**ХАРКІВСЬКИЙ НАЦІОНАЛЬНИЙ ЕКОНОМІЧНИЙ УНІВЕРСИТЕТ ІМЕНІ СЕМЕНА КУЗНЕЦЯ**

**ФАКУЛЬТЕТ МЕНЕДЖМЕНТУ І МАРКЕТИНГУ**

**КАФЕДРА МЕНЕДЖМЕНТУ ТА БІЗНЕСУ**

# Пояснювальна записка

до дипломної роботи

МАГІСТРА .
(освітній ступінь)

на тему: «Оптимізація організаційної структури промислового підприємства»

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**Реферат**

магістерської дипломної роботи

**«Оптимізація організаційної структури промислового підприємства»**

Робота містить 145 сторінок, 27 таблицю, 10 рисунків, список літератури з 93 найменувань (на 9 сторінках), 5 додатків (на 34 сторінках).

В магістерській роботі розглянуто теоретичні аспекти організаційних структур промислових підприємств. Проаналізовано визначення поняття організаційної структури підприємства різних авторів, виокремлено два підходи до його розгляду та трактування. Проаналізовано надані в науковій літературі принципи організаційних структур, визначено основні з них. Розглянуто динаміку змін підходів до класифікації організаційних структур. Надано класифікацію та порівняльну характеристику існуючих типів організаційних структур з виокремленням основних принципів та ключових ланок управління кожного з них. Розглянуто основні методи розробки та проектування організаційної структури підприємства. Проаналізовано та вдосконалено процес розробки організаційної структури.

Базою практики стало ПП "Науково-консалтинговий центр технологій управління", яке є консалтинговою компанією та надає послуги з управлінського консультування підприємств. За дорученням ПП "Науково-консалтинговий центр технологій управління" було проведено комплексний аналіз промислового підприємства ПрАТ "ЕНРАН". У роботі наведено загальну характеристику діяльності ПрАТ "ЕНРАН", яка містить історію підприємства та аналіз основних напрямків діяльності. Проаналізовано динаміку ринку меблевої промисловості, надано характеристику основних конкурентів підприємства. Проведено аналіз основних техніко-економічних показників ПрАТ "ЕНРАН" за 2017-2018 роки. Здійснено фінансовий аналіз діяльності ПрАТ "ЕНРАН" за 2017-2018 роки на основі результатів горизонтального та

вертикального аналізу фінансової звітності підприємства та розрахунку фінансових показників діяльності.

Проведено комплексний аналіз існуючої організаційної структури за системою показників. Розраховано показник комплексної оцінки ефективності організаційної структури. Після проведення розрахунків і аналізу отриманих даних було надано комплексну оцінку стану наявної організаційної структури та виявлено існуючі недоліки функціонування підприємства.

Надано комплексну критичну оцінка існуючої організаційної структури. Розроблено комплекс заходів щодо її вдосконалення, а саме: створення відділу маркетингу замість існуючого аутсорсингу маркетингової діяльності. Проаналізовано та детально описано процес планування відділу маркетингу як принципово нового структурного підрозділу підприємства для ПрАТ "ЕНРАН" з урахуванням існуючих особливостей організаційної структури. Розроблено мережевий графік процесу створення відділу маркетингу. Розраховано планові витрати на створення нового структурного підрозділу.

Запропоновані заходи з оптимізації існуючої організаційної структури шляхом створення відділу маркетингу на ПрАТ "ЕНРАН" було оцінено і доведено розрахунками, що впровадження запропонованих заходів дозволить підвищити прибуток ПрАТ "ЕНРАН" більш ніж на 20% протягом трьох років без реорганізації запропонованого відділу. Розраховано економічну ефективність та оцінено соціальний ефект від впровадження запропонованих заходів з оптимізації існуючої організаційної структури.

**Ключові слова:** організаційна структура, оптимізація, підприємство, ефективність, організація.

**Рік виконання роботи** – 2019, **рік захисту** – 2019.

# ABSTRACT

master's thesis

**"Optimization of Organizational Structure of Industrial Enterprise"**

The work contains 145 pages, 27 tables, 10 figures, list of references of 93 titles (9 pages), 5 appendices (34 pages).

In the master's work the theoretical aspects of the organizational structures of enterprises are considered. The definitions of the concept of organizational structure of the enterprise of different authors are analyzed, two approaches to its consideration and interpretation are outlined. The principles of organizational structures provided in the scientific literature are analyzed, the main ones are defined. The dynamics of changes in the classification of organizational structures are considered. The classification and comparative characteristic of the existing types of organizational structures is given, with the main principles and key management units of each of them highlighted. The basic methods of organizational structure development and design are considered. The process of organizational structure development is analyzed and improved.

The research base was PE "Scientific consulting center of management technologies", which is a consulting company and provides management consulting services to enterprises. At the request of PE "Scientific and consulting center of management technologies", a comprehensive analysis of the industrial enterprise PJSC "ENRAN" is carried out. The general characteristics of PJSC "ENRAN" activity which contains the history of the enterprise and the analysis of the main activities is considered. The dynamics of the furniture industry market is analyzed, the characteristics of the main competitors of the enterprise are given. The analysis of the main technical and economic indicators of PJSC "ENRAN" for 2017-2018 is provided. The financial analysis of the activities of PJSC "ENRAN" for 2017-2018 is conducted on the basis of the results of horizontal and vertical analysis of the

financial statements of the enterprise and the calculation of financial performance indicators.

A comprehensive analysis of the existing organizational structure according to the system of indicators is carried out. The index of complex assessment of organizational structure efficiency is calculated. After calculations and analysis of the data obtained a comprehensive assessment of the existing organizational structure is provided and the existing deficiencies in the functioning of the enterprise are identified.

A comprehensive critical assessment of the existing organizational structure is given. A set of measures for its improvement has been developed, such as: creation of marketing department instead of existing outsourcing of marketing activity. The process of planning the marketing department as a fundamentally new structural subdivision of the PJSC "ENRAN" is analyzed and described in detail taking into account the existing features of the organizational structure. The PERT chart of marketing department creation process is developed. Planned costs for the creation of a new structural unit have been calculated.

The proposed measures of the existing organizational structure optimization by setting up a marketing department at PJSC "ENRAN" have been estimated and proved by calculations that the implementation of the proposed measures will increase the profit of PJSC "ENRAN" by more than 20% over three years without reorganizing the proposed department. Economic efficiency is calculated and the social impact of implementing the proposed measures of existing organizational structure optimization is evaluated.

**Keywords:** organizational structure, optimization, enterprise, efficiency, organization.

**Year of performance** – 2019, **year of defense** – 2019.

**CONTENT**

# INTRODUCTION

The relevance of research is caused by the fact that modern economy is characterized by the presence of crisis phenomena. Only those enterprises that meet all modern market requirements and are flexible in their structure can quickly adapt to changes in the external environment. The organizational structure is a reflection of the relationship of the structural elements of the enterprise. And the more effective these connections, the more flexible and successful the enterprise becomes. That is why the optimization of organizational structures should be carried out by enterprises on an ongoing basis to identify existing shortcomings and eliminate them forehanded.

The purpose of the research is to systematize and summarize scientific views on the content and economic essence of the process of optimization of organizational structures with a view to their practical implementation for the development of market entities of entrepreneurial activity.

Realization of this goal determines the need for solving the following tasks:

– definition of the essence of the concept of organizational structure;

– study of the evolution of approaches to the classification of organizational structures;

– determination of theoretical and methodological foundations of organizational design process and methods used in it;

– providing comprehensive assessment of the research base, analysis of management system and key indicators of the enterprise's activity;

– conducting technical, economic and financial analysis of the enterprise activity;

– conducting comprehensive analysis of the existing organizational structure of the enterprise in order to identify the need and justify the feasibility of optimizing the organizational structure;

– providing a comprehensive critical assessment of the existing organizational structure;

– development of planning process of the marketing department as a fundamentally new structural unit of the enterprise;

– development of measures for optimization of the existing organizational structure and proving their efficiency by calculations.

The object of the study is the process of optimizing the organizational structure of the enterprise.

The subject of the study is methods and tools of optimization of organizational structure of the enterprise.

In the process of writing this work, the following research methods were used: classification, comparison, generalization, systematic approach, structural and functional method, economic and mathematical methods, analysis and synthesis, induction and deduction, abstraction, formalization, modeling, interpretation etc.

In the process of writing the research scientific literature of domestic and foreign authors (tutorials, textbooks, monographs, explanatory dictionaries, periodicals etc.), electronic resources, articles by market research experts and influencers were used.

The theoretical and methodological basis of the research was the works of domestic and foreign scientists Karpets O. V., Shelegheda B. G., Arnold G., Milner B. and others. Also, the information base of the work was financial, statistical and managerial reporting of the enterprise, information on the marketing activity of the enterprise, statistics on the indexation of wages in certain regions of Ukraine.

The practical significance of the chosen topic lies in the ambiguity of key concepts, as well as the lack of understanding by enterprises of the functions, advantages and prospects that the process of organizational design and optimizing carries. Such processes are not considered in the domestic economy as significant ones, the result of which can lead to a more coherent and efficient functioning.

The research base was PE “Scientific and Consulting Center of Management Technologies” which commissioned to conduct the analysis of PJSC “ENRAN”.

The study consists of an introduction, 3 parts, conclusions, a list of references and appendices.

# 1. THEORETICAL ASPECTS OF THE ORGANIZATIONAL STRUCTURES OF INDUSTRIAL ENTERPRISES

## 1.1. The essence of the concept “organizational structure”

The current development of the economy is characterized by the presence of crisis phenomena, which stimulates all sectors of the national economy to find radical ways of development. That is why in today's fast-growing economy, management should choose the structure of the organization that not only meets the set goals and objectives of the enterprise, but rapidly and adequately responds to the impacts of internal and external factors, purposefully distributes and coordinates the efforts of employees and thus increases their own competitiveness. Thus, in modern conditions of the economy, only those enterprises that can quickly adapt to changes in the internal and external environment can be successful.

The organizational structure of the enterprise is a rather complicated phenomenon. In order to meet the objectives of a business, it must combine factors that are different in nature – the goals and strategies of an organization, features of technological processes, staff qualifications, and even the life views of management and teamwork [36]. According to generally accepted concepts, the organizational structure of management is usually depicted in the form of a diagram. If, in addition to the management structures, the structural units are reflected in the scheme (shop, site, etc.), then this scheme represents the organizational structure of the enterprise. Within the framework of the organizational structure, a management process is carried out, based on the division and cooperation of labor of managerial workers.

In this study, the definition of the key concept of research – “organizational structure” – was systematized and analyzed. After we have conducted the analysis of this term, we can mention that management researchers have not come to a common opinion regarding the definition of this concept, as evidenced we can come across the presence of a sufficient number of its many-sided interpretations. It should be noted that during the analysis of the interpretations it was discovered that there are several theoretical approaches to the definition of the economic essence of the notion of

"organizational structure". This is due, above all, to the multivariate nature of this economic term, its complexity and the diversity of applications.

The author proposes to consider the following two different approaches to the interpretation of definition "organizational structure":

– "structural" approach – according to this approach the concept of organizational structure of management is actually identified with the concept of organization; organizational structure is identified with the structure of the relationship between departments and positions of the enterprise.

– "functional" approach – this approach considers the organizational structure of an enterprise not only as the relationship between departments and positions, but rather as a structure of interrelated goals and objectives of an enterprise management model built in way to achieve organizational goals.

The results of the conceptual and terminological analysis of the concept "organizational structure" according to the structural approach is given in table 1.1 of this study.

**Table 1.1**

**Analysis of the definitions of the concept "organizational structure" by different authors according to "structural" approach**

| № | Author, reference | Definition |
|---|---|---|
| **1** | **2** | **3** |
| 1 | Milner B. Z., Evenko L. I., Rapoport B. S. [47; 48; 49] | Organizational structure is the relationship of departments and positions in the organization, the distribution of roles, powers and responsibilities between them, as well as the order of functional and technological links. |
| 2 | Smirnov S. V., Stepanov V. V. [62; 63] | Organizational structure of an enterprise is the composition and the subordination of interrelated organizational units and units that perform various functions for managing the economic activity of an enterprise. |
| 3 | Zelenevskiy I. [23] | Organizational structure is nothing but the organization described in detail; the structure of enterprise management is defined as the unity of the steps and links of management in their dependence and hierarchy. |

**Continuation of table 1.1**

| 1 | 2 | 3 |
|---|---|---|
| 4 | Zelenevskiy Ya., Kruk D. M. [24; 33] | Organizational structure is the unity of steps and links of management in their dependence and hierarchy |
| 5 | Solomatin V. V. [65] | The structure of an enterprise is the composition of its divisions, the forms of their specialization and interrelation. |
| 6 | Valuyev S. A., Ignatyeva A. V. [7] | Organizational structure is the composition and interrelation of the structural management units. |
| 7 | Lehtsier L. I. [39] | Management structure is a set of forms and relationships of the organizational structure of the system. |
| 8 | Aganbegyan A. G., Bagrinovskiy K. A., Granberg A. G. [1] | The structure of enterprise management is the composition of internal divisions of the management apparatus, the forms of their specialization and interconnection, or the composition and interconnection of divisions of the administrative apparatus (linear and functional), as well as the nature of the functions assigned to them. |
| 9 | Kozlova O. V., Kuznetsov I. N. [29] | Organizational structure of an enterprise is the composition and the subordination of interrelated organizational units and links that perform various functions of the process of management of this enterprise. |
| 10 | Kamenitser S. E. [26] | Under the general structure of the enterprise refers to the composition of production units, as well as organizations for managing the enterprise and for servicing employees, their number, size and ratio between them in terms of occupied areas, number of employees and carrying capacity. |
| 11 | Piryazev M. M. [56] | Organizational structure of management is understood as the totality of organizational elements (divisions and positions) and their interrelations, the composition and form of assignment to the elements of management tasks, as well as the informal distribution of relations and relations of employees. |
| 12 | Yevenko L. I. [17] | Organizational structure is a combination of relations and relationships between organizational units (services, production units, departments and positions) arising in the management process. |
| 13 | Kukura S. P. [34] | Organizational structure is the composition of the elements and divisions in the management system of an economic object and their definite interrelation. |
| 14 | Vladimirova I. G. [10] | Organizational structure is the composition (specialization), the relationship and the subordination of independent management units and individual positions that perform management functions |
| 15 | Slezinger G. E. [61] | Organizational structure is the composition and interrelationships of subdivisions and individual officials. |
| 16 | Smolkin A. M. [64] | The organizational structure is the establishment and provision of appropriate links between elements of the system. |

The results of the conceptual and terminological analysis of the concept "organizational structure" according to the functional approach is given in table 1.2 of this study.

**Table 1.2**

**Analysis of the definitions of the concept "organizational structure" by different authors according to "functional" approach**

| № | Author, reference | Definition |
|---|---|---|
| **1** | **2** | **3** |
| 1 | Varyas Yu. V., Kono T. [8; 31] | Organizational structure is the effective distribution of management goals and objectives between departments and employees in the management apparatus at all levels. |
| 2 | Mintzberg H. [51] | An organizational structure is a simple set of ways in which the labor process is first divided into separate work tasks, and then coordination is achieved to solve problems. |
| 3 | Gertchikova I. N. [13] | The organizational structure is the establishment of clear relationships between individual departments of the company, the distribution of rights and responsibilities between them. |
| 4 | Syroezhkin I. M. [67; 68] | Organizational structure is sustainable spatio-temporal distribution of economic decisions and resources ensuring their realization. |
| 5 | Galkovich R. S., Nabokov V. I. [11] | Organizational structure is a logically thought-out system of relations between various management levels among themselves, aimed at achieving the goals set. |
| 6 | Afanasyev V. G. [4] | Organizational structure is a system of interpersonal and intergroup relations and interactions, contacts that are not documented. |
| 7 | Meskon M. H., Albert M., Hedouri F. [45] | Dynamic formally-informal distribution of tasks, powers, responsibilities, establishing influences, connections and relations between members of a collective, constantly evolving, subject to evolution, subtle, but sometimes very significant changes |
| 8 | Samofalov V. I. [59, 60] | Organizational structure is the structure of subgoals or it is a form of division of labor, fixing the division of management into functions. The organizational structure is determined by the composition of interrelated tasks, the composition of the elements (divisions). |
| 9 | Ackoff R. L., Emery F. I. [3] | Organizational structure is some vocational social education (group of people), united according to the principle of functional division of labor. The main purpose of this group is to ensure the realization of the common goals of the entire production system. |
| 10 | Valuev S. A., Yekaterinoslavskiy Y. Y., Ovsievich B. L. [7; 18; 55] | Organizational structure is a model of a management structure, an application of technology of the decision-making process in an enterprise. |

**Continuation of table 1.2**

| 1 | 2 | 3 |
|---|---|---|
| 11 | Lagosha B. A., Sharkovich V. G., Degtyareva T. D. [35; 36] | Organizational structure is understood as a set of organizational elements and interrelations between them, ordered according to their role in the process of achieving the goals of the system, constituting a single whole for the performance of management functions and oriented towards the effective functioning of the system. |
| 12 | Akimova T. A. [2] | Organizational structure is an ordered set of stably interconnected elements ensuring the functioning and development of the organization as a whole. |
| 13 | Fyodorova N. N. [73] | Organizational structure is an ordered set of interrelated and interdependent elements of the management system, the composition, interposition and degree of stability of the relations of which ensures the purposeful functioning and development of it as a whole. |

Based on the above definitions of the key concept of the study, the author proposes to identify and highlight the basic principles of the organizational structures of the enterprise. In table 1.3 the author proposes to consider the technology of determining the basic principles, which organizational structure of the enterprise should comply to. The technology of identifying the main characters is based on the number of resources in the references mentioned above.

After conducting the analysis, we can identify the following basic principles that must be met by organizational structures of enterprises as the following:

– interconnection between elements – we can mention that most authors under the concept “elements” mean organizational units, elements of the system or subdivisions of the enterprise, but some of them also specify it up to individual officials and members of a collective;

– consistency of objectives, tasks and functions – the distribution of roles, powers and responsibilities between elements of the system, as well as the functional, information and technological interconnection;

– the ratio of centralization and decentralization;

– division of labor.

**Table 1.3**

## Principles of formation of organizational structure of the enterprise

| Resources | Principles | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Division of labor | The ratio of centralization and decentralization | Consistency of objectives, tasks and functions | Interconnection between elements | Management functions primacy | Staff ratio | Efficiency | Purposefulness | Stability | Development | Formalization | Specialization |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| Milner B. Z., Evenko L. I., Rapoport B. S. [47; 48; 49] | + | + | + | + | | | | | | | | |
| Smirnov S. V., Stepanov V. V. [62; 63] | + | + | + | + | + | | | | | | | |
| Zelenevskiy I., Kozlova O. V., Kuznetsov I. N., Vladimirova I. G. [23; 26; 29] | | + | | + | + | | | | | | | |
| Zelenevskiy Ya., Kruk D. M. [24; 33] | | + | | + | | | | | | | | |
| Solomatin V. V. [65] | + | | | + | | | | | | | | + |
| Valuyev S. A., Ignatyeva A. V., Lehtsier L. I., Afanasyev V. G. [4; 7; 39] | | | | + | | | | | | | | |
| Aganbegyan A. G., Bagrinovskiy K. A., Granberg A. G. [1] | + | | + | + | | | | | | | | + |
| Kamenitser S. E. [26] | | | | + | | + | | | | | | |
| Piryazev M. M., Slezinger G. E. [56; 61] | | | | + | | | | | | | | |
| Yevenko L. I., Valuev S. A., Yekaterinoslavskiy Y. Y., Ovsievich B. L., [7; 17; 18; 55] | | | | + | + | | | | | | | |
| Kukura S. P. [34] | | | + | + | | | | | | | | |
| Varyas Yu. V., Kono T. [8; 31] | + | + | + | | | | | | | | | + |
| Ackoff R. L., Emery F. I., Mintzberg H. [3; 51] | + | | | | | | | + | | | | |
| Gertchikova I. N. [13] | | + | + | + | | | | | | | | |
| Syroezhkin I. M. [67; 68] | + | | + | | | | | | | | | |
| Galkovich R. S., Nabokov V. I. [11] | | | | + | | | | + | | | | |
| Meskon M. H., Albert M., Hedouri F. [45] | + | | + | + | | | | | | + | + | |
| Samofalov V. I. [59; 60] | + | | | + | | | | | | | | |
| Lagosha B. A., Sharkovich V. G., Degtyareva T. D. [35; 36] | | | + | + | + | | + | + | | | | |
| Akimova T. A. [2] | | | | + | | | | | + | + | | |
| Fyodorova N. N. [73] | + | | | + | | | | + | + | + | | |

According to our research, the most appropriate interpretation of the concept of "organizational structure" is presented by the authors Milner B. Z., Evenko L. I., Rapoport B. S. [47; 48; 49] – organizational structure is the effective distribution of management goals and objectives between departments and employees in the management apparatus at all levels. That is why, in this work, the author will be refer to this definition of the key concept of research.

### 1.2. The dynamics of changes in the approaches to the classification of organizational structures

The variegated and complex nature of market reforms has changed the emphasis in the modern approaches to building organizational structures of the enterprises. Many researchers point to the insufficient flexibility of the control apparatus, the lack of reliable horizontal connections and the inefficacy of information channels. As a result, effective organizational structures of management in modern conditions have turned out to be mostly inefficient.

The problems of constructing organizational structures have been studied by well-known domestic and foreign authors historically sequentially, constructively and effectively. They proposed scientifically based prospects for the development of organizational structures at the macro level and micro level in relation to real business conditions, which at the stage of active development of market forms and methods of managing the real economy are especially significant.

According to [78] the period 1900-1950 is characterized by the development of a functional and institutional concept within the framework of the scientific and classical schools of management. This period was a turning point, thanks to which management began to be recognized as an independent field of scientific research, and methods and approaches to building organizational structures for enterprise management began to be effectively used by business practice to achieve the goals of the organization.

