone of Ternopil and belongs to the production sector.

Full name of the company: Limited Liability Company Factory “Rempobuttechnika”
EDRPOI Code: 03056917;
Location: Ternopil, Tekstylna street, building 32;
Working hours: Monday-Thursday 08:00-17:15; Friday 08:00-16:00;
Form of ownership: private;
Authorized Capital: 12,000,000 UAH;
Director: Slobodianiuk Liudmyla Panteleimonivna;
Main activity: production of other finished metal products (25.99).
Other activities: production of electrical devices (27.33); production of other electrical equipment (27.90); precious metals production (24.41); production of electrical distribution and control equipment (27.12); activities of intermediaries in the trade of goods of a wide range (46.19); freight transport (49.41); other auxiliary activities in the field of transport (52.29); lease and operation of own or leased real estate (68.20); provision of cars and vehicles for rent (77.11); leasing trucks (77.12).

Table 2.1. Basic information about LLC “Rempobuttechnica” plant

The Company is established and acts in accordance with the Constitution of Ukraine, the Civil Code of Ukraine, the Commercial Code of Ukraine, the Law of Ukraine "On Economic Associations", other legislative acts of Ukraine and provisions of the Charter.

Currently the company has about 160 employees and has a fairly clear and well-organized organizational structure.

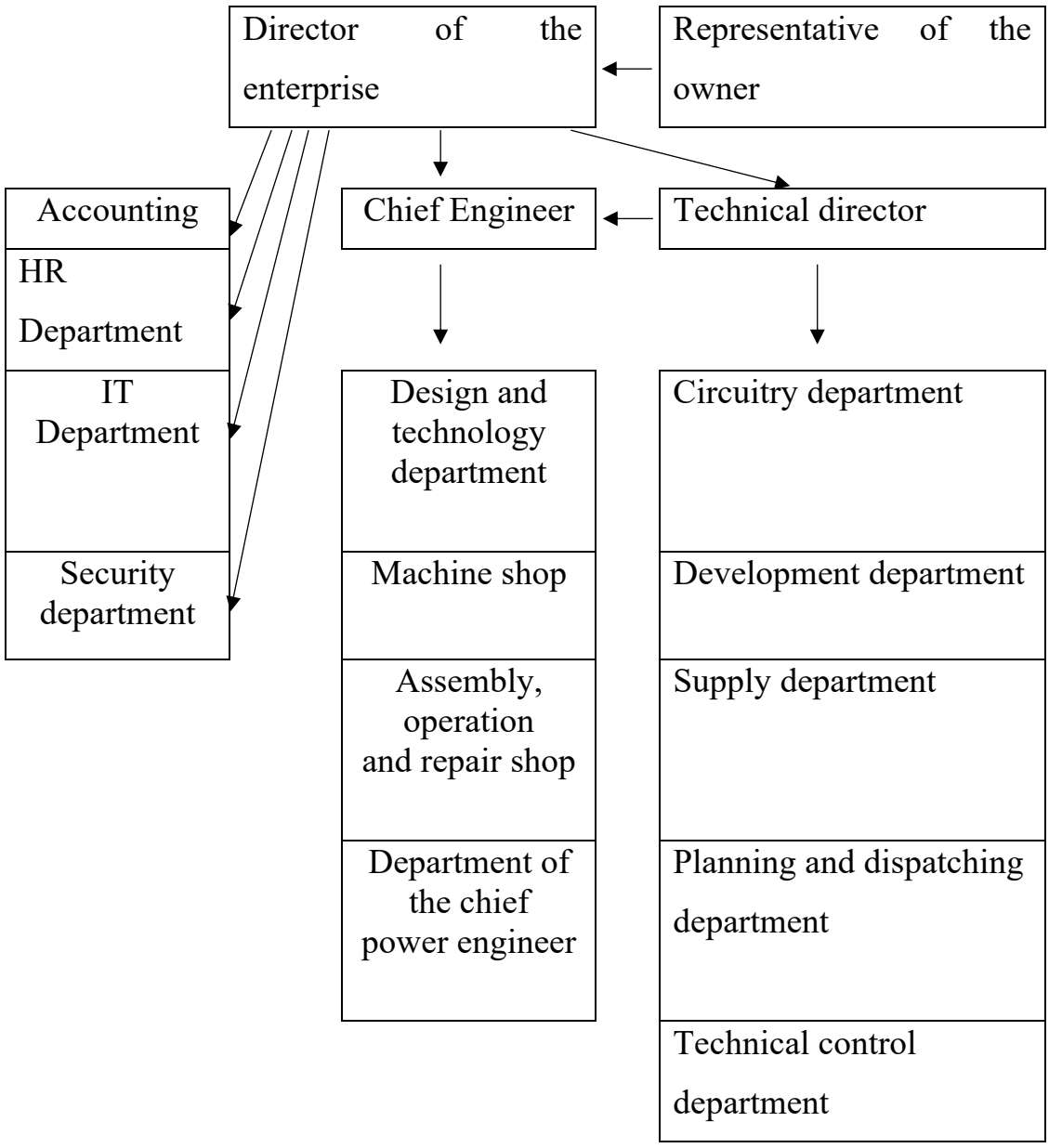

Table 2.2. Organization structure

The company specializes in providing high-quality services at prices available to a wide range of consumers in the following areas:

1. Metal processing of different complexities:

- production of parts on modern punching presses and machinery of laser cutting of metal;

- cutting metal

- guillotine (mechanical scissors)

- bending details of different complexity

- post-a-letter press, crooked-shattered presses;

- welding works of various complexity, including argon welding;

- turning and milling works of high accuracy and complexity on software control equipment.

2. Painting parts (coating line of products powder paint & drying chambers)

3. Production of various parts and products made of plastics (casting on thermoplastic machines).

4. Pro of different complexity with the use of modern software complexes.

5. Manufacturing, assembly of painting and installation of products - welding electronics, mechanics, welding, soldering, painting, etc. (involving own materials and components or from materials and components of customers).

6. Development, design and manufacture of products to order or involving technical documentation of the customer.

The strategic purpose of the activity is outlined in the following:

- improvement of qualitative and technical characteristics of products and parts, guaranteeing their long-term reliability;

- gradual increase of production volumes, expansion of the range of metalworking products;

- constant introduction of innovative technical and technological solutions ("know-how", modern inventions and rationalization proposals);

- expansion of the range of regular clients and partners;

- development of new types of metal processing services that would meet world standards, through the introduction of advanced technologies and the use of the latest equipment of the world's leading manufacturers.

The chief economist and technical director are responsible for the innovative activity and implementation of the latest technologies. The necessity of innovative entrepreneurial activity is due to: the needs of increasing the technical and technological level of production; increasing costs and deterioration of economic indicators of the enterprise; moral aging of technology and technology; increasing production efficiency on the basis of the introduction of new equipment; economic feasibility of strengthening intensive factors of production development on the basis of the use of achievements of scientific and technical progress in all spheres of economic activity;

The requirements of international standard ISO 9001:2015 Quality Management Systems and ISO 14001:2015 Environmental management systems have been implemented at the production.

Pic. 2.1. and Pic. 2.2. ISO 9001:2015 Quality Management Systems and ISO 14001:2015 Environmental management systems certificate

2.2. SWOT-analysis of the industrial and economic activity of the enterprises

Strengths	Weaknesses
1) The average enterprise with about 140 employees, while most providers of such goods and services have up to 50 employees – greater production capabilities and capacities; 2) Possibility to create drawings for individual order of any complexity and taking into account all wishes; 3) Good value for money; 4) Effective product quality control system; 5) High competitiveness; 6) Clear organizational structure.	1) Absence of a marketer or person who will promote the company's products and services and have a clear plan of action based on detailed planning and analysis; 2) Lack of ability to connect with units without a call to the secretary (dictated by a separate phone of the desired person) – the potential client loses the vision of production as a serious technical production with a good organization of work); 3)Seasonality of personnel (production specialties are in demand in the market of Poland and Germany, so with the advent of spring workers massively travel abroad and return in winter); 4) Lack of motivation of personnel and training programs; 5) A large number of employees over 35 years of age – in turn, the absence of a new vision of the enterprise and development; 6) Strict conditions on non-disclosure of customers and production of projects make it impossible to collect photos for the portfolio of works.

Table 2.3. SWOT-analysis of LLC "Rempobuttechnica" plant

Continuation of Table 2.3.

Opportunities	Threats
1) Increasing profit and popularity through the creation of a strong brand; 2) Increase size to big business; 3) Clear adjustment of calculations of the cost of the work performed taking into account risks for the enterprise, which will minimize receipt of orders with delays - creation of an image of a reliable manufacturer; 4) Title of monopolist in the Ukrainian market; 5) Entering the international market; 6) Increasing participation in tenders is an opportunity in large orders.	1) Possibility of devastation due to difficult economic situation; 2) Loss of motivation of employees – increasing errors in work; 3) Raising the price of materials, which in turn will increase the prices for services of the enterprise – may decrease the number of orders; 4) Invention of other companies' cheaper way of making similar products or providing the service is cheaper than this enterprise; 5) Deterioration of the quality of goods and services. 6) Increased competition, and subsequently, the complete displacement of the firm.

2.3. Analysis of the subject

Commodity policy: the company sells goods for interested in these services of a range of consumers – the available targeted marketing. That is, the approach to market segmentation is based on the specification of products.

Pricing policy of the enterprise: the pricing process at the enterprise includes determining the level of demand for products or services of a certain type, estimation of production costs, analysis of competitors' prices, choice of pricing method, calculation of the output price of the product, calculation of price with additional factors, and the final stage is the final price setting.

Sales policy of the enterprise: at the enterprise, the reception of orders is carried out by phone, on personal visit of the customer to the enterprise, and online - from the sites prom.ua, https://zavod-rempobuttehnika.prom.ua, https://rpbt.com.ua, using the form of communication, and quite rarely from the company's Facebook page, carries informational character - https://www.facebook.com/rempobuttehnika/. As such sales channels the enterprise does not – there is no export or wholesale trade, all exclusively on orders.

Communication policy: commodity advertising is present. On a regular email basis, enamel marketing is used on the basis of clients of the enterprise and target potential customers.

Analysis of financial and economic indicators of the enterprise

For financial analysis, the financial indicators for 2017, 2018 and 2019 years were evaluated. A sample report for 2019 is available in the appendix (Appendix A)Assessment Property status (table 2.4). In the year 2017 this coefficient was 0.42 (42%), in 2018 – 0.41 (41%), and in 2019 it was 0.40 (40%). This means that the physical and moral depreciation of the fixed assets of year 2018 exceeds the depreciation of fixed assets in 2017 Year by 1% (42%-41%), and compared to 2019 by 2%. There is a decrease in the positive indicator.

x	Indicator	Formula	2017	2018	2019
1.	Assessment of property status.				
1.1	Coefficient wear of fixed assets	Depreciation of fixed assets/initial cost	0.42	0.41	0.40
1.2	Coefficient assets mobility.	Mobile Assets/non-mobile assets	0.59	0.54	0.65
1.3	Share of fixed assets in assets.	Residual cost/assets	0.51	0.51	0.49
2	Evaluation of financial status.				
2.1	Current liquidity ratio.	Current Assets/Current liabilities	11.71	9.54	3.53
2.2	Maneuverability of own working capital.	Funds/own Working capital	0.05	0.003	0.007
2.3	Equity in the total amount of liabilities.	Equity/Passive	0.96	0.96	0.70
2.4	Concentration coefficient of borrowed capital.	Loan Capital/Liabilities	0.044	0.044	0.14
2.5	Inventory Coverage Ratio	Liabilities/Stocks	1.67	1.40	1.24
3	Signs of "disease" in the reporting.				
3.1	Uncoated losses	F. 1 R. 350	16335	17786	18859.3
3.2	Unpaid capital	F. 1 R. 360	0	0	0

3.3	Withdrawn Capital	F. 1 R. 370	596	0	0

Table 2.4. Assessment Property status

In 2017, this coefficient was 0.59 (59%), and in 2018 – 0.54 (54%). This means that in 2018 the potential for the conversion of assets into liquid funds is than 2018, but in comparison with the age of 2019, the figure was increased. In 2019 compared with two years, this figure decreased, which is positive.

In 2017 coefficient of current liquidity coefficient was 11.71 (117.1%), and in 2018-9.54 (95.4%). This means that in 2017 years the company had to 21.7% less money to repay debts during the year than 2018.

Maneuverability of own working capital. This indicator shows the share of absolutely liquid assets in their own working capital. In 2018 compared to two years, the liquidity of assets in its own funds is much reduced, which is negative.

The share of equity in the total amount of liabilities. In 2017 as in 2018, the company had single own assets. And in 2018 the rate dropped, which is negative.

Coefficient of loan capital concentration. In 2018, the figure dropped, which is positive. This indicates that in 2018, the unit of aggregate sources accounted for 30% less loan capital than 2017 and 2018.

Coefficient cover Stocks. In 2017 coefficient was 167%, and in 2018 140%. This indicates that in 2017 year on the unit of funds invested in stocks accounted for 27% less than the term and short-term liabilities in terms of 2018.

№	Indicator	2017	2018	Growth rate, %	Deviation
1	Cash and cash equivalents (f1r230 + 240)	605	41	6.78%	-564
2	Cash in national currency (1p 230)	220	41	18.36%	-179
3	Specific Gravity 230/ (230 + 240) * 100%	36.36	100	-	-
4	Cash in foreign currency (1p 240)	385	0	0.00%	-385

5	Specific gravity 240/ (230 + 240) * 100%	63.64	0	-	-

Table 2.5. Analysis of the volume and composition of cash flows

In this enterprise there is a decrease in monetary funds and cash equivalents during the year indicators decreased: in national currency by 179 thousand. UAH, in foreign 385.

№	Indicator	2017	2018	Deviation
1	Proceeds from sales (2p 035)	15380	14910.8	-469.2
2	Average GA size (per year) (1p230 + 240)	605	41	-564
3	Turnover of Monetary assets (360 * HA/b) (in-Revenue, indicator 1)	14.16	0.99	-13.17
4	Turnover of Monetary assets in the Ranch	25.42	363.68	338.26

Table 2.6. Analysis of the volume and composition of cash flows

The enterprise effectively uses funds as the turnover of monetary assets decreased by 13.17 days, but increased by 338.26 times, i.e., has increased the number of capital turnover for the production cycle.

Bankruptcy forecasting

1) z-model Altman

z = 1, 5x1 +1, 4x2 +3, 3x3 + 0, 6x4 + 1x5

X1 = WOK/Total Asset value

x2 = Retained Earnings/Total asset value

x3 = Financial result from operating activities/Total asset value

x4 = VK/Current Liabilities

X5 = Net revenue/Total property value

Z is equal to 2017, 10.33, in 2018 -7.52. During the reporting period, a negative indicator is reduced. This trend in the future could bring bankruptcy.

2) Springfield Model

z = 1, 03A +3, 07B + 0, 66C + 0, 4D

A = WOK/Assets

B = profit before tax and%/general assets

C = Profit before paying taxes/short-term (current) liabilities

D = Net revenue/general assets

The z is equal to 2018, 0.77, 2019 – 0.39. On calculated indicators, it is possible to conclude that the enterprise is not a potential bankrupt, but there is a negative tendency to decrease.

3) Forest model

z = 0, 063A + 0, 92B + 0, 057C + 0, 01D

A = Circulating Capital/general assets

B = Operating income/general assets

C = Net income/general assets

D = VK/Borrowed capital

Z is equal to 2018 Year 0.25, 2017 – 0.23. The value of designed for indicators is more regulatory, so the bankruptcy is impossible, there is a negative trend.

4) R – model

R = 8, 38k1 + k2 + 0, 054k3 + 0, 63k4

K1 = turnover Capital/assets

K2 = Net profit/VC

K3 = Sales Revenue/Assets

K4 = Net profit/integral cost

The R is equal to 2017 0.12, 2018 – 0.08. the value of coefficients on average is 0.1, which indicates the probability of bankruptcy.

Integral indicator of the financial state of the Enterprise

$$R_i = \sqrt{(1 - x_{1i})^2 + (1 - x_{2i})^2 + (1 - x_{3i})^2} \quad (2.1)$$

And the financial state of the enterprise in 2018 was 2.79 traced positive trend, as it is better for the enterprise, when this figure is approaching zero. Already in 2019, the figure decreased to 1.47.

Indicator		**Formula**	**2017**	**2018**	**Xij = AIJ/AIJ (NK)**	
					2008	2018
1	Coefficient wear of fixed assets	f1rz032/f1r031	0.42	0.41	1	0.98
2	Share of fixed assets in assets	f1r030/f1r280	0.51	0.51	1	1
3	Coefficient Asset Mobility	f1r260 + 270/fluoro080	0.59	0.54	1.09	1
4	The share of long-term financial investments in assets	f1r040 + 045/f1r280	0	0	0	0

	Share of circulating production assets	F1P100 + 120 + 270/f1r280	0.2	0.22	1	1.1

Table 2.7. Indicators of property status assessment

1	Own turnover funds (working, functional capital)	f1r2380 + 430 + 630 + 480-080	11824	12087	1	1.02
2	Share of fixed assets in assets	F1P100 + 120 + 130 + 140/f1r380 + 430 + 630 + 480-080	0.63	0.76	1	1.21
3	Coefficient financial independence (autonomy)	f1r380 + 430 + 630/1r640	0.96	0.96	1	1
4	Coefficient financial dependence	f1r640/f1380 + 430 + 630	1.05	1.05	1	1

5	Coefficient financial stability (coefficient funding)	f1r380 + 430 + 630/f1r480 + 620	21.91	21.78	1	0.99

Table 2.8. Financial Sustainability Assessment indicators

1	Current (coverage) coefficient liquidity	f1r260/f1r620	11.71	9.54	1	0.82
2	Coefficient liquidity Fast	f1r260-(100 + 110 + 120 + 130 + 140)/f1r620	4.56	2.74	1.66	1
3	Liquidity coefficient Absolute	f1r230 + 240/f1r620	0.55	0.03	1	0.06
4	The ratio of short-term receivables and accounts payable	f1r160 + 170 + 180 + 190 + 200 + 210/f1r520 + 530 + 540	6.2	8.7	1	1.4
5	Coefficient availability of own capital	f1p380 + 430 + 630-080/fr1r260	0.88	0.87	1	0.99