At the turn of the 1930s, preconditions began to form for the transition from extensive to intensive management methods, and therefore there was a need to search

for new principles for building organizational management structures more sensitive to the human factor, which made it possible to supplement the already known types of management structures for socio-psychological elements.

Starting in the 1950s, control theory was characterized by the development of system management concepts, the key characteristic of which was the replacement of verbal reasoning and descriptive analysis with models, symbols and quantitative values, with the subsequent transition to systems engineering that solves the problems of creating complex control systems. Within the framework of the system concept of enterprise development, organizational structuring is proposed to be carried out through hierarchical decomposition and synthesis of the goal tree.

In 1970–1980, the problem of flexibility began to be solved by establishing direct managerial ties between staff, functional and linear units of all levels. This implied a clear distribution of responsibilities of linear and functional managers. Such structures are called linear-functional. In general, the given theoretical classification of organizational structures corresponded to the typology adopted in foreign management theory. The qualitative difference lies in the higher degree of abstraction and theoretical convention of classification adopted in domestic practice.

Since the 1980s and to the present, the development of the theory and practice of organizational management structures is associated with the evolutionary concept of management development, the influence of ownership forms on the organization of management, methods of their adaptation to market relations.

According to the analysis of the works of domestic and foreign authors, the author provides generalized information on the dynamics of the development of organizational management structures in a table format (table 1.4).

Thus, we can conclude that simultaneously with changes in the economic environment, the following changes in approaches to the classification of organizational structures are observed:

1) the constant complication of existing organizational structures;

2) the emergence of multidimensional organizational structures;

3) the transition from hierarchical organizational structures to more abstract;

4) a significant increase in flexibility compared to the original organizational structures;

5) the structuring of the organization by many criteria (not only by level of authority, but also by departments, market areas etc.);

6) gradual transition from formal to informal organizational structures, and sometimes a combination of two types and other changes.

**Table 1.4**

**The dynamics of the organizational structures development**

**(developed by the author based on [78])**

<table>
<tr><th>Period</th><th>Key economic trends</th><th>Management concept</th><th>Type groups of organizational structures</th><th>Types of organizational structures</th></tr>
<tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr>
<tr><td rowspan="4">1900–1950</td><td rowspan="4">– vertical integration strategy<br>– market differentiation<br>– product update<br>– diversification without interconnection with innovation</td><td rowspan="2">Functional</td><td rowspan="4">Bureaucratic (hierarchical, mechanistic)</td><td>Linear</td></tr>
<tr><td>Functional</td></tr>
<tr><td rowspan="2">Institutional</td><td>Linear – Functional</td></tr>
<tr><td>Project – Matrix</td></tr>
<tr><td rowspan="3">1950–1980</td><td rowspan="3">– stable growth and development of all market sectors in a deterministic economic environment<br>– technological differentiation<br>– interconnected diversification<br>– enlargement and integration of developing and manufacturing enterprises</td><td>System</td><td rowspan="3">Bureaucratic, adaptive</td><td>Divisional</td></tr>
<tr><td rowspan="3">Situational</td><td>Multidimensional matrix</td></tr>
<tr><td>Program–Target</td></tr>
<tr><td rowspan="4">1980–until now</td><td rowspan="4">– globalization of the global economy<br>– strategic transformation of markets<br>– enlargement of companies in conditions of international competition<br>– information and technological revolution</td><td rowspan="3">Evolutional</td><td rowspan="4">Organic (adaptive, flexible)</td><td>Multidimensional structures divided by technological, product and market areas</td></tr>
<tr><td>Network</td></tr>
<tr><td>Virtual</td></tr>
<tr><td>Innovative</td></tr>
</table>

In modern scientific literature most authors came to the conclusion that all organizational structures are divided into two groups – formal and informal. Thus, in

this study, we propose to adhere in our opinion to the most complete classification of organizational structures developed in [12]. This classification is presented in graphical form in fig. 1.1.

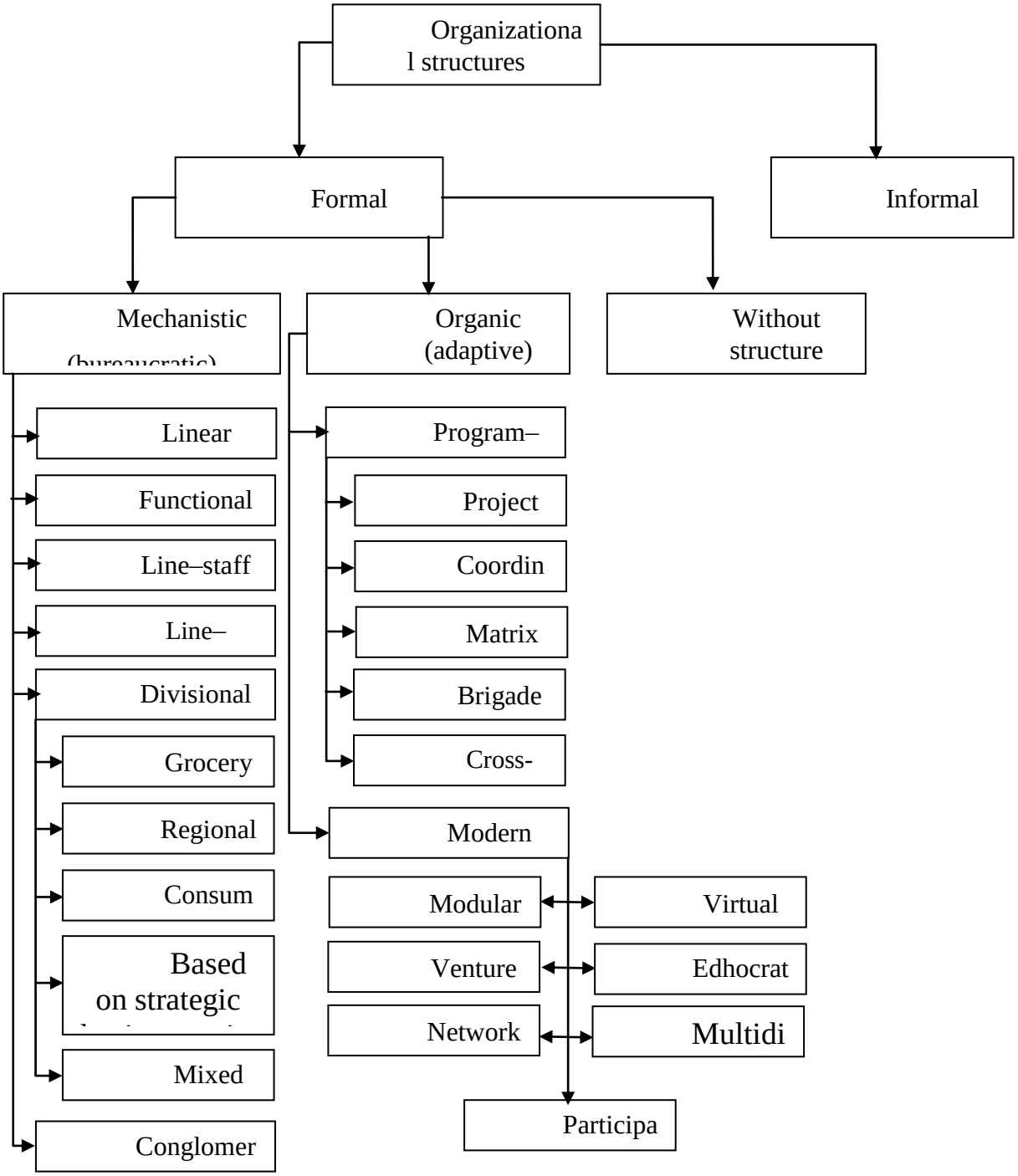


**Fig. 1.1. Types of organizational structures of the enterprise [12]**

Historically, the original organizational structures were of a mechanistic type. Organization is seen as a vertical system. It is assumed that the amount of authority and responsibility delegated to each official in the linear chain of subordinates decreases in proportion to his removal from the chief manager. These organizational structures are elementary with a two-level separation, which can exist only in small enterprises. Organization with elementary structure distinguishes the upper and lower levels (leader and executor, respectively). Elementary structures include linear and functional.

According to [12] the principle of unity of command is clearly implemented in linear structure: at the head of each unit is a leader who is endowed with all the powers and concentrates all management functions in his hands. The basis of a functional organizational structure is the principle of complete management: the instructions of a functional body within its competence are mandatory for units. To some extent, the linear-staff and linear-functional organizational structures, which provide for the functional division of managerial work in units of different levels and a combination of linear and functional management principles, contribute to eliminating the shortcomings of linear and functional organizational structures. In contrast to the linear-staff, linear-functional organizational structure is the most common hierarchical type of organizational structures, still widely used throughout the world. The experience of using the linear-functional organizational structure has shown that it is most effective where it is necessary to perform many routine, often repeated procedures and operations with the stability of managerial tasks and functions, where through a rigid communication system ensures the clear work of each subsystem and organization as a whole. Divisional organizational structure is characterized by a combination of centralized strategic planning in the upper echelons of management and the decentralized activities of departments at the level of which operational management is carried out and which are responsible for making a profit. Therefore, it is customary to characterize divisional organizational structures as a combination of centralized coordination with decentralized management.

The development of divisional structures, caused by increased diversification of production, led to the emergence of conglomerate firms. At these firms many units have their own organizational structure and can also be engaged in the production of completely different types of products in nature. The appearance of various types of divisional structures (grocery etc.) is caused by the growth in the scale of enterprises and corporations. To increase flexibility and ability to adopt extremely quickly to changes in the external environment companies began to separate production units with the provision of a certain independence in the implementation of management. Author has developed a comparative description of the mechanistic types of organizational structures based on an analysis of the work of domestic and foreign authors. This characteristic is presented in table 1.5 of this study.

**Table 1.5**

**Comparative characteristics of formal mechanistic (bureaucratic) types of organizational structures**

| Type | Key figures in the management process | Main principles | Advantages | Disadvantages |
|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** |
| LINEAR | Chief, subordinate | Vertical hierarchy | – Clear system of mutual relations of functions and units;<br>– a clear system of one-man management;<br>– quick response of executive units to direct instructions of higher ones. | – Low flexibility and adaptability to adopt to changes;<br>– a large number of management levels;<br>– overloading top-level managers;<br>– lengthy management decision making process;<br>– difficulties in sharing power due to multiple submission. |

**Continuation of table 1.5**

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| FUNCTIONAL | Management unit, chief, subordinate | Complete management: compliance with the instructions of the management link is mandatory for units | – Deeper analysis of strategic issues than in linear;<br>– some unloading of senior managers;<br>– the ability to attract external consultants and experts;<br>– decentralization of operational decisions;<br>– centralization of strategic decisions;<br>– the need for specialists of a wide profile is reduced. | – Insufficiently clear distribution of responsibility;<br>– trends towards excessive centralization of management;<br>– excessive interest of each functional link to solve only their goals and objectives;<br>– the difficult maintenance of the constant interconnection of various functional units;<br>– lengthy management decision making process;<br>– difficulties in sharing power due to multiple submission. |
| DIVISIONAL | Chief, production department manager, subordinate | The combination of central coordination with decentralized management | – Increase in the level of interaction between production and end users;<br>– Increase in the flexibility and speed of reaction to changes in external business conditions;<br>– more intensive coordination of the activities of different units of the same division due to subordination to one person;<br>– each division receives its own competitive advantages. | – Consolidation of the management hierarchy<br>– the complexity of the vertical management of the organization as a whole;<br>– duplication of management functions;<br>– increase in the cost of maintaining the administrative apparatus;<br>– duplication of work of various departments;<br>– double submission leads to conflicts. |

The difference between organic organizational structures and mechanistic-type structures is that organic are based on the integrated management of the entire system as a whole. Organization is recognized as a single object focused on a unique specific goal.

According to [12] the program-target structure of the coordination type involves the creation of a special coordination body in the current linear-functional structure. The coordination type structure is not a strong organizational mechanism for solving complex production problems. Project structures in a company are usually applied when it becomes necessary to develop and implement an organizational project covering a wide range of specialized technical, economic, social and other issues and various functional and linear units. After fulfilling the project, the structure disintegrates and employees move to a new project team or return to their permanent

position. These structures are more flexible, quite simple and economical. In addition, they allow the organization to develop several projects simultaneously without changing the usual organizational structure. Author has developed a comparative description of the organic types of organizational structures based on an analysis of the work of domestic and foreign authors. This characteristic is presented in table 1.6 of this study.

**Table 1.6**

**Comparative characteristics of formal organic (adaptive) program-target types of organizational structures**

| Type | Key figures in the management process | Main principles | Advantages | Disadvantages |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| Project | Special unit – project team, project manager, subordinates | Temporary structure for solving a complex problem | – High flexibility and adaptability of systems;<br>– minimized risk of erroneous decisions;<br>– professional specialization of heads of functional departments;<br>– the ability to take into account the specific conditions of the region;<br>– delineation of responsibilities;<br>– the ability to develop several projects simultaneously without changing the usual organizational structure;<br>– personnel autonomy of functional units. | – Complex coordination mechanisms;<br>– double submission leads to conflicts;<br>– the blurring of responsibility for a single project;<br>– the complexity of the control of the project as a whole;<br>– the need to differentiate control by function and project. |
| Coordinating | Chief, coordinating unit, management unit, subordinates | Integrated management of the system as a whole | – Simplification of management of current tasks;<br>– top management unloading;<br>– the ability of senior management to concentrate on strategic tasks first. | – Weak powers of the coordination unit;<br>– lengthy management decision making process;<br>– the possibility of conflict between line and functional managers due to the double subordination of line managers. |

**Continuation of table 1.6**

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| Matrix | Chief, functional units, departments, subordinates | Developed network of horizontal connections, intersections with the vertical hierarchy due to the interaction of project managers with the heads of units | – Involvement of managers and specialists of all levels in the sphere of active creative activity;<br>– the opportunity for the program manager to introduce it into production in the most efficient way;<br>– reduction of project implementation timelines;<br>– reduced project implementation costs. | – High requirements for linear and functional managers;<br>– weakening of personal responsibility and motivation;<br>– lengthy management decision making process;<br>– the possibility of conflict between line and functional managers due to the double subordination of line managers. |
| Brigade | Chief, working group (brigade), subordinates | Autonomous work of teams; independent decision-making by working groups and horizontal coordination of activities; replacing bureaucratic type managerial ties with flexible ones; involvement of employees of different departments | – Short circuit of the main processes inside the team;<br>– flexibility of relationships;<br>– responsiveness to changes in the external and internal environment. | – The difficulty of horizontal coordination between related working groups;<br>– high costs of organizing activities. |
| Cross-functional | | | – Reduction of the administrative apparatus, increasing its management efficiency;<br>– flexible use of personnel, their knowledge and competence;<br>– work in groups creates the conditions for self-improvement;<br>– the possibility of applying effective methods of planning and management;<br>– reduced need for specialists of a wide profile. | – Lack of distribution of employees by functional units;<br>– the formation of local isolated systems with their own goals and interests;<br>– complication of interaction;<br>– difficulty in coordinating the work of individual teams;<br>– high responsibility of staff;<br>– high communication requirements. |

Since organizational structures undergo changes on an ongoing basis, and new types of organizational structures arise, it is advisable to single out common features for modern types of organizational structures. The following main features of the modern organizational structures are examined and highlighted in the scientific literature:

– focus on predicting environmental changes;

– integration and intersection of functions, their integration along the value chain;

– globalization and transnational nature of doing business;

– interaction based on information technology;

– focus on stakeholders;

– flexibility and adaptability of building business processes;

– customer priority and customization of management;

– the increasing role of process innovation;

– development of internal entrepreneurship, a special organizational culture;

– formation of a positive image for all key business processes [58].

Author has developed a comparative description of the modern types of organizational structures based on an analysis of the work of domestic and foreign authors. This characteristic is presented in table 1.7 of this study.

**Table 1.7**

**Comparative characteristics of formal organic (adaptive) modern types of organizational structures**

| Type | Key figures in the management process | Main principles | Advantages | Disadvantages |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| Modular | Chief, working group / functional units, subordinates | Set of production modules; management autonomy under general management | – High flexibility and responsiveness to changes in the external and internal environment;<br>– autonomy of management;<br>– quick decision-making within a separate unit. | – Lack of personnel of various qualifications;<br>– high responsibility of staff;<br>– high communication requirements. |
| Venture | | Modern modifications of program-target structures | – A small team contributes to a quick response to changes in the external environment;<br>– high flexibility<br>– team cohesion and focus on a single goal. | – Lack of personnel of various qualifications;<br>– high responsibility of staff;<br>– high communication requirements;<br>– the formation of local isolated systems with their own goals and interests. |

**Continuation of table 1.7**

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| Network | Chief, entrepreneurs | Enterprise structure is flat, horizontal, 2-3 hierarchical levels | – Concentration of the company on priority areas of specialization and on the unique processes;<br>– significant cost reductions, their rational structure and increased revenues;<br>– low employment, elimination of duplication of the use of skilled labor;<br>– involvement in the joint activities within the network of the best partners, the exclusion of the use of second-rate performers;<br>– a global network company allows to use the huge resource potential and achieve the highest quality products and competitive prices, offer products around the world. | – Heterogeneity of members of the enterprise;<br>– there is no orientation to a multifaceted qualification of a general profile;<br>– excessive dependence on staffing;<br>– low motivation of network entrepreneurs;<br>– weak direct control of all processes;<br>– need for managers prepared for work in various countries. |
| Virtual | Several multidirectional enterprises | Increasing the speed and quality of orders; combining the resources of various partners into a single system | – High flexibility and adaptability of systems;<br>– quick market order execution;<br>– the ability to reduce total costs;<br>– the possibility of better meet customer needs;<br>– responsiveness to changes in the external and internal environment;<br>– lower barriers to entering new markets. | – Economic dependence on partners, which is associated with the narrow specialization of network members;<br>– the practical lack of social and material support of partners due to the rejection of long-term contractual forms;<br>– openness of networks;<br>– uncertainties in planning. |
| Multidimensional | Chief, working group / functional units, subordinates | Three directions of the division of labor (functional, product or by markets) | – Reduced bureaucracy and simplified management system;<br>– favorable conditions for delegation of authority;<br>– lack of dual subordination;<br>– a combination of the broad autonomy of units using the synergy effect at the organization level. | – Poor performance of units separately;<br>– tendency to anarchy;<br>– the struggle for resources within the organization;<br>– lack of direct control over units;<br>– difficulties in implementing strategic projects. |

The type of organizational structure “no structure” organization is also highlighted in the scientific literature [12]. This form can be found in companies whose structure is just beginning to be formulated, and the staff does not exceed 15 people. In such organizations, the entrepreneur directly manages all types of activities. We should also mention that new forms of organizational structures are not widely used in practice nowadays.

### 1.3. The process and methods of organizational structures development

The organizational structure development process is called either as the process of organizational design. This process is the basic stage of creating any organization or its separate unit. This process includes the development of the future structure of the organization, its management system, procedures for performing actions, administrative, technological interactions between all elements of the structure etc.

The basis of this design are the strategic goals of the organization and its mission. Organizational design is to develop such design solutions that will provide an effective functioning for the organization and will contribute to the achievement of its strategic goals. The organizational structure development process is quite long, labor-consuming and requires a certain qualification of the persons involved.

The standard scheme of the organizational design process is described in the scientific literature [27]. According to author this process consists of the three phases: pre-project preparation, design of organizational systems and implementation of the organizational project. In addition, the author distinguishes several stages of the process as following: the identification of existing needs, the definition of goals and objectives, the analysis of design decisions and their subsequent synthesis, the choice of the optimal organizational structure, presentation of the results, project implementation, evaluation of the results and correcting actions.

The standard scheme of the organizational design process according to [27] is presented in fig. 1.2.

In our opinion, this scheme is imperfect and requires changes. The design of organizational systems occurs in two stages, which must be indicated on the diagram. Thus, it is necessary to add a designation of the sequence of actions when designing organizational systems: the first stage is the collection of primary data and the development of the design basis during preliminary discussions and discussions, and only after finishing first step design engineering is conducted – the second stage. Design engineering cannot occur in parallel with the preliminary one, since the development of organizational structure itself is possible only after making decisions on the organization of the main flows in the working process of organization as a system.

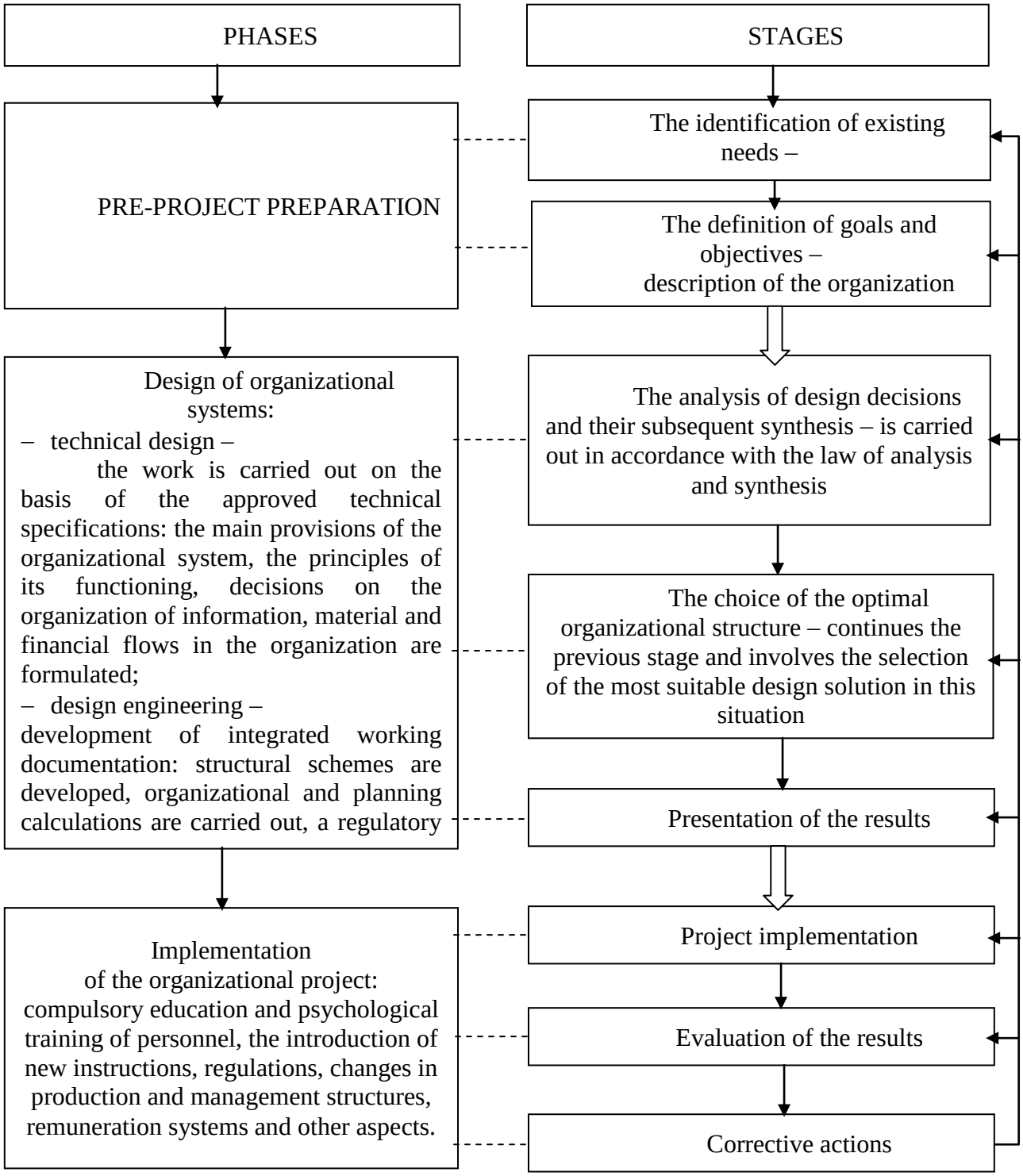


**Fig. 1.2. The standard scheme of the organizational design process according to [27]**

Thus, the improved scheme of the organizational design process is represented in fig. 1.3.

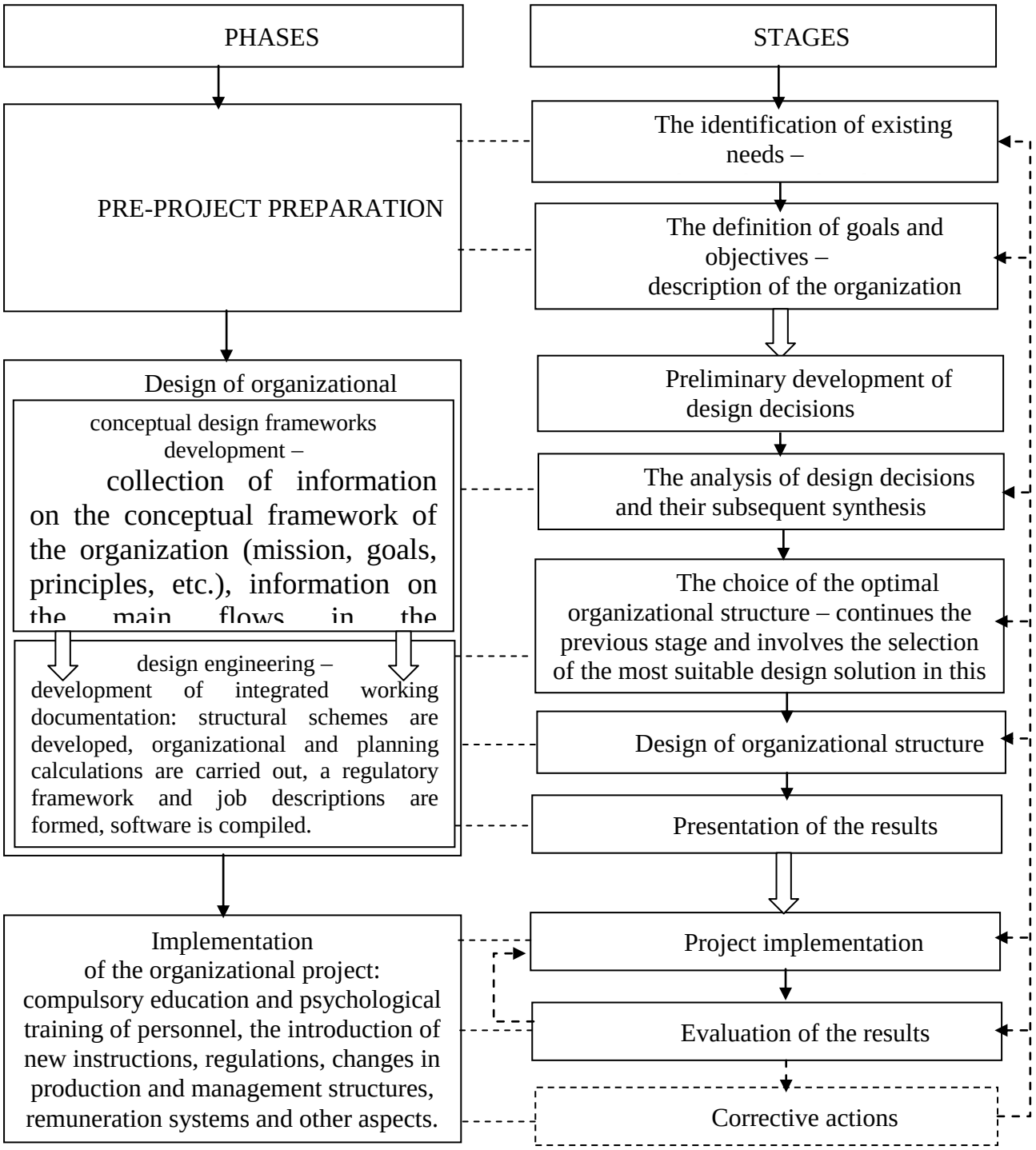


**Fig. 1.3. The improved scheme of the organizational design process complied by the author based on [27]**

Before the analysis of design decisions and their subsequent synthesis it is necessary to highlight the stage of preliminary design, which arises in the course of discussions of the draft of a new organizational structure. Only after the development

of preliminary designs, the expert group can determine the most appropriate option, which will form the basis for further design of the desired organizational structure.

In addition, at the design phase, the main stage of the design itself is missing, which must be added after choosing the optimal organizational structure and before presenting the results. Moreover, in our opinion, corrective actions cannot be applied to the stage of presenting results, since this stage is the result of the previous stage.

In addition, internal feedback should be added at the stage of evaluating implementation results. The assessment stage in this case is considered intermediate. This stage may include cases of impossibility to implement a design solution, errors during implementation etc. In most cases errors can occur at the stage of initial implementation which does not require full implementation of the project. Intermediate results may arise during the project implementation process itself.

In addition, corrective actions should be considered as an optional phase of the organizational design process. This can be claimed due to the fact that after evaluating the results, corrective actions may simply be unnecessary. Thus, the adjustment is not an integral part of the implementation of the project, but the optional phase of the process. The organizational design process cycle will be completed when corrective actions are not needed. After this, normal functioning of the organization begins.

As was mentioned earlier, organizational structures are rather sophisticated phenomenon. This causes both the ambiguity of the concept itself, the lack of a common opinion on its interpretation and also it causes the fact that it is impossible to use only one method during the process of modeling and improving organizational structures. It should be noted that the organizational design process is considered as a project. Thus, the project must be final and complete. This is what determines the cyclicity of the project until the stage of evaluating the results. Adjustment is an optional step that can arise and be applied in the process of project implementation. In case of successful implementation, the project is considered completed and it does not require adjustments.

According to [80] it is necessary to distinguish two groups of methods used in the organizational design process: methods of project execution and design methods.

The most complete classification is presented in our opinion in the source [79].

According to this source there are three groups of methods of project execution. Description of each type of methods of this group is presented in the table 1.8.

**Table 1.8**

**Description of the group of project execution methods**

| Method | Characteristics | Scope of application |
|---|---|---|
| Individual design | For each object, taking into account its features, its own organization project is created | All design work is aimed at creating individual projects |
| Typical design | Involves dividing the designed system into separate elements and creating for each of them its own design solution | Used in the design of the organizational system as a whole |
| Computer-aided design | Use of computer programs to create a global model of the organizational system | Based on this model, taking into account the necessary parameters, the model of the organization's project is built |

Methods of design the organizational structure according to [27] include all actions that are applied during the design process. There are a numerous variety of design methods. Different authors distinguish different design methods. But the main goal of this methods is to provide the designer with the information necessary to create a new object. In our opinion the most complete classification of this group of methods is given in [5]:

1. The method of analogies (the use of organizational forms and management mechanisms which have proved themselves in organizations with similar organizational characteristics relatively to the projected organization – goals, type of technology, specifics of the organizational environment, size, etc.). The method of analogies is used for increasing the overall level of management organization, aimed at standardizing and unifying organizational forms of management. Typical organizational decisions should be reviewed and adjusted at regular intervals and in

cases where the working conditions of the organization differ from clearly formulated conditions for which an appropriate standard form of the organizational structure of management is recommended.

2. The expert-analytical method (examining and analytical studying the organization by qualified specialists with the involvement of its top-management and other employees in order to identify specific features, problems in the work of the control apparatus, to develop rational recommendations for its formation or restructuring based on quantitative assessments of organizational structure effectiveness, rational management principles, expert opinions, as well as generalization and analysis of the most advanced trends in areas of management organization). This method is the most flexible and comprehensive. It is used in combination with others (especially methods of analogies and structuring goals) and has diverse forms of implementation. Such methods include the development and application of scientific principles for the formation of organizational structures, the development of graphic and tabular descriptions of organizational structures and management processes etc.

3. Structuring method (development of the organization's goals system, their quantitative and qualitative formulation, subsequent analysis of organizational structure from the point of view of its compliance with the goals system). This method usually consists of three stages that are presented in fig. 1.4.

4. The method of organizational modeling (development of formalized mathematical, graphic and other mappings of the powers and responsibilities distribution, which are the basis for the construction, analysis and evaluation of options for organizational structures by the relationship to their variables).

5. The method of organizational modeling (development of formalized mathematical, graphic and other mappings of the powers and responsibilities distribution, which are the basis for the construction, analysis and evaluation of options for organizational structures by the relationship to their variables).

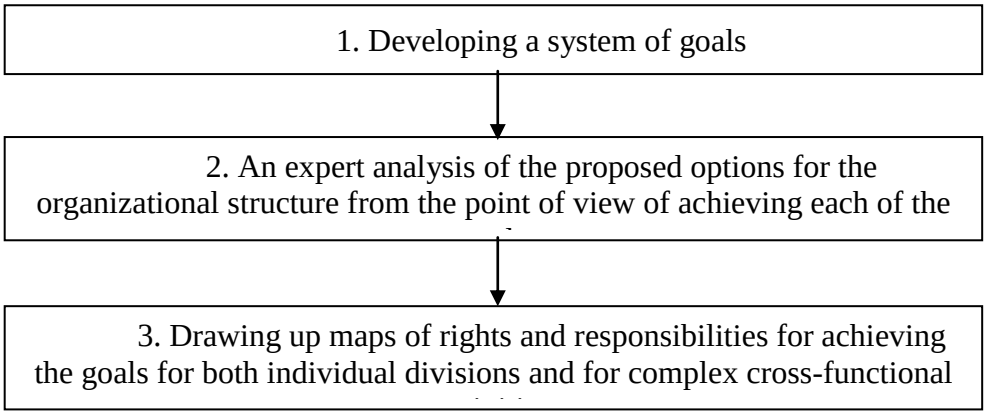


**Fig. 1.4. Stages of conducting structuring methods of organizational structure design**

6. The method of organizational modeling (development of formalized mathematical, graphic and other mappings of the powers and responsibilities distribution, which are the basis for the construction, analysis and evaluation of options for organizational structures by the relationship to their variables).

7. Situational analysis (a set of formalized procedures for analysis of existing parameters and modeling the input characteristics during changing the structure). The main methods of a situation analysis include analysis of the mission and goals, assessment of strategic potential, analysis of the internal or external environment etc.

It should be mentioned that the choice of a method for solving a particular organizational problem depends on its nature, as well as on the possibilities for applying the corresponding method. In addition, the methods can be applied both independently and in combination with others. In addition, the methods can be combined with each other and, when building one organizational structure, the methods of various groups can be used in stages, or at one stage can be combined with each other. The combination of methods makes the organizational design process more complete and versatile. In addition, a combination of methods allows you to design more complex organizational structures of enterprises. Therefore, often in practice, experts try to combine various methods to obtain the best result.

A schematic classification of the methods used in the organizational design process is presented in the fig. 1.5.

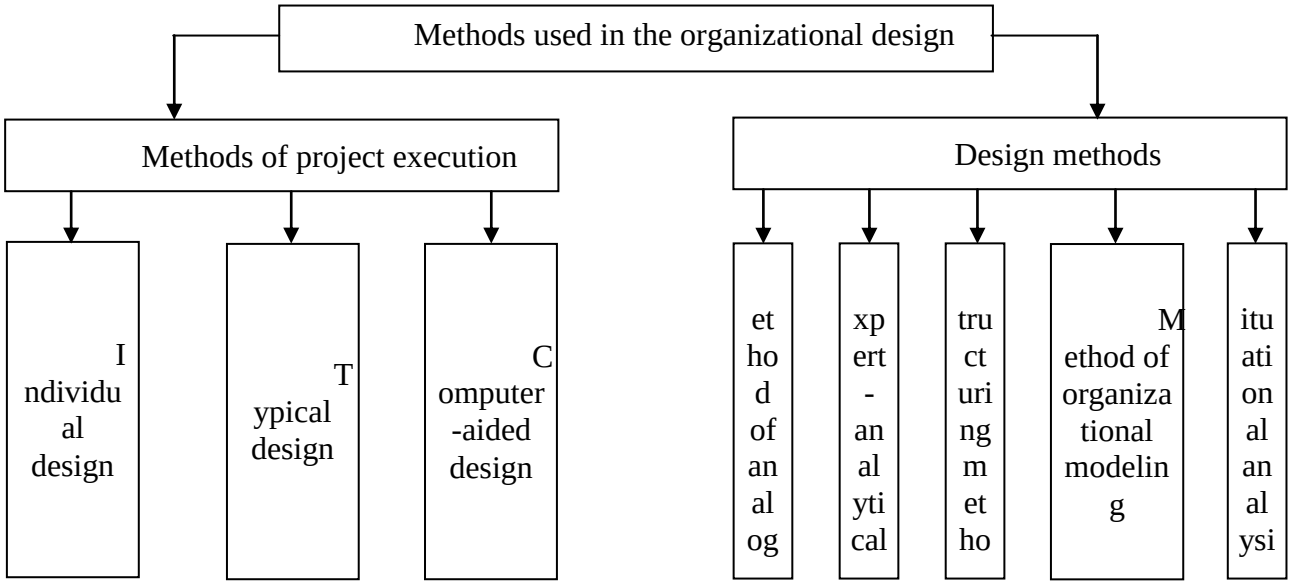


**Fig. 1.5. Schematic classification of the methods used in the organizational design process**

Thus, in the first part of this research, the concept of organizational structure was analyzed. After we have conducted the analysis of this term, we can mention that management researchers have not come to a common opinion regarding the definition of this concept. This is due to the multivariate nature of this economic term, its complexity and the diversity of applications. During this research it was identified two different approaches to the interpretation of definition “organizational structure” – “structural” approach (organizational structure is identified with the structure of the relationship between departments and positions of the enterprise) and “functional” approach (the organizational structure of an enterprise is identified rather as a structure of interrelated goals and objectives of an enterprise management model built in way to achieve organizational goals). Main principles of formation of organizational structure of the enterprise were determined by analyzing the frequency of mentioning them in interpretations of the concept “organizational structure” given by different authors.

Also in the work the dynamics of the organizational structures development was analyzed. The analysis includes describing key economic trends and management concept existing during this period and dominant types of organizational structures. Organizational structures in this work were classified by types. In addition, summary tables that include the basic principles of a particular organizational structure, its advantages and disadvantages have been developed. The author also identified the main figures in management process, advantages and disadvantages of the organizational structures of each considered type.

It should be noted that in this part of the study a general most common in the scientific literature scheme of the organizational design process is also presented. The author highlighted disadvantages of this scheme and developed an improved scheme of the organizational design process. In addition, the main methods used in the process of organizational design are reviewed and classified.

In the first chapter theoretical aspects of the organizational structures of enterprises are considered. The definitions of the concept of organizational structure of the enterprise of different authors were analyzed. During analysis it was outlined two approaches to its consideration and interpretation such as structural and functional. The principles of organizational structures provided in the scientific literature were analyzed. The main ones were identified by counting the number of references in the scientific literature studied. The dynamics of changes in the classification of organizational structures were considered and described. The classification and comparative characteristic of the existing types of organizational structures were given. It was also highlighted the main principles and key management units of the existing types of organizational structures. The basic methods of organizational structure development and design were considered. The process of organizational structure development is analyzed and improved.

# 2. COMPREHENSIVE ANALYSIS OF THE PJSC "ENRAN" ACTIVITY

## 2.1. Overview of the enterprise, analysis of management system and key indicators of the enterprise's activity

The research base was PE "Scientific consulting center of management technologies", which is a consulting company and provides management consulting services to enterprises. At the request of PE "Scientific and consulting center of management technologies", a comprehensive analysis of the industrial enterprise PJSC "ENRAN" was carried out.

Private Joint Stock Company "ENRAN" (hereinafter referred to as PJSC "ENRAN") was registered on June 25, 2010 by the Shevchenko District State Administration of Kyiv.

The company identification code is 01198760. Series and certificate number – A01 №725297.

PJSC "ENRAN" is registered in the State Tax Inspectorate of Kyiv.

The main activities are "manufacture of furniture for offices and trade enterprises" (NACE code – 31.01) and "wholesale of wood, construction materials and sanitary equipment" (NACE code – 46.73).

PJSC "ENRAN" operates on the basis of the charter and is governed by the laws of Ukraine "On Entrepreneurship", "Economic Code of Ukraine", "On Business Enterprises" as well as other legislative acts of Ukraine.

PJSC "ENRAN" as a legal entity has complete economic autonomy, independent balance, has a seal and a stamp. The company has opened settlement accounts in PJSC "Integral Bank" which serves PJSC "ENRAN" current accounts in national and foreign currencies.

The purpose of the activity of the enterprise is to carry out entrepreneurial activity, making profit and using it in the interests of the participants of the company, effective management of property and funds, both own and involved, providing public needs of the products, works and services of the company.

Nowadays PJSC “ENRAN” is the leading manufacturer of furniture and complex interior solutions in Ukraine, known in the markets of Ukraine and CIS countries. Becoming the first Ukrainian full-cycle furniture manufacturer from design to sales and installation of the final product, PJSC “ENRAN” has strengthened its reputation as a top furniture manufacturer and reaffirmed its intellectual and technological capabilities.

The facilities of the enterprise cover the area of 22 000 sq. m and are equipped with modern equipment, advanced technologies and up-to-date software.

The quality requirements and standards of work of the company are in line with the European level. The ISO-9001 certificate is an official acknowledgment of the deserved leadership. The production complex of PJSC “ENRAN” was the first among the manufacturers of office furniture in the CIS countries to receive the “Certificate of Conformity” ISO 9001:2008 – an international certificate, which confirms that the company has developed a quality management system (from design works to the accompanying service). The certificate is provided in Appendix A.

The company has a team of experienced experts: designers, engineers, constructors and production managers. Nowadays PJSC “ENRAN” consists of more than 350 employees.

The organizational and staff structure of PJSC “ENRAN” is represented in Appendix B.

PJSC “ENRAN” occupies a few markets. Europe’s markets have the top priority. The company’s products are exported to Germany, Italy, Spain, Belgium, Netherlands and the Baltic States.

Since 1992 PJSC “ENRAN” has gone through a difficult but successful way of integrating its units into a powerful company that occupies a priority position in the Ukrainian furniture market. In 1993 the production base of PJSC “ENRAN” (Stari Petrivtsi village, Kyiv region) was launched. In 2003 several new brands were introduced to the market and in the following years several new series of furniture were introduced under the new brands. PJSC “ENRAN” is constantly improving its products. For example, in 2006 PJSC “ENRAN” has introduced new exclusive

technology – “corundum” coating. The same year at the XVII International Specialized Exhibition Kyiv Expo Furniture PJSC “ENRAN” received the first place in the Innovation category for its “tamburato” technology.

The slogan of the company PJSC “ENRAN” is the following: “PJSC “ENRAN” is a leader in the production of quality furniture in Ukraine.”

The production complex of PJSC “ENRAN” is a structural unit of the company and it is located 12 km from the border of the city of Kiev in the village of Stari Petrivtsi (Vyshgorod district).

PJSC “ENRAN” has one of the best lines in Ukraine and the CIS with numerical program control for the production of high quality solid wood furniture, as well as veneer, particleboard and MDF. The entire production process is controlled by the computerized system of production control and product quality.

In recent years PJSC “ENRAN” has not only expanded its production base by purchasing the most advanced equipment, but also it has successfully mastered the latest technologies that allowed to move to a new level of relations with the customer and fulfill the ideas of the most demanding and creative ones. The new technologies of metal, glass, wood, stone and other materials available in the production today are a completely new thinking in interior and furniture production.

By becoming the first Ukrainian full-cycle furniture manufacturer “from design to sales and installation of the final product”, PJSC “ENRAN” strengthened its reputation as a number one furniture manufacturer and confirmed its intellectual and technological capabilities.

As PJSC “ENRAN” is a full-cycle manufacturer – from design development to sale and installation of the final product there are wide range of technologies are used in production.

The characteristics of technologies used by PJSC “ENRAN” in production are given in table 2.1.