Table 2.9. Liquidity Indicators

1	Profitability of sold products by operating profit	F1P100/f2r035	0.08	0.09	1.89	1
2	Profitability of sold products at profit from the sale	fr2r050-070-080/f2r035	0.41	0.31	1.32	1
3	Profitability of sold products at a net profit	f2r220/f2r035	0.11	0.08	1.38	1
4	Return on capital	fr2r220/f1r280 (average value)	0.03	0.01	3	1
5	Roi	f2r220/f1r380 + 430 + 630	0.05	0.03	1.67	1

Table 2.10. Indicators of profitability

1	Turnover of assets (turnover), resource-giving, coefficient transformations	fr2r035/f1r280	0.45	0.37	1.22	1
2	Return on assets	fr2r035/f1r030	0.87	0.74	1	0.85
3	Coefficient turnover of workingcapital (turnover)	fr2r035/fr1r260 + 270	1.25	0.99	1.26	1
4	Coefficient turnover of stocks (turnover)	fr2r040/f1r100 + 120 + 130 + 140	1.61	1.05	1.53	1

5	Coefficient turnover of finished products (revolutions)	fr2r035/f1p130	162.4	76.98	2.11	1

Table 2.11. Indicators of Business activity

Criteria	Categories							
	Manufacture and assembly of telecommunication cabinets type Indoor		Milling and engraving services		Metal bending and cutting services		Plastic casting services	
	Score (0–9)	Weighted assessment	Score (0–9)	Weighted assessment	Score (0–9)	Weighted assessment	Score (0–9)	Weighted assessment
Market attractiveness								
Market size and	0,15	8	1,2	6	0,9	8	1,2	8

growth rate								
Industry profitability	0,15	8	1,2	7	1,05	7	1,05	9
Intensity of compe-tition	0,15	7	1,05	6	0,9	2	0,3	5

Table 2.12. Analysis of innovative activity of the enterprise

Continuation of Table 2.12.

Seasonal and other fluctuatio ns	0,05	6	0,3	3	0,15	2	0,1	4
Technolo-gical require-ments	0,10	7	0,7	6	0,6	5	0,5	7
Need for invest-ment	0,10	7	0,7	7	0,7	6	0,6	7
Environm ental impact	0,05	5	0,25	4	0,2	7	0,35	5
Opportuni ties and threats	0,15	6	0,9	6	0,9	3	0,45	6
Barriers to entry and exit from the industry	0,10	5	0,5	4	0,4	2	0,2	4

Total estimate	1,00		6,8		5,8		4,75	
The power of business								
Relative market share	0,20	6	1,2	6	1,2	3	0,6	8

Continuation of Table 2.12.

Relative cost	0,15	8	1,2	5	0,75	4	0,6	7
The ability to compete at prices	0,10	6	0,6	7	0,7	4	0,4	3
The ability to compete in quality	0,10	8	0,8	6	0,6	4	0,4	4
Consumer and market knowledge	0,10	9	0,9	7	0,7	6	0,6	7
The strengths and weaknesses of the organization	0,15	6	0,9	7	1,05	5	0,75	5
Technical and technological capabilities	0,10	6	0,6	8	0,8	6	0,6	7

Management level	0,10	8	0,8	6	0,6	4	0,4	8
Total estimate	1,00		7		6,4		4,35	

Political factors	Economy factors	Social factors	Technological factors
Market regulation of the economy; A significant number of state groups; Insufficient number of required personnel.	Significant level of inflation; Declining consumer incomes	Declining education is a problem of developing new technologies.	Rapid pace of scientific and technical changes

Table 2.13. PEST Analysis

The company is more influenced by political and economic factors. This indicates significant political and economic instability in the country.

Winner 1 Manufacture and assembly of telecommunication cabinets type Indoor	Winner 3 Plastic casting services	Question
Winner 3 Milling and engraving services		Loser 1

	Metal bending and cutting services	
Profit maker	Loser 2	Loser 3

Table 2.14. BCG matrix

The directions of the company's business with the highest score are included in the zone of winners 1, 2 and 3. Thus, taking into account the values of the indicators of the attractiveness of the market and the strength of the business, it can be concluded that at present and in the future, they are effective - Manufacture and assembly of telecommunication cabinets type Indoor and plastic casting services. Metal bending and cutting services – problematic one.

CHAPTER 3. PROJECT AND CALCULATION

3.1. Recommendations concerning the topic, for economic activity improvement and for management of the company

The strategic planning highlights four main directions for the further development of the enterprise:

1) Development (creation) of new types of products, i.e., development, production and sale of new products on existing markets for the enterprise;

2) Expansion of sales markets, i.e., sale of manufactured goods in new markets;

3) Diversification of production and sales activities, i.e., the development and production of new products with the subsequent sale in new markets.

If, for example, the company has set itself to cause further growth, and manufactured products well proven among consumers and is quite flexible in demand, then such an enterprise can choose a strategy-a further promotion of the market and tactics-lower prices.

The task of the further development of the enterprise can also be solved by developing (creating) new types of products, which requires the cost of technological research, or expansion of markets, which requires the marketing costs of these markets. If the environment of this enterprise is represented by relatively small firms that differ in their market orientation and technological possibilities, it is possible to choose a diversification strategy, trying to buy or control other firms.

One should also keep in mind the following peculiarities of the enterprises' behavior.

To survive, they apply different variants of strategies that provide:

- spraying of risk, i.e., implementation of their operations not on one, but in several markets, as well as production of a number of goods of a wide range;

- adaptation to the changing conditions, i.e., investing in marketing, searching for opportunities to issue new products in order to react promptly to the change of the external environment;

- passive marketing, that is the refusal of an attack on a competitor's position, and hence-the absence of risk of a counter strike;

- targeted deductions from profits, that is, the creation of appropriate reserves resulting from a successful commercial activity on the "Black Day".

Once the strategy of further development of the enterprise is finally chosen, it is the masses to be transformed into a specific operational plan for marketing, production, investment, profit.

If the financial and economic state of the enterprise is considered bad, we develop proposals concerning its reorganization.

Sanitation of the enterprise can be carried out by:

- repayment of enterprise debts;

- merger of unprofitable enterprise with financially strong enterprise;

- re-issuance of short-term credits

- issue and placement of securities for mobilization of financial resources;

- sale of property of enterprise-debtor to another enterprise. Social consequences of possible cessation of the enterprise or its individual production are taken into account.

Measures to improve the financial status of enterprise

In the same way as analysis of financial subsystem of the company implies a complex estimation of activity of all aspects of its activity, measures on improvement of financial condition involve the development of recommendations relating to all aspects of production - economic activities of the enterprise, including production, marketing, and the actual financial subsystem.

Reorganization of all sides of the activity factory «Rempobuttechnika» LTD assumes:

1) Serious production of marketing activities of the enterprise on a deep and comprehensive research of markets by product types, promotion of these goods on the market.

2) Statement of the financial function in the operational, investment and financial activities of the use of modern methods of financial management.

3) Elimination of all technological shortcomings. (Purchase of optimal number of necessary equipment).

4) Implementation of the most flexible pricing system at factory «Rempobuttechnika» LTD.

5) adapted to the needs of markets.

Managing turnover assets and current liabilities of the enterprise.

From the analysis conducted in the paper, it can be concluded that one of the most acute problems of the enterprise is the state of current assets and liabilities-the deficit of working capital, extremely low liquidity and turnover, high number of receivables and payables, deteriorating situation in the field of mutual settlements of the firm, etc. This testifies to the unfavorable conditions of the external economic and legal financial environment (deficit of circulating assets in buyers and suppliers, high cost and heavy-duty of long-term loans to invest in production activity of the enterprise, modernization of its technologies and restoration of obsolete fixed assets, etc.). However, besides objective problems of the production and economic activity of the enterprise, obvious shortcomings and failures in the management of turnover assets and current obligations that, in the combination with the unfavorable environment, led the company to a rather shaky financial condition.

Proceeding from the foregoing, one of the main measures to improve the financial position of the enterprise is to optimize the management of its circulating assets.

At optimum management, current assets and current liabilities can be changed daily and require careful monitoring. If current assets are deficient in management, and their use in another place may be the most effective (for

example, reducing the cost of servicing loans, carrying out long-term prospective financial investments, etc.).

At present the company is to use credits for replenishment of working capital mainly from local sources. This contributes to the presence of huge stocks of finished products and goods that are not intended for specific orders.

Ideas for implementation:

1. The introduction of only 1C:UV8. Currently incomplete information is introduced in 1C, which greatly complicates the daily processes of document flow.

2. Full use of CRM. Customer Relationship Management (CRM) is a term that relates to the practices, strategies and technologies that companies use to manage and analyze user and data interaction throughout the customer's lifecycle, in order to improve customer relationships and promote customer retention and stimulate sales growth. CRM allows you to collect and manage all your valuable customer data in a centralized location. There is a great benefit of implementing the CRM system. Each department of your company has a unique characteristic process – it is important not only how they work individually, but also how they work together. For example, think about different stages of the sales cycle compared to how the marketing department creates outlook-oriented campaigns. Because each department is so much dependent on each other for the success of the project, it is important to have a certain system in order to observe how your units function individually and how they interact with each other. THE CRM system gives you the tools to manage, measure and improve processes.

3. The use of QR Codes as for finished products (where when recognizing will open a detailed instruction to the product) and in the process of production (for the production of cassettes and filters I consider it useful to introduce QR- codes, where it is possible to determine the complete history of movement of products by structural units, stages of inspections and their results, as well as the possibility of tracking the location of the product at the enterprise,

and the designation of the names of employees who were engaged in a particular product.

4. Introduction of Gi repository to store technical documentation.

Calculation

Costs	1 year (2021p.)	2 year (2022p.)	3 year (2023p.)	4 year (2024 p.)	5 year (2025 p.)	Total
Salary	720	720	720	720	720	3600
Accrual	360	360	360	360	360	1800
Materials	281	281	281	281	281	1405
Depreciation	112	102	93	85	78	470
Other	125	125	125	125	125	625
Conditional fixed costs	940	940	940	940	940	4700
Total	2538	2528	2519	2511	2504	12600

Table 3.1. Current project costs, thousand UAH

1. Determine the amount of one-time (capital) costs by year, thousand UAH

The cost of purchasing equipment is carried out in the 0th year (from the moment purchase of equipment begins the countdown to the project);

costs for installation of equipment and staff training are carried out in the first year.

0th year - 12500;

1st year - 1130.

2. Determine the amount of cash flow (net income + depreciation, including income tax at the rate of 21%), thousand UAH:

1st year = 112 (only depreciation, because the products were not produced);

2nd year = 16600-2528-2955 + 102 = 11219;

3rd year = 16600-2519-2957 + 93 = 11217;

4th year = 16600-2511-2959 + 85 = 11215;

5th year = 16600-2504-2960 + 78 = 11214.

3. Determine the discount rate of the project.

Determination of the discount rate of the project (d) is carried out by formula:

$d = a + b + c;$ (3.1)

where a is the price of capital, a = 0.12;

b - level of risk, b = 0,05;

c - the level of risk in the market (inflation), c = 0.16.

D = 0.12 + 0.05 + 0.06 = 0.33.

4. Determination of net present value.

Determination of net present value (NPV) is carried out according to the following formulas:

$$NPV = \sum_{t=0}^{n} \frac{(Dt-Kt)}{(1+d)} \quad (3.2)$$

where Dt - net income of the t-th period;

Kt - costs of the t-th period;

NPV = - Kt + NPV t (3.3)

In the table 3.2 we calculate the net discounted income project and net present value.

Years	D	K	$\frac{1}{(1+d)^t}$	$\frac{D}{(1+d)^t}$	$\frac{K}{(1+d)^t}$	project income	net present value
0	0	12500	1,00	0	12500	-12500	-12500
1	112	1130	0,81	91,1	918,7	-827,6	-13327,6
2	11219	0	0,66	7415,6	0	7415,6	-5912
3	11217	0	0,54	6027,8	0	6027,8	115,8
4	11215	0	0,44	4899,8	0	4899,8	5015,6
5	11214	0	0,36	3983,2	0	3983,2	8998,8
Total	44977	13630	x	22417,5	13418,7	8787,5	x

Table 3.2. Calculation of net discounted project income and net present value

5. Determine the payback period of the project.

The payback period of the project is determined on the basis of the previous ones calculations (Table 3.1).

Payback period = p + project income p / net present value p + 1 (3.4)

where p is the last year when NPV <0;

Payback period = 2 + 5912 / 6027.8 = 3 years.

Therefore, the payback period of the project is 3 years.

6. Determine the index of profitability and average annual profitability

project:

Yield index (YI) is the ratio of the total discounted income to total discount costs.

It is determined by the formula:

$$ID = \sum_{t=0}^{n} \frac{Dt}{(1+d)^t} / \sum_{t=0}^{n} \frac{Kt}{(1+d)} \quad (3.5)$$

ID = 22417.5 / 13418.7 = 1.67.

For the expediency of the project, the ratio of ID > 1 must be maintained

1. Since 1.67 > 1, the project can be recommended to implementation.

7. Calculate the average annual profitability of the project (R) by the formula:

$$R = ID / n \times 100\% \quad (3.6)$$

Therefore, the average annual profitability of the project will be equal to:

R = 167% / 5 = 33.4%.

Therefore, we can conclude that this project exists highly profitable. Because in the first year of implementation of the equipment is mastered and the staff is trained to work on this equipment, then cash flows in the form of depreciation of equipment in the first year will not be received.

The company will be able to return the invested funds for 3 years, and the next two years will work for its own profit.

CHAPTER 4. LABOR PROTECTION AND SAFETY IN EMERGENCIES.

4.1. Occupational health at work

Everyone has the right to an appropriate, safe and healthy working environment. Working conditions in the workplace, safety of processes, machinery, equipment and other means of production, the state of collective and individual protection products used by the employee, as well as sanitary conditions must meet the requirements of health and safety regulations. The

owner or the authority authorized by it must introduce modern safety equipment, prevent industrial injuries and provide sanitary conditions that prevent the occurrence of occupational diseases of workers.

Room

Buildings and premises where workplaces are located must meet the requirements of the regulatory and operational documentation of the manufacturer of personal computers. It should be no lower than the second degree of fire resistance.

Window openings of premises for working with personal computers should be equipped with adjustable devices (blinds, curtains, external visors. The floor coating should be matte with a reflection factor of 0.3-0.5. The surface of the floor should be flat, non-slippery, with anti-static properties., washable wallpaper, roll synthetic materials, layered paper plastic, etc.), emit harmful chemicals into the air. Polymer materials for interior decoration of premises with personal computers can be used with the permission of the authorities and institutions of the state sanitary and epidemiological service. The room can be equipped with cabinets for storing documents, magnetic discs, shelves, racks, bollards, etc. taking into account the requirements for space.

In premises with sources of harmful production factors, operators' workplaces should be located in isolated cabins equipped with air exchange.

Grounded structures located in workplaces (heating batteries, water pipes, cables with a grounded open screen) must be protected by dielectric shields or nets in order to prevent the employee from getting under stress. The premises where the workplaces are placed should be equipped with automatic fire alarm system and fire extinguishers in accordance with the requirements of the current legislation of Ukraine. Passages to firefighting facilities should be free.

In the premises where the workplaces are located, wet cleaning should be done every day. In addition, these premises should be equipped with first aid kits, and they should be equipped with household facilities for rest during work, a room of psychological discharge.

Workplace organization and equipment

When placing desktops with personal computers, you should observe:

The distance between the side surfaces of personal computers is 1.2 m.;

The distance from the back of one personal computer to the screen of another is 2.5 m.

If you need a special concentration of attention during the work, adjacent work of operators should be separated from each other by partitions height of 1.5 - 2m.

The design of the personal computer user's workplace should ensure that the office worker's optimal working posture is maintained. The design of the desktop must meet modern ergonomics requirements and ensure optimal placement on the work surface of the equipment used (display, keyboard, printer) and documents. The height of the desktop work surface should be adjusted within 680-800 mm, and the width and depth - to ensure the ability to perform operations in the range of the motor field (recommended sizes: 600-1400mm, depth - 800-1000m).

The desktop must have a legroom of at least 600 mm in height, the width of at least 500mm, the depth (at the knee level) is at least 450mm, at the level of the outstretched legs at least 650mm. Regulation for each of the parameters should be carried out independently, easily and reliably fixed. The step of regulating the elements of the chair should be: for linear sizes - 15-20mm, for angular - 2-5 degrees. The regulation effort should exceed 20N. The surface height of the seat should be adjusted within 400-500mm, and the width and depth are at least 400 mm. The angle of the seat - up to 15 degrees forward and up to 5 degrees

backwards. The height of the back of the chair should be (300 -20 mm), the width - at least 380 mm, the curvature radius of the horizontal plane - 400 mm. The angle of the back should be adjusted within 1-30 degrees from the vertical position. The distance from the back to the front edge of the seat should be adjusted within 260-400mm. To reduce static tension of the upper extremity muscles should be used stationary or variable armrests at least 250 mm long, width 50-70mm, adjustable in height above the seat within 230-260mm and the distance between the armrests within 350-500m. The surface of the seat and the back of the chair should be semi-softened with a non-slip, airtight coating, easy to clean and not electrified. The workspace must be equipped with a footrest at least 300mm wide, at least 400 mm deep, adjustable in height of up to 150 mm and up to 20 degrees on the angle of the stand's support surface. The stand should have a fluted surface and a side on the front edge of the height of 10 mm.