**Table 2.1**

## Characteristics of technologies used by the enterprise in production

| Technology | Characteristics |
|---|---|
| **1** | **2** |
| Sheet metal technology | The Metal sheet bending machine is a new-generation press with numeric control. Thanks to programmable machines, we can make absolutely identical parts using the same program. The bend configuration (angle, radius, bent part width) depends on the tooling used. Our highly qualified experts with wide work experience can solve any technical task: part, unit, structure and non-standard product. |
| Water Jet Cutting | Water jet cutting of natural and artificial stone, metal, glass, plastic and many other solid materials is considered to be the most efficient processing method for finishing materials. Water jet cutting on equipment with numeric control is often used for the production of complex shapes and allows you to create encrustation when producing decorative elements. |
| Woodworking | PJSC "ENRAN" has a huge fleet of woodworking equipment, most of which are gas equipped and numerically controlled. It allows milling of curvilinear parts from an array, a furniture board or from a chipboard. It also carries out additive and edge-lining of curvilinear parts from a chipboard, MDF, an array or from a furniture board. All operations are controlled by program control using preset programs. |
| Solid polyurethanes | PJSC "ENRAN" introduced an exclusive technology of casting furniture polyurethane edges of different configurations and furniture accessories. The production technology of cast polyurethane furniture edge has many important advantages in comparison with a conventional edge: the edge profile form is limited only by designer's imagination; the finished edge is seamless, hygienic, waterproof and resistant to mechanical loads and damage like impact, abrasion and deformation; the edging requires no glue, polyurethane is glued itself to the work-piece, penetrating into its structure during the process; the shaped product can be mechanically treated. |
| Laser metal pattern cutting | laser cutting is the most advanced technology for pattern cutting of various materials: metal, wood, plastic, organic glass. Laser cutting technology uses a focused laser beam of a strictly defined power as its basic working tool. Laser beam performs cutting of complex geometric shapes with the highest precision and quality on any surface. The use of a special coordinate table for laser cutting allows cutting products of any shape with minimal impact on the material. |
| Traditional metal processing | Metal processing is one of the areas of PJSC "ENRAN" which is constantly developing. Numerically programmable automatic bending machine allows to work in three planes with variable radius. The machine is controlled by a control center that processes all the digital data and signals of the process. |
| Artificial and natural stone | Machining center with numerical control is intended for milling, engraving, grinding, polishing of materials such as artificial stone, marble, granite, glass, light alloys. The high versatility of the machine allows successfully complete the task of interior design of any complexity level. |
| Bending | Bending of natural and artificial stone, metal, glass, plastic and many other solid materials is considered to be the most effective method of processing finishing materials. The method of hydroabrasive cutting on the equipment with numerical program control of PJSC "ENRAN" is used for the production of complex contours and allows to create inlays in the manufacture of decor. |

The company offers 34 series of furniture among which you can find almost everything that will meet the needs of almost any customers.

It should also be noted that PJSC “ENRAN” works directly with customers both in Ukraine and abroad. An important area of work of the company is the development and execution of individual orders and projects as the following:

– transparent office service center in Dnipro;

– the new office of the Orange Travel Agency in Ivano-Frankivsk;

– the company won the tender for the production and installation of furniture for the new Black Label Club in Frankfurt (PJSC “ENRAN” together with the famous German designer Rudiger Distler developed and installed furniture and interior products for the entrance and special areas);

– a new reception area at the Altenburgblick Hotel in the old Bavarian city of Bamberg (Bamberg, Germany);

– stand made by PJSC “ENRAN” for the Azerbaijani mobile operator Nar, was successfully presented at the international exhibition BakuTel-2015 (PJSC “ENRAN” individually designed and manufactured storage and reception systems for the entrance area);

– FED is a world-renowned enterprise that holds leading positions in Ukraine for the development, production, service and repair of aviation and machine-building units. The choice came from a SPIDER graduate office, designed by Odarich Vladislav – a leading designer of PJSC “ENRAN”; jury of the Kiev International Furniture Forum KIFF 2014 recognized the cabinet the best furniture in the nomination “Office 2014”);

– talented architect Ivan Zaychenko and D.T.A. RENOVATION studio together with PJSC “ENRAN” implemented a project for TOKMAK SOLAR ENERGY. This project is signed up for All-Ukrainian Competition “Interior of the Year”;

– innovations and custom design solutions for the modern office were presented by PJSC “ENRAN” at the leading international exhibition ORGATEC MODERN OFFICE & FACILITY-2014. This world-class event took place in Germany from 21 to 25 October 2014 at one of the largest exhibition complexes in the world – Koelnmesse, located in the center of Cologne;

– this summer, 2018 PJSC “ENRAN” realized one more interesting project – the office of the company Turkish Airlines. With the help of a wide range of furniture, KBS managed to create a unique and harmonious office space, emphasizing and withstanding the corporate style of the company;

– the architectural bureau AVG received the award BEST OFFICE AWARDS 2018 for the implementation of one of its innovative projects – the headquarters of the group of companies GT. The main task of the architect in this project was to create comfortable conditions for company employees working in this space. Competently distribute the functional areas and interaction between them, as well as make the individuality of the company in space. To solve the main task, put in this project, furniture was chosen for the organization of an open space series KBS produced by PJSC “ENRAN”.

Furniture market experts highlight the following trends in its development in Ukraine in 2019:

– the most active pace is the production of home furniture;

– the production of office furniture is developing rapidly, which is facilitated by the growing popularity of the use of office space design;

– the emergence of multi-brand furniture hypermarkets;

– the active growth in the popularity of online sales among most manufacturers;

– reorientation of domestic manufacturers from the same type of furniture to the creation of unique offers.

Constraining factors to the development of furniture production in Ukraine are the following:

– increase in the cost of raw materials and components;

– lack of qualified personnel;

– growth in the share of unsold products;

– additional costs in the form of storage and logistics costs;

– lack of financial and credit resources, as well as lack of investment.

According to the State Statistics Service [16], in the period 2013-2017 furniture production in Ukraine was characterized by unstable dynamics. Indicators of volumes of furniture sales in physical terms tended to decrease, while in monetary terms, starting in 2016, there has been some growth, which is more likely indicative of the influence of the factor of rising prices for furniture. Based on the data of production, export and import volumes, we can say that after the crisis of 2015, the growth rate of the domestic market in the period 2016-2017 increased by an average of 15% annually.

Another global trend is the growth in furniture sales in the segment of luxury furniture (both for home and office), the largest market of which is the European one.

It is also worth noting the growing global demand for environmentally friendly furniture, despite the fact that its cost is higher than conventional furniture.

In the structure of the cost of furniture the main components are raw materials, as well as costs for the development and implementation of models, wages, energy resources, logistics, advertising and overhead.

The main market influencing the production of furniture and decorative wooden components is the market of wood processing and the manufacture of wood products. Among the main problems of the woodworking industry, analysts include a reduction in logging in Ukraine (by 2,5% in 2017) and an increase in prices for the main types of raw wood. According to experts, interruptions in the supply of lumber and other wood products are expected in the near future, due to the lack of an effective organization for the purchase of unprocessed wood at auction [72].

A significant role in the development of the Ukrainian furniture market is played by the real estate market. According to the State Statistics Service [16], in Ukraine, the housing commissioning rate in 2018 increased by 9% compared to 2017 and amounted to 10,2 mln sq.m.. There is a direct link between real estate growth and furniture production, so an increase in demand for furniture for residential buildings as well as furniture for business should also be expected.

The growth rate of construction is associated with an increase in demand for design services. The most capacious segment is the market of interior design services

for residential buildings. On the Ukrainian market interior design services are provided by design studios or private designers. Many of them provide a range of services, ranging from architectural design to decoration, furniture design and landscape design, while there is an opinion about the weak aesthetic level of the bulk of designers.

An important direction in the development of the market of design services in Ukraine is the establishment of partnerships between designers and companies providing furniture production services. At the same time, a characteristic feature is the regional specificity of the work, as well as the regional specificity of the clients themselves. The price range for the same services is quite large.

Nowadays in Ukraine there are more than 3 thousand furniture manufacturing companies. Among them: large furniture factories that manufacture furniture in series, medium-sized enterprises working on individual orders and small ones, among which there are a lot of microenterprises. Large manufacturers have better equipment, which provides them with large, compared with medium and small enterprises, production volumes. At the same time, large manufacturers have less production flexibility and can not quickly respond to a change in tastes, styles and design trends. To a lesser extent, such manufacturers can satisfy individual needs, which are successfully carried out by medium and small business entities in the furniture industry.

To enter the more expensive segment of luxury furniture, some Ukrainian manufacturers assemble products using imported components, which, accordingly, is reflected in the price.

The bulk of companies in the Ukrainian furniture market was formed from 1991 to 2000. The main competitive advantages are possessed by enterprises – industry leaders who work not only in the Ukrainian market, but also outside it. Small furniture stores and small industries are trying to withstand large chains. The highest level of competition is observed among medium and small business entities in the furniture industry, which concentrate their main efforts on the economy segment.

The characteristics of the main companies of the furniture market which are direct competitors of PJSC "ENRAN" are presented in the table 2.2.

**Table 2.2**

**Characteristics of the main competitors of PJSC "ENRAN"**

| Company name | Brief description | Contacts |
|---|---|---|
| 1 | 2 | 3 |
| MebelArt | The company is manufacturing custom-made furniture of all types and levels of complexity. The advantage of the factory is the ability to consider and implement any individual idea, reinforcing it with the opinion and skills of professionals. Among the product categories are upholstered and wooden furniture, monolithic and cabinet | Company website: mebelart.kiev.ua Address: Kiev, Eugene Konovalets St., 36d |
| MERX | MERX is a furniture company with many years of experience in the domestic and global markets. Founded in 1993, the company secured a clear position as a leader in the furniture industry. Today, the company's dealer network covers more than 60 MERX company salons throughout Ukraine. In addition, the MERX brand is represented in the CIS countries, Estonia, Lithuania, Latvia, Great Britain, the USA, Canada and Australia. | Company website: merx.ua Address: Kiev, Solomenskaya St., 1 CM MERX |
| CTEPX | One of the leaders in the production of office furniture and home furniture. The company has been on the market for more than 25 years to more than 20 countries. A wide range of products, a large share of exports. Uses the latest equipment. | Company website: sterh.ua Address: Kiev, Victory Av., 107 Kiev, st. Kovpaka, 17 |
| LIVS | Furniture factory is one of the leaders in the production of upholstered furniture on the Ukrainian market for more than 20 years. Furniture is exported to more than 20 countries. The assortment includes about 500 items of various collections and style solutions. The most fashionable trends, the use of modern technology, a careful selection of components, most of which are purchased in Europe, a multi-stage quality control system. | Company website: livs.com.ua Address: Cherkasy region., Smela, Odessa St., 2 |
| Status Group | A large manufacturer of office furniture with a wide range of products. The scale of production varies from individual chairs to the design of large conference rooms and executive offices in a specific stylistic manner. The company not only offers furniture manufacturing services, but also has an established delivery system in Ukraine. | Company website: gstatus.com.ua Address: Odessa, Marshal Babajanyan St., 25b |

**Continuation of table 2.2**

| 1 | 2 | 3 |
|---|---|---|
| AMF | One of the largest manufacturers of office furniture, founded in 1999. The company unites seven manufacturing enterprises producing furniture and | Company website: amf.com.ua Address: |

| | | |
|---|---|---|
| | components in Ukraine, Russia, and China. Distribution network is represented in 36 countries of the world. The AMF production complex provides a complete and continuous cycle of creating and assembling furniture: from raw materials to the finished product. | Dnipro, Ivan Mazepa Ave., 34 |
| ARQDEQ | The metropolitan furniture company, known for its creative limited collections in the world of Ukrainian design. All products are made by craftsmen manually, sometimes according to individual sketches of the customer. Furniture fits perfectly into the Scandinavian-style interiors or loft. | Company website: arqdeq.com Address: Kiev, Bolshaya Vasilkovskaya St., 13/1, off. 509 |
| KOG design | Furniture factory, the designers of which produce various furniture and decor elements, as well as are engaged in the design of light. In the Ukrainian market, the company is known not only for furniture collections, but also for its creative approach to interior design in details | Company website: kog-design.kiev.ua Address: Kiev, Zlatoust St., 50 |
| DLS | The full name of the company is D'lineStyle. Founded in 2004, it is engaged in the production of aesthetic and durable furniture according to individual orders. | Company website: dls.ua Address: Kiev, Petropavlovska St., 6 |
| LuxMebel | The furniture factory specializes in the production of dressing rooms, kitchens, wardrobes, bedrooms, children's and other furniture on order. The designer can either offer a ready-made sketch to the customer, or implement his own, adding to it constructive changes if necessary. To order, just leave a request on the site. | Company website: luxmebel.kiev.ua Address: Kiev, Valery Lobanovsky Ave., 56 |
| Vanilla Furniture | The company is engaged in custom manufacturing, as well as the established sale of various wooden furniture. In addition to tables, chairs and chests of drawers, the catalog also includes children's and teenage beds. Mostly all furniture is made with an emphasis on the classic style. | Company website: vanillafurniture.com.ua Address: Kiev region, Bucha, Simyi Zabarylo St., 3, of. 9 |
| InStyle | The company creates exclusive limited collections of cabinet furniture, keeping up with all modern trends in the furniture industry. The brand catalog includes kitchens, furniture for bathrooms, as well as separately furniture facades. Such furniture can be successfully fit into the interiors of a house, office or hotel. | Company website: instyle.com.ua Address: Kharkov, Zalyutinskaya St., 4 |
| Levantin | Famous Kharkov furniture factory, beloved by modern designers. Levantin furniture is often found in large design projects, and is also often used in the design of public spaces. The frame-polygonal appearance of the furniture looks impressive and easy to remember. | Company website: levantindesign.com Address: Kharkov, Pushkinskaya St., 72; Alchevskyh St., 39 |

Summing up, we can conclude about the significant potential of the Ukrainian furniture market nowadays and in the nearest future. The development and differentiation of various spheres of human activity, the introduction of new technologies of the global furniture industry will open up new opportunities for

manufacturers of domestic furniture and contribute to the formation of new niches. The increased interest of Western consumers in Ukrainian-made furniture will expand the capabilities of distribution channels and will strengthen the position of domestic manufacturers in foreign markets.

### 2.2. Technical, economic and financial analysis of the enterprise activity

The analysis of the main technical and economic indicators of PJSC "ENRAN" activity is given in table 2.3. The main sources of information are the financial statements of the enterprise (Balance Sheet, "Statement of Financial Results") represented in Appendix C.

**Table 2.3**

**Analysis of the main technical and economic indicators of PJSC "ENRAN" activity**

| | Indicators | Units | Period | | Changes | |
|---|---|---|---|---|---|---|
| | | | 2017 | 2018 | absolute (+,-) | relative (%) |
| | 2 | 3 | 4 | 5 | 6 | 7 |
| | Volume of commodity products without VAT at current prices | thsd UAH | 96 482,80 | 156 697,10 | 602 14,30 | 162,41 |
| | Volume of commodity products without VAT at comparative prices | thsd UAH | 96 482,80 | 137 816,27 | 413 33,47 | 142,84 |
| | Proceeds from the sale of products without VAT at current prices | thsd UAH | 92 992,90 | 150 313,10 | 573 20,20 | 161,64 |
| | Cost of sales | thsd UAH | 87 624,50 | 125 628,40 | 380 03,90 | 143,37 |
| | including | | | | | |
| .1 | raw materials | thsd UAH | 49 805,77 | 632 78,65 | 134 72,88 | 127,05 |
| .2 | fuel and energy for technological needs | thsd UAH | 13 796,48 | 268 29,20 | 130 32,72 | 194,46 |
| .3 | basic wages of basic workers | thsd UAH | 10 830,39 | 169 58,58 | 612 8,19 | 156,58 |
| .4 | total expenditures | thsd UAH | 66 06,89 | 816 5,47 | 155 8,58 | 123,59 |
| .5 | administrative expenses | thsd UAH | 32 01,80 | 410 1,77 | 899, 97 | 128,11 |

| | | | | | | |
|---|---|---|---|---|---|---|
| .6 | selling expenses | thsd UAH | 33 83,18 | 629 4,74 | 291 1,55 | 186, 06 |

**Continuation of table 2.3**

| | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| | Average number of employees | persons | 27 7 | 356 | 79,0 0 | 128, 52 |
| | including by categories: | | | | | |
| .1 | the main workers | persons | 14 8 | 198 | 50,0 0 | 133, 78 |
| .2 | support workers | persons | 46 | 53 | 7,00 | 115, 22 |
| .3 | specialists, employees | persons | 36 | 49 | 13,0 0 | 136, 11 |
| .4 | administrative and management staff | persons | 47 | 56 | 9,00 | 119, 15 |
| | The number at the beginning of the period | persons | 28 8 | 277 | - 11,00 | 96,1 8 |
| | Employees accepted | persons | 12 | 89 | 77,0 0 | 741, 67 |
| | Employees left | persons | 23 | 10 | - 13,00 | 43,4 8 |
| | including: | | | | | |
| .1 | for reasons of downsizing | persons | 18 | 5 | - 13,00 | 27,7 8 |
| .2 | voluntarily | persons | 5 | 4 | - 1,00 | 80,0 0 |
| .3 | for violation of labor discipline | persons | 0 | 0 | 0,00 | 0,00 |
| | The number at the end of the period | persons | 27 7 | 356 | 79,0 0 | 128, 52 |
| 0 | Wage fund | thsd UAH | 95 36,5 | 129 43,67 | 340 7,17 | 135, 73 |
| 1 | Working hours fund | hours | 19 87 | 197 0 | - 17,00 | 99,1 4 |
| 2 | Profit from sales of products | thsd UAH | 11 368,40 | 276 84,70 | 163 16,30 | 243, 52 |
| 3 | Cost of fixed assets (FA) at the beginning of the period | thsd UAH | 86 597,2 | 874 62,40 | 865, 20 | 101, 00 |
| 4 | The cost of FA at the end of the period | thsd UAH | 87 462,40 | 899 39,30 | 247 6,90 | 102, 83 |
| 5 | The cost of the FA received | thsd UAH | 14 63,30 | 308 6,70 | 162 3,40 | 210, 94 |
| 6 | The value of the FA retired | thsd UAH | 59 8,10 | 609, 80 | 11,7 0 | 101, 96 |
| 7 | The average annual cost of AFS | thsd UAH | 87 295,94 | 888 02,48 | 150 6,54 | 101, 73 |

The calculations of technical and economic indicators, as well as indicators of financial analysis, were carried out on the basis of methodological recommendations according to the [92], as well as on the basis of general economic principles.

It is advisable to calculate the increment of each indicator in absolute and relative terms in order to analyze the dynamics of their changes.

The use of natural volumes of output is the most accurate and appropriate for analyzing the dynamics of production volumes, since it prevents changes in the real picture that may be caused by inflation. However, PJSC "ENRAN" has a considerable product range, so it is quite difficult to apply indicators in this way. There is a need to compare the data in the most accurate way. National statistics entities regularly calculate and publish price indices. Using the 2017 price index we can calculate commodity output in 2018 at comparative prices to analyze the dynamics of actual output by the formula. According to the Ministry of Finance of Ukraine the price index for 2017 was 13,7% or 1,137 [74].

The number of calendar days in 2017 was 365, 249 were working days (with reduced days, the working time fund was 1987 hours) and 116 days off.

The number of calendar days in 2018 was 365, 247 of which were working days (with shortened days, the working time fund was 1970 hours) and 118 days off.

The calculated technical and economic indicators testify to the satisfactory financial results of PJSC "ENRAN" activity. The volume of commodity products excluding VAT in current prices increased by 60214,30 thsd UAH or by 62,41%. A more accurate indicator is the volume of commodity products at comparative prices (data adjusted for inflation in the country) which increased in 2018 by 41333,47 thsd UAH or 42,84%. Sales revenue increased from 92 992,9 thsd UAH to 150 313,1 thsd UAH or for 61,64%. Such an increase in production volumes is explained by several factors. Firstly, the 2017 was quite critical for the enterprise, and in 2018 the situation improved again. During 2018 several new model lines were launched into mass production at once, as well as shares of foreign markets were increased. Thus, in the hryvnia equivalent, we can see a significant increase in the cost of output.

Cost of goods sold increased by 43,37% in the reporting period and amounted to 125 628,40 thsd UAH. The increase of this indicator is not satisfactory, but the factors that influenced it should be analyzed. That is why it is advisable to consider the cost changes by several categories. It should be noted that cost increased by only 43%, while production volumes increased by almost 48,57%. This is an excellent indicator, which indicates a significant increase in additional profit. This profit can be used to expand production (and in 2018 there were several investments in production expenditure due to a significant increase in demand for the company's products). The cost of raw materials increased by 27,05%, which indicates a more economical use of materials as overall increase in costs is about 43,37%. That is, the total cost was increased by other categories and the use of materials turned out to be more economical in 2018. The cost of fuel and energy has almost doubled. Increase by this category is 94,46%, which may be related to the rise in prices for those fuels used in production.

The cost of basic wages of workers increased by 8640,76 thsd UAH or by 79,78%. The growth of the wage fund is primarily associated with an increase in the number of workers needed to meet the increased demand for products. In addition, this change in the indicator is associated with an increase in the minimum wage in Ukraine, as well as with changes in the labor market. Production, administrative, and sales expenses has also increased in the reporting period. Administrative costs have increased because of the need for new executives who will have the necessary coordination skills to work with increased production scales, as well as with the necessary skills and knowledge in the context of foreign economic activity.

The number of employees from the beginning of the reporting year increased from 277 to 356. According to the data, we can observe a significant reduction in personnel in the previous year (23 people, 16 of which left due to the downsizing). And in 2018 we can see a large number of newly hired personnel – 89 people (50 of which are the main employees, which means the growth of this indicator is directly related to a significant increase in production volumes and other related indicators). The number of employees increased by 79 people or by 28,52% in total. By

categories we can observe the following changes: increase in total number of main workers is 33,78%, in support workers – 15,22%, specialists – 36,11%, administrative and management staff – 19,15%. Significant increase in specialist's number is caused by the need of new employees with abilities to work with larger production volumes. The increase in the number of management staff is the lowest one among all categories, but we should mention that it is also quite significant increase because this kind of employees segment increase just proportional to the actual increase in production volumes or during reorganizing of the enterprise.