Workplaces should be positioned relative to light openings so that natural light falls predominantly on the left. The monitor is located at the optimum distance from the user's eyes, is 600-700mm, but no closer than 600 mm, taking into account the size of the letter-digital characters and symbols. The location of the monitor screen should provide the convenience of visual observation in a vertical plane at a 30-degree angle to the normal line of view of the employee. The keyboard should be positioned on the surface of the table at a distance of 100-300 mm from the edge facing the working. The keyboard design should include a support device (made of a high friction material, prevents its spontaneous displacement), which allows you to change the angle of the keyboard surface within 5-15 degrees. The mid-line should not be more than 30 mm. The surface of the keyboard should be matte with a reflection ratio of 0.4. The location of the information output device should provide good visibility of the monitor, the convenience of manual control in the range of the motor field and the height - 900-1300mm, in width 400-500mm. Under the matrix printers you need to put vibrating mats to extinguish vibration and noise.

A workplace with a personal computer should be equipped with a computer for documents that move easily.

In order to ensure protection and achieve rationed levels of computer radiation, the use of screen filters, local light filters (personal eye protection) and other protection products that have been tested in accredited laboratories and have an annual hygiene certificate is required.

Personal computer security

Every day, the monitor must be cleaned of dust and other contaminants before starting work. Once finished, your personal computer and peripherals must be disconnected from the electrical grid. In the event of an emergency, you must immediately disconnect your personal computer and peripherals from the electrical grid.

Not allowed:

- maintain, repair and set up your personal computer and peripherals directly at the operator's workplace.
- store paper, any media (discs, flash drives, etc.), spare blocks, parts, etc. if they are not used for the current work.
- disable protective devices, arbitrarily carry out changes in the design and composition of personal computers and peripherals, or their technical establishment;
- Work with a personal computer, in which uncharacteristic signals appear while working;
- work with a matrix printer in the absence of a vibrating mat and with the (raised) top cover removed.

Microclimate

The room for working with personal computers should be equipped with heating systems, air conditioning or exhaust ventilation. Workplaces should

provide optimal values of microclimate parameters: temperature, relative humidity and air mobility in accordance with GOST 12.1.005-88, IN 4088-86.

Lighting

Rooms with personal computers must have natural and artificial lighting in accordance with the standard.

Natural light should be carried out through light alights focused mainly on the north or north-east and provide a natural light factor (KEO) of at least 1.5%.

Artificial lighting in workplaces should be carried out by a system of general uniform lighting. In the case of preferential work with documents, the use of a combined lighting system is allowed (except for the general lighting system additional lamps of local lighting are installed). The lighting on the surface of the desktop in the document area should be 300-500lk. If these lighting values cannot be provided by the general lighting system, local lighting is allowed. At the same time, local lighting fixtures should be installed in such a way as not to create glare on the surface of the screen, and the lighting of the screen should exceed 300lk. In the case of artificial light, light sources should be mainly L-LB lamps. When the reflected lighting is used in rooms where documents are used in the primary way, it is allowed to use 250W metal lamps.

It is allowed to use lamps of such classes of light distribution:

1. Direct light
2. Mostly direct light;
3. mostly reflected light.
4. For general lighting, lamps of the series LPO 3b with mirrored grilles, equipped with high-frequency launchers (HF PRA) should be used.

The use of lamps without scatterers and shielding grills is prohibited. The brightness of the general lighting lamps in the area of radiation angles from 50 to 90 degrees with vertical in the longitudinal and transverse planes should be no more than 200 kw/m2, the protective angle of the lamps - at least 40 degrees.

Local lighting lamps should have a reflector that must shine through, with a protective angle of at least 40 degrees.

It should be provided to limit direct shine from sources of natural and artificial light. At the same time, the brightness of light surfaces (windows, sources of artificial light) located in the field of view should be no more than 200 kw/ m2. It is necessary to limit the reflected shine on work surfaces relative to the sources of natural and artificial lighting. At the same time, the brightness of glare on the UD screen should not exceed 40 kw/ m2, and the brightness of the ceiling in the case of the reflected lighting system - 200 kw/ m2.

The rate of blindness in the use of common artificial lighting sources in production facilities should not exceed 20, and the discomfort rate in administrative and public premises should be no more than 40. The pulsation factor should not exceed 5%, which is provided by the use of gas discharge lamps in general and local lighting lamps with VH PRA for lamps of any type. Lighting, located nearby, should be included in different phases of the three-phase network.

Noise and vibration levels

Sound pressure levels in octave bands, sound levels and equivalent sound levels in the workplace must meet the requirements of HS 3223-85, GOST 12.1.003-83, GR 2411-81.

Noise-producing equipment (ADC, printers, etc.) should be located outside the premises where the workplaces are located. To ensure acceptable noise levels in the workplace, sound absorption tools should be used, the choice of which should be based on special engineering and acoustic calculations.

The vibration characteristics in the workplace should not exceed the permissible in accordance with HS 3044-84, GOST 12.1.012-90.

Non-ionizing electromagnetic radiation

The importance of the tension of the electrostatic field in the workplace (in the area of the display screen, and on the surfaces of equipment, keyboard, printing device) should not exceed the maximum allowable by GOST 12.1.045-84, IN 1757-77. The importance of electromagnetic field tension in workplaces with DT must meet the normative value (GDR No. 3206-85, GDR No. 4131-86, SN No. 5802-91, GOST 12.1.006-84).

Electro security

Personal computers, peripherals, other equipment (control devices, instrumentation devices, lamps), electrical wires and cables on execution and degree of protection should correspond to the class of the zone, have the equipment of protection against short circuit current and other emergency modes. When installing and operating power lines, it is necessary to completely eliminate the occurrence of an electrical source of fire due to short circuiting and overload of wires, to limit the use of wires with flammable insulation and, if possible, to apply non-flammable insulation. It is not allowed to use a zero conductor as a zero-wire. environment, conductor distribution conditions, temperature regime and types of protection equipment.

In a room where more than five personal computers and peripherals are simultaneously operated, an emergency backup switch is installed in a prominent and accessible location, which can completely turn off the electrical power of the room, except for lighting.

Personal computers and peripherals should be connected to the power grid only with the help of healthy plugs and electrical sockets of factory manufacturing. In plugs and electrical sockets, in addition to contacts phase and zero working conductors should be special contacts to connect zero protective conductor. Their design should be such that the accession of the zero protective conductor occurred earlier than the accession of phase and zero working conductors. The order of disconnection should be reversed. Personal computers

and peripherals are not allowed to be connected to a conventional dual-wire power grid, including transitional devices.

Electrical grids of plugs and electrical sockets to power personal computers and peripherals need to be performed on a backline scheme, on 3-6 connections or electrical sockets in one circle. The plugs and electrical sockets for voltage 12V and 42V in their design should differ from the plugs for voltage 127V and 220V. The plugs and electrical sockets, designed for voltage 12V and 42V, are visually (color) different from the color of the plug joints, designed for voltage 127V and 220B. Individual and group plugs and electrical sockets must be mounted on non-flammable or hard-burning plates. The electrical grid of sockets to power personal computers and peripherals when positioned along the walls of the room is laid on the floor next to the walls of the room, usually in metal pipes and flexible metal sleeves, as well as in plastic boxes and plastic sleeves with retraction in accordance with the approved plan of placement of equipment and technical With up to five personal computers and peripherals in the room, it is allowed to lay a three-wire secure wire or cable in a shell made of non-flammable or hard-burning materials around the perimeter of the room without metal pipes and flexible metal sleeves. 42V.

When organizing the jobs of operators of electrical grid plugs to power personal computers, peripherals and in the center of the room are laid in canals or under a removable floor in metal pipes or flexible metal sleeves. It is not allowed to use wire and cable in isolation from vulcanized rubber and other materials containing sulfur.

Work and recreation modes

In the organization of work associated with the use of personal computers, to preserve the health of workers, prevent occupational diseases and maintain health should provide intra-shift regulated breaks for rest. Intra-shift modes of work and rest should include additional short breaks in the periods preceding the appearance of objective and subjective signs of fatigue and reduced performance.

For the main work with a personal computer should be considered one that takes at least 50% of the time during the work shift. During the day, there should be:

- rest and eating breaks (lunch breaks)
- rest and personal needs (according to labor standards)
- additional breaks introduced for individual occupations, taking into account the characteristics of work.

The length of the lunch break is determined by the current labor laws and the Internal Labor Regulations.

In all cases where production circumstances do not allow for the application of regulated breaks, the duration of continuous work with a personal computer should not exceed 4:00. During the 12-hour work shift, regulated breaks should be set at the first 8:00 hours of work similarly to breaks with 8-hour work shifts, and during the last 4 hours of work, regardless of the nature of work, after every hour lasting 15 minutes.

In order to reduce the negative impact of monotony, it is advisable to use alternating operations of conscious text and numerical data (change in the content of work), alternating data entry and editing texts. To reduce neuro-emotional stress, fatigue of the visual analyzer, improve cerebral circulation, overcome adverse effects of hypodynamia, prevent fatigue is appropriate to use some breaks to perform a set of exercises. In some cases - in case of chronic complaints of working on visual fatigue, despite compliance with sanitary requirements for working and recreation regimes, as well as the use of local eye protection - allowed individual approach to limiting the time of work with a personal computer, changes in the nature of work, alternating with other activities not related to a personal computer. Active rest should consist in the performance of a set of gymnastic exercises aimed at relieving nervous tension, muscle relaxation, restoring the functions of physiological systems, violated during the labor process, removing eye fatigue, improving cerebral circulation and performance. Subject to high levels of tension with a personal computer, psychological discharge in

specially equipped rooms (in psychological discharge rooms) during regulated breaks or at the end of the working day is provided.

4.2. Emergency plan at workplace

As the rule states, there must be fire extinguishers on every floor.

Different types of fire extinguishers require different maintenance and should be checked according to the rules of Legal operations and standard powers of fire extinguishers.

Inspection of the fire extinguisher includes initial and (or) periodic check of its compliance with the requirements of the operating documentation, and maintenance involves a set of operations aimed at checking the fire extinguisher and ensuring its operability.

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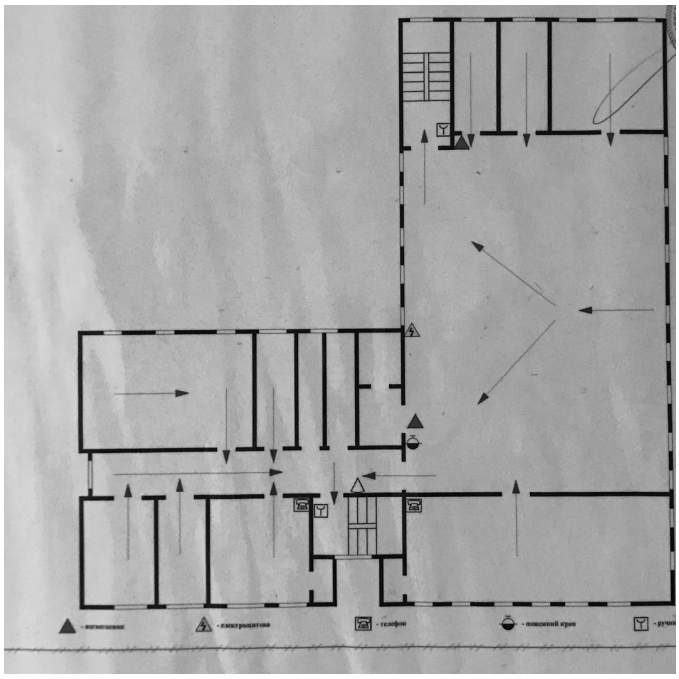
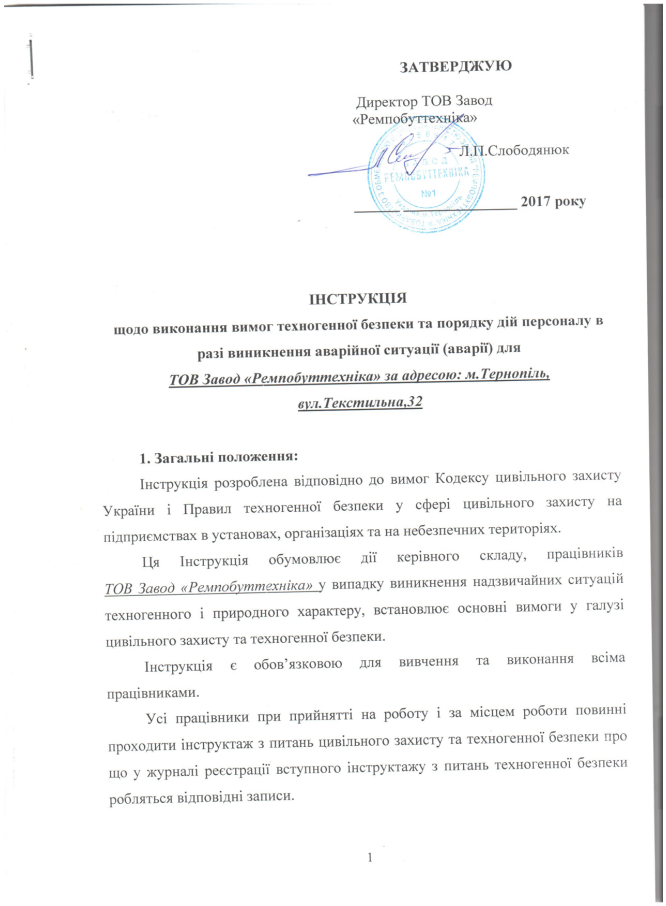
The scheme of evacuation should be posted on every floor through emergency exits and arrows showing directions.



Pic. 4.1. Evacuation plan of second floor at the LLC "Rempobuttechnica" plant

On an employee's first day on the job, are instructed in the five safety rules and they are meant to be followed. The full version of the instructions is in appendix (Appendix B).



ЗАТВЕРДЖУЮ

Директор ТОВ Завод
«Рємпобуттехніка»

_____ Л.П.Слободянюк

_____ 2017 року

ІНСТРУКЦІЯ

щодо виконання вимог техногенної безпеки та порядку дій персоналу в разі виникнення аварійної ситуації (аварії) для

ТОВ Завод «Рємпобуттехніка» за адресою: м.Тернопіль, вул.Текстильна,32

1. Загальні положення:

Інструкція розроблена відповідно до вимог Кодексу цивільного захисту України і Правил техногенної безпеки у сфері цивільного захисту на підприємствах в установах, організаціях та на небезпечних територіях.

Ця Інструкція обумовлює дії керівного складу, працівників *ТОВ Завод «Рємпобуттехніка»* у випадку виникнення надзвичайних ситуацій техногенного і природного характеру, встановлює основні вимоги у галузі цивільного захисту та техногенної безпеки.

Інструкція є обов'язковою для вивчення та виконання всіма працівниками.

Усі працівники при прийнятті на роботу і за місцем роботи повинні проходити інструктаж з питань цивільного захисту та техногенної безпеки про що у журналі реєстрації вступного інструктажу з питань техногенної безпеки робляться відповідні записи.

1

Pic. 4.2. First page of instruction the order of actions of employees in case of emergency at the LLC "Rempobuttechnica" plant

If a fire should break out, the director should be notified and an evacuation plan should be made.

Conclusion

Factory "Rempobuttechnika" LTD should set the following goals:

Marketing – increasing the level of satisfaction of the needs of the population with goods and trade services; formation and satisfaction of consumer demand for goods and services of economic activity related to commercial;

Financial and investment – initiation of creation and participation in territorial investment and innovation clusters;

Material and technical – introduction of modern technical means of management of trade and technological process; modernization of production areas and facilities;

Administrative – improvement of quality of work life and increase of social responsibility;

Information – implementation of electronic telecommunications schemes with the consumer; improving the level of security of business processes using modern digital technologies and anti-theft systems;

Logistics – improvement of logistics schemes of supply of goods to commercial objects;

– improvement of management system and improvement of commercial relations with suppliers;

The main measures to intensify innovation activity in Ukraine at the current stage of domestic economic development should be considered:

— development and introduction of the mechanism of granting benefits to industrial enterprises that implement and implement innovative products;

— dissemination of the practice of providing medium- term loans with discounted credit rate to innovative enterprises;

by the state to the ecology of production, to stimulate activities aimed at conservation of the environment;

— increase of training costs of high-class specialists, trainings, courses;

— motivation of employees to innovative activity, reduction of migration of scientists;

— legislative changes in the field of innovation on benefits;

— expansion of financing sources;

— the policy of the enterprise should have an innovative direction. Close cooperation with foreign enterprises, exchange of experience;

Implementation of the proposed directions of innovation activity in Ukraine will significantly increase the level of innovation activity of industrial enterprises, stabilize the accelerated process of updating production.

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			КОДИ
		Дата (рік, місяць, число)	2020 | 01 | 01
Підприємство	ТОВ Завод "Ремпобуттехніка"	за ЄДРПОУ	

(найменування)