Working hours' fund decrease by 17 hours or 0,86%. Also we can observe increase in wage fund by 35,73%. This increase is rather proportional to changes in total number of employee, but is 1,95% higher than the second one. This can be due to the fact that enterprise has increased administrative staff with higher salaries by almost 20%. So wage fund can be increased not exactly proportional to increase of average employees number.

One of the most significant indicators is amount of profit from sales of products. This indicator dynamic is quite positive. The company increased its profit in 2018 from 11368,4 to 27684,7 thsd UAH or by 143,52% while revenue increased by 54,06%.

Cost of fixed assets increased by 1% during the year, but it is advisable to look through changes in the structure of fixed assets. We can observe a large total number of retired assets, as well as a significant replacement with new one. Thus, in 2018, the fund of labor was significantly updated, which entailed an increase in production throughputs, as well as an increase in its scale.

To conduct a financial analysis of the enterprise, it is necessary to carry out horizontal and vertical analysis of its balance. Horizontal and vertical analysis of PJSC "ENRAN" asset items in 2018 is presented in table 2.4 and table 2.5 respectively. Results of horizontal and vertical analysis of PJSC "ENRAN" equity and liabilities items in 2018 is presented Appendix D.

To determine the level of financial stability of the enterprise, we propose to calculate the ratio of current and non-current assets.

The results of the horizontal and vertical analysis of the balance sheet items of the enterprise indicate that changes in the ratio of current and non-current assets of the company changed by 4,32% in favor of more liquid ones. Significant changes in the non-current assets item are observed only in the item of incomplete capital investments (they decreased by 95,48% in cash equivalent). However, the amounts of these assets are quite small, therefore, all fluctuations within 1% require attention to further dynamics, but do not bring significant changes in this period.

In the current assets section, we note a significant decrease in receivables, which entailed a decrease in the share of this article by 27,11% in the current period. We note an almost proportional increase in the article of money and their equivalents (25,84%), which makes the enterprise more liquid. We can also note an increase in stocks and their specific weight by almost 9%, which requires attention and measures that increase the efficiency of the company's logistics.

The total share of enterprise liabilities increased by 23,49%. It is necessary to further clarify the reasons for such an increase and keep the dynamics under constant control in order to avoid the growth of debts. The calculations in the capital section showed a decrease in registered capital by 20%, which also reduced its share by 5,07%. Significant changes are also noted in current liabilities. They increased several times, and also increased their specific gravity by 18,79%. This indicator requires attention, since an uncontrolled increase in debt can lead to bankruptcy and the debt of the enterprise, which is very risky.

Assets ratio coefficient at the beginning of the period is equal to 0,75. At the end of the period this coefficient is equal to 0,89. We can see positive dynamic of indicator. But this indicator is steel lower than 1. It means that the company is dominated by non-current assets. This advantage indicates insufficient financial stability of the economic entity, since non-current assets are less liquid, therefore they are not able to bring money in a short time.

Current assets at the beginning of the year were equal to 28 390,90 thsd UAH in cash equivalent, at the end of the year they became equal to 36 452,30 thsd UAH.

Non-current assets at the beginning of the year amounted to 37 909,40 thsd UAH in cash equivalent, and at the end of the year they became equal to 40 871,60 thsd UAH.

The share of fixed assets in the composition of non-current assets at the end of the reporting period is high (98,82-99,68%), which allows to conclude that the company is sufficiently active in the field of real investment. In this period company has also completed a large amount of capital investment. Its amount has reduced from 329,6 thsd UAH to 14,9 thsd UAH. This indicator significantly increases the whole state of company's liquidity.

The dynamic of current and non-current assets ratio is presented in fig. 2.1.

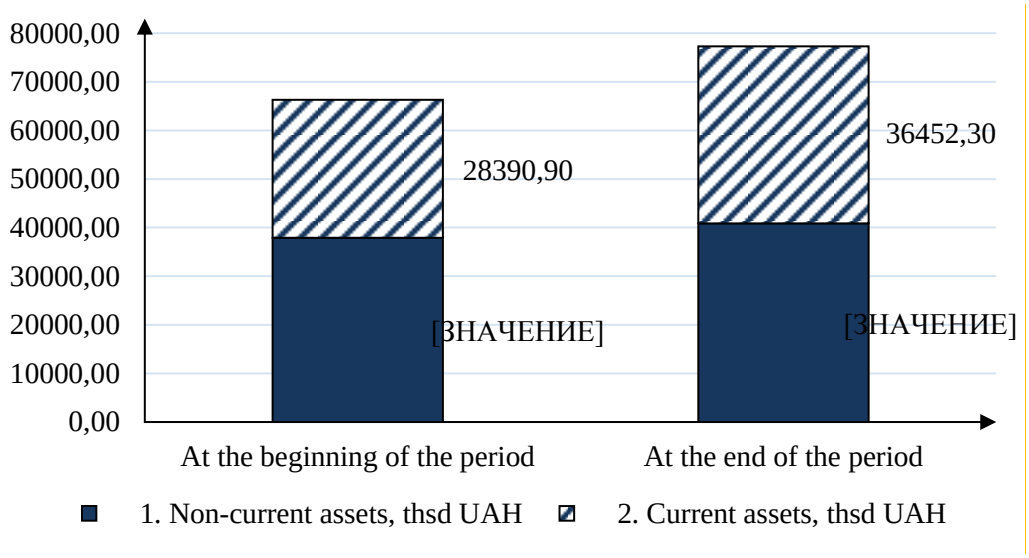


**Fig. 2.1. The dynamic of current and non-current assets ratio**

Inventories increased slightly compared to the general increase in production volumes, which indicates better logistics in the reporting year.

In the reporting year, the amount of money and their equivalents increased by almost 100 times. Where did the money come from, we can judge from the analysis of the dynamics of the balance sheet liability items. In this case, we can note a significant increase in credit indebtedness for the goods of services, which may entail an increase in the amount of circulating cash. In addition, the changes may be related

to adjusting the financial management of the enterprise in order to improve the liquidity of the enterprise as a whole.

We can also observe substantial growth in receivables of the enterprise. Its size increased by 77,12%. The constant increase in accounts receivable for products, goods, works, services can lead to serious problems associated with a shortage of funds of the company, and, as a result, losses and bankruptcy. Nevertheless, in the reporting year we observe an increase in the amount of money and their equivalents by almost 10 times. Therefore, we can assume that counterparties are provided with the most comfortable conditions for cooperation. However, this indicator should be further analyzed by the company's management.

Analysis of equities and liabilities is quite positive. We can observe decrease in registered capital, which means changes in management structure of the enterprise. One more significant indicator is current liabilities of goods, works, services which increase a lot in this year. The dynamics of this indicator requires constant monitoring in order to avoid late payments and interest. It is also necessary to ensure that the company's debts do not overlap its income. The total amount of debts of the enterprise almost tripled. This indicator requires additional study and constant monitoring of payments on bills in order to avoid bankruptcy and prevent the absence of money supply in the company's turnover.

For comprehensive assessment of enterprise activity, it is advisable to calculate main financial indicators. The first group include indicators of output and sales.

1.1. Commercial product is total value of finished goods, services and works produced by the enterprise in the reporting period that have passed quality control, were stocked in warehouse and were intended for sale or for use in own capital constructions or non-business activity. Semi-finished goods and spare parts that are not part of finished goods and are sold separately are also included into commercial product. Commercial product of PJSC "ENRAN" in 2018 is equal to sum of "Net income from sales of products (goods, works, services)" and "Stocks: finished products".

1.2. Gross product is total value of finished goods, services and works produced by the enterprise without consideration the level of their readiness in the reporting period that have passed quality control, were stocked in warehouse and were intended for sale or for use in own capital constructions or non-business activity. Semi-finished goods and spare parts that are not part of finished goods and are sold separately are also included into gross product. Gross product of PJSC "ENRAN" in 2018 is equal to sum of "Net income from sales of products (goods, works, services)" and "Stocks".

1.3. Sales revenue is revenue received from sales of goods, services or works produced by the enterprise. Sales revenue of PJSC "ENRAN" in 2018 is equal to "Net income from sales of products (goods, works, services)".

The second group of financial indicators includes indicators of turnover as the following:

2.1. Total assets turnover shows number of turns made by company' assets during the analyzed period. In our case analyzed period is equal to 1 year or 365 days.

2.2. Duration of assets turn.

2.3. Current assets turnover shows number of turns made by company' current assets during the analyzed period. In our case analyzed period is equal to 1 year.

2.4. Duration of current assets turn.

2.5. Accounts receivable turnover shows number of turns made by company' accounts receivable during the analyzed period.

2.6. Average collecting period (accounts receivable outstanding) shows average period of time between the moment of products shipment to buyer and the moment of receiving money from him.

A summary of financial activity indicators including indicators of output and sales and turnover indicators mentioned below is presented in the table 2.4.

**Table 2.4**

**Results of calculations of PJSC "ENRAN" financial activity indicators**

| № | Indicator | Units | The value of the indicator |
|---|---|---|---|
| 1. Indicators of output and sales | | | |
| 1.1 | Commercial product | thsd UAH | 153803,00 |
| 1.2 | Gross product | thsd UAH | 165004,50 |
| 1.3 | Sales revenue | thsd UAH | 150313,10 |
| 2. Turnover indicators | | | |
| 2.1 | Total assets turnover | units | 1,295 |
| 2.2 | Duration of assets turn | days | 282 |
| 2.3 | Current assets turnover | units | 2,868 |
| 2.4 | Duration of current assets turn | days | 127 |
| 2.5 | Accounts receivable turnover | units | 21,191 |
| 2.6 | Average collecting period | days | 17 |

Commercial product is not equal to gross product. Gross product in 2018 is higher than commercial product, so product activity is not so effective as work-in-process is increasing large part of current assets of the enterprise. Sales revenue in 2018 is less than commercial product sales activity of PJSC “ENRAN” is not quite effective as it is not able to sell everything that is produced. It leads to increase in stocks costs and it is also the indicator of not effective enough logistic of the company.

There is no specific standard for indicators of turnover, since they depend on the industry characteristics of the organization of production. A higher asset turnover is desired. Low turnover may indicate insufficient asset utilization. Asset turnover is an indicator characterizing the speed of turnover of the company’s own funds. In this case, the turnover rate is more than 1, which indicates that the company is able to make a profit on assets amount of 1,295 times in 1 year, 2,868 times from current assets. The receivables turnover period shows how efficiently the company organized the collection of payments for its products. The lower the turnover of receivables, the higher will be the company's need for working capital to expand sales. For large industrial enterprises, the normal value of this indicator is from 0 to 20 days.

Thus, based on the data obtained, we can conclude that the enterprise is in satisfactory financial condition. However, the enterprise management should pay

attention to logistic activity and amount of stocks and analyze them in dynamics to prevent financial problems in subsequent reporting periods.

For a more detailed analysis of the activity of the company it is advisable to calculate some indicators of efficiency of material and labor resources used in the production.

In this part we will calculate the following indicators of the assessment of the efficiency of material and labor resources:

Return on equity (ROE) – shows exactly what company is getting for its investment. Equity is the difference between company's assets and its liabilities. To calculate average equity, we should take the amount from the balance sheet at the beginning of the year, add it to the amount from the year-end balance sheet, and divide the result by two.

Return on sales (ROS) – shows amount of profit on sales in each 1 UAH of sales revenue. Return on sales measures efficiency. It tells how much of each 1 UAH of sales revenue remains after company paid the operating costs associated with generating that revenue.

Return on assets (ROA) – shows amount of net profit generated by each 1 UAH of company’s total assets. This indicator shows how well company’s management use its assets to generate profit. To calculate average assets, we should take the amount from the balance sheet at the beginning of the year, add it to the amount from the year-end balance sheet, and divide the result by two.

A summary of the three financial performance indicators mentioned below in dynamics is presented in the table 2.5.

**Table 2.5**

**Dynamics of financial performance indicators of PJSC “ENRAN” activity**

| | **Indicators** | **Units** | **Period** | | **Changes** | |
|---|---|---|---|---|---|---|
| | | | **2017** | **2018** | **absolute (+,-)** | **relative (%)** |
| | Return on equity | UAH / UAH | 0,187 | 0,489 | 0,302 | 261,036 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Return on sales | UAH / UAH | 0,122 | 0,184 | 0,062 | 150,658 |
| | Return on assets | UAH / UAH | 0,123 | 0,386 | 0,262 | 312,537 |

ROE in 2017 is 0,19 UAH/UAH and in 2018 increased up to 0,46 UAH/UAH. So we can conclude that PJSC “ENRAN” made 0,19 UAH in profit for every 1 UAH invested in 2017. In 2018 this indicator is 0,49 UAH in profit for every 1 UAH invested. Increase in ROE means that enterprise is increasing its ability to generate profit without needing as much capital. It also indicates how well management of the enterprise is applying the existing capital. The increase in this indicator is explained by two factors: the profit of the enterprise increases or the financial leverage increases.

ROS in 2017 is 0,12 UAH/UAH and in 2018 increased up to 0,18 UAH/UAH. So, of each 1 UAH that comes in as sales revenue, 0,12 UAH remains after operating expenses in 2017. In 2018 this indicator is 0,18 UAH that remains after operating expenses of each 1 UAH that comes in as sales revenue. An increasing return on sales indicates an improvement in operating efficiency.

ROA is 0,12 UAH/UAH and in 2018 increased up to 0,39 UAH/UAH. It means that each 1 UAH in assets generates 0,12 UAH in profit in 2017. In 2018 this indicator shows that each 1 UAH in assets generates 0,39 UAH in profit. This ratio shows the ability of the organization to provide a normal amount of profit in relation to the working capital of the enterprise. If the rate of return on assets rises, the efficiency of using capital investments in production increases.

Thus, the calculated performance indicators show satisfactory operation of the enterprise. The dynamics of these indicators is rather positive. We can observe increase in all of this indicators. Correspondingly, the enterprise uses its capital more carefully, uses assets more efficiently and receives a larger percentage of profit from its revenue.

To assess the efficiency of enterprise activity it is recommended to calculate a group of indicators of the efficiency of using fixed assets. In this group there are several indicators that will be presented and described below.

Capital productivity (CP) shows how many products the company receives from each 1 UAH of its fixed assets. CP is determined by the ratio of the value of the annual sales of products to the average annual value of fixed assets.

Capital intensity (CI) is the inverse of capital productivity. The value of CI shows how many fixed assets is used for each 1 UAH of output.

Capital ratio (CR) is used to characterize the degree of equipment of employees.

The capital ratio and capital productivity are interconnected through an indicator of labor productivity. Labor productivity is the ratio of output to the average number of employees.

Capital productivity shows how many products an enterprise receives from each 1 UAH of its fixed assets. In 2017 PJSC "ENRAN" received 1,11 UAH of products from each 1 UAH of its fixed assets. In 2018 this indicator value increased up to 1,76 UAH. Increasing the level of use of fixed assets allows to increase production output without additional capital investments and in a shorter time. In addition, it accelerates the pace of production, reduces the cost of reproduction of new funds and reduces production costs.

Capital intensity shows how many fixed assets are used for each 1 UAH of output. In 2017 0,90 UAH of fixed assets were used for each 1 UAH of output. In 2018 this indicator value decreased up to 0,57 UAH. The value of capital intensity in 2018 is higher than the industry average and indicates the efficient use of enterprise funds.

The interrelation of indicators of capital ratio and labor productivity shows that with a decrease in labor costs for production, each employee continues to produce more than before. Equipment of employees decreased by 20,85%, and the productivity of labor increased by 26,37%. Nowadays enterprises are trying to increase the capital equipment of workers. however, in 2018, new innovative equipment was purchased, which requires a larger number of both core employees

and managers. That is why the indicator of capital ratio decreased in 2018 precisely because of a sharp increase in the average number of employees of the enterprise. It cannot be stated definitely that the situation with the equipment of employees has worsened. This is due to the hiring of a large number of management personnel, first and foremost. Therefore, the picture as a whole is not deplorable, but the company still needs to pay attention to this indicator and improve production capacity in the subsequent periods.

A summary of this group of indicators in dynamics is presented in the table 2.6.

**Table 2.6**

**Dynamics of efficiency of using fixed assets indicators of PJSC "ENRAN" activity**

| | Indicators | Period | | Changes | |
|---|---|---|---|---|---|
| | | 2017 | 2018 | absolute (+,-) | relative (%) |
| | Capital productivity | 1,11 | 1,76 | 0,66 | 159,65 |
| | Capital intensity | 0,90 | 0,57 | -0,34 | 62,64 |
| | Capital ratio | 315,15 | 249,45 | -65,70 | 79,15 |
| | Labor productivity | 348,31 | 440,16 | 91,85 | 126,37 |

Next, we propose to consider generic performance indicators for estimating the efficiency of material resources use such as:

1. Material recovery (MR) – characterizes the output of the product for each 1 UAH of material costs. This indicator shows the amount of production made from each 1 UAH of material resources consumed. We should also mention that material costs include the cost of purchasing raw materials, materials and components, the cost of purchasing fuel, water, energy of all kinds, spent on technological purposes, the cost of purchasing work and services of a production nature etc.

2. Material consumption (MC) – the opposite indicator of the material consumption, characterizing the amount of material costs for each 1 UAH of produced products.

3. Specific weight of material costs (SWMC) in the total amount of production costs characterizes the proportion of material costs in the total amount of production costs. The dynamics of the indicator characterizes the change in the material consumption of products.

According to the analysis of the data obtained, we can conclude that the efficiency of production is increasing. The material productivity indicator indicates a more efficient use of material resources in 2018. Each 1 UAH of material costs brings the company 1,464 UAH of finished products instead of 1,296 UAH in 2017. In 2018 material recovery increased by 12,9%.

Dynamics of material consumption indicator states about reducing material consumption per 1 UAH in 2018 from 0,771 to 0,683. In 2018 material recovery decreased by 11,43%. Reducing the material consumption of products is an important area of increasing the economic efficiency of production, since the economical use of fuel, energy and material resources ensures a continuous increase in production volume and a decrease in the cost of production. Due to this changes we can observe a significant increase in production volumes, as well as a huge increase in profit in 2018. Production has become more economical and efficient, which has led to the improvement of other economic indicators of the enterprise activity.

At the same time, the share of material costs in the total cost remained almost unchanged. This indicator increased just by 0,3%. This may indicate more economical use of resources (waste reduction, replacement of production facilities with less energy-consuming analogues etc.)

A summary of this group of indicators in dynamics is presented in the table 2.7.

**Table 2.7**

**Dynamics of efficiency of using material resources indicators of PJSC "ENRAN" activity**

| | Indicators | Period | | Changes | |
|---|---|---|---|---|---|
| | | 2017 | 2018 | absolute (+,-) | relative (%) |
| | Material recovery | 1,296 | 1,464 | 0,167 | 112,90 |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | 7 |
| | Material consumption | 0,771 | 0,683 | -0,088 | 88,568 |
| | Specific weight of material costs | 0,849 | 0,852 | 0,003 | 100,329 |

According to the calculations, we can conclude that PJSC "ENRAN" functioning is rather successful and financial performance indicators, performance indicators of funds and assets use are also satisfactory.

### 2.3. Comprehensive analysis of the existing organizational structure of the enterprise

In modern scientific literature there are practically no holistic models that allow to evaluate the effectiveness of the organizational structure of the enterprise. The most difficult aspects in this issue are the difficulties associated with the selection of organizational structure as an object of analysis from the holistic system of the enterprise. This is due to the fact that the organizational structure is traditionally considered as an integral part of the enterprise, which cannot be evaluated independently.

However, there are authors who nevertheless developed a system of indicators for evaluating the effectiveness of organizational structure. Therefore, in this research, it is proposed to evaluate the organizational structure according to a system of indicators presented by B. I. Gerasimov, A. V. Shubin and A. P. Romanov in [12]. It should be noted that the model mentioned below is adapted and proposed for evaluating the organizational structure of a large enterprise and cannot be objectively used in the case of analysis of a small organization.

The assessment consists in calculating the formalized parameters of the organizational structure. In the framework of this methodology, the authors propose to use a system of formulas with a complex of original indicators sufficient for the analysis of organizational structure. Due to the peculiarities of the information received, as well as due to the specifics of the enterprise, it was not possible to obtain all the data necessary for the calculations. Therefore, in this study, only those

indicators are included for the calculation for which there is enough data. The system of indicators of this model looks as presented in table 2.8.

**Table 2.8**

**The system of indicators for the diagnosis of organizational structure [12]**

| № | Indicator | Formula | Explanation of symbols | Recommended value |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| 1. Indicators of target and functional certainty. | | | | |
| 1.1 | The level of certainty of the goal | $K_1^1=\frac{m'}{m}$ | m' – number of units which substantiated and interconnected goals are formulated; m – total number of units. | 1 |
| 1.2 | Goal coverage rate | $K_1^2=\frac{G'_z}{G_z}$ | $G_z$ – number of goals at the z-th level based on the regulatory tree of goals; $G'_z$ – number of goals at the z-th level (based on the regulatory tree of goals) reflected in the department regulations. | 1 |

**Continuation of table 2.8**

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| 1.3 | Functions coverage rate | $K_1^3=\frac{F'}{F_d}$ | F'– number of subdivision functions; $F_d$ – number of functions reflected in the department regulations. | 1 |
| 1.4 | Coefficient of duplication and ignoring of functions | $K_1^4=\frac{F_d - F_i}{F_d}$ | $F_i$ – number of duplicate and ignored functions. | 1 |
| 1.5 | Coefficient of specialization in the i-th function | $K_1^5=\frac{m}{m+\sum_{i=1}^{F_d} m_{di}}$ | $m_{di}$ – number of units duplicating function i from the normative list. | 1 |
| 1.6 | Coefficient of specialization for the i-th goal | $K_1^6=\frac{m}{m+\sum_{G=1}^{G} m_{dg}}$ | $m_{dg}$ - the number of units with a duplicate goal i from the normative list. | 1 |
| 1.7 | Proportion of posts for which job descriptions define the actually performed duties and rights | $K_1^7=\frac{P^{def}}{P}$ | $P^{def}$ – number of positions which rights and obligations are defined in job descriptions; P – total number of positions. | 0,33 |
| 2. Indicators of compliance with the principle of profitability. | | | | |
| 2.1 | Proportion of the number of managers in the number of staff | $K_2^1=\frac{N}{N_m}$ | N – number of staff; $N_m$ – the number of managers | 0,15 |
| 2.2 | Cost efficiency ratio for the maintenance of management personnel | $K_2^2=\frac{CM}{CP}$ | CM – cost of maintaining the management apparatus; CP –actual cost of commodity production. | 0,20 |
| 2.3 | Ratio of the average salary to the industry average | $K_2^3=\frac{S_{avg}}{S_{avg.ind.}}$ | $S_{avg}$ – average salary among enterprise; $S_{avg.ind.}$– industry average salary. | 1,15 |
| 3. Indicators of compliance with the principle of flexibility. | | | | |
| 3.1 | Proportion of the number of employees of branches and subsidiaries in the total number | $K_3^1=\frac{N_s}{N}$ | $N_s$ – number of employees of subdivisions and subsidiaries. | 0,25 |

| | | | | |
|---|---|---|---|---|
| 3.2 | Ratio of the number of temporary traditionally built units to the number of permanent | $K_3^2=\frac{m_t}{m_p}$ | $m_t$ – number of temporary units; $m_p$ – number of permanent. | 0,1 |
| 3.3 | Ratio of the number of employees temporary participating in traditionally built units to the number of employees of the enterprise | $K_3^3=\frac{\sum_{i=1}^{m_в} Ч_i^t}{N}$ | $Ч_{ti}$ – number of employees temporary participating in the i-th unit. | 0,1-0,15 |
| 3.4 | Proportion of managers whose functions include the adaptation of a subordinate link to environmental changes | $K_3^4=\frac{N_{m\ adapt}}{N}$ | $N_{m\ adapt}$ – number of managers whose functions include the adaptation of a subordinate units to environmental changes. | 0,5 |
| 3.5 | Indicator of dynamic flexibility | $K_3^5=\frac{GR(Pr)}{T_p(N_m)}$ $GR(Pr) \geq 1$ $GR_{output} \geq 1$ | GR – growth rate: Pr – profit; $GR_{output}$ – the growth rate of commodity output. | ≥1 |

Total number of units is 12: organizational control department; human resources department; department of chief mechanic; motor department; purchase department; general planning department; design and technological bureau; storage facilities; furniture workshop; workshop of upholstered furniture and chairs; workshop of metal, stone, glass; sales team. Substantiated and interconnected goals are formulated only for 8 of them (exception is for storage facilities and workshops).

As a basis for the analysis of goal and functions coverage rate indicators the processes that are in the sphere of direct control of the marketing service and departments directly in contact with it have been adopted. Data regarding the above units were also used in the calculation of indicators such as coefficient of duplication and ignoring of functions, coefficient of specialization in the i-th function and coefficient of specialization for the i-th goal. Number of positions which rights and obligations are defined in job descriptions for the most part consists of the number of administrative staff and specialists.

For calculation of indicator of proportion of the number of employees of branches and subsidiaries in the total number, number of outsourcing specialists was determined by the number of employees from other divisions, since this organizational structure does not reflect the structure of divisions in other cities. This organizational structure is limited by the location. All involved specialists (accounting, legal services etc.) in this study are considered to be personnel from

other units outside the framework of the existing organizational structure. Number of employees temporary participating is the number of trainees, as well as the number of employees on probation. This is primarily due to the fact that the enterprise at this stage does not have temporary divisions that operate in test or design mode.

Indicator block weight is the weight of the indicator among others in one group. Total sum of all group indicator weights is 1. The weight of the criteria should be determined by an expert method. In our case, weight of each indicator was determined through discussion and coordination with the deputy chief director. The criteria that determine the procedure for determining the weights were as follows: the existence of certain information for each item in the full volume, the reliability and completeness of the information, the strategy and mission of the company, the most significant vectors of the development of the company according to the top-management opinion. Thus, based on a comparison of the significance of external and internal factors affecting the functioning and development of the company, weights of each indicator within the group were determined.

In group of target and functional certainty indicators the most valuable one is coefficient of duplication and ignoring of functions. That is why among all others in group 1 its weight equal to 0,2 is the most valuable one. Our choice is determined by the scale of production, as well as the size of investment in products. A rather large amount of actives is in circulation, so any slowdown in the process will cause a significant malfunction in logistics, as well as slow down the decision-making process. For enterprises of such scale, flexibility plays a decisive role in pursuing leading market positions. Any slowdown is fraught with large financial losses, in contrast to smaller organizations. That is why in the first group of indicators, we consider the coefficient of duplication of functions to be the most significant. The remaining indicators are assigned equal remaining weight equal to 0,114.

In the second group of indicators, we focused on cost efficiency ratio for the maintenance of management personnel. The management team is those people whose fluidity is unacceptable, especially at enterprises of such scale. According to the conditions of the modern labor market that finding duration a suitable person for an

available vacancy for middle managers ranges from 1 to 3 months, senior managers in the range from 3 to 6 months. In addition, employees in such positions have a longer probationary period. Thus, it is the people with the necessary knowledge and skills that should receive fair salaries in order to move the enterprise to new achievements. For an enterprise with a high degree of automation, managerial staff that obtain necessary skills and abilities will be the determining link in the context of the general vector of development of the enterprise. Therefore, it is necessary to regularly evaluate the costs that fall on this link. It is also important to evaluate the ratio of average salaries in the market to salaries in the enterprise. It is these two indicators that we consider to be the most significant, therefore we provided them with a specific gravity of 0,5 and 0,35 respectively.

In group of compliance with the principle of flexibility indicators the most valuable is indicator of dynamic flexibility. Its block weight is 0,3. This indicator is one of the most important, as it reflects the dynamics of the appearance of additional profits and losses depending on structural changes in the staff (quantitative changes in the management team). The analysis of this indicator in dynamics will reveal the relationship of changes in the span of control, automation of production and additional profit of the enterprise.

In the case of the PJSC “ENRAN”, another significant indicator is the number of employees from subdivisions. This allows to see how much production and enterprise are growing on a scale that goes beyond the existing organizational structure. This includes the dynamics of changes in the number of outsourcing tasks and positions. The block weight of this factor is set at around 0,25. Three more indicators of compliance with the principle of flexibility weights are set around 0,15.

It should also be noted that the specific weight of indicators and blocks can vary depending on the strategic position of the enterprise, its industry, development vector, goals and plans, market conditions and other micro and macroeconomic factors.

At this point in the study, the organizational structure was superficially analyzed. Some of its shortcomings were revealed, such as multi-levelness,

complexity of subordination, lack of key contributions for some units, and so on. These shortcomings should be analyzed comprehensively in the subsequent stages of the study. At this stage, thanks to the system of indicators presented in paragraph 2.3 of the study, existing problems were identified. According to the calculations and analysis of the data obtained, we can conclude about the satisfactory but beyond the normal state of the organizational structure of the PJSC "ENRAN". Existing limitations should be studied more carefully.

The results of the calculations of the evaluation of the existing PJSC "ENRAN" organizational structure effectiveness are presented in the table 2.9

**Table 2.9**

**Results of existing PJSC "ENRAN" organizational structure effectiveness evaluation**

| № | Value | | Deviation of the calculated value from the recommended | | Indicator block weight | Deviation by blocks | Block weight | Total result |
|---|---|---|---|---|---|---|---|---|
| | Recommended | Calculated | Absolute | Absolute modulo | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1. Indicators of target and functional certainty. | | | | | | | | 0,2699 |
| 1.1 | 1 | 0,67 | -0,33 | 0,33 | 0,114 | 0,2311 | 0,3 | |
| 1.2 | 1 | 0,83 | -0,17 | 0,17 | 0,114 | | | |
| 1.3 | 1 | 0,92 | -0,08 | 0,08 | 0,114 | | | |
| 1.4 | 1 | 0,69 | -0,31 | 0,31 | 0,200 | | | |
| 1.5 | 1 | 0,71 | -0,29 | 0,29 | 0,114 | | | |
| 1.6 | 1 | 0,92 | -0,08 | 0,08 | 0,114 | | | |
| 1.7 | 0,33 | 0,85 | 0,52 | 0,52 | 0,114 | | | |
| 2. Indicators of compliance with the principle of profitability. | | | | | | | | |
| 2.1 | 0,15 | 0,16 | 0,01 | 0,01 | 0,150 | 0,0944 | 0,3 | |
| 2.2 | 0,2 | 0,09 | -0,11 | 0,11 | 0,500 | | | |
| 2.3 | 1,15 | 1,05 | -0,10 | 0,10 | 0,350 | | | |
| 3. Indicators of compliance with the principle of flexibility. | | | | | | | | |
| 3.1 | 0,25 | 0,11 | -0,14 | 0,14 | 0,25 | 0,4305 | 0,4 | |
| 3.2 | 0,1 | 0,00 | -0,10 | 0,10 | 0,15 | | | |
| 3.3 | 0,1-0,15 | 0,00 | -0,13 | 0,13 | 0,15 | | | |
| 3.4 | 0,5 | 0,18 | -0,32 | 0,32 | 0,15 | | | |
| 3.5 | ≥1 | 2,04 | 1,04 | 1,04 | 0,30 | | | |

According to the calculations, deviations in the calculated indicators are observed in all indicators. Allowable in our opinion deviations (up to 10% of the normal value) are observed only in 33% of indicators. All other indicators deviate from the normal value by 10 or more percent, which is not good for such a large company as PJSC "ENRAN". According to the calculations, several significant deviations in the calculated indicators were revealed, which will be described below.

The most significant discrepancy between the real and recommended parameter values is observed in the group of certainty indicators, namely, the ratio of existing job descriptions to the total number of positions in the company. This indicator exceeds the recommended value by 52%. And this is a pretty good indicator value, one of the few that has a deviation in a positive direction. Thus, we can talk about high formalization in the company. However, there is a flip side to this indicator value and this is a high degree of bureaucracy, which most foreign companies and companies with more open organizational structures try to avoid.

Another significant deviation is observed in the ratio of the number of managers directly or indirectly associated with the adaptation of departments to changes in the environment. This indicator exceeds the norm by 32%. A significant deviation of this indicator from the norm is directly related to the lack of a thorough analysis of markets, that is, to the lack of marketing research. Thus, the question of the appropriateness of reorganizing the marketing service at the enterprise should be further analyzed in subsequent studies.

The next largest significant deviation from the normal value is observed in the indicator of duplication and ignoring of functions. To calculate this indicator, the data of the marketing department were taken, since it would be incorrect to calculate the indicator on the basis of generalized data. Deviations of this index from the normal value are 29%. According to the analysis of the data obtained, we can say that the company outsources most aspects of marketing activity, and duplicates the remaining functions in departments directly or indirectly related to these types of activities. This is fundamentally wrong. This aspect should be carefully analyzed in the future, since this significantly loads the adjacent departments with non-core work. And the

absence of the marketing department as a whole significantly reduces the effectiveness of this type of activity.

Other indicators are also deviated from the norm, which is not a consequence of a well-built organizational structure.

Given the weight of each indicator and the weight of each block of indicators, we have the following intermediate calculation indicators: deviation by blocks for indicators of target and functional certainty is equal to 0,2311; for indicators of compliance with the principle of profitability – 0,0944; for indicators of compliance with the principle of flexibility – 0,4305.

As was mentioned in [12] fluctuations in the integrated assessment of the functioning of the organizational structure should be interpreted according to the table 2.10.

**Table 2.10**

**Integral assessment of the functioning of the organizational structure**

| **Indicators** | **Levels** | | | |
|---|---|---|---|---|
| The degree of deviation,% | >60 | 40…60 | 20…40 | 0…20 |
| Organizational structure state | Critical | Not satisfactory | Satisfactory | Norm |

Results of existing PJSC “ENRAN” organizational structure effectiveness complex evaluation are equal to 26,99%. It means that state of organizational structure is satisfactory, but it steel need to be changed in order to eliminate weaknesses and gaps and achieve normal state of organizational structure as a whole.

A general assessment of the state of the organizational structure is unsatisfactory for the enterprise, since the organizational structure is not flexible enough, it is designed in such a way that there are cases of duplication and ignoring of some functions. In addition, according to our analysis, we can talk about the absence of a marketing department as such, which is not a good sign for an enterprise that operates in a large number of markets, including foreign ones.

In second chapter of the research a comprehensive analysis of the existing organizational structure according to the system of indicators was carried out. In addition, in the second section of the study, studies were carried out on the main technical and economic indicators of the enterprise. Based on the data obtained, we can conclude that the enterprise is in satisfactory financial condition. However, the enterprise management should pay attention to logistic activity and amount of stocks and analyze them in dynamics to prevent financial problems in subsequent reporting periods. According to the calculations, we can also conclude that PJSC "ENRAN" functioning is rather successful and financial performance indicators, performance indicators of funds and assets use are also satisfactory.

In the previous paragraph of the study, a financial analysis of the enterprise was also conducted. According to this analysis we can conclude that company is dominated by non-current assets and is sufficiently active in the field of real investment. We can also observe substantial growth in receivables of the enterprise. Analysis of equities and liabilities is quite positive either.

The organizational structure was carefully analyzed. Some of its shortcomings were revealed, such as multi-levelness, complexity of subordination, lack of key contributions for some units, and so on. These shortcomings should be analyzed comprehensively in the subsequent stages of the study. The index of complex assessment of organizational structure efficiency was also calculated. At this stage, thanks to the system of indicators presented in paragraph 2.3 of the study, existing problems were identified. According to the calculations and analysis of the data obtained, we can conclude about the satisfactory but beyond the normal state of the organizational structure of the PJSC "ENRAN". Existing limitations should be studied more carefully.

After calculations and analysis of the data obtained a comprehensive assessment of the existing organizational structure was provided and the existing deficiencies in the functioning of the enterprise were identified.

# 3. OPTIMIZATION OF ORGANIZATIONAL STRUCTURE ON PJSC "ENRAN"

## 3.1. Critical comprehensive assessment of the existing organizational structure and ways to improve it

The object of this study is the organizational structure of the company. In this case, the organizational structure of the enterprise is quite complex. First of all, it should be noted that the graphic image of the org structure is quite complicated for perception and analysis, since it is presented on 5 pages. On sheet 1 is a part of the organizational structure that reflects the relationship between the chairman of the company's board and the elements in his subordination, namely: deputy chairman of the board for development, business and personnel management, chief engineer, organizational and control department (represented by an analyst and specialist), head of the general planning department, head of warehousing, head of the production department, head of the motor transport department.

It should be noted that this hierarchy is too complicated, extensive and incorrect. First of all, the norm of manageability has been violated – 8 people are subordinate to the chairman of the board instead of the optimal amount equal to 7. In addition, in companies of such scale and specialization as PJSC "ENRAN", the top level of management is not the chairman of the board, but the board as a whole. The chairman of the board is the dominant for the board itself (but the head of the board as a separate higher level of management can be distinguished in the organizational structure, but this is not necessary, since this fact is implied by subboarding within the board). If the chairman is singled out as the highest level of management, then it is logical to assign several subordinates to him for the most priority areas of the company's activity – the deputy chairman of the board for commercial activity, production activity, marketing activity and so on. In this case, we observe only one deputy on the organizational structure, but this deputy does not mean a deputy in case the head of the board is absent, but he is the deputy for development, commercial

activity and personnel management. Thus, the head of the board does not have deputies for other areas of activity, which is fundamentally wrong.

We consider as a significant mistake a large number of subordinates of various areas of activity are subordinate to the head of the company. In our opinion, in subordination to the head of the board or the board as a whole, it is necessary to leave only the heads of a few most priority areas of activity such as production, human resources, legal services, chief engineer, accounting and marketing. At the discretion of the board, a deputy for property affairs and a deputy for commercial affairs are also allocated at the second level of the authority, depending on the specifics of delegation of authority and the company's document flow. Often, the deputy for property affairs is in submission to the chief engineer, which is optimal for the PJSC "ENRAN".

On page 2 of the graphical representation of the organizational structure, submission to the production manager is presented, including three workshops and one section. In total, the third subordination level on page 2 includes 15 sections (each of them has a single manager) and 2 pantries for two different sections. Page 3 of organizational structure shows the subordination to the chief engineer of the company, namely one department, one design and technological bureau and one engineer for labor protection and safety. Page 4 shows the subordination to the deputy head of the board for development, business and personnel management, including the human resources department and the director of the marketing and sales department – in direct subordinate, and then there is deepening and branching of the marketing and sales department into two branches: the sales department and the department of sales support. Sheet 5 shows the subordination to the head of the warehouse: three raw materials warehouses and the finished goods warehouse (the head of this warehouse has in subordination not only department's employees, but also three additional teams of outbound delivery movers.

For clarity, we propose building a simplified organizational structure of the company with the allocation of the main management levels. This diagram is presented in the fig. 3.1. Legend to fig. 3.1 is presented in table 3.1.

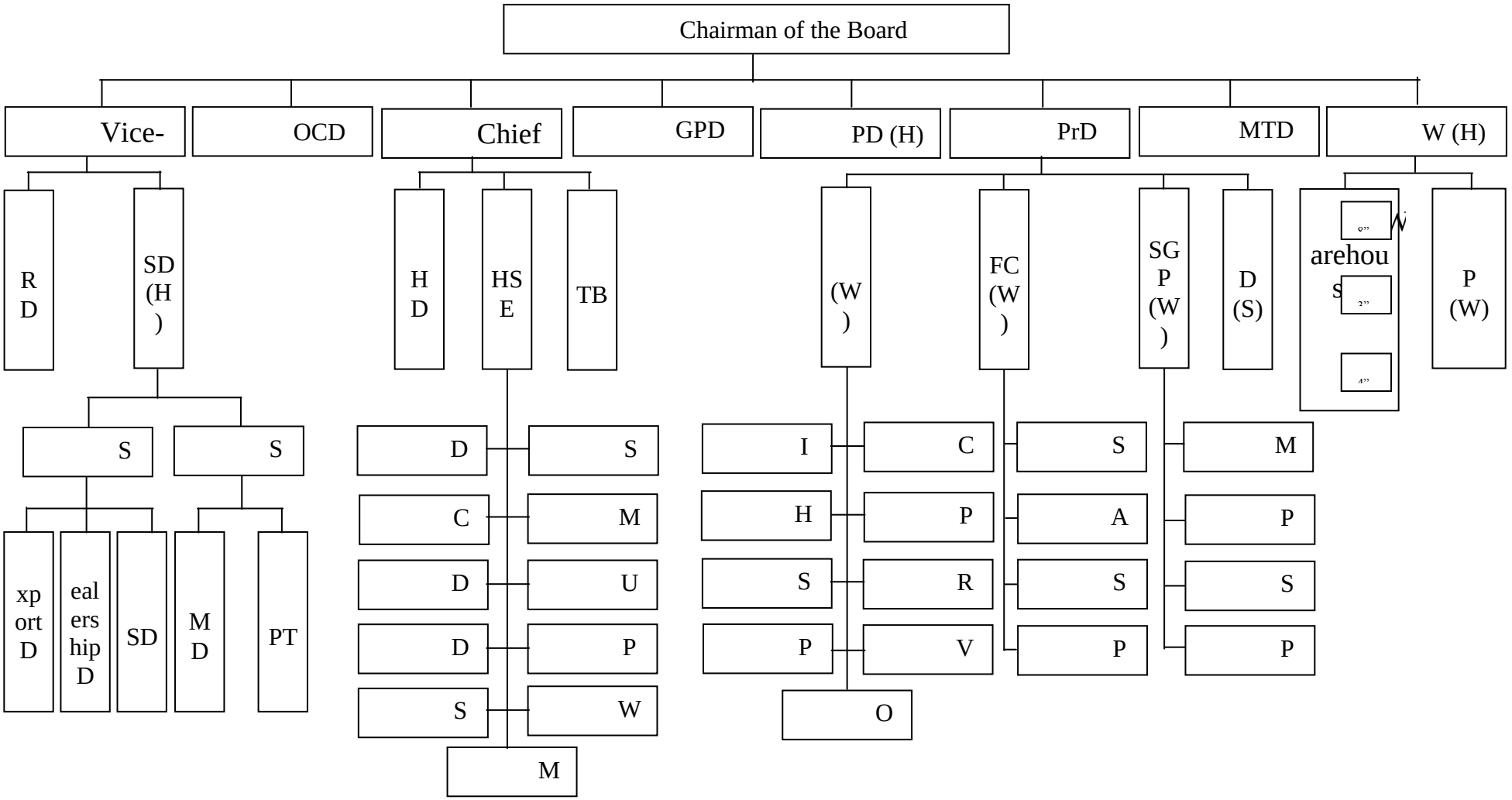


**Fig. 3.1. Simplified organizational structure of the company PJSC “ENRAN”**

**Table 3.1**

## Legend table

| № | Abbreviation | Description | № | Abbreviation | Description |
|---|---|---|---|---|---|
| 1 | Vice-chairman | vice-chairman of the board for development, commercial activities and human resources | 26 | MPT | metal products technologist |
| 2 | OCD | organizational control department | 27 | UFT | upholstered furniture technologist |
| 3 | GPD (H) | head of general planning department | 28 | PT | paint technologist |
| 4 | PD (H) | head of procurement department | 29 | WPT | wood product technologist |
| 5 | W (H) | head of warehousing | 30 | MP | machine programmer |
| 6 | PrD (H) | head of production department | 31 | I (S) | installation section |
| 7 | MTD (H) | head of motor transport department | 32 | HS (S) | hardware set section |
| 8 | HRD | human resources department | 33 | SP (S) | serial packaging section |
| 9 | MSD (H) | head of marketing and sales department | 34 | P (S) | plate section |
| 10 | ST | sales team | 35 | O (S) | operator section |
| 11 | SST | sales support team | 36 | CA (S) | complex assembly section |
| 12 | Export D | export department | 37 | PPM (S) | polyurethane parts manufacturing section |
| 13 | Dealership D | dealership department | 38 | R (S) | restoration section |
| 14 | GSD | general sales department | 39 | VS (S) | veneer shirt section |
| 15 | AMD | assortment management department | 40 | F (W) | furniture workshop |
| 16 | OPT | order preparation team | 41 | UFC (W) | upholstered furniture and chairs workshop |
| 17 | CHD | department of chief mechanic | 42 | S (S) | sewing section |
| 18 | OHSE | occupational health and safety engineer | 43 | A (S) | assembly section |
| 19 | DTB | design and technological bureau | 44 | So (S) | sofa section |
| 20 | DE | design engineer | 45 | MSGP (W) | metal, stone and glass products |
| 21 | CPT | customized product technologist | 46 | M (S) | metal section |
| 22 | DD | development designer | 47 | Pa (S) | painting section |
| 23 | DUF | designer of upholstered furniture | 48 | SG (S) | stone and glass section |
| 24 | SPD | serial production designer | 49 | WD (S) | wood drying section |
| 25 | SPT | serial product technologist | | | |

After the generalized scheme of the existing org structure has been drawn, we can determine its type. The dominant type of organizational structure is the linear-

functional base. A linear-functional organizational structure is based, on the one hand, on linear powers, and on the other, on the division of departments according to functional characteristics. According to the linear-functional structure, this distribution organization is well traced in the subordination of the deputy head of the board. His submission is divided into two functionally different units – the human resources department and the marketing and sales department. Thus, we can trace a clear linear-functional management structure.