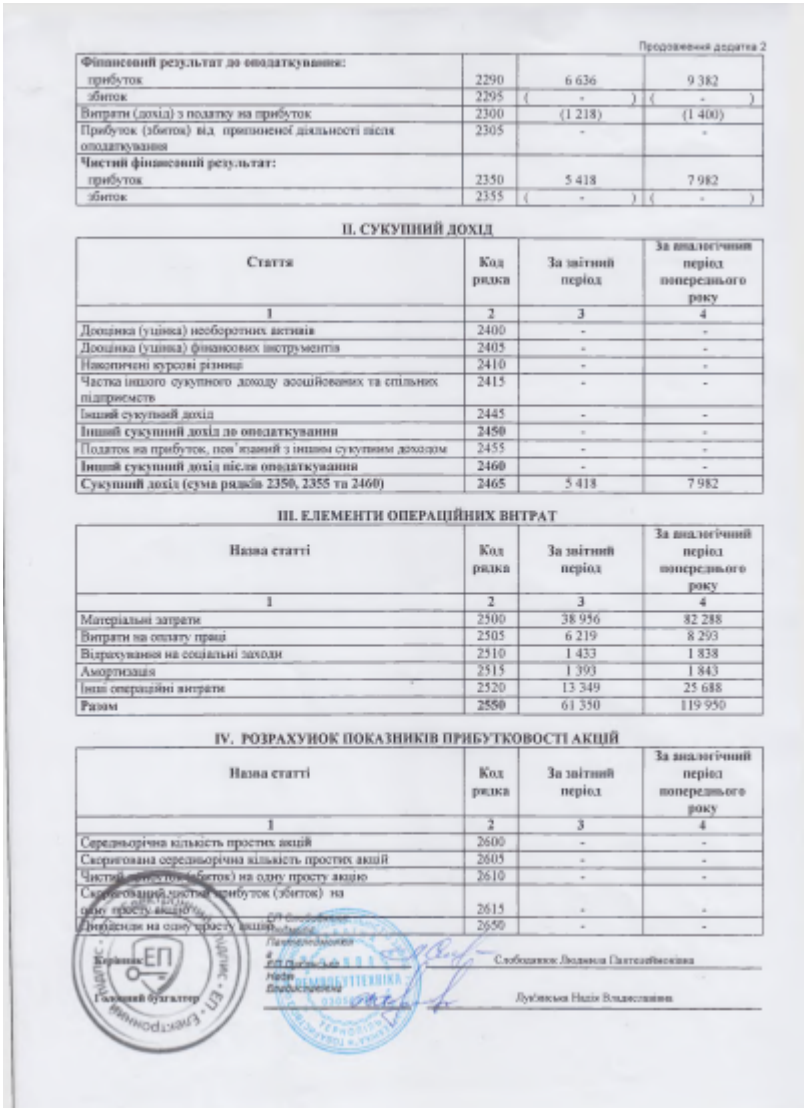
ДОКУМЕНТ ПРИЙНЯТО

Звіт про фінансові результати (Звіт про сукупний дохід)
за Рік 2019 р.

Форма N2 Код за ДКУД **1801003**

І. ФІНАНСОВІ РЕЗУЛЬТАТИ

Стаття	Код рядка	За звітний період	За аналогічний період попереднього року
1	2	3	4
Чистий дохід від реалізації продукції (товарів, робіт, послуг)	2000	77 625	126 712
Чисті зароблені страхові премії	*2010*	-	-
премії підписані, валова сума	*2011*	-	-
премії, передані у перестрахування	*2012*	-	-
зміна резерву незароблених премій, валова сума	*2013*	-	-
зміна частки перестраховиків у резерві незароблених премій	*2014*	-	-
Собівартість реалізованої продукції (товарів, робіт, послуг)	2050	(71 951)	(116 349)
Чисті понесені збитки за страховими виплатами	*2070*	-	-
Валовий: прибуток	2090	5 674	10 363
збиток	2095	(-)	(-)
Дохід (витрати) від зміни у резервах довгострокових зобов'язань	*2105*	-	-
Дохід (витрати) від зміни інших страхових резервів	*2110*	-	-
зміна інших страхових резервів, валова сума	*2111*	-	-
зміна частки перестраховиків в інших страхових резервах	*2112*	-	-
Інші операційні доходи	2120	9 878	3 473
у тому числі: дохід від зміни вартості активів, які оцінюються за справедливою вартістю	*2121*	-	-
дохід від первісного визнання біологічних активів і сільськогосподарської продукції	*2122*	-	-
дохід від використання коштів, вивільнених від оподаткування	*2123*	-	-
Адміністративні витрати	2130	(5 654)	(3 494)
Витрати на збут	2150	(547)	(347)
Інші операційні витрати	2180	(2 307)	(490)
у тому числі: витрати від зміни вартості активів, які оцінюються за справедливою вартістю	*2181*	-	-
витрати від первісного визнання біологічних активів і сільськогосподарської продукції	*2182*	-	-
Фінансовий результат від операційної діяльності: прибуток	2190	7 044	9 505
збиток	2195	(-)	(-)
Дохід від участі в капіталі	2200	-	-
Інші фінансові доходи	2220	-	-
Інші доходи	2240	804	14
у тому числі: дохід від благодійної допомоги	*2241*	-	-
Фінансові витрати	2250	(1 157)	(134)
Втрати від участі в капіталі	2255	(-)	(-)
Інші витрати	2270	(55)	(3)
Прибуток (збиток) від впливу інфляції на монетарні статті	*2275*	-	-



Продовження додатка 2

Фінансовий результат до оподаткування: прибуток	2290	6 636	9 382
збиток	2295	(-)	(-)
Витрати (дохід) з податку на прибуток	2300	(1 218)	(1 400)
Прибуток (збиток) від припиненої діяльності після оподаткування	2305	-	-
Чистий фінансовий результат: прибуток	2350	5 418	7 982
збиток	2355	(-)	(-)

II. СУКУПНИЙ ДОХІД

Стаття	Код рядка	За звітний період	За аналогічний період попереднього року
1	2	3	4
Дооцінка (уцінка) необоротних активів	2400	-	-
Дооцінка (уцінка) фінансових інструментів	2405	-	-
Накопичені курсові різниці	2410	-	-
Частка іншого сукупного доходу асоційованих та спільних підприємств	2415	-	-
Інший сукупний дохід	2445	-	-
Інший сукупний дохід до оподаткування	**2450**	-	-
Податок на прибуток, пов'язаний з іншим сукупним доходом	2455	-	-
Інший сукупний дохід після оподаткування	**2460**	-	-
Сукупний дохід (сума рядків 2350, 2355 та 2460)	**2465**	5 418	7 982

III. ЕЛЕМЕНТИ ОПЕРАЦІЙНИХ ВИТРАТ

Назва статті	Код рядка	За звітний період	За аналогічний період попереднього року
1	2	3	4
Матеріальні затрати	2500	38 956	82 288
Витрати на оплату праці	2505	6 219	8 293
Відрахування на соціальні заходи	2510	1 433	1 838
Амортизація	2515	1 393	1 843
Інші операційні витрати	2520	13 349	25 688
Разом	**2550**	61 350	119 950

IV. РОЗРАХУНОК ПОКАЗНИКІВ ПРИБУТКОВОСТІ АКЦІЙ

Назва статті	Код рядка	За звітний період	За аналогічний період попереднього року
1	2	3	4
Середньорічна кількість простих акцій	2600	-	-
Скоригована середньорічна кількість простих акцій	2605	-	-
Чистий прибуток (збиток) на одну просту акцію	2610	-	-
Скоригований чистий прибуток (збиток) на одну просту акцію	2615	-	-
Дивіденди на одну просту акцію	2650	-	-

Керівник Слободянюк Людмила Євгенівна

Головний бухгалтер Луб'янська Надія Владиславівна

• Отримано: 28.02.2020 13:56
• Одержувач: 03056917

Квитанція №2
Підприємство: 03056917 ТОВ Завод "Ремспецтехніка"
Звіт: Ф2. Звіт про фінансові результати (в тисячах)
За період: Рік 2019 р.
Звіт доставлено до Центру обробки електронних звітів Держстату України 28.02.2020 у 09:24:45
Реєстраційний номер звіту: 9004954634
(6110100030599175010021310000521122019.XML)
Звіт відповідає формату, визначеному Держстатом України.
Електронні цифрові підписи перевірено.
Звіт прийнято для подальшої обробки. У випадку виявлення помилок при здійсненні обробки даних звіту в органах державної статистики та(або) необхідності надання уточнень Вам буде повідомлено додатково.

Відправник: Центр обробки електронних звітів Держстату України

Показати документ

• Підписи: Печатка 43005393 Державна податкова служба України. "ОТРИМАНО"
Печатка 37507880 Державна служба статистики України
• Ім'я файла: 6110100030599175010021310000521122019.XML
• Спосіб прийому: З використанням прямого з'єднання

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«Рембутехніка»

_____ Л.П.Слободянюк

_____ **2017 року**

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1

2. Характеристика можливої обстановки в районі об'єкта при виникненні аварійної ситуації (аварії)

На об'єкті ймовірне травмування людей та руйнування будівельних конструкцій викликане пожежами та іншими факторами в наслідок порушення правил експлуатації будівель з масовим перебуванням людей.

3. Порядок оповіщення персоналу об'єкта про загрозу виникнення аварійної ситуації (аварії)

Оповіщення персоналу об'єкта щодо аварійної ситуації (аварії) проводиться відповідно до завчасно розробленої схеми.

При отриманні відповідної інформації вмикаються сирени, гучномовці, радіотрансляційні приймачі для передачі та прослуховування повідомлення.

Кожний працівник об'єкта повинен знати сигнали оповіщення цивільного захисту та вміти правильно діяти в умовах загрози та виникнення аварійної ситуації (аварії).

4. Основні заходи захисту працівників об'єкта в надзвичайних ситуаціях і умови їх використання

Для захисту життя і здоров'я працівників в надзвичайних ситуаціях необхідно використовувати наступні основні заходи цивільного захисту:

- укриття людей в пристосованих для потреб захисту приміщеннях виробничих, громадських і житлових будинків, а також в спеціальних захисних спорудах;

- евакуацію працівників із зон можливих надзвичайних ситуацій;

- використання засобів індивідуального захисту органів дихання і шкіряних покривів;

- проведення заходів медичного захисту;

- проведення аварійно-рятувальних та інших невідкладних робіт в зонах надзвичайних ситуацій.