In the course of a further more detailed analysis of the organizational structure, some more construction shortcomings were identified, which will be described below.

One of the most important shortcomings we can confidently name is the lack of an energy department or at least some link responsible or related to energy issues. The enterprise is quite large. In addition, the main activity of company is production. Moreover, the company is a company of a full production cycle – from manufacturing design up to finished products of almost any direction and complexity.

Manufacturing is innovative, well-equipped and large-scale. Manual labor is practically minimized, a huge part of all the work is provided specifically by the equipment. An enterprise of this type cannot simply eliminate the position of power engineer and electrician. It is simply impossible and negligent. An electrician for the repair and maintenance of electrical equipment is classified as especially dangerous profession. The activities of electricians are associated with constant risk during operation, requires care and knowledge of ways to protect against electric shock, as well as ways to provide first aid to victims of electrical injuries. Representatives of this profession regularly undergo technical retraining, mainly related to the technological update of electrical equipment and communications, as well as an annual examination of knowledge of electrical safety rules. Based on these data, we can argue that the company either transfers these functions to employees of other positions, which may very well not have sufficient knowledge and skills to maintain the enterprise and, in particular, production facilities in good condition.

For the production of this type and scale, it is necessary to have at least one main electrician of the VI category who will be responsible for all issues of power supply at the enterprise. An electrician of this category has more in-depth knowledge of all the schemes and nuances of his site. He has knowledge of not only safety procedures, but also an understanding of the reasons for all its provisions, will be able to train staff and provide first aid in case of electric shock. In addition, on-duty electricians of at least III categories should be in the territorial proximity from each workshop and section.

In the course of analyzing the organizational structure, the question of the advisability of creating an organizational control department arises. This department in the enterprise consists of an analyst and a specialist. There are no job descriptions for any of the department employees. In addition, since there is no head of department, both the analyst and the specialist directly report to the head of the board, which is fundamentally wrong. The question of the appropriateness of these analyst and the specialist in a separate department should be considered by top management of the PJSC “ENRAN”. Perhaps these positions can be combined with any specialized department or head of department should be added to them if their areas of activity are directly related to the main activities of the enterprise. At production enterprises, the control department stands out as a separate link, since quality control of manufactured products is directly related to the financial results of the enterprise.

Quality control includes: incoming quality control of raw materials, basic and auxiliary materials, semi-finished products, components, tools arriving at the warehouses of enterprises; production operational monitoring of compliance with the established technical regime, and sometimes interoperational product acceptance; systematic monitoring of the condition of equipment, instrumentation, new and existing devices and other checks; control of models and prototypes; control of finished products.

The main task of technical control at the enterprise is the timely receipt of complete and reliable information about the quality of products, the condition of the

equipment and the process in order to prevent malfunctions and deviations that may lead to violations of the requirements of standards and technical conditions. Technical control is designed to ensure the required tuning of the production process and maintain its stability, that is, the stable repeatability of each operation in the prescribed technological modes, norms and conditions.

In manufacturing enterprises, the technical control department is usually managed by a department head directly reporting to the director of the enterprise. The head of this department, along with the director and chief engineer of the enterprise, is responsible for the production of substandard or non-conforming products standards and specifications.

In the course of the analysis, we revealed another significant drawback of the existing organizational structure, such as duplication of functions at various levels of management. A striking example is the block of raw material warehouses, where one full-time loader-porter per warehouse is allocated in each of three warehouses (which located within walking distance), as well as three independent porter-loaders who do not have their own manager and are not assigned to any of the existing warehouses. That is, the same function is performed immediately by 6 movers. And in the staffing list there is one loader per warehouse. That is, the other two loaders and the additional storekeeper do not have clear instructions and staffing, which causes duplication of functions and gaps in working time, as well as a decrease in the effective fund of working time for this section.

Significant duplication also occurs as part of current planning. Under this function, a general planning department has been identified, consisting of an analyst and a planning engineer. In addition, an analyst of the organizational and control department, deputy chairman of the board and directly the chairman of the board are also involved in current planning.

The reasons for duplicating functions are mainly associated with miscalculations in the design of the organizational structure of the enterprise, the distribution of the management function between individual structural units, and the

preparation of job descriptions and regulations on departments in which there is no clear regulation of the functional and information relations of the system's divisions. All this leads to the irrational use of specialists and increases the periods of performance of a particular work.

In the course of the analysis, among other things, a significant spread and duplications of marketing functions in the wound departments and specialists were revealed. This makes the marketing activity uncoordinated. The revealed variation in marketing tasks among non-core specialists is presented in the table 3.2. The table shows the tasks associated with marketing activities that are performed by other non-core employees. Analysis of the data in this table will reveal how busy other departments are with the implementation of marketing functions and tasks.

**Table 3.2**

**The scheme of full or partial delegation and duplication of marketing tasks among PJSC "ENRAN" employees**

| № | Short description of the task | Department | Responsible person |
|---|---|---|---|
| **1** | **2** | **3** | **4** |
| 1 | Development of marketing and PR communications | – | Head of marketing and sales department |
| 2 | Preliminary and current domestic market analysis | Dealership department | Senior regional manager |
| 3 | Preliminary and current foreign market analysis | General planning department | Analyst |
| | | Export department | Senior manager |
| 4 | Audit of sales and distribution channels | General sales department | Senior manager |
| 5 | Pricing monitoring | | |
| 6 | Price formation | – | Vice–chairman of the board for development, commercial activities and human resources |
| 7 | Development of promotion and development strategies | – | Head of marketing and sales department |
| 8 | Sales plan adjustments | Dealership department | Senior regional manager |
| | | Export department | Senior manager |
| 9 | Creating content for the site on | Assortment management | Product manager |

| | | | |
|---|---|---|---|
| | the company’s products | department | Website designer |

In our opinion, a significant drawback of the existing management structure is the lack of a specialized marketing department. Page 4 shows an image of management levels, including the director of the marketing and sales department. However, in his submission there is generally no at least any position related to marketing. In his submission, we observe a split in specializations into two functional units – a sales group and a sales support group. Thus, the department of product promotion, market analysis and sales preparation, that is, the marketing department itself, is absent in principle. That is, the director of the marketing department is not subordinate to the marketing department as such.

This situation is explained by the fact that the company outsource marketing activities to third parties.

The company periodically orders marketing services of a fundamental nature, such as market analysis, website development and design of social networks, demand forecasting, etc. Companies that fulfill orders constantly change, reporting on their activities, respectively, too. Turnover in such matters cannot ensure the quality of marketing activities. And for a company operating in several large foreign markets, this is fraught with risks and inefficiency of export activities. Companies of this scale usually have a marketing department on a regular basis, and also keep constant reporting of a certain type and specification to track performance over time.

The main tasks of the marketing department for PJSC “ENRAN” may be the following:

– formation of a set of recommendations for the correction of the enterprise’s marketing strategy taking into account the available resources and market specifics;

– development of proposals for the rotation of personnel responsible for the direct sale of products;

– formation of relevant reports demonstrating the current state of affairs in the market (level of competition, possible partners, expansion of the assortment, etc.) in which the company's products are involved;

– providing consolidated information about competitors (pricing policy, direction of activity, interaction with contractors etc.);

– providing consolidated information about customers (functional separation of customers, the formation of the necessary assortment for each segment, the prompt provision of updated information etc.);

– development of an advertising strategy, monitoring of advertising and PR activities, budgeting for promotion;

– making a forecast of sales volumes and further development of the market segment in which products are presented;

– identification of the strengths and weaknesses of the company with a view to their use or adjustment in future development.

For a company of such a scale as a PJSC “ENRAN” creation of a marketing department is an irreversible and priority issue. Thus, we recommend creating a new functional marketing department in the enterprise.

Summarizing the data obtained during the analysis of the organizational structure, we can conclude about the following disadvantages of the organizational structure:

1. Large number of different structural units subordinated to the board of the enterprise. It is necessary to leave only the heads of a few most priority areas of activity.

2. Absence of a specialized department for working with electrical appliances. It is necessary to hire the staff of this profession and the corresponding category to maintain the smooth operation of the company’s production and prevent emergency incidents in the energy sector.

3. Absence of a quality control department. At production enterprises, the control department stands out as a separate link, since quality control of manufactured products is directly related to the financial results of the enterprise.

4. Substantial duplication of functions at various management levels. This leads to the irrational use of specialists and increases the periods of performance of a particular work.

5. Absence of a marketing department. For a company of such a scale as a PJSC “ENRAN” creation of a marketing department is an irreversible and priority issue.

All identified deficiencies should be considered by the enterprise management and eliminated in the near future. In further sections of this study, we propose to consider the creation of a marketing department, evaluate the feasibility of this solution and calculate the effectiveness of its application in practice.

### 3.2. Planning of the marketing department as a fundamentally new structural unit of the enterprise

First of all, we consider necessity to discuss the need for a marketing department for such enterprise as PJSC “ENRAN”. If there is a small or not well-established business, whose management is not ready to allocate money for the marketing budget, or they can fulfill the functions of a marketer by themselves due to the necessary skills and abilities, they also know how to attract the right customers, then the marketing department is not necessary for such an enterprise. If the analysis is based on a large enterprise focused on a long-term market presence, a full-cycle manufacturing company, a B2B marketing participant, an exporter or an importer, then the marketing department is the necessary department for such an enterprise. Since the enterprise belongs to the second category described above, we conclude that it is necessary to create a marketing department.

At the moment, the company has chosen the following marketing strategy, which will be described below. The marketing activities are planned directly by the

director of the marketing and sales department. Existing problems at the level of his subordination were described in the previous part of this study. Further we will focus on the marketing activities of the enterprise itself.

For enterprises of such scale as PJSC “ENRAN”, only one person’s knowledge and skills are not enough when it comes to the full marketing cycle. Therefore, the company regularly seeks consultations and services in the field of marketing from third-party organizations. Among the paid services are the following: advertising campaigns planning for the reporting period (usually from 1 up to 6 months), one-time promotion of a product or product line, website design, design of pages on social networks, designer services, SMM promotion (including copywriting and targeting), SEO promotion, creating photo content etc. As always in business the decisive question is the cost. If the costs of the company are reduced by outsourcing the process, then it is worth thinking about this issue. But cost is not the only criterion for choosing outsourcing. Firstly, some processes are business determining and require constant monitoring of the contractor. In this case, outsourcing in full is not applicable. At least at one of the final stages, a person in the state should always take part in it. Moreover, there are situations when marketing activity is associated with personal contacts of customers, in particular, when it is not aimed at attracting new customers, but at increasing the loyalty of existing customers and increasing repeat sales. In this case, outsourcing is associated with the risk of customer data leakage. Therefore, additional data security requirements arise for contractors. Also among the shortcomings of transferring marketing to outsourcing are those related to the loss of control over performers, both in terms of quality of work and in terms of terms.

What is more important, almost in each cases different types of marketing activities are ordered from different specialized agencies. Thus, the most important drawback of such an enterprise policy is the fragmentation and inconsistency of the directions of marketing activities.

The marketing department is on a par with such components of the organizational structure of the company as production, finance and personnel. At the

same time, marketing department employees must interact with all other departments. That is why we consider changes in the organizational structure associated with the implementation of the marketing department, as depicted in the fig. 3.2.

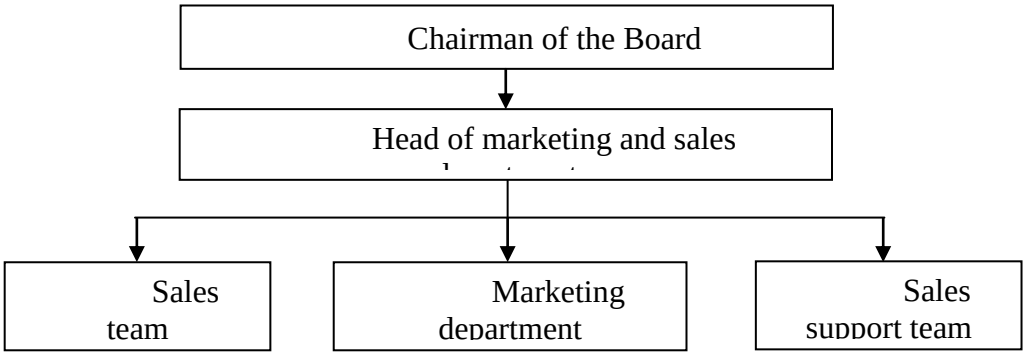


**Fig. 3.2. The predicted position of the marketing department in the organizational structure of the PJSC "ENRAN"**

The marketing department of up to 10 specialists on an ongoing basis will be optimal for the company. The basic composition of specialists of the forecasted marketing department is presented in the table 3.3. If necessary, some part of the work can be transferred to contractors, but the staff of the marketing department specialists described below should be presented on an ongoing basis.

**Table 3.3**

**The composition of the specialists of the planned marketing department**

| № | Position | Description |
|---|---|---|
| **1** | **2** | **3** |
| 1 | Department head | Specialist of the marketing department, which is engaged in strategic planning of the company's development and is responsible for all activities, compliance with the plan and department management. |
| 2 | Marketing and advertising manager | A specialist who puts into practice the company's marketing strategy. This specialist conducts diplomacy with suppliers of advertising materials, services, draws up terms of reference for designers, oversees the publication of materials in the media, signs contracts with them, draws up reports etc. |
| 3 | Analyst | Marketer engaged in analytics. Without rigorous analytics, it simply won't be clear how companies can proceed further, and what to focus on. A specialist with a mathematical mindset and experience in this field is suitable for such a position. |
| 4 | Contextual | A specialist who creates advertisements and monitors the flow of visitors |

| | | |
|---|---|---|
| | advertising specialist | and customers within the site, as well as organizes various advertising campaigns on other platforms, creates media content to attract visitors and more. |
| 5 | CEO specialist | The specialist who conducts the audit and analysis of the site, develops promotion strategies, improves the web resource, tracks changes in the algorithms and adapts the site. |

**Continuation of table 3.3**

| 1 | 2 | 3 |
|---|---|---|
| 6 | SMM manager | A specialist who integrates SMM activities in the brand's marketing strategy (promotion on Instagram, Facebook and other social networks) manages the budget for promotion and advertising activities, manages the brand's reputation on social networks, analyzes competitors, works with opinion leaders, negotiates information partnerships, tracks brand mentions, identifies trends and invents content for them. |
| 7 | Targetologist | Among the responsibilities of this specialist are the development of a strategy for advertising campaigns, the creation and daily monitoring of advertising campaigns, the analytics of an advertising campaign, the adjustment and optimization in order to fulfill the KPI, and reporting on the work done. |
| 8 | Copywriter | This specialist is needed where it is required to encourage people to take any actions and sell them by text. Copywriters write scripts for commercials, commercial offers, sales scripts, e-mail newsletters, advertising slogans etc. |
| 9 | Designer | This specialist is an indispensable link in the marketing department, and unlike marketers, designers are responsible for visual perception. For example, the design of pictures on social networks, business cards, commercial offers, price lists, website and more. |

Thus, the most appropriate strategy for PJSC "ENRAN" is the planning of the marketing department as a fundamentally new structural unit of the enterprise. Creating a new department, especially considering the specifics of the enterprise, will be quite expensive. Therefore, it is necessary to carefully plan the project of the department and calculate the timing of tasks. In addition, it is important to give a comprehensive assessment of the forecast values of financial indicators in connection with the structural reorganization of the organizational structure of the company.

Basic steps of building an enterprise marketing department in our opinion are described below:

1. Determining the goals and objectives of the marketing department.
2. Organizational structure development.

3. Defining employee requirements.

4. Writing job descriptions.

5. KPI system development.

6. Calculation of total costs.

7. Compilation of a report.

8. Recruitment.

First it is necessary to have a company development plan. Not detailed, but preliminary. It should include the long-term goals of the business and the processes by which these goals will be achieved. Also plan should contain a clear understanding of the financial situation, dynamics and forecasts of business development.

Main objectives of the department will be the following: increase market share; company image development; increase in income; removal from competitors; new product launch; sales growth and so on.

Basic functions of the department will be the following: preparation of a marketing plan; market research; company brand positioning; company promotion; pricing assortment policy of the company; generation of new ideas and development paths; analysis of marketing activities.

The main tasks will be the following: data collection and analysis; study and analysis of the target audience; creating plans and reports; development of promotion strategies; audit of sales and distribution channels; development of marketing and PR communications; monitoring the pricing policy of the field of activity; product analysis and preparation of the product matrix; search for new markets; adherence to and maintenance of a marketing plan; adjustments plans of sales; cooperation with all departments of the company.

The most vital stage is the creation of the department and its further maintenance. You must determine the salary fund, find a room and provide jobs with everything you need. And also determine the budget of the marketing department.

The next step is to determine the requirements for each candidate. The salary costs will directly depend on this, since a copywriter with experience of 1 month and experience of 2 years and many successful projects will make the company a completely different amount of costs.

After that, it is necessary to start the development of job descriptions and KPI system. These two activities should be carried out in parallel, since the same people are engaged in conducting both of them and it is possible to get a new KPI during the development of job descriptions or analyzing similar jobs on the labor market, and notice that all the irreducible KPIs are not included in the instructions. These two stages are parallel and complementary. However, the stage of development of the KPI is more time-consuming and lengthy compared to the stage of development of job descriptions. If the job description can be corrected, then the KPI will also be included in the cost estimate and will directly affect the financial performance of the enterprise.

One of the most important and time-consuming is the stage of calculating the cost of creating a marketing department and the projected financial performance of the enterprise. This stage includes the calculation of all the costs of creating a department – from hiring third-party specialists to analyze the feasibility, to calculating the predicted sales figures and profits.

The next step will be preparation of report that will be presented to both the top management institution and the specialist of the human resources department. Based on the report data and on the requirements for specialists, on the qualitative and quantitative composition of the department, the next no less important stage of hiring irreplaceable personnel will occur. This is one of the longest stages of creating a marketing department.

We offer to calculate the time spent on creating a marketing department by building and calculating a PERT chart.

To build a PERT chart, we need to know the duration of each stage of this process. Duration of activities characteristics should be calculated according to the formula:

$$E=\frac{O+4\times ML+P}{6} \quad (3.1)$$

where E – expected duration (days);

O – optimistic duration (days);

ML – most likely duration (days);

P – pessimistic duration (days).

Results of activities duration calculations are presented in the table 3.4. For further calculations an activity duration equal to the expected duration (days) will be accepted.

**Table 3.4**

**Calculation of duration of activities**

| Activity index | Activity | Description | Duration (days) | | | |
|---|---|---|---|---|---|---|
| | | | Optimistic | Most likely | Pessimistic | Expected |
| 0-1 | A | Determining the goals and objectives of the marketing department | 1 | 1 | 1 | 1 |
| 1-2 | B | Organizational structure development | 2 | 4 | 9 | 5 |
| 2-3 | C | Defining employee requirements | 2 | 3 | 4 | 3 |
| 2-4 | D | Writing job descriptions | 5 | 6 | 7 | 6 |
| 4-5 | E | KPI system development | 7 | 10 | 14 | 10 |
| 5-6 | F | Calculation of total costs | 5 | 7 | 9 | 7 |
| 6-7 | G | Compilation of a report | 1 | 1 | 1 | 1 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 7-8 | H | Recruitment | 21 | 30 | 35 | 29 |

PERT chart of marketing department creation is presented in fig. 3.3.

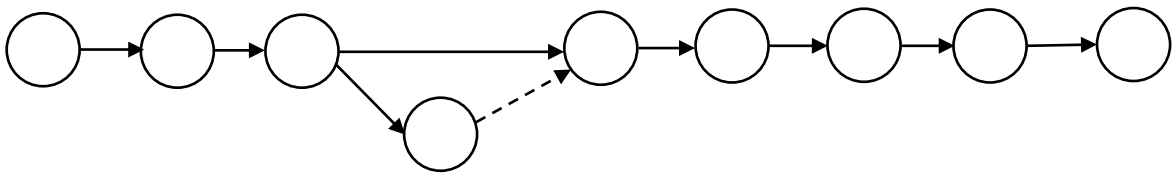

**Fig. 3.3. PERT chart of marketing department creation**

After conducting calculations of duration of activities time characteristics of events should be calculated according to the formulas:

$$t_j^E = t_i^E + T_{ij}\ , \tag{3.2}$$

where i, j –previous and subsequent activities respectively;

$t_j^E$ – earlies time of event “j”;

$t_i^E$ – earliest time of event “i”;

$T_{ij}$ – duration of work i-j.

$$t_i^L = t_j^L - T_{ij}\ , \tag{3.3}$$

where $t_i^L$ – latest time of event “i”;

$t_j^L$ – latest time of event “j”.

$$F_i = t_i^L - t_i^E\ , \tag{3.4}$$

where $F_i$ – float for event “i”.

Calculations of time characteristics of events are presented in table 3.5.

**Table 3.5**

**Calculation of time characteristics of events**

| **i** | **0** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **$t_i^L$min** |
|---|---|---|---|---|---|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** |
| 0 | | 1 | | | | | | | | 1-1=0 |
| 1 | | | 5 | | | | | | | 6-5=1 |
| 2 | | | | 3 | 6 | | | | | 12-6=6; 12-3=9 |
| 3 | | | | | 0 | | | | | 12-0=12 |
| 4 | | | | | | 10 | | | | 22-10=12 |

**Continuation of table 3.5**

| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** |
|---|---|---|---|---|---|---|---|---|---|---|
| 5 | | | | | | | 7 | | | 29-7=22 |
| 6 | | | | | | | | 1 | | 30-1=29 |
| 7 | | | | | | | | | 29 | 59-29=30 |
| 8 | | | | | | | | | | 59 |
| $t_j^E$max | 0 | 0+1=1 | 1+5=6 | 6+3=9 | 6+6=12<br>9+0=9 | 12+10=22 | 22+7=29 | 29+1=30 | 30+29=59 | |

Calculations of time characteristics and floats of events are presented in table 3.6.

**Table 3.6**

**Calculation of time characteristics and floats of events**

| **Activity index** | **Starting event (i)** | | **Duration of work** | **Finishing event (j)** | | **Floats** | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **Earliest time** | **Latest time** | | **Earliest time** | **Latest time** | **Full** | **By earlies time** | **By latest time** | **Free** |
| 0-1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| 1-2 | 1 | 1 | 5 | 6 | 6 | 0 | 0 | 0 | 0 |
| 2 | 6 | 6 | 3 | 9 | 1 | 3 | 0 | 3 | 0 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 2-3 | | | | | 2 | | | | |
| 3-4 | 9 | 12 | 0 | 12 | 12 | 3 | 3 | 0 | 0 |
| 2-4 | 6 | 6 | 6 | 12 | 12 | 0 | 0 | 0 | 0 |
| 4-5 | 12 | 12 | 10 | 22 | 22 | 0 | 0 | 0 | 0 |
| 5-6 | 22 | 22 | 7 | 29 | 29 | 0 | 0 | 0 | 0 |
| 6-7 | 29 | 29 | 1 | 30 | 30 | 0 | 0 | 0 | 0 |
| 7-8 | 30 | 30 | 29 | 59 | 59 | 0 | 0 | 0 | 0 |

Those activities that do not have floats lie on a critical path. That is, these types of work cannot be postponed. The only work that can be delayed is activity “2-3” or “C”, namely “Defining employee requirements”. In case previous activity will be finished in earlies time, defining employee requirements can be moved or delayed by 3 days without delay in subsequent work and the whole process.

Critical path looks as follows: A-B-D-E-F-G-H.

The length of the process can be calculated by the following way:

$$CP = \sum_{i=A}^{i=H} T_i - T_C , \quad (3.5)$$

where CP – critical path;

$T_i$ – duration of works from A to H.

That is, the critical path (the duration of the entire process) will be equal to the sum of all the works that lie on the critical path. In this case, this is all work, with the exception of C.

$$CP = 1 + 5 + 6 + 10 + 7 + 1 + 29 = 59 \text{ (days)}$$

A general view of the PERT chart for building a marketing department on PJSC “ENRAN” is shown in the fig. 3.4. Works lying on a critical path are indicated by hatching.

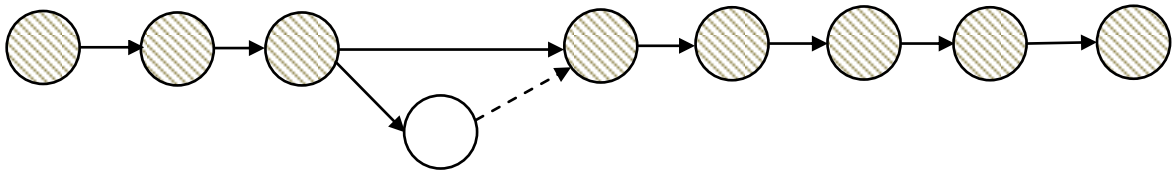

**Fig. 3.4. Critical path of the PERT chart of marketing department creation**

That is, the process of building a marketing department on PJSC “ENRAN” in an enterprise will take 59 days. Each activity is going after previous one is finished except one case with two parallel works. Defining employee requirements and Writing job descriptions are parallel activities. In particular, the definition of personnel requirements can be delayed for 3 days without delay in subsequent work and the whole process.

### 3.3. Calculation the economic efficiency and social impact of the proposed measures

At the moment, PJSC “ENRAN”, as was described earlier, does not have a marketing department. There is only the director of the marketing and sales department, who is responsible for the marketing strategy in the company and is engaged in coordinating marketing activities to external organizations for a fee.

There is no approved marketing budget in the company, which is another drawback. Financial resources for marketing activities are allocated upon the conclusion of the contract. According to the data provided, in recent years, marketing costs ranged from 20 to 25% of revenue for goods sold. According to the data for 2018, marketing costs amounted to almost 35 000 thsd UAH which is equal to 22,2%

from sales revenue. To calculate the effectiveness of the proposed measures to create a specialized marketing department in the company, we offer to compare the financial performance of the enterprise before introducing innovations and after them. Accordingly, cost savings will be considered by comparing future projected costs with the amount of marketing costs for previous periods which are considered as it was in 2018 and which is equal to 35 000 thsd UAH.

In this section, we propose to calculate the effectiveness of creating a marketing department in the long term. To create a department, one employee is required for all the positions indicated in clause 2.2. In modern economy conditions it is possible to develop financial efficiency of the manufacturing company without expending marketing department and additional hiring for at least 3 years. So our calculations will be built based on the data that our marketing department will operate during 3 years without renovations and it will help PJSC "ENRAN" based on the statistics data to increase its sales volume for 5% during first year of functioning, for 7% during second year and for 10% during third year. After 3 years marketing department should be renovated and may be even expanded according to further detailed analysis according to existing economy and financial conditions.

In special cases of a shortage of specialists (for example, a designer's workload during preparation for international exhibitions etc.), it will be beneficial for the company not to hire a new specialist and keep him on staff, but to outsource some duties as an exception.

According to statistics, the creation of a marketing department at manufacturing enterprises increases the average turnover by 5% in the first year, and in subsequent years, the increase is 7-10%, however, subsequent growth requires an increase in the number of specialized employees directly implementing a marketing strategy.

At the moment, the company's office has two vacant premises with an area of 67 sq.m. and 89 sq.m. According to the sanitary standards of Ukraine, for every office worker there should be at least 3 sq.m. of free space. That is, for 9 employees

27 sq.m. will be enough. But for the head of the department a separate room of at least 15 sq.m should be allocated in this room. Thus, it will be advisable to use a free space of 67 sq.m.

Construction materials include small repair costs, extension cords, furniture fasteners, dividing wall between the general office and the office of the department head. Expendable materials include the cost of buying blinds, flowers, payments for recruiting sites and platforms for posting vacancies, decor office space etc. Stationery includes the purchase of paper, office folders, pens, pencils, staplers, stickers etc.

The estimated cost of creating a marketing department is presented in the table 3.7.

**Table 3.7**

**Estimated cost of creating a marketing department**

| | **Category** | **Quantity, units** | **Price per unit, UAH** | **Total, UAH** |
|---|---|---|---|---|
| | **2** | **3** | **4** | **5** |
| | Equipment: | | | |
| .1 | computer | 9 | 14799 | 133191 |
| .2 | printer | 9 | 4669 | 42021 |
| .3 | smartphone | 2 | 12799 | 25598 |
| .4 | air conditioning | 2 | 10599 | 21198 |
| .5 | coffee machine | 1 | 14999 | 14999 |
| .6 | cooler | 1 | 1049 | 1049 |
| .7 | office phone | 2 | 349 | 698 |

**Continuation of table 3.7**

| | **2** | **3** | **4** | **5** |
|---|---|---|---|---|
| | Office furniture: | | | |
| .1 | table | 9 | 2076 | 18684 |
| .2 | chair | 9 | 974 | 8766 |
| | cupboard | 4 | 3897 | 15588 |

| | | | | |
|---|---|---|---|---|
| .3 | | | | |
| .4 | armchair | 4 | 1674 | 6696 |
| .5 | sofa | 2 | 2976 | 5952 |
| .6 | coffee table | 2 | 651 | 1302 |
| | Other expenses: | | | |
| .1 | construction materials | - | 7500 | 7500 |
| .2 | expendable materials | - | 15000 | 15000 |
| .3 | stationery | - | 8000 | 8000 |
| | TOTAL | - | - | 326242 |

The salary system will be applied standard for Ukraine in the field of full-time marketing departments. Each employee receives a salary twice a month, as well as a quarterly bonus according to the results of work (usually up to 50% of the monthly salary).

The estimated cost of staff salaries is given in the table 3.8 based on the average data for the Kiev region.

**Table 3.8**

**The estimated cost of staff salaries**

| **Position** | **Persons** | **Salary per month, UAH** | **Quarterly award, UAH** | **Total per year, UAH** |
|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** |
| Department head | 1 | 17 000 | 8 500 | 238 000 |
| Marketing and advertising manager | 1 | 12 000 | 6 000 | 168 000 |
| Analyst | 1 | 10 000 | 5 000 | 140 000 |
| Contextual advertising specialist | 1 | 10 000 | 5 000 | 140 000 |
| CEO specialist | 1 | 10 000 | 5 000 | 140 000 |
| SMM manager | 1 | 9 000 | 4 500 | 126 000 |
| Targetologist | 1 | 12 | 6 000 | 168 |

| | | | | |
|---|---|---|---|---|
| | | 000 | | 000 |
| Copywriter | 1 | 8 000 | 4 000 | 112 000 |
| Designer | 1 | 12 000 | 6 000 | 168 000 |
| TOTAL | 9 | 120 000 | 20 000 | 1 40 0 000 |

According to statistics from the Ministry of Finance of Ukraine [74], the real wage index in the Kiev region for 2017 was 119,3%, for 2018 – 116,2%. In calculating the predicted wage values in the coming years, we will use the average real wage index over the past two years equal to 117,7%.

To calculate the effectiveness of the proposed activities, we need to calculate some intermediate data, which will be given below:

1. Volume of commodity products for 2019:

$$V_{2019}=C_{2019}\times\left(\frac{V_{2018}}{C_{2018}}\times r_{innovation}\right)=$$

$$((C_{2018}-C_{MO})\times r_{innovation}+C_{innovation})\times\left(\frac{V_{2018}}{C_{2018}}\times r_{innovation}\right), \quad (3.6)$$

where $V_{2019}$ – volume of commodity products for 2019, UAH;

$C_{2019}$ – cost of sales for 2019, UAH;

$V_{2018}$ – volume of commodity products for 2018 calculated in table 2.3 based on the data in Appendix C, UAH;

$C_{2018}$ – cost of sales for 2018 calculated in table 2.3 based on the data in Appendix C, UAH;

$r_{innovation}$ – increase in volume of commodity products from the implementation of innovations ($r_{innovation}$ for 2018 is equal to 1,05; for 2019 – 1,07, for 2020 – 1,1);

$C_{MO}$ – cost of marketing outsource, UAH;

$C_{innovation}$ – additional cost from implementation of innovations in 2019, UAH.

$$V_{2019} = ((125\ 628\ 400 - 35\ 000\ 000) \times 1{,}05 + 1\ 999\ 242) \times \left(\frac{156\ 697\ 100}{125\ 628\ 400} \times 1{,}05\right)$$
$$= 127\ 246\ 469{,}9\ (\text{UAH})$$

2. Increase in value added through innovation (value added is calculated as the difference between revenue from sales and cost of production):

$$\Delta VA = VA_1 - VA_0, \quad (3.7)$$

where $VA_1$, $VA_0$ – value added in current and previous period respectively, (UAH);

3. The projected values of the volume of commodity products in 2020 and 2021:

$$V_1 = V_0 \times r_{innovation}, \quad (3.8)$$

where $V_1$, $V_0$ – values of the volume of commodity product for current and previous periods respectively, (UAH).

4. The projected values of the cost of production in 2020 and 2021:

$$C_1 = (C_0 - C_{innovation_0}) \times r_{innovation} + C_{innovation_1}, \quad (3.9)$$

where $C_1$, $C_0$ – values of the cost of sales for current and previous periods respectively, UAH;

$C_{innovation\ 1}$, $C_{innovation\ 0}$ – additional cost from implementation of innovations for current and previous periods respectively, UAH.

In 2018, profit from sales amounted to 89,01% of the value added. In the calculations, we accept the same percentage of the ratio of profit and value added for forecast periods.

The results of calculations of the effectiveness of the proposed innovative activities to create a marketing department in PJSC “ENRAN” are presented in the table 3.9.

**Table 3.9**

**Calculation of the effectiveness of the proposed activities**

| **Indicators** | **Units** | **2018** | **2019** | **2020** | **2021** |
|---|---|---|---|---|---|
| Equipment | UAH | – | 326242 | 0 | 0 |
| Wage | UAH | – | 1400000 | 1647800 | 1939460,60 |
| Payroll tax | UAH | – | 273000 | 321321 | 378194,82 |
| Total additional cost | ths d UAH | – | 1999,24 | 1969,12 | 2317,66 |
| Volume of commodity products | ths d UAH | 156697,10 | 121745,85 | 130268,06 | 143294,86 |
| Total cost of sales | ths d UAH | 125628,40 | 92959,06 | 99296,13 | 109377,36 |
| Value added | ths d UAH | 31068,70 | 28786,79 | 30971,93 | 33917,50 |
| Increase in value added through innovation | ths d UAH | – | -2281,91 | 2185,14 | 2945,57 |
| Increase in value added through innovation | % | – | -7,34 | 7,59 | 9,51 |
| Increase in value added through innovation (compared to 2018) | % | – | -7,34 | -0,31 | 9,17 |
| Profit | ths d UAH | 27684,70 | 28396,66 | 30332,47 | 33412,04 |
| Increase in profit added through innovation | % | – | 2,57 | 6,82 | 10,15 |
| Increase in profit added through | % | – | 2,57 | 9,56 | 20,69 |

| | | | | | |
|---|---|---|---|---|---|
| innovation (compared to 2018) | | | | | |

According to the pricing policy of the enterprise, the total sales volume consists of several components as following:

$$TS = TC + VA = (PC + MC) + (PC \times (\frac{r_{profit}}{100}) + EX, \quad (3.10)$$

where TS – total sales volume, UAH;

TC – total volume of costs, UAH);

PC – production costs of products, UAH;

MC – marketing costs, UAH;

$r_{profit}$ – desired percentage of profit relative to the production cost of products, %;

EX –extra charge, which includes covering additional costs for the production of defective products, decommissioned raw materials etc., UAH.

Profit for future periods were calculated according to ratio of profit ant total costs of sales excluding costs of marketing output. So we predict that the company will lay in the final price the same percentage of the desired profit, but amount of sales will be different based on the lower price (because we predict marketing costs to be lower than marketing output). Based on this statement, we calculate deferred profit using the formula:

$$P_i = \frac{P_{2018}}{(TC_{2018} - C_{MO})} \times TC_i , \quad (3.11)$$

where $P_i$ – predicted profit for future period “i”, UAH;

$P_{2018}$ – profit for 2018 calculated in table 2.3 based on the data in Appendix C, UAH;

$TC_{2018}$ – total cost of sales for 2018, UAH;

$TC_i$ – predicted total cost for future period "i", UAH.

After the calculations and analysis of the data obtained, we can conclude that the proposed measures have a general positive effect on the financial performance of the enterprise.

The total cost of equipment and other expenses for the start of the marketing department functioning will amount to 326 242 UAH. The salary for the 9 required specialized employees will be 1 400 thsd UAH in the first year of the department's functioning; 1 647,8 thsd UAH and 1 939,5 thsd UAH in the second and third years of the department's functioning, respectively, taking into account the fixed predicted wage growth index for the Kiev region equal to 1,177 (based on the data of two previous years). In addition, expenses related to the taxation of 9 additionally employees of the department were included in the general expenses for the maintenance of the marketing department. The total amount of this item of expenditure for the three forecast years will be equal to 972,52 thsd UAH.

According to calculations, the total cost of marketing costs in the first year will be equal to 1999,24 thsd UAH, which is lower than previous costs of marketing outsource. Based on the mentioned above pricing policy of the enterprise, we can track the decrease in total costs for the production of products, which will lead to a decrease in the final price of products, and as a result, a decrease in sales volume in cash equivalent. But this indicator is not predetermining, as it is less significant than the indicator of value added and net profit of the enterprise.

Since the cost of production in the first year will decrease by 7,34% due to the implemented changes in the organization of marketing activities of the enterprise and the increase in production by 5%, the volume of production in monetary terms will also decrease. But since the percentage of the company's profit is tied directly to the

production cost of products minus marketing costs, the total profit of the company in the first year will increase by 2,57% in monetary equivalent. Over three years, the total profit of the enterprise in monetary terms will increase by 20,69% compared with the value of 2018.

Thus, based on the calculated indicators, we can talk about the effectiveness of the proposed measures to create a marketing department at the enterprise instead of outsourcing marketing. In addition to a positive impact on the financial performance of the enterprise, the proposed activities have a certain positive social effect. First of all, the creation of 9 additional work positions should be noted. Against the background of general unemployment, it is a good indicator. Moreover, work positions are created for popular areas of youth education. This will allow hiring and training specialists without experience, including students. We also note the additional amount of deductions to the state budget due to taxes on employees. The effectiveness of the proposed measures and the existing social effect is proved by calculations.

As a result, we can argue that the proposed measures to create a marketing department have a positive effect on the financial performance of the enterprise, as well as the positive social effect. The proposed measures should be considered by the company's management and applied if there are no unaccounted factors that can reduce the calculated effect.

In the third section of the study a comprehensive critical assessment of the existing organizational structure was provided. It was also developed a set of measures to improve it. Measures are about creation of a marketing department instead of existing marketing outsourcing. The process of planning the marketing department as a fundamentally new structural unit of the PJSC "ENRAN" was analyzed and described in detail. The PERT chart of process of creation of marketing department was developed and represented. It was also provided an estimate of the planned costs for the creation of a new department. The proposed measures to

optimize the existing organizational structure by creation a marketing department at PJSC “ENRAN” were evaluated and their effectiveness was proved by calculations.

According to the calculations, we can conclude that the measures developed will help to increase the company’s profit by more than 20% in three years without restructuring the proposed marketing department. If necessary, some work can be outsourced in small quantities and for a fee that will not have a significant impact on the calculated indicators.

The developed measures can be recommended for implementing at the enterprise in order to increase the values of financial indicators, as well as to improve the quality of marketing activity of the enterprise.

# CONCLUSIONS

In this study, the definition of the key concept of research – "organizational structure" – was systematized and analyzed. It was discovered two approaches to its consideration as structural and functional. According to our research, the most appropriate interpretation of the concept of "organizational structure" is the following: organizational structure is the effective distribution of management goals and objectives between departments and employees in the management apparatus at all levels. According to analysis of the organizational structures development dynamics dominance of organizational structures over time changed from bureaucratic (hierarchical, mechanistic) to bureaucratic and adaptive and then to organic (adaptive, flexible) types. The standard scheme of the organizational design process was analyzed and improved by several directions. Among methods used in the organizational design process it was highlighted two groups of methods such as methods of project execution and design methods which can be applied both independently and in combination with others.

An analysis of the enterprise, an analysis of competitors and the furniture production market of Ukraine was carried out. The analyzed company occupies a leading position in the rapidly developing and promising furniture manufacturing market. According to analysis conducted enterprise is in satisfactory financial condition. However, the enterprise management should pay attention to logistic activity and amount of stocks and analyze them in dynamics to prevent financial problems in subsequent reporting periods. Calculated performance indicators show satisfactory operation of the enterprise. The dynamics of these indicators is rather positive. Correspondingly, the enterprise uses its capital more carefully, uses assets more efficiently and receives a larger percentage of profit from its revenue. Results of existing PJSC "ENRAN" organizational structure effectiveness complex evaluation are equal to 26,99%. It means that state of organizational structure is satisfactory, but it steel need to be changed in order to eliminate weaknesses and gaps and achieve

normal state of organizational structure as a whole. A general assessment of the state of the organizational structure is unsatisfactory for the enterprise, since the organizational structure is not flexible enough, it is designed in such a way that there are cases of duplication and ignoring of some functions.

An analysis of the organizational structure revealed the following shortcomings: large number of different structural units subordinated to the board of the enterprise, absence of a specialized department for working with electrical appliances, absence of a quality control department, substantial duplication of functions at various management levels, absence of a marketing department.

We proposed the phased creation of a marketing department and a further assessment of the effectiveness of the proposed measures. The process of creating a marketing department consists of several stages as determining the goals and objectives of the marketing department, organizational structure development, defining employee requirements, writing job descriptions, KPI system development, calculation of total costs, compilation of a report and recruitment and, according to preliminary estimates, takes 30 days.

Marketing department will operate during 3 years without renovations and it will help PJSC “ENRAN” based on the statistics data to increase its sales volume for 5% during first year of functioning, for 7% during second year and for 10% during third year. The estimated cost of creating a marketing department are equal to 326 242 UAH. According to calculations over three years, the total profit of the enterprise in monetary terms will increase by 20,69% compared with the value of 2018. Thus, based on the calculated indicators, we can talk about the effectiveness of the proposed measures to create a marketing department at the enterprise instead of outsourcing marketing. In addition to a positive impact on the financial performance of the enterprise, the proposed activities have a certain positive social effect. First of all, the creation of 9 additional work positions should be noted. We also note the additional amount of deductions to the state budget due to taxes on employees. As a result, we can argue that the proposed measures to create a marketing department

have a positive effect on the financial performance of the enterprise, as well as the positive social effect.

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