Надзвичайні ситуації як правило приводять до появи великого числа поражених, які потребують екстреної допомоги. В цій ситуації відвертанню жертв може сприяти тільки комплекс заходів по інженерному, радіаційно-

хімічному та медичному захисту. При цьому ці заходи повинні виконуватися в максимально стислі терміни і спеціальними, професійно підготованими формуваннями.

5. Рекомендації щодо дій працюючого персоналу у надзвичайних ситуаціях:

5.1. Дії при виникненні пожежі

При виникненні пожежі слід викликати пожежно-рятувальну службу за номером 101.

При пожежі слід запобігти паніці. Необхідно остерігатися високої температури, задимленості, обвалу конструкцій будинків та споруд, вибухів технологічного обладнання і приладів.

Входячи в будь-яке приміщення необхідно запам'ятовувати свій шлях, звертаючи увагу на розташування основних та запасних виходів.

При виникненні пожежі необхідно зорієнтуватися щодо наявної небезпеки й звідки вона надходить.

У початковій стадії розвитку пожежі необхідно використовувати всі наявні засоби пожежогасіння (вогнегасники, пожежні крани, покривала, пісок, вода, тощо). Необхідно пам'ятати, що електроприлади не можна гасити водою. Попередньо треба відключити напругу. Якщо вогонь отримав поширення, потрібно терміново залишити приміщення (евакуюватися). Евакуацію необхідно проводити в сторону протилежну пожежі, по не задимленій сходовій клітці до виходу. Спускатися треба по одному, підстраховуючи одне одного. Подібний самопорятунок пов'язаний з ризиком для життя й припустимий лише тоді, коли немає іншого виходу. Не можна стрибати з вікон (з балконів) верхніх поверхів будинків.

5.2. Дії при виникненні завалів внаслідок землетрусу:

- необхідно запам'ятати, що головне захиститися від уламків скла, важких предметів у будинках;

- діяти необхідно негайно, як тільки стануть відчутними коливання ґрунту або споруди, при цьому зберігати абсолютний спокій і уникати паніки.

При перебуванні на першому поверсі , потрібно негайно залишити будинок, на другому і вище – слід зайняти безпечне місце всередині приміщення;

- під час землетрусу 2-5 метрова зона навколо будинків стає вкрай небезпечною. Зверху можуть сипатися уламки черепиці, цегли, обірвані дроти, тощо;

- ні в якому разі не можна вибігати на балкон, якщо з нього не можна стрибнути на землю;

- при перебуванні поза приміщеннями необхідно вийти на відритий простір, подалі від будівель та ліній електромереж.

5.2.1. По закінченню землетрусу необхідно виконати наступні дії:

- надати медичну допомогу потерпілим і вивільнити людей, які опинилися у невеликих завалах;

- перевірити водогін, газ, електромережу. Якщо є ушкодження, вимкнути відповідну лінію; витікання газу перевіряють тільки за запахом. За його наявності слід відчинити вікна, двері та негайно залишити приміщення, повідомивши відповідну службу.

5.3. Дії при розливі ртуті

- зберігати спокій, уникати паніки;

- вивести з приміщення всіх людей;

- відчинити навстіж усі вікна;

- ізолювати максимально забруднене приміщення, щільно зачинити всі двері;

- ***негайно викликати фахівців через пожежно-рятувальну службу за номером 101.***

5.4. Дії при загрозі ураження хімічно-небезпечною речовиною

- провести оповіщення персоналу закладу;

- вимкнути вентиляційні установки та кондиціонери, закрити вікна, двері, кватирки, провести герметизацію приміщення;

- вжити заходів для видачі засобів індивідуального захисту;

- при отриманні команди залишити заражену територію, рухаючись в напрямку перпендикулярному напрямку вітру.

5.5. Дії при загрозі радіоактивного забруднення території закладу

Усі працівники повинні уважно слідкувати за мовними повідомленням органів ДСНС, яке передається за допомогою радіо і телебачення після попереджувального сигналу «Увага всім!».

При перевищенні граничнодопустимих норм організувати облік доз опромінення.

Забезпечити контроль щодо дотримання режиму поводження й роботи працівників, який дозволяє максимально понизити наслідки радіоактивного опромінення.

6. Само- і взаємодопомога при ураженнях і травмах

Для надання допомоги потерпілим необхідно викликати карету швидкої допомоги за телефоном 103.

Необхідно знати місце близько розташованої аптеки та медичного закладу.

До прибуття карети швидкої допомоги для надання допомоги потерпілій людині можна використовувати наступні прийоми.

Для зупинки кровотечі необхідно притиснути пальцями артерію до кості вище рани, потім поверх одягу (або підклавши м'яку підкладку вище рани і ближче до неї) накладіть скрутень або закрутку. Не закривайте скрутень бинтом. Час накладання скрутня (закрутки) укажіть в записці, яку треба закріпити на пов'язці або іншому видному місці; перев'язати рану за допомогою перев'язувального пакету, бинту або інших засобів. Пов'язка захистить рану від додаткових травм, забруднення і зараження; накласти шину при травматичних пошкодженнях кісток і суглобів для забезпечення їх нерухомості. Шину (палицю, смужку фанери і т.д.) прибинтуйте так, щоб вона захопила два суміжних суглоба вище і нижче місця перелому. При накладанні шини, зламаній кінцівці надайте найбільш вигідне положення, а при вивихах зафіксуйте той стан, при якому кінцівка опинилася після травми. В місцях

виступів кісток між тілом і шиною підкладіть прокладки з м'якої тканини. Якщо нема шини, пошкоджену ногу прибинтуйте до здорової , а руку – до тулубу.

При наданні першої допомоги потерпілому необхідно терміново вжити заходи, щоб припинити дію шкідливого фактору.

При опіках скиньте з потерпілого одяг, що горить, погасіть вогонь водою або щільною тканиною. Добре вимийте водою шкіру і очі при попаданні на них кислот, лугів та інших агресивних рідин. На обпалену ділянку тіла покладіть пов'язку. Неможливо віддирати від обпалених ділянок шкіри залишки одягу, що поприлипали до тіла, розкривати пухирі; при обмороженні доставте потерпілого в приміщення, дайте йому теплого пиття, розітріть спиртом і обережно промасажуйте м'язи чисто вимитими руками. Бажано помістити потерпілого в ванну з температурою води 25-35 °С. Неможливо розтирати снігом обморожені місця.

При ураженні електричним струмом не торкайтесь ураженого, так як він знаходиться під напругою і є провідником струму. Вимкніть головний вимикач, при неможливості цього зробити, відкиньте провід від потерпілого за допомогою сухої палки або іншого предмету, що не проводить струм.

При нещасному випадку на воді, витягнувши потерпілого з води, очистити йому порожнину рота від сторонніх предметів, видалити воду із шляхів дихання, покласти утопленика на зігнуте коліно, голова повинна бути опущена донизу, декілька раз сильно надавити на спину.

У випадку зупинки дихання і серця негайно приступити до проведення штучного дихання методом "із рота в рот" і непрямого масажу серця. Для проведення штучного дихання покладіть потерпілого на спину, голову максимально відкинути назад, підложити йому під лопатки валик з одягу висуньте нижню щелепу вперед і, натискуючи на підборіддя, розкрийте рот потерпілому; на відкритий рот покладіть пов'язку або носову хусточку; затисніть потерпілому ніс, зробіть глибокий вдих, щільно приставте свої губи до губ потерпілого і видохніть йому весь об'єм повітря в легені. Повітря

вдувати 16-18 раз за хвилину до відновлення природного дихання. При правильному проведенні штучного дихання грудна клітка потерпілого піднімається. Для проведення непрямого масажу серця потерпілого покладіть на спину на тверде ложе, встаньте з лівої сторони від нього і покладіть долоні рук одна на іншу на нижню частину грудної клітки. Пальцями рук при цьому не торкайтесь грудної клітки. Різкими рухами подібними на поштовхи надавлюйте на грудну клітку 50-60 разів за хвилину. Грудна клітина повинна зміщатися за напрямком до хребта на 4-5 см. При одночасному проведені штучного дихання і непрямого масажу серця чергуйте чотири-п'ять надавлювань на грудну клітку з одним вдуванням повітря в легені. Після відновлення дихання і серцевої діяльності потерпілого тепло накрийте, напоїть чаєм і направте в лікувальний заклад.

7. Обов'язки керівника об'єкта

- знати сигнали оповіщення цивільного захисту;
- після отримання інформації про виникнення надзвичайної ситуації вжити заходів для проведення оповіщення працівників об'єкту;
- довести до працівників інформацію про обставини, що склалися;
- вжити заходів щодо попередження паніки серед працівників;
- у разі загрози життю людей негайно організувати їх рятування (евакуацію), вивести за межі небезпечної зони всіх працівників, які не беруть участь у ліквідації надзвичайної ситуації;
- забезпечити дотримання техніки безпеки працівниками, які беруть участь у ліквідації надзвичайної ситуації;
- привести в готовність особовий склад невоєнізованих формувань об'єкта, зупинити робочий процес, вимкнути всю техніку та електроприлади;
- організувати зустріч підрозділів аварійно-рятувальних служб, надати їм допомогу у локалізації та ліквідації надзвичайної ситуації.

Відповідальний за стан цивільного захисту та техногенної безпеки _